Full wwPDB EM Validation Report ⓘ

Oct 23, 2024 – 02:11 PM EDT

PDB ID	:	9E1I
EMDB ID	:	EMD-47395
Title	:	Structure of RyR1 in the open state in the presence of oxopyricid
Authors	:	Miotto, M.C.; Marks, A.R.
Deposited on	:	2024-10-21
Resolution	:	3.20 Å(reported)
Based on initial model	:	7TZC

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:

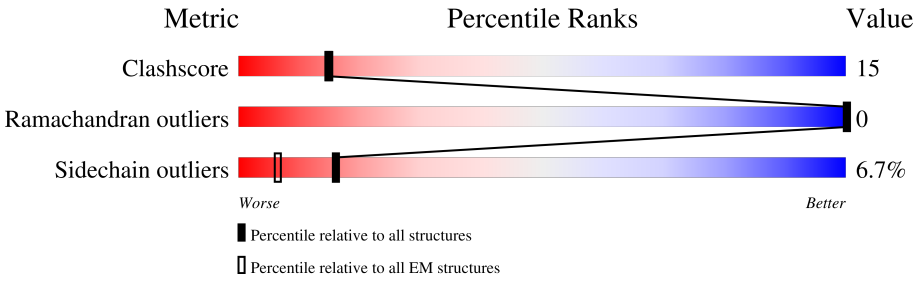
EMDB validation analysis	:	0.0.1.dev113
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance

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

The reported resolution of this entry is 3.20 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=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	43% 58% 27% • 13%
1	B	5037	43% 58% 27% • 13%
1	C	5037	43% 58% 27% • 13%
1	D	5037	43% 58% 27% • 13%
2	E	108	79% 69% 29% • •
2	F	108	77% 73% 24% • •
2	G	108	78% 70% 26% • •
2	H	108	77% 71% 26% • •

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 144120 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.

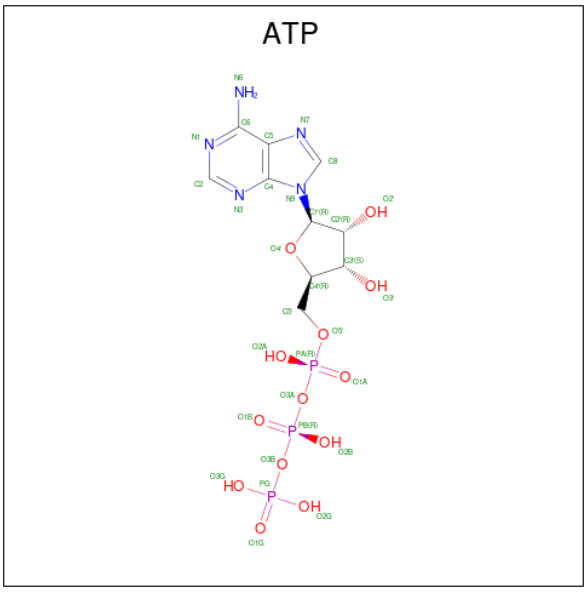
- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	B	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	D	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	C	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
2	E	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	H	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	G	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	F	107	Total 831	C 527	N 146	O 154	S 4	0	0

- Molecule 3 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: $C_{10}H_{16}N_5O_{13}P_3$).



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

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

Mol	Chain	Residues	Atoms		AltConf
4	A	1	Total	Ca	0
			1	1	
4	B	1	Total	Ca	0
			1	1	
4	D	1	Total	Ca	0
			1	1	
4	C	1	Total	Ca	0
			1	1	

- Molecule 5 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
5	A	1	Total	Zn	0
			1	1	

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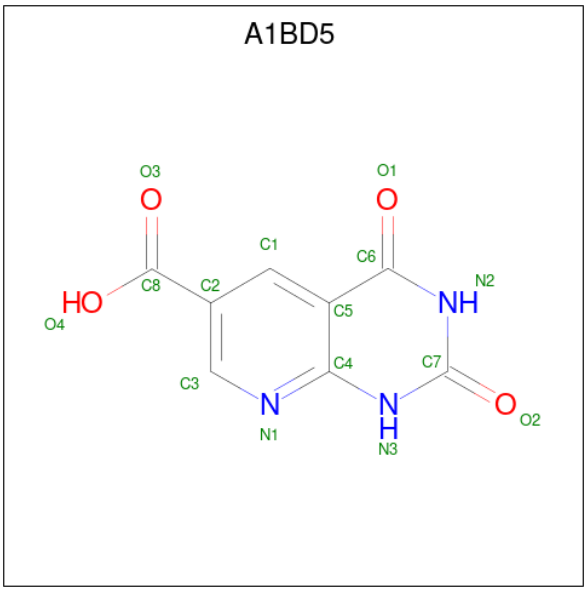
Mol	Chain	Residues	Atoms	AltConf
5	B	1	Total Zn 1 1	0
5	D	1	Total Zn 1 1	0
5	C	1	Total Zn 1 1	0

- Molecule 6 is oxopyricid (three-letter code: A1BD5) (formula: $C_8H_5N_3O_4$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
6	A	1	Total C N O 15 8 3 4	0
6	B	1	Total C N O 15 8 3 4	0
6	D	1	Total C N O 15 8 3 4	0
6	C	1	Total C N O 15 8 3 4	0

- Molecule 7 is water.

Mol	Chain	Residues	Atoms	AltConf
7	A	1	Total O 1 1	0
7	B	1	Total O 1 1	0

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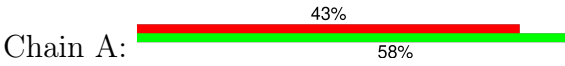
Mol	Chain	Residues	Atoms	AltConf
7	D	1	Total O 1 1	0
7	C	1	Total O 1 1	0

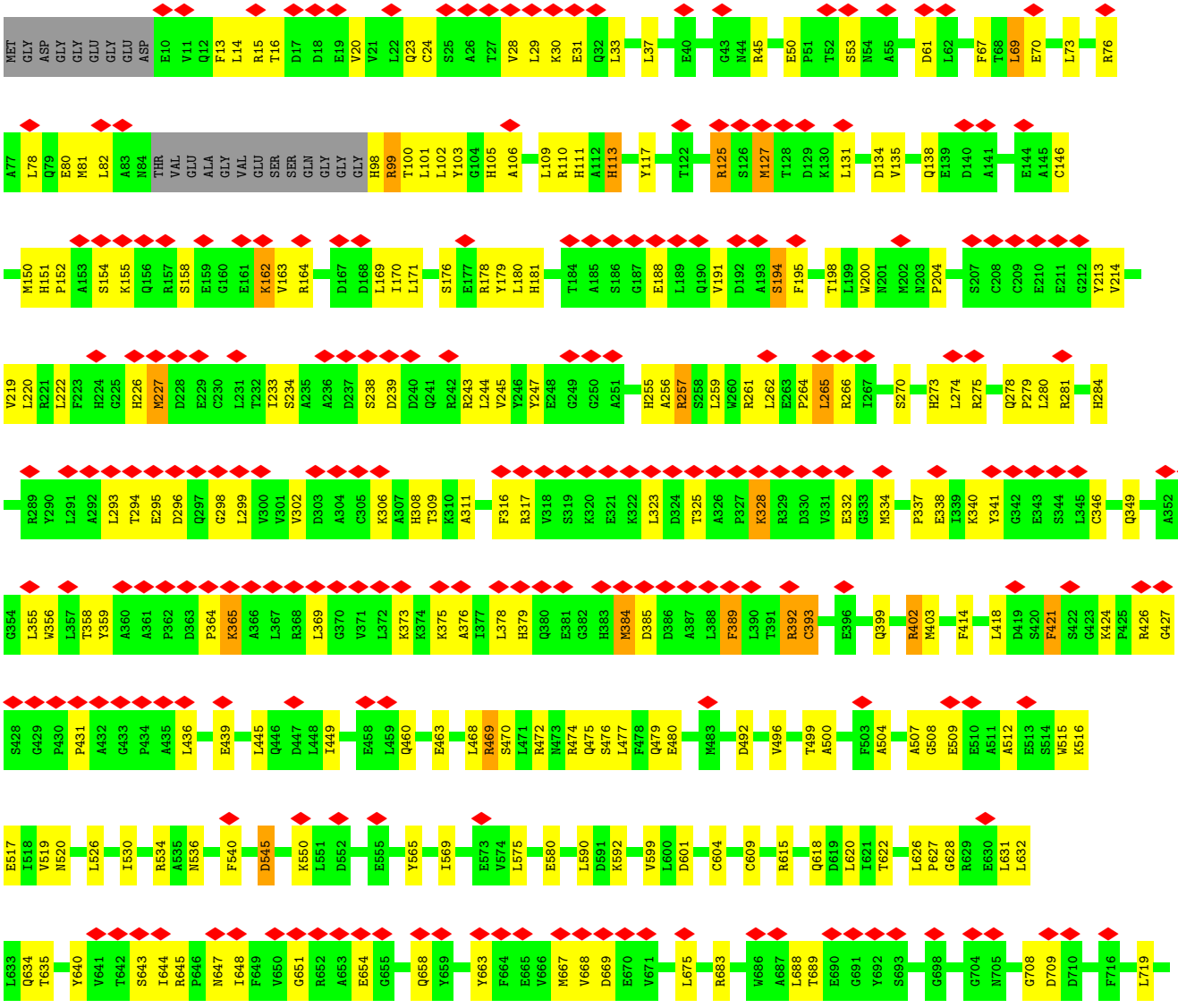
3 Residue-property plots (i)

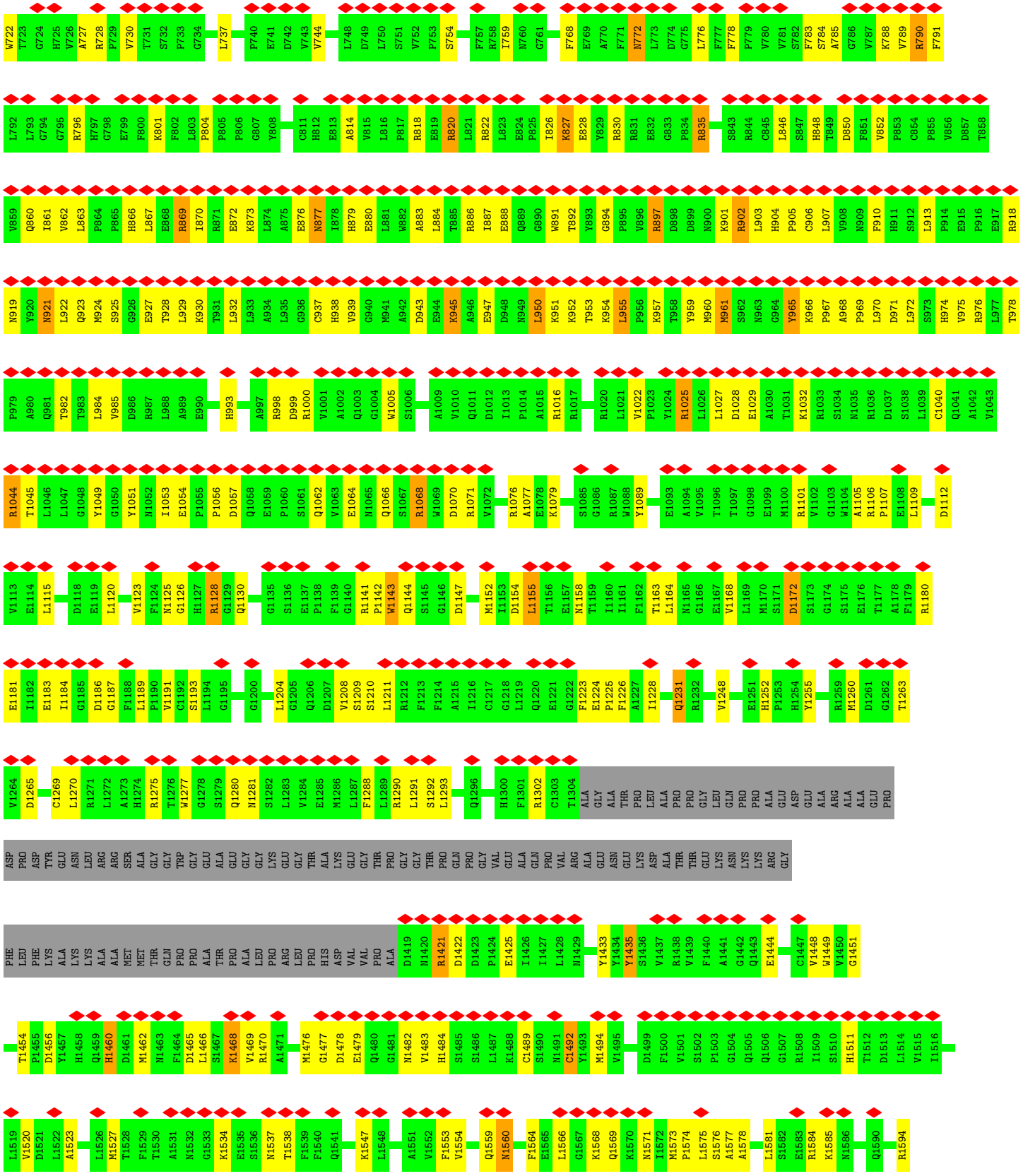
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

- Molecule 1: Ryanodine receptor 1

Chain A:



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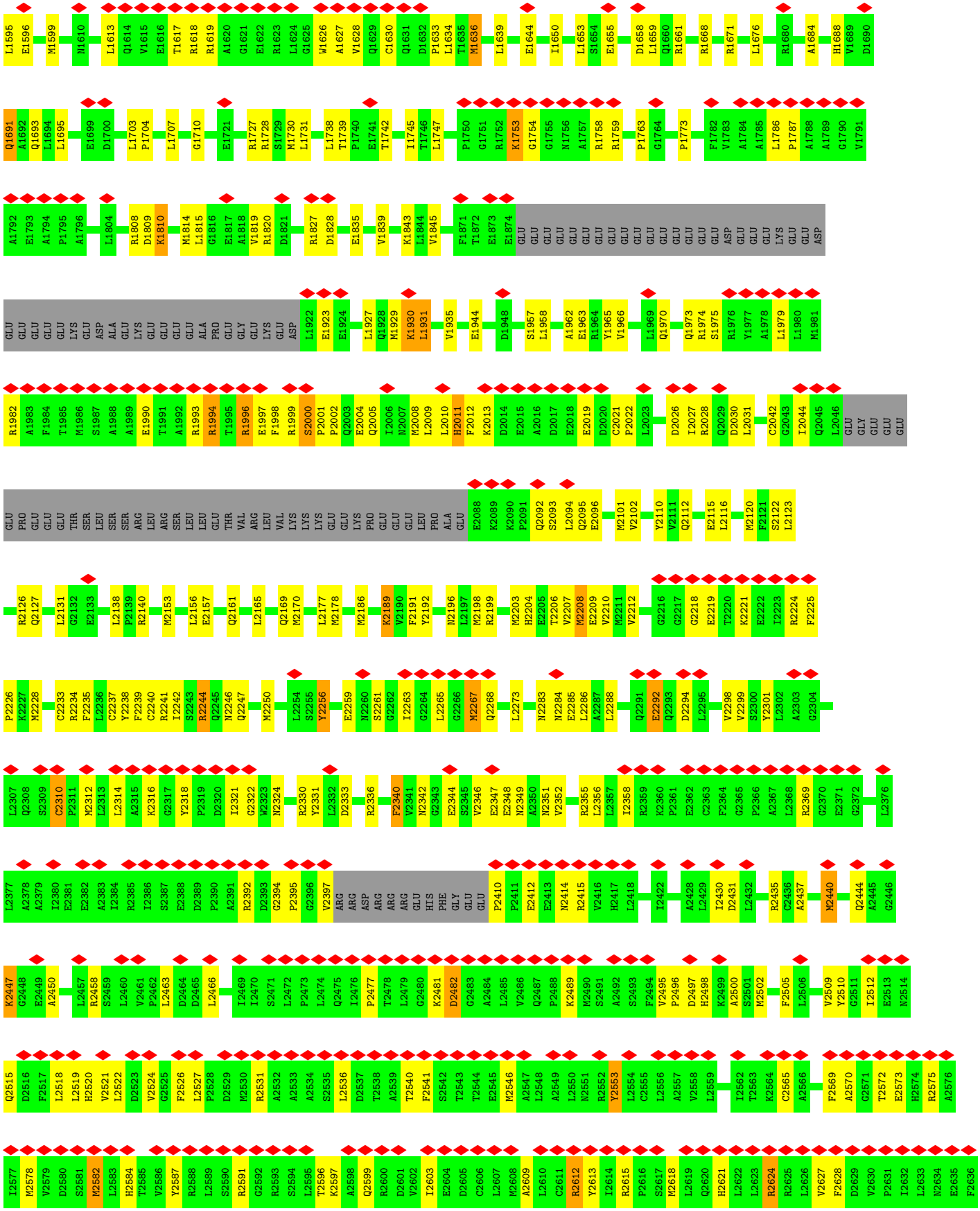
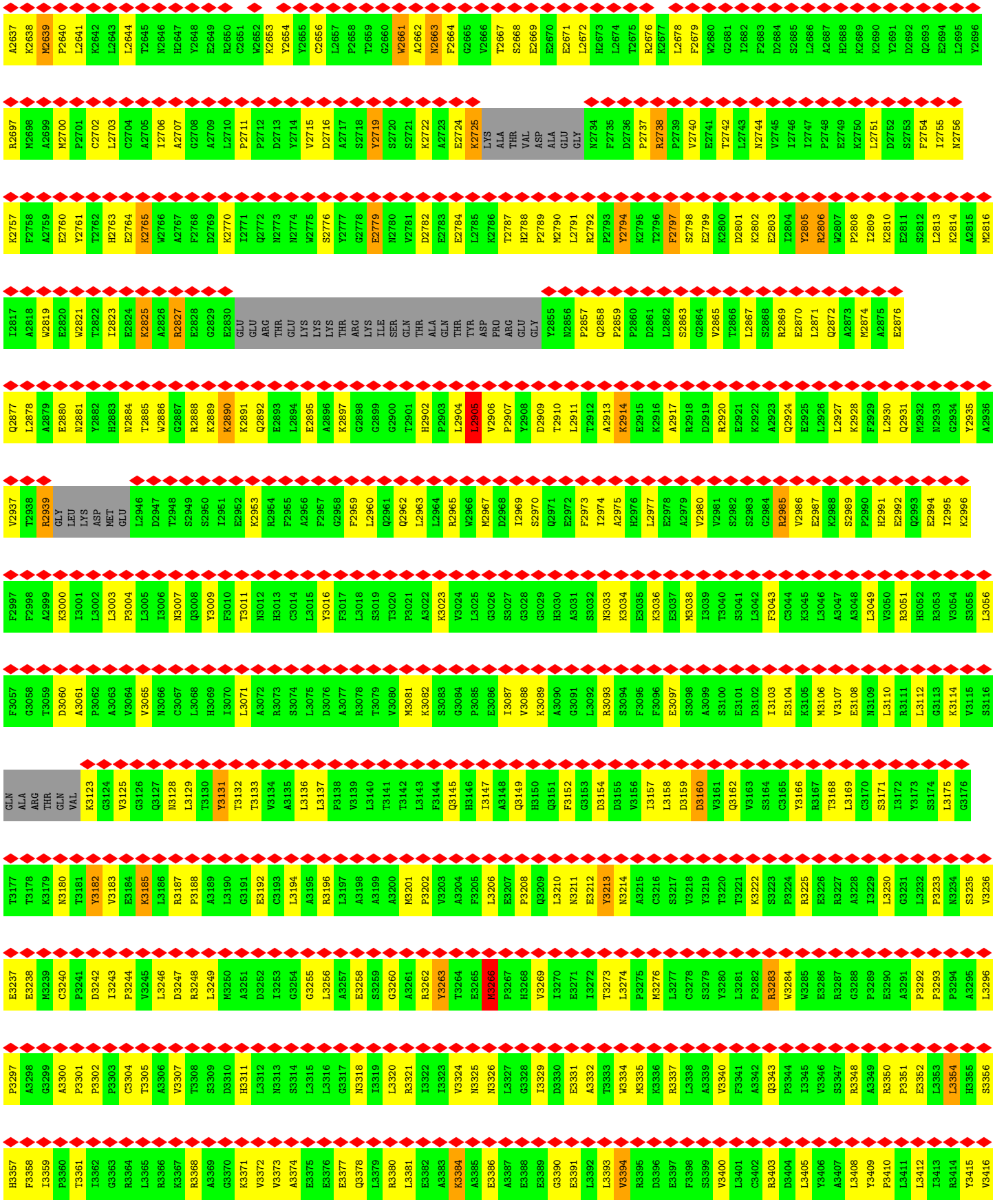
L792 L793 G794 G795 R796 H797 G798 E799 F800 K801 F802 L803 P804 P805 P806 G807 Y808 C811 H812 E813 A814 V815 L816 P817 R818 E819 R820 L821 R822 L823 E824 P825 I826 K827 E828 Y829 R830 R831 E832 G833 P834 R835 S843 R844 C845 L846 S847 H848 T849 D850 F851 V852 P853 C854 P855 V856 D857 T858
V859 Q860 I861 V862 L863 P864 P865 H866 L867 E868 R869 I870 R871 E872 K873 L874 A875 E876 N877 I878 H879 E880 L881 V882 A883 L884 T885 R886 I887 E888 Q889 G890 W891 T892 Y893 G894 P895 V896 R897 D898 D899 N900 K901 R902 L903 H904 P905 C906 L907 V908 N909 F910 H911 S912 L913 P914 E915 P916 E917 R918
N919 Y920 N921 L922 Q923 M924 S925 G926 E927 T928 L929 K930 T931 L932 L933 A934 L935 G936 C937 H938 V939 G940 M941 A942 D943 E944 K945 A946 E947 D948 N949 L950 K951 K952 T953 K954 L955 P956 K957 T958 Y959 M960 M961 S962 N963 G964 Y965 K966 P967 A968 P969 L970 D971 L972 S973 H974 V975 R976 L977 T978
P979 A980 Q981 T982 T983 L984 V985 D986 R987 L988 A989 E990 H993 A997 R998 D999 R1000 V1001 A1002 Q1003 G1004 W1005 S1006 A1009 V1010 Q1011 D1012 I1013 P1014 A1015 R1016 R1017 R1020 L1021 V1022 P1023 Y1024 R1025 L1026 L1027 D1028 E1029 A1030 T1031 K1032 R1033 S1034 N1035 R1036 D1037 S1038 L1039 C1040 Q1041 A1042 V1043
R1044 T1045 L1046 L1047 G1048 Y1049 G1050 Y1051 N1052 I1053 E1054 P1055 P1056 D1057 Q1058 E1059 P1060 S1061 Q1062 V1063 E1064 N1065 Q1066 S1067 R1068 W1069 D1070 R1071 V1072 R1076 A1077 E1078 K1079 S1085 G1086 R1087 W1088 Y1089 E1093 A1094 V1095 T1096 T1097 G1098 E1099 M1100 R1101 V1102 G1103 W1104 A1105 R1106 P1107 E1108 L1109 D1112
V1113 E1114 L1115 D1118 E1119 L1120 V1123 F1124 N1125 G1126 H1127 R1128 G1129 Q1130 G1135 S1136 E1137 P1138 F1139 G1140 R1141 P1142 W1143 Q1144 S1145 G1146 D1147 M1152 I1153 D1154 L1155 T1156 E1157 N1158 T1159 I1160 I1161 F1162 T1163 L1164 N1165 G1166 E1167 V1168 L1169 M1170 S1171 D1172 S1173 G1174 S1175 E1176 T1177 A1178 F1179 R1180
E1181 I1182 E1183 I1184 G1185 D1186 G1187 F1188 L1189 P1190 V1191 C1192 S1193 L1194 G1195 G1200 L1204 G1205 Q1206 D1207 V1208 S1209 S1210 L1211 R1212 F1213 F1214 A1215 I1216 C1217 G1218 L1219 Q1220 E1221 G1222 F1223 E1224 P1225 F1226 A1227 I1228 Q1231 R1232 V1248 E1251 H1252 P1253 H1254 Y1255 R1259 M1260 D1261 G1262 T1263
V1264 D1265 C1269 L1270 R1271 L1272 A1273 H1274 R1275 T1276 W1277 G1278 S1279 Q1280 N1281 S1282 L1283 V1284 E1285 M1286 L1287 F1288 L1289 R1290 L1291 S1292 L1293 Q1296 H1300 F1301 R1302 C1303 T1304 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 TRP GLY GLU ALA GLU GLY GLY LYS GLU GLY THR ALA LYS GLU GLY THR PRO GLN PRO GLY VAL GLU ALA GLN PRO VAL ARG ALA GLU ASN GLU LYS ASP ALA THR THR GLU LYS ASN LYS LYS ARG GLY
PHE LEU PHE LYS ALA LYS LYS ALA ALA MET MET THR GLN PRO PRO ALA THR PRO ALA LEU PRO ARG LEU PRO HIS ASP VAL VAL PRO ALA D1419 N1420 R1421 D1422 D1423 P1424 E1425 I1426 I1427 L1428 N1429 Y1433 Y1434 Y1435 S1436 V1437 R1438 V1439 F1440 A1441 G1442 Q1443 E1444 C1447 V1448 W1449 V1450 G1451
T1454 P1455 D1456 Y1457 H1458 Q1459 H1460 D1461 M1462 N1463 F1464 D1465 L1466 S1467 K1468 V1469 R1470 A1471 M1476 G1477 D1478 E1479 Q1480 G1481 N1482 V1483 H1484 S1485 S1486 L1487 K1488 C1489 S1490 N1491 C1492 Y1493 M1494 V1495 D1499 F1500 V1501 S1502 P1503 G1504 Q1505 Q1506 G1507 R1508 I1509 S1510 H1511 T1512 D1513 L1514 V1515 I1516
L1519 V1520 D1521 L1522 A1523 L1526 M1527 T1528 F1529 T1530 A1531 N1532 G1533 K1534 E1535 S1536 N1537 T1538 F1539 F1540 Q1541 K1547 L1548 A1551 V1552 F1553 V1554 Q1559 N1560 F1564 E1565 L1566 G1567 K1568 Q1569 K1570 N1571 I1572 M1573 P1574 L1575 S1576 A1577 A1578 L1581 S1582 E1583 R1584 K1585 N1586 Q1590 R1594

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R2697 M2698 A2699 M2700 P2701 C2702 L2703 C2704 A2705 I2706 A2707 G2708 A2709 L2710 P2711 P2712 D2713 Y2714 V2715 D2716 A2717 S2718 Y2719 S2720 S2721 K2722 A2723 E2724 K2725 LYS ALA THR VAL ASP ALA GLU GLY N2734 F2735 D2736 P2737 R2738 P2739 V2740 E2741 T2742 L2743 N2744 V2745 I2746 I2747 P2748 E2749 K2750 L2751 D2752 S2753 F2754 I2755 N2756
K2757 F2758 A2759 E2760 Y2761 T2762 H2763 E2764 K2765 W2766 A2767 F2768 D2769 K2770 I2771 Q2772 N2773 N2774 W2775 S2776 Y2777 G2778 E2779 N2780 V2781 D2782 E2783 E2784 L2785 K2786 T2787 H2788 P2789 M2790 L2791 R2792 P2793 Y2794 K2795 T2796 F2797 S2798 E2799 K2800 D2801 K2802 E2803 I2804 Y2805 R2806 W2807 P2808 I2809 K2810 E2811 S2812 L2813 K2814 A2815 M2816
I2817 A2818 W2819 E2820 W2821 T2822 I2823 E2824 K2825 A2826 R2827 E2828 G2829 E2830 GLU GLU ARG THR GLU LYS LYS LYS THR ARG LYS ILE SER GLN THR ALA GLN THR TYR ASP PRO ARG GLU GLY Y2855 N2856 P2857 Q2858 P2859 P2860 D2861 L2862 S2863 G2864 V2865 T2866 L2867 S2868 R2869 E2870 L2871 Q2872 A2873 M2874 A2875 E2876
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F3057 G3058 T3059 D3060 A3061 P3062 A3063 V3064 V3065 N3066 C3067 L3068 H3069 I3070 L3071 A3072 R3073 S3074 L3075 D3076 A3077 R3078 T3079 V3080 M3081 K3082 S3083 G3084 P3085 E3086 I3087 V3088 K3089 A3090 G3091 L3092 R3093 S3094 F3095 P3096 E3097 S3098 A3099 S3100 E3101 D3102 I3103 E3104 K3105 M3106 V3107 E3108 N3109 L3110 R3111 L3112 G3113 K3114 V3115 S3116
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T3177 T3178 K3179 N3180 T3181 Y3182 V3183 E3184 K3185 L3186 R3187 P3188 A3189 L3190 G3191 E3192 C3193 L3194 A3195 R3196 L3197 A3198 A3199 A3200 M3201 P3202 V3203 A3204 F3205 L3206 E3207 P3208 Q3209 L3210 N3211 E3212 Y3213 N3214 A3215 C3216 S3217 V3218 Y3219 T3220 T3221 K3222 S3223 P3224 R3225 E3226 R3227 A3228 I3229 L3230 G3231 L3232 P3233 N3234 S3235 V3236
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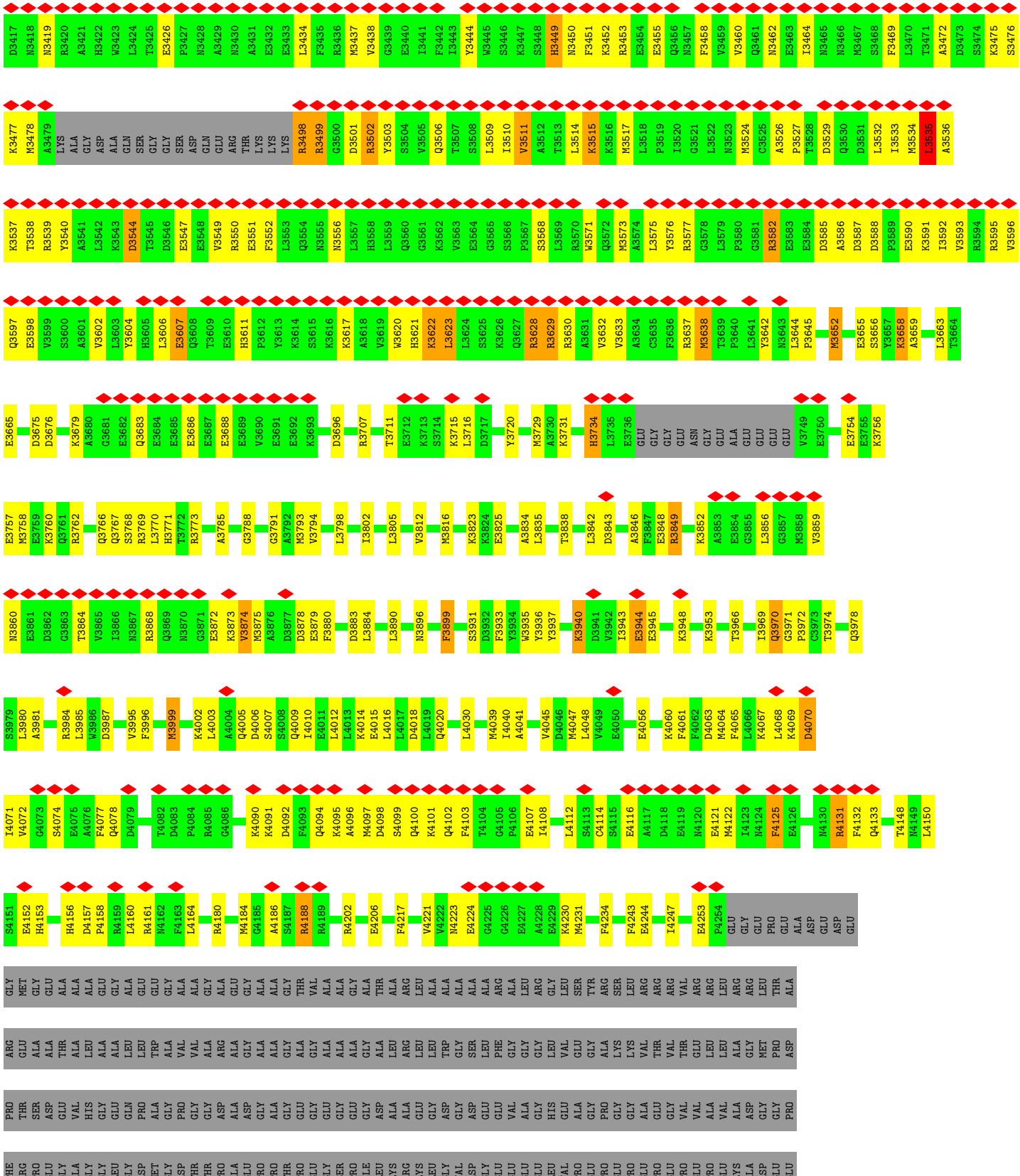
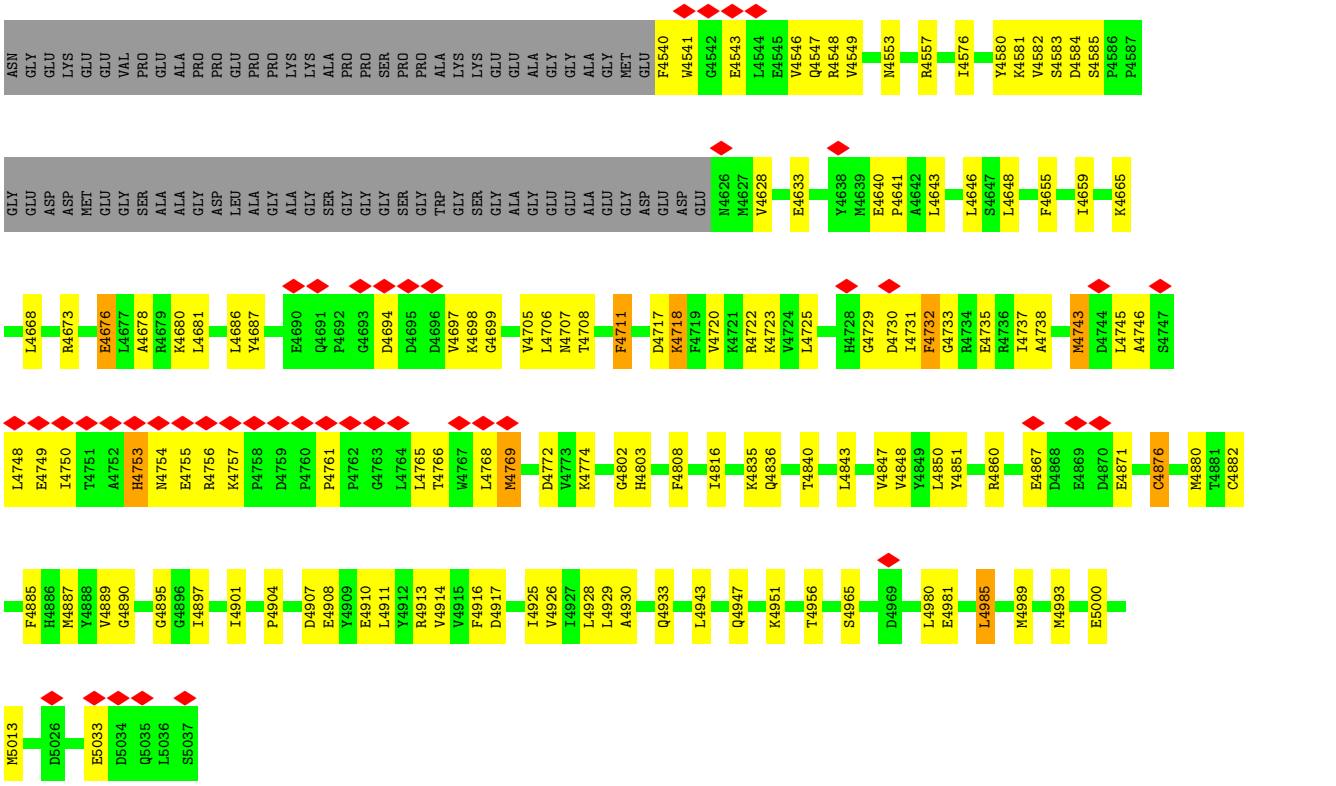
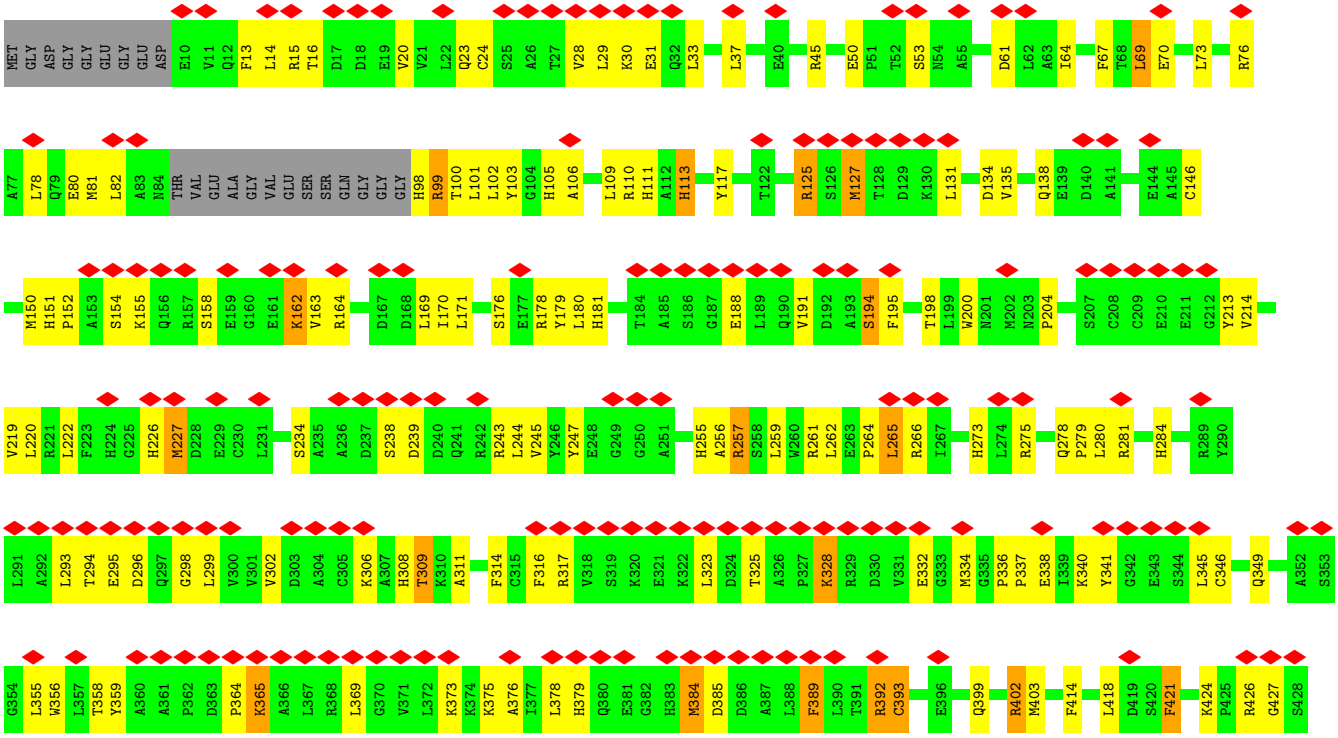
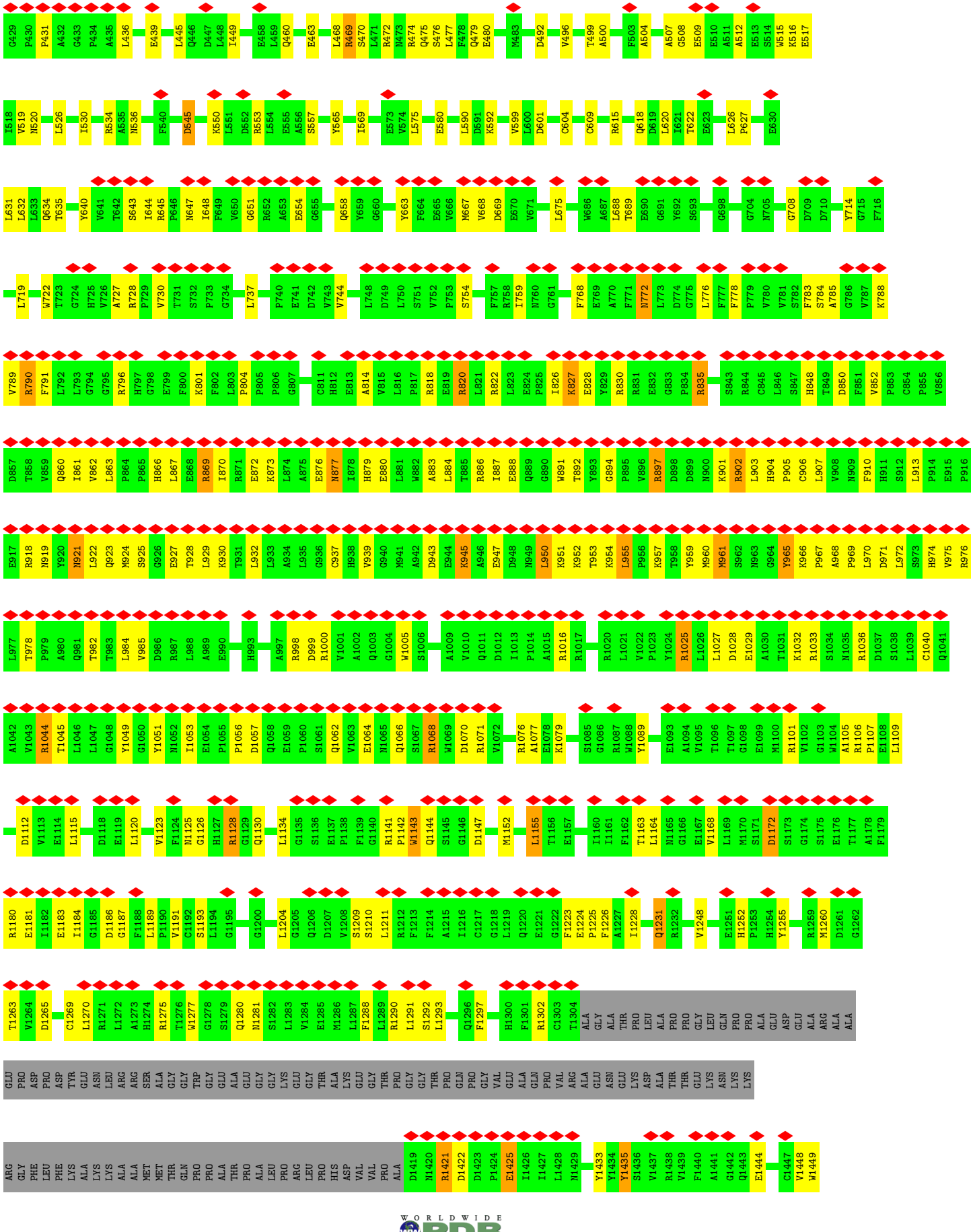




• Molecule 1: Ryanodine receptor 1

Chain B:

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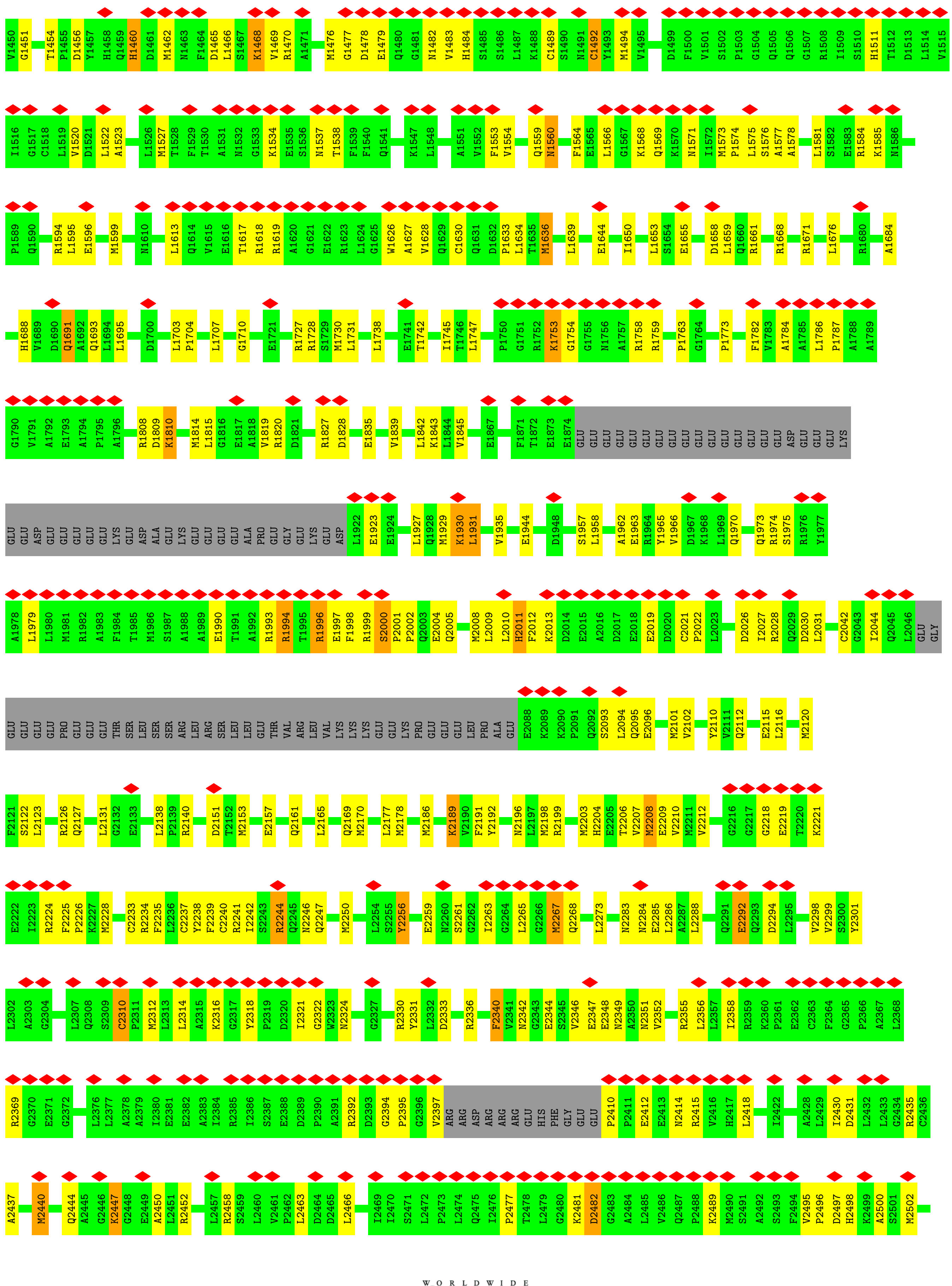
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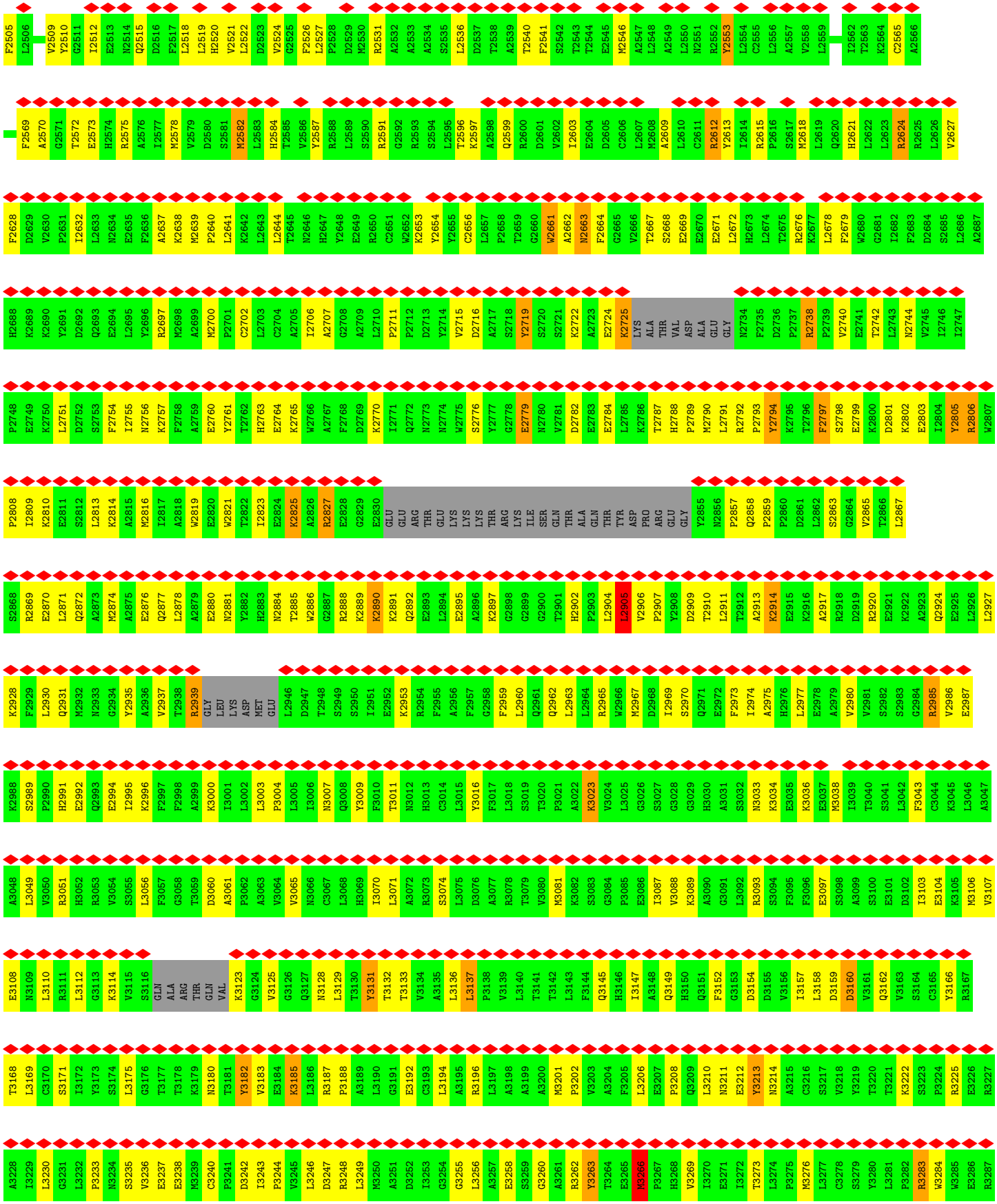
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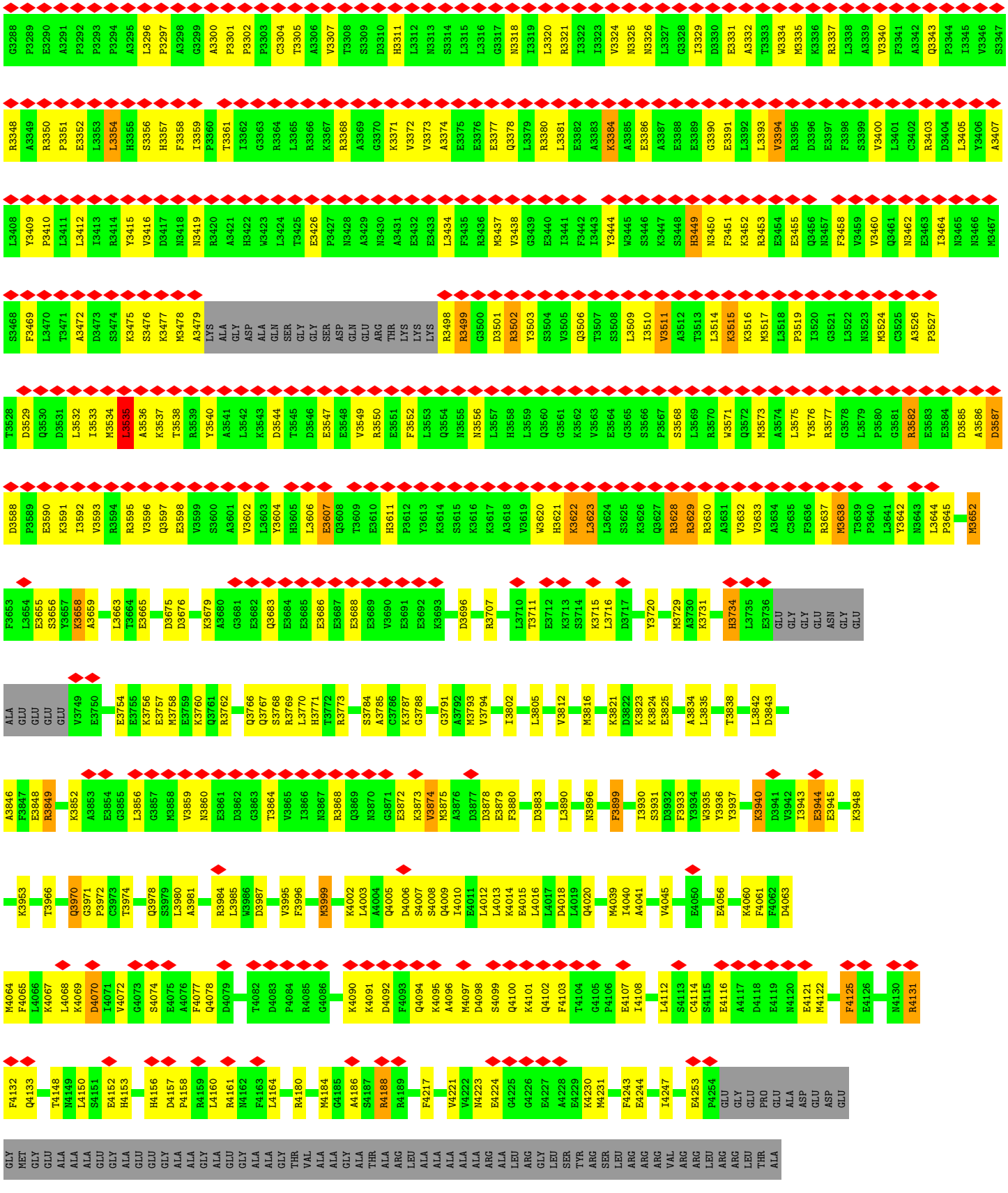
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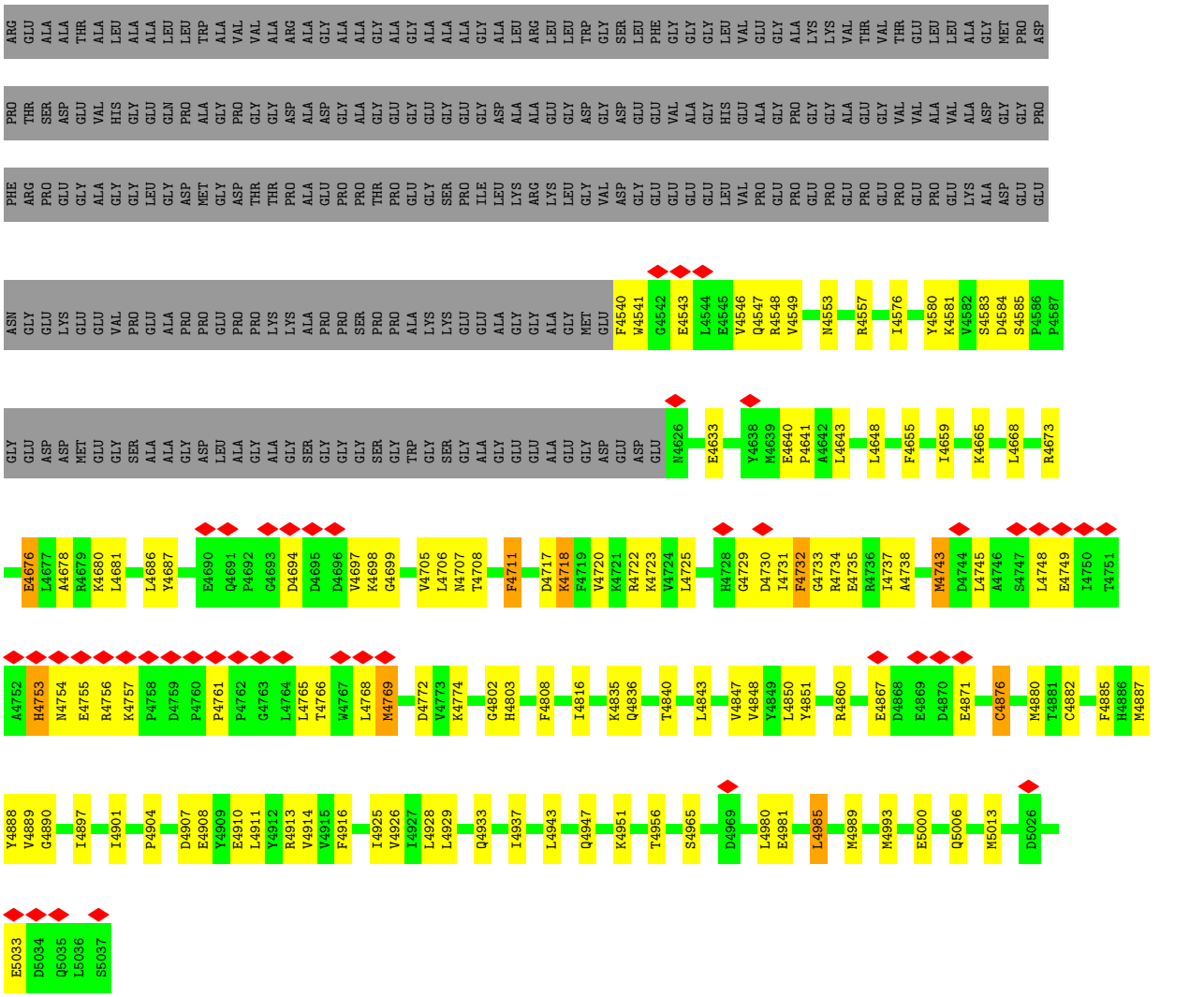
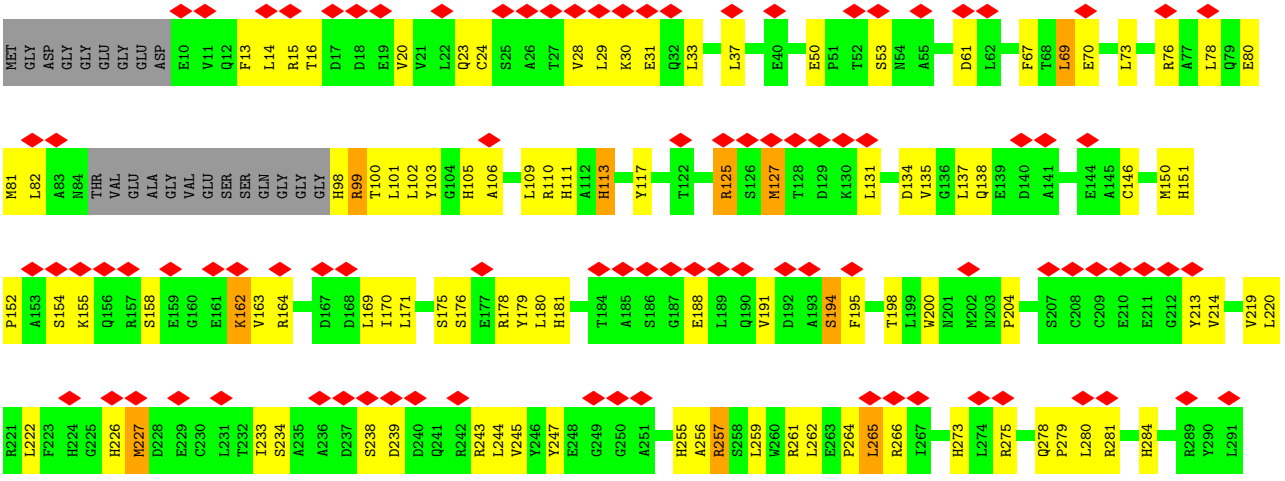
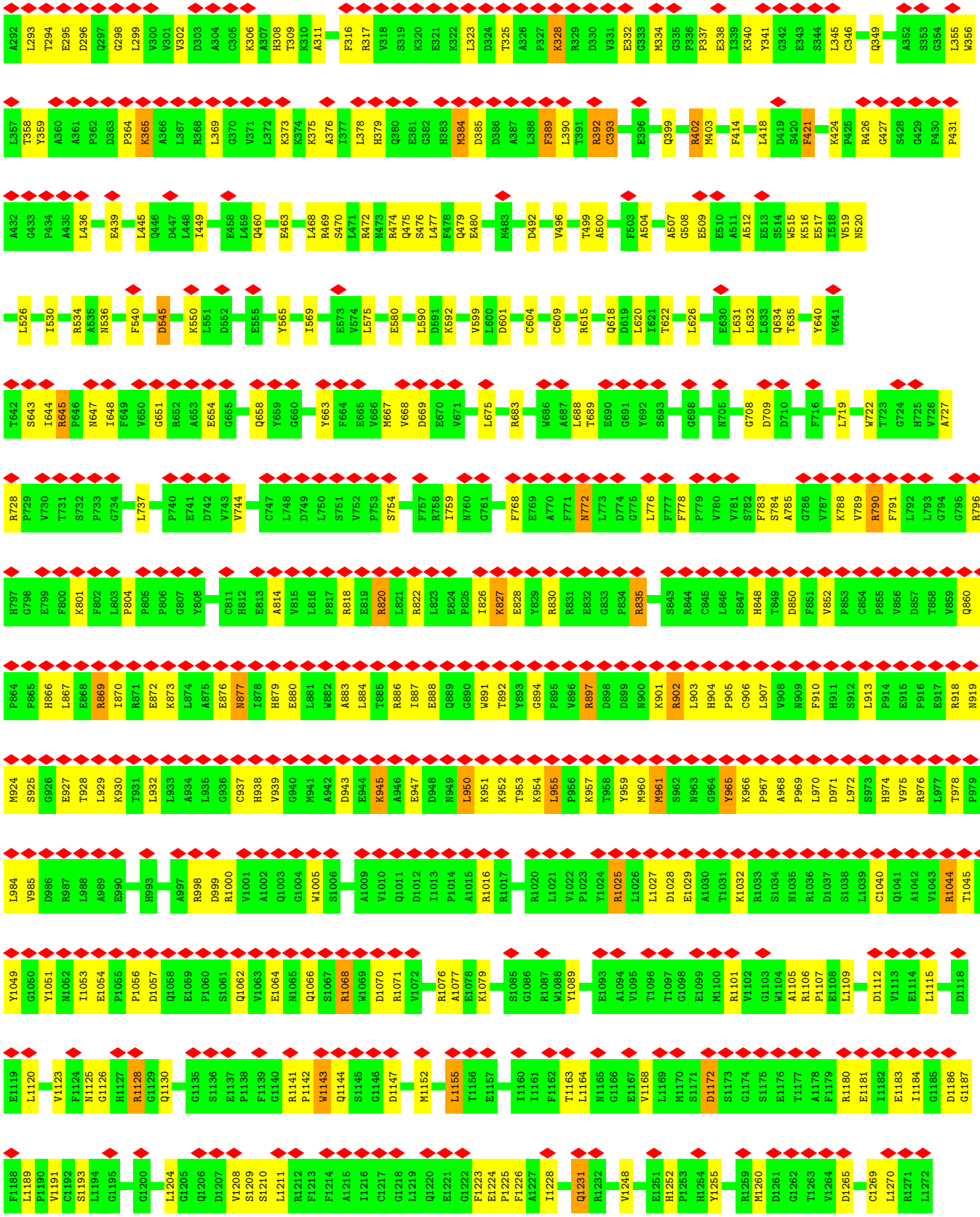


• Molecule 1: Ryanodine receptor 1

Chain D:

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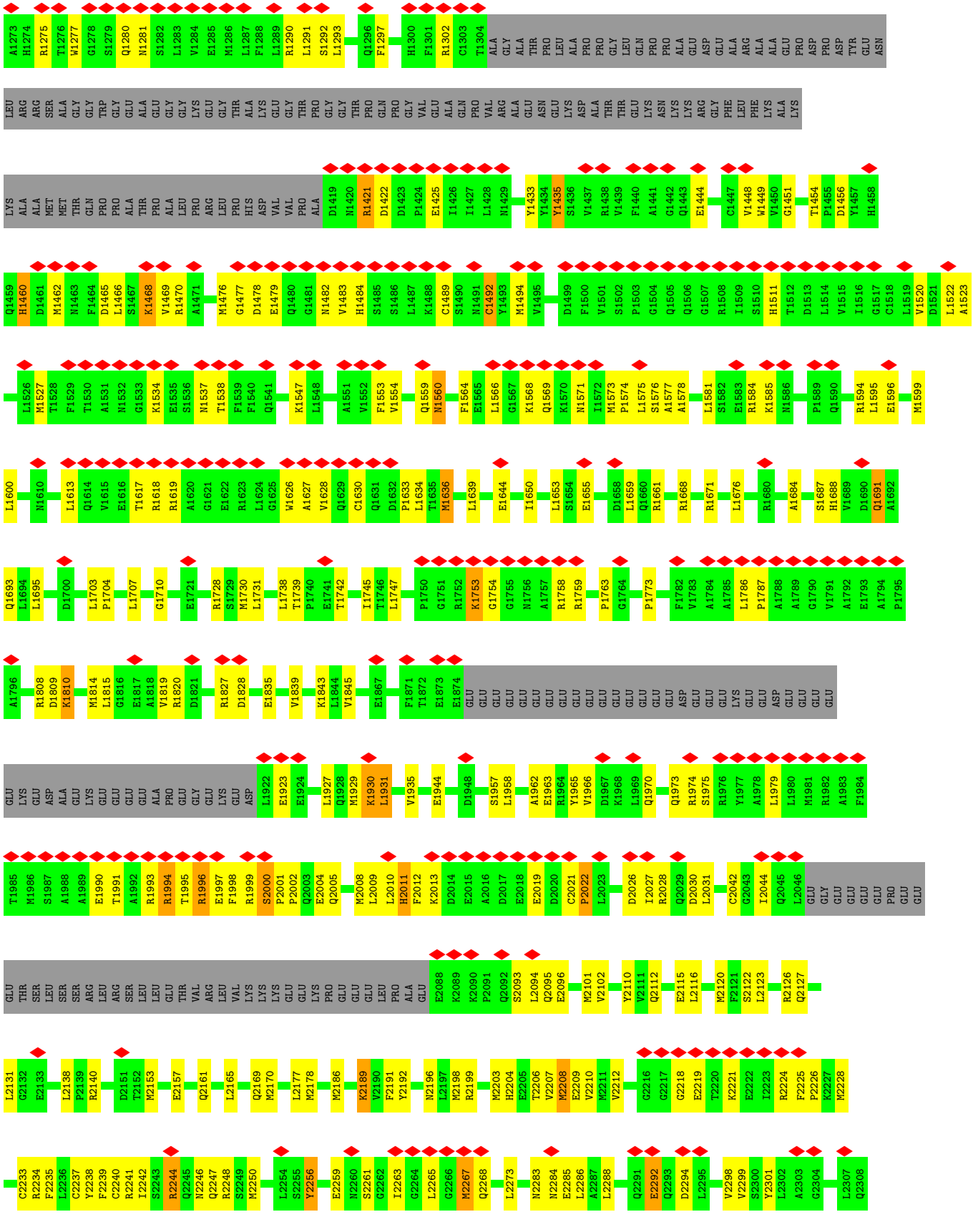

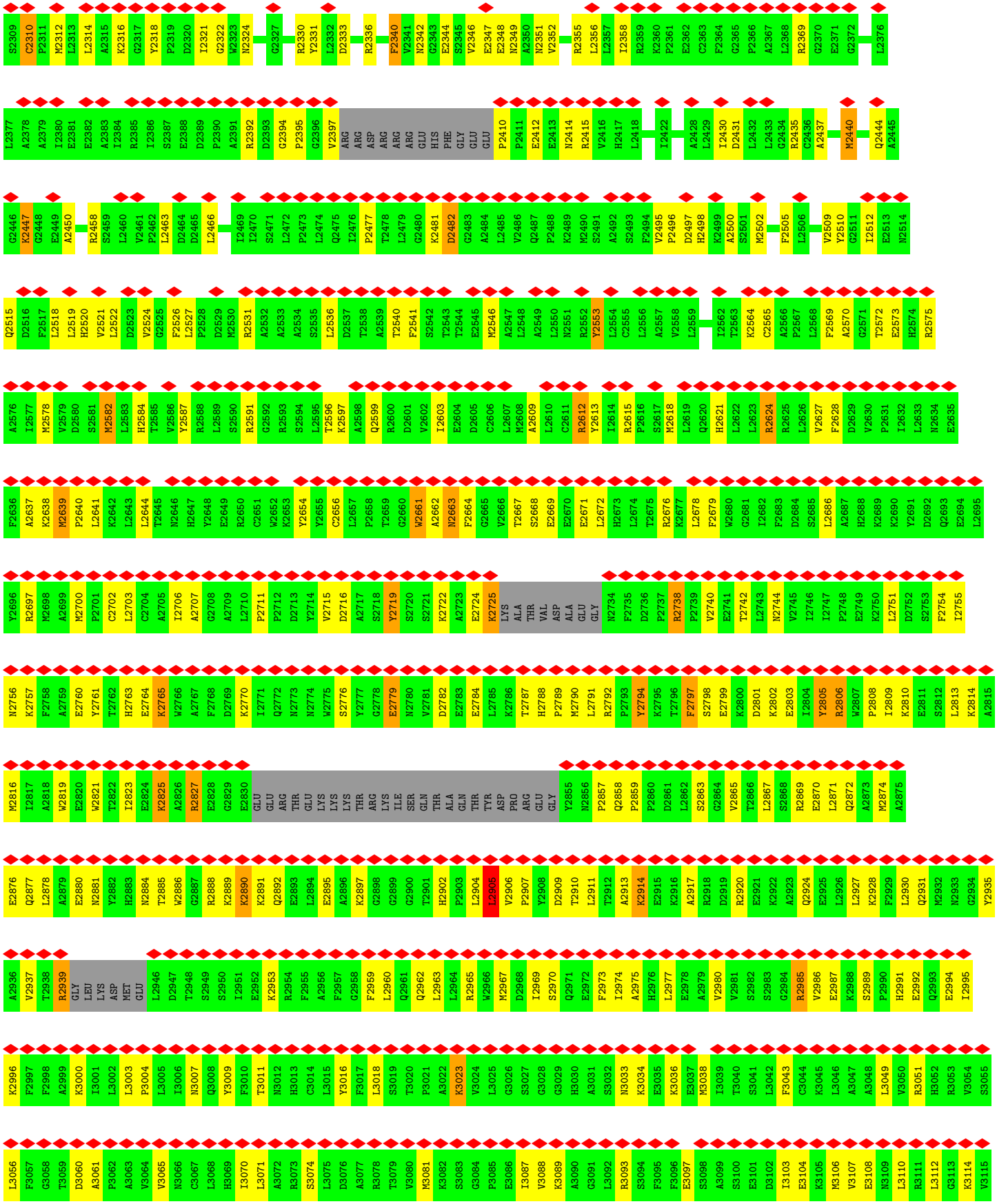
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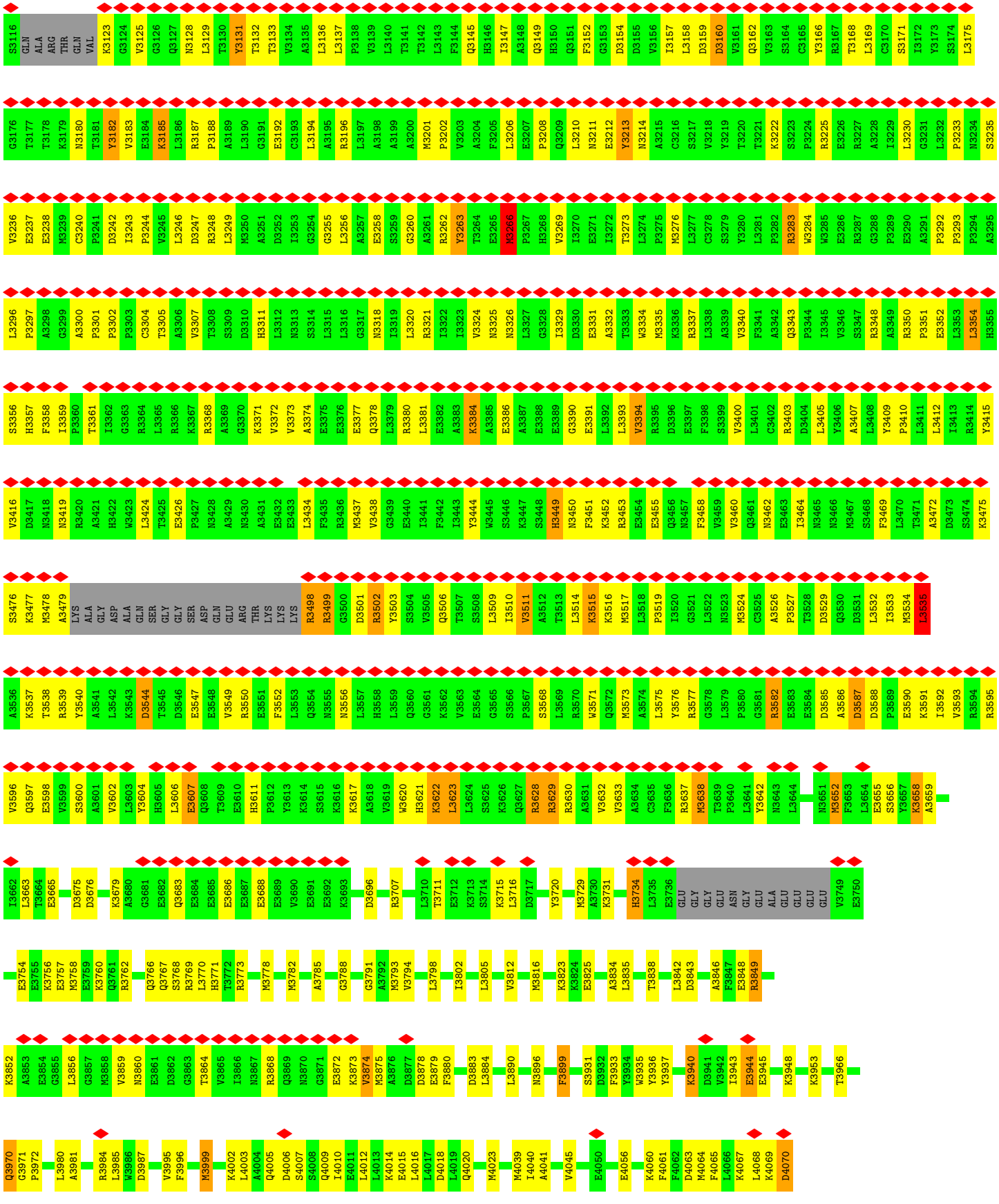
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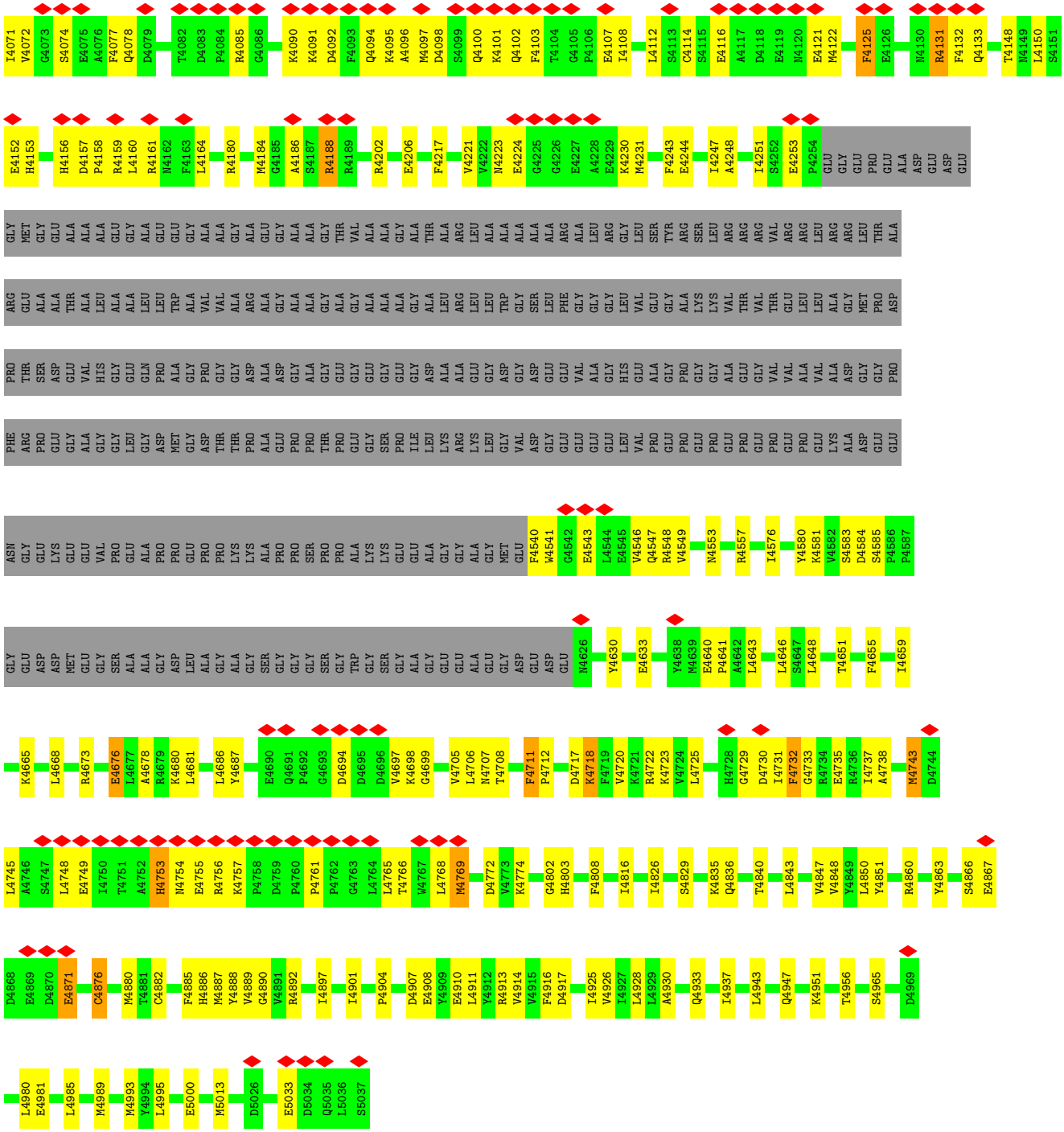
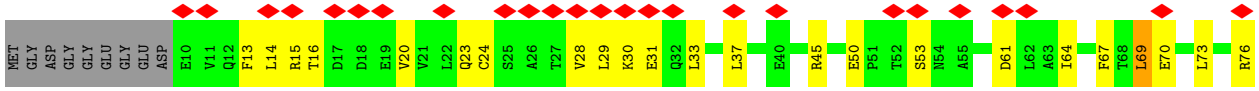
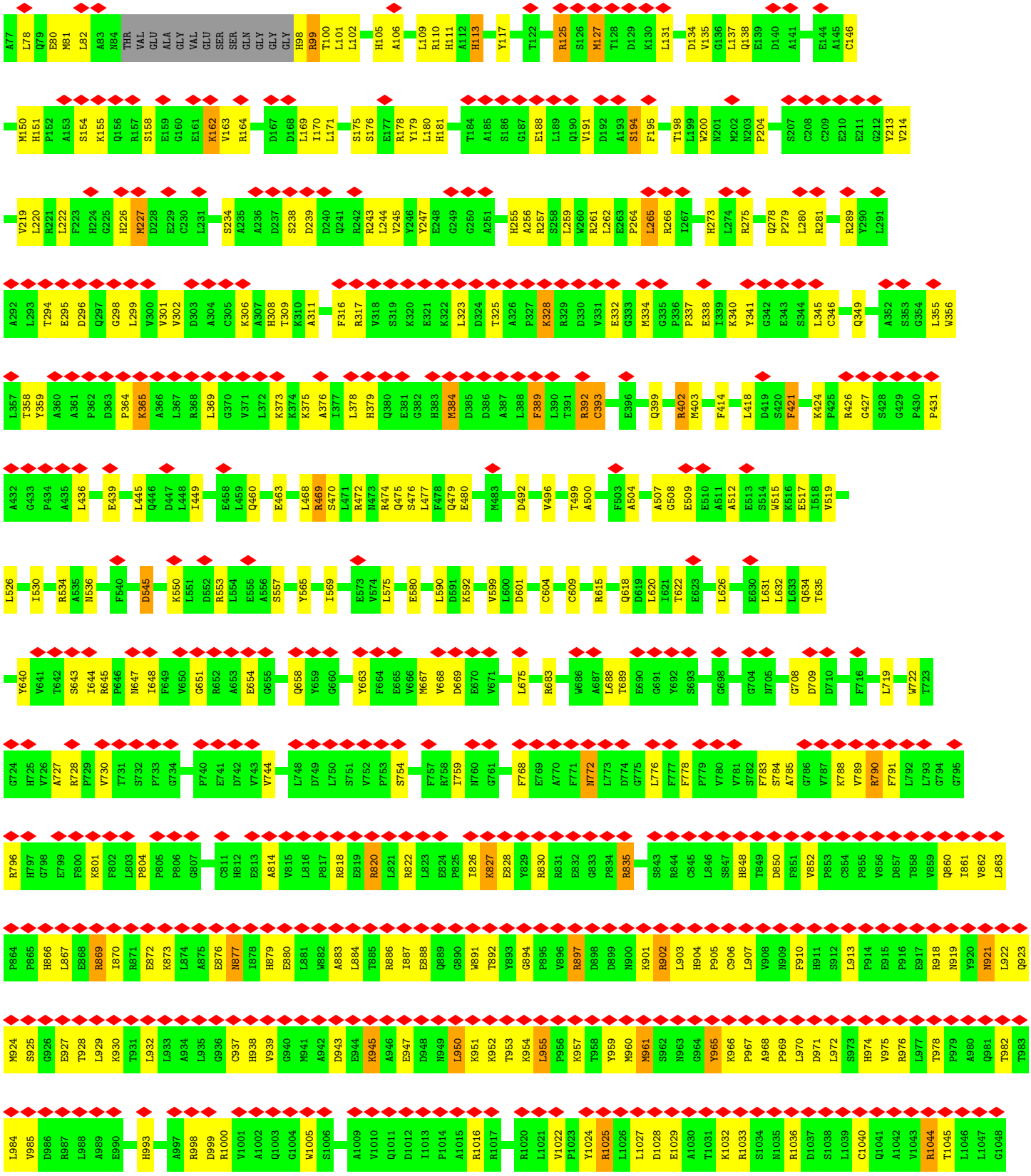


• Molecule 1: Ryanodine receptor 1

Chain C:

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M150 H151 P152 A153 S154 K155 Q156 R157 S158 E159 G160 E161 K162 V163 R164 D167 D168 L169 I170 L171 S175 S176 E177 R178 Y179 L180 H181 T184 A185 S186 G187 E188 L189 Q190 V191 D192 A193 S194 F195 T198 L199 W200 N201 M202 N203 P204 S207 C208 C209 E210 E211 G212 Y213 V214
V219 L220 R221 L222 F223 H224 G225 H226 M227 D228 E229 C230 L231 S234 A235 A236 D237 S238 D239 D240 Q241 R242 R243 L244 V245 Y246 Y247 E248 G249 G250 A251 H255 A256 R257 S258 L259 W260 R261 L262 E263 P264 L265 R266 I267 H273 L274 R275 Q278 P279 L280 R281 R289 Y290 L291
A292 L293 T294 E295 D296 Q297 G298 L299 V300 V301 V302 D303 A304 C305 K306 A307 H308 T309 K310 A311 F316 R317 V318 S319 K320 E321 K322 L323 D324 T325 A326 P327 K328 R329 D330 V331 E332 G333 M334 G335 P336 P337 E338 I339 K340 Y341 G342 E343 S344 L345 C346 Q349 A352 S353 G354 L355 W356
L357 T358 Y359 A360 A361 P362 D363 P364 K365 A366 L367 R368 L369 G370 V371 L372 K373 K374 K375 A376 I377 L378 H379 Q380 E381 G382 H383 M384 D385 D386 A387 L388 F389 L390 T391 R392 C393 E396 Q399 R402 M403 F414 L418 D419 S420 F421 K424 P425 R426 G427 S428 G429 P430 P431
A432 G433 P434 A435 L436 E439 L445 Q446 D447 L448 I449 E458 L459 Q460 E463 L468 R469 S470 L471 R472 N473 R474 Q475 S476 L477 F478 Q479 E480 M483 D492 V496 T499 A500 F503 A504 A507 G508 E509 E510 A511 A512 E513 S514 W515 K516 E517 I518 V519
L526 I530 R534 A535 N536 F540 D545 K550 L551 D552 R553 L554 E555 A556 S557 Y565 I569 E573 V574 L575 E580 L590 D591 K592 V599 L600 D601 C604 C609 R615 Q618 D619 L620 T621 T622 E623 L626 E630 L631 L632 L633 Q634 T635
Y640 V641 T642 S643 I644 R645 P646 N647 I648 F649 V650 G651 R652 A653 E654 G655 Q658 Y659 G660 Y663 F664 E665 V666 M667 V668 D669 E670 V671 L675 R683 W686 A687 L688 T689 E690 G691 Y692 S693 G698 G704 N705 G708 D709 D710 F716 L719 W722 T723
G724 H725 V726 A727 R728 P729 V730 T731 S732 P733 G734 P740 E741 D742 V743 V744 L748 D749 L750 S751 V752 P753 S754 F757 R758 I759 N760 G761 F768 E769 A770 F771 N772 L773 D774 G775 L776 F777 F778 P779 V780 V781 S782 F783 S784 A785 G786 V787 K788 V789 R790 F791 L792 L793 G794 G795
R796 H797 G798 E799 F800 K801 F802 L803 P804 P805 P806 G807 C811 H812 E813 A814 V815 L816 P817 R818 E819 R820 L821 R822 L823 E824 P825 I826 K827 E828 Y829 R830 R831 E832 G833 P834 R835 S843 R844 C845 L846 S847 H848 T849 D850 F851 V852 P853 C854 P855 V856 D857 T858 V859 Q860 I861 V862 L863
P864 P865 H866 L867 E868 R869 I870 R871 E872 K873 L874 A875 E876 N877 I878 H879 E880 L881 W882 A883 L884 T885 R886 I887 E888 Q889 G890 W891 T892 Y893 G894 P895 V896 R897 D898 D899 N900 K901 R902 L903 H904 P905 C906 L907 Y908 N909 F910 H911 S912 L913 P914 E915 P916 E917 R918 N919 Y920 N921 L922 Q923
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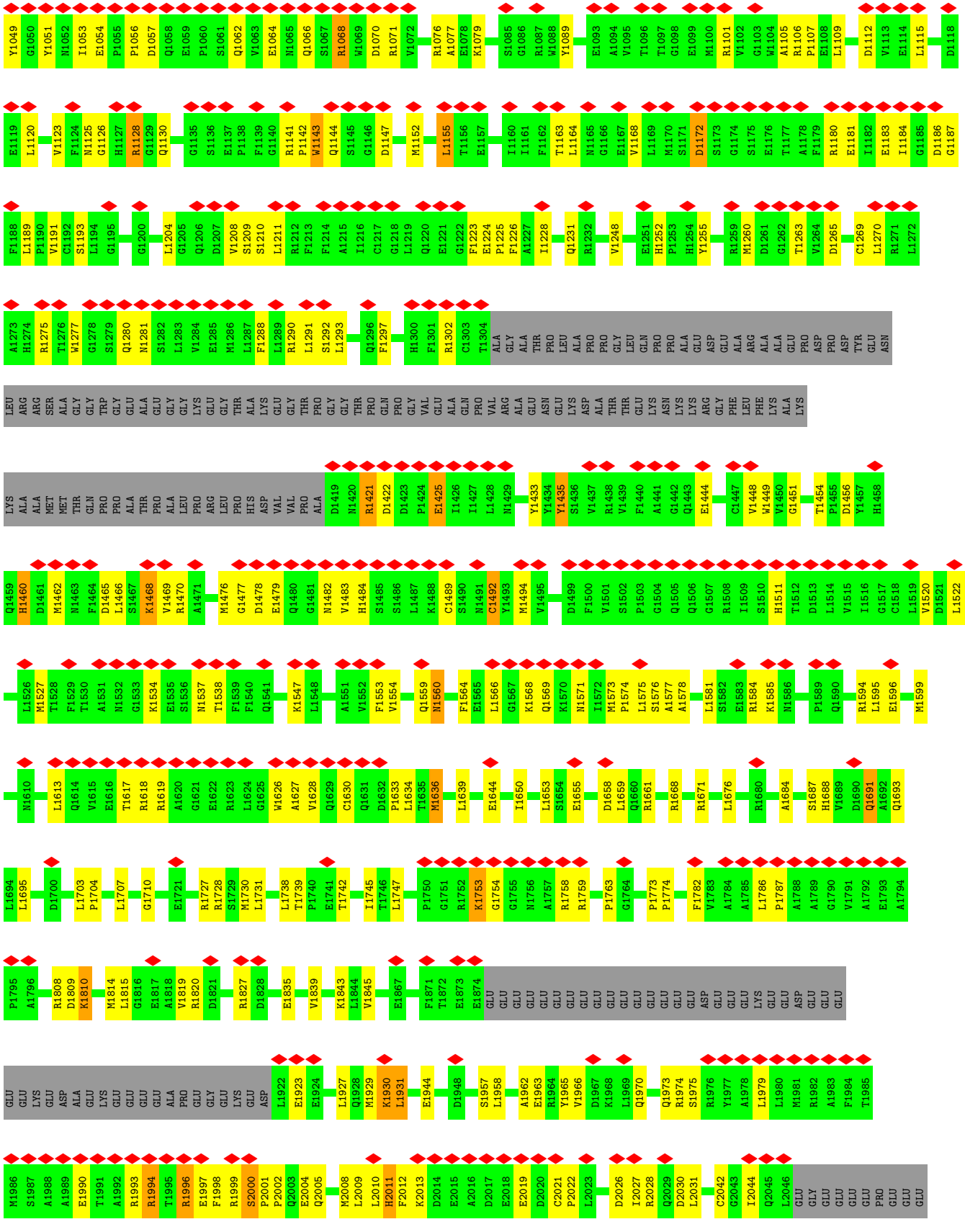
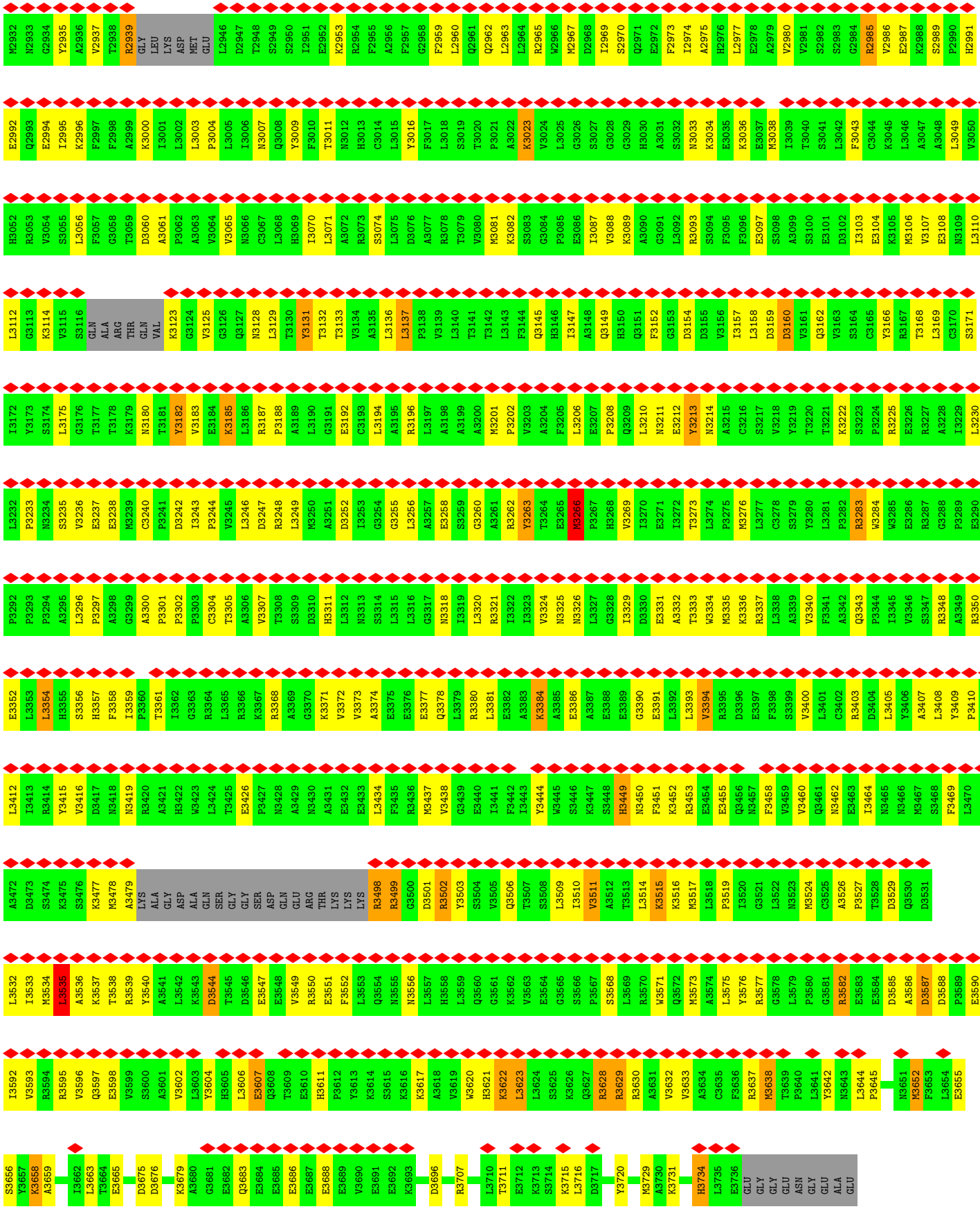
L984 V985 D986 R987 I988 A989 E990 H993 A997 R998 D999 R1000 V1001 A1002 Q1003 G1004 W1005 S1006 A1009 V1010 Q1011 D1012 I1013 P1014 A1015 R1016 R1017 R1020 L1021 V1022 P1023 Y1024 R1025 L1026 L1027 D1028 E1029 A1030 T1031 K1032 R1033 S1034 N1035 R1036 D1037 S1038 L1039 C1040 Q1041 A1042 V1043 R1044 T1045 L1046 L1047 G1048

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E2992 Q2993 E2994 I2995 K2996 F2997 F2998 A2999 K3000 I3001 L3002 L3003 P3004 L3005 I3006 N3007 Q3008 Y3009 F3010 T3011 N3012 H3013 C3014 L3015 Y3016 F3017 L3018 S3019 T3020 P3021 A3022 K3023 V3024 L3025 G3026 S3027 G3028 G3029 H3030 A3031 S3032 N3033 K3034 E3035 K3036 E3037 M3038 I3039 T3040 S3041 L3042 F3043 C3044 K3045 L3046 A3047 A3048 L3049 V3050 R3051
H3052 R3053 V3054 S3055 L3056 F3057 G3058 T3059 D3060 A3061 P3062 A3063 V3064 V3065 N3066 C3067 L3068 H3069 I3070 L3071 A3072 R3073 S3074 L3075 D3076 A3077 R3078 T3079 V3080 M3081 K3082 S3083 G3084 P3085 E3086 I3087 V3088 K3089 A3090 G3091 L3092 R3093 S3094 F3095 F3096 E3097 S3098 A3099 S3100 E3101 D3102 I3103 E3104 K3105 M3106 V3107 E3108 N3109 L3110 R3111
L3112 G3113 K3114 V3115 S3116 GLN ALA ARG THR GLN VAL K3123 G3124 V3125 G3126 Q3127 N3128 L3129 T3130 Y3131 T3132 T3133 V3134 A3135 L3136 L3137 P3138 V3139 L3140 T3141 T3142 L3143 F3144 Q3145 H3146 I3147 A3148 Q3149 H3150 Q3151 F3152 G3153 D3154 D3155 V3156 I3157 L3158 D3159 D3160 V3161 Q3162 V3163 S3164 C3165 Y3166 R3167 T3168 L3169 C3170 S3171
I3172 Y3173 S3174 L3175 G3176 T3177 T3178 K3179 N3180 T3181 Y3182 V3183 E3184 K3185 L3186 R3187 P3188 A3189 L3190 G3191 E3192 C3193 L3194 A3195 R3196 L3197 A3198 A3199 A3200 M3201 P3202 V3203 A3204 F3205 L3206 E3207 P3208 Q3209 L3210 N3211 E3212 Y3213 N3214 A3215 C3216 S3217 V3218 Y3219 T3220 T3221 K3222 S3223 P3224 R3225 E3226 R3227 A3228 I3229 L3230 G3231
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E3352 L3353 L3354 H3355 S3356 H3357 F3358 I3359 P3360 T3361 I3362 G3363 R3364 L3365 R3366 K3367 R3368 A3369 G3370 K3371 V3372 V3373 A3374 E3375 E3376 E3377 Q3378 L3379 R3380 L3381 E3382 A3383 K3384 A3385 E3386 A3387 E3388 E3389 G3390 E3391 L3392 L3393 V3394 R3395 D3396 E3397 F3398 S3399 V3400 L3401 C3402 R3403 D3404 L3405 Y3406 A3407 L3408 Y3409 P3410 L3411
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A3472 D3473 S3474 K3475 S3476 K3477 M3478 A3479 LYS ALA GLY ASP ALA GLN SER GLY GLY SER ASP GLN GLU ARG THR LYS LYS LYS R3498 R3499 G3500 D3501 R3502 Y3503 S3504 V3505 Q3506 T3507 S3508 L3509 I3510 V3511 A3512 T3513 L3514 K3515 K3516 M3517 L3518 P3519 I3520 G3521 L3522 N3523 M3524 C3525 A3526 P3527 T3528 D3529 Q3530 D3531
L3532 I3533 M3534 L3535 A3536 K3537 T3538 R3539 Y3540 A3541 L3542 K3543 D3544 T3545 D3546 E3547 E3548 V3549 R3550 E3551 F3552 L3553 Q3554 N3555 N3556 L3557 H3558 L3559 Q3560 G3561 K3562 V3563 E3564 G3565 S3566 P3567 S3568 L3569 R3570 W3571 Q3572 M3573 A3574 L3575 Y3576 R3577 G3578 L3579 P3580 G3581 R3582 E3583 E3584 D3585 A3586 D3587 D3588 P3589 E3590 K3591
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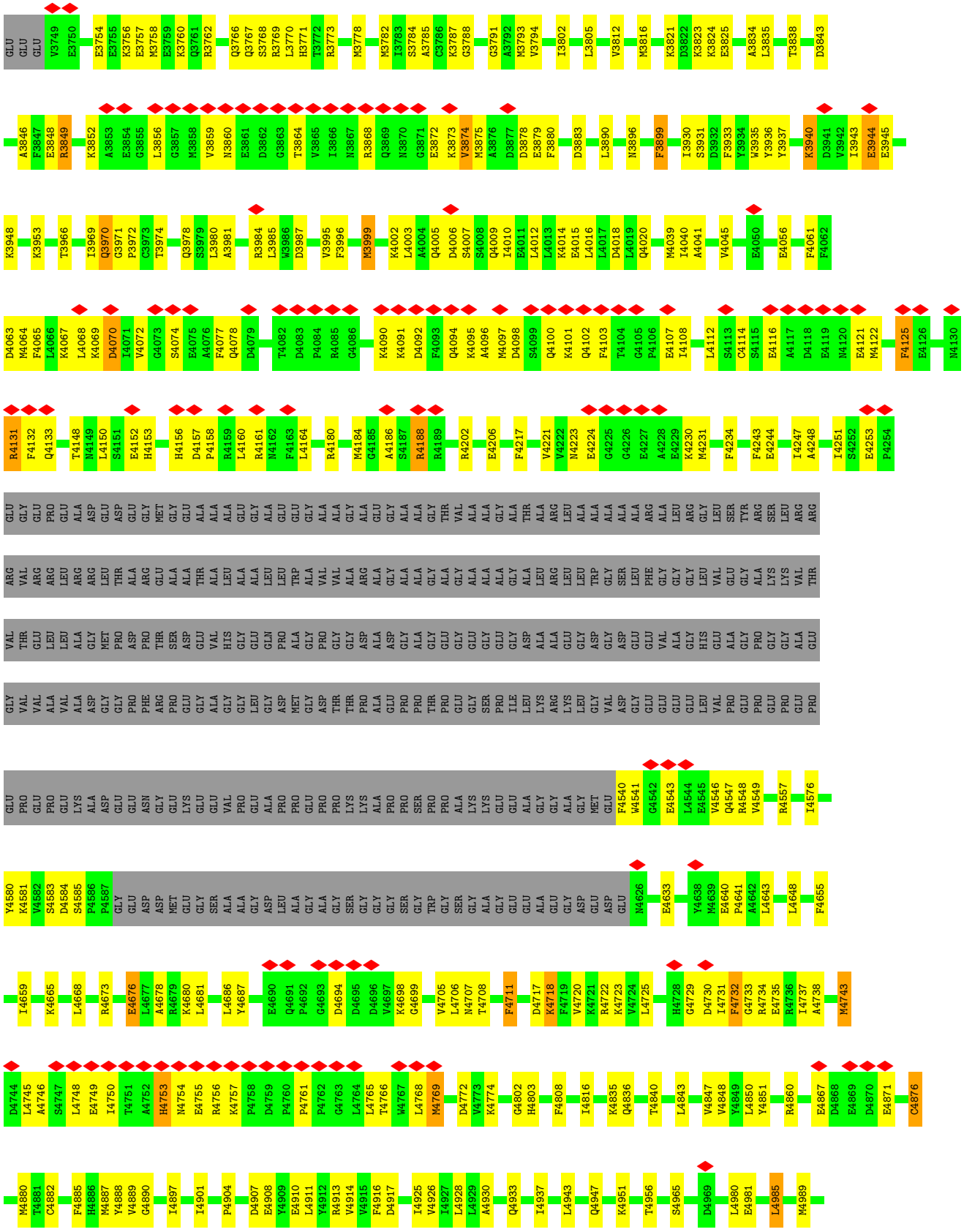
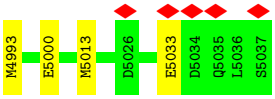
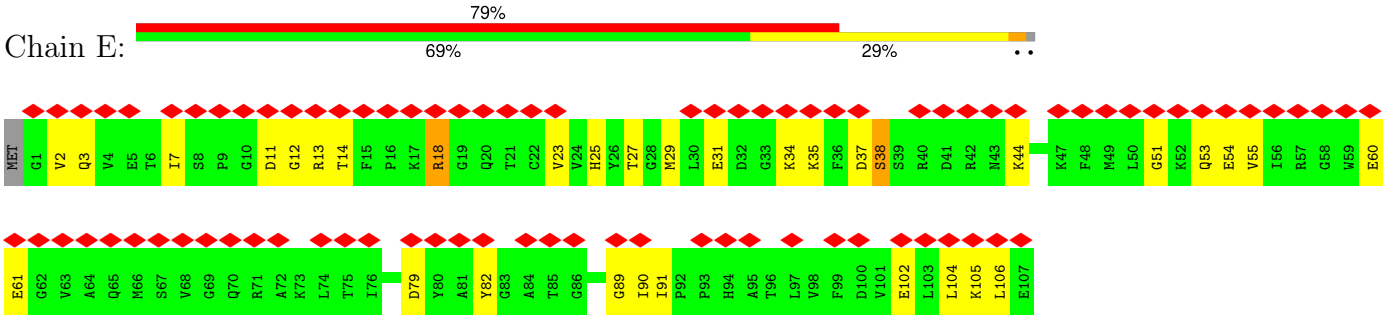
S3656 Y3657 K3658 A3659 I3662 L3663 T3664 E3665 D3675 D3676 K3679 A3680 G3681 E3682 Q3683 E3684 E3685 E3686 E3687 E3688 E3689 V3690 E3691 E3692 K3693 D3696 R3707 L3710 T3711 E3712 K3713 S3714 K3715 L3716 D3717 Y3720 M3729 A3730 K3731 H3734 L3735 E3736 GLU GLY GLY GLU ASN GLY GLU ALA GLU





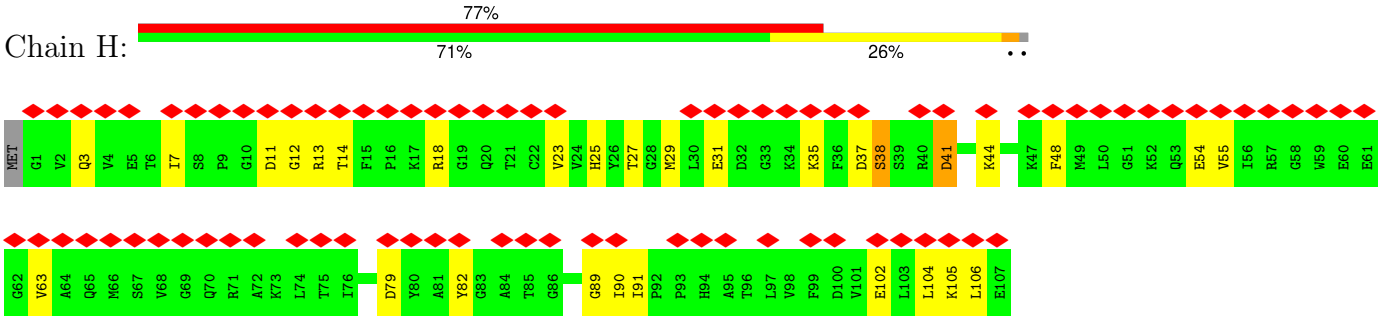
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain E:



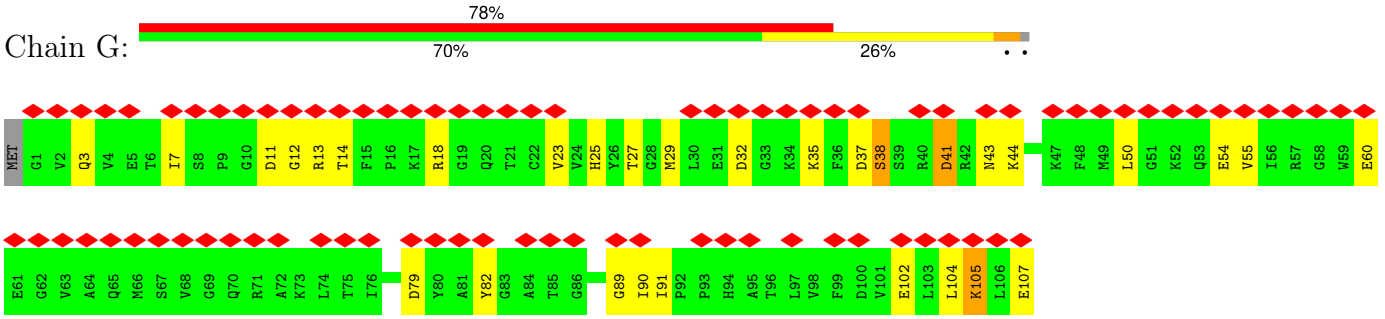
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain H:



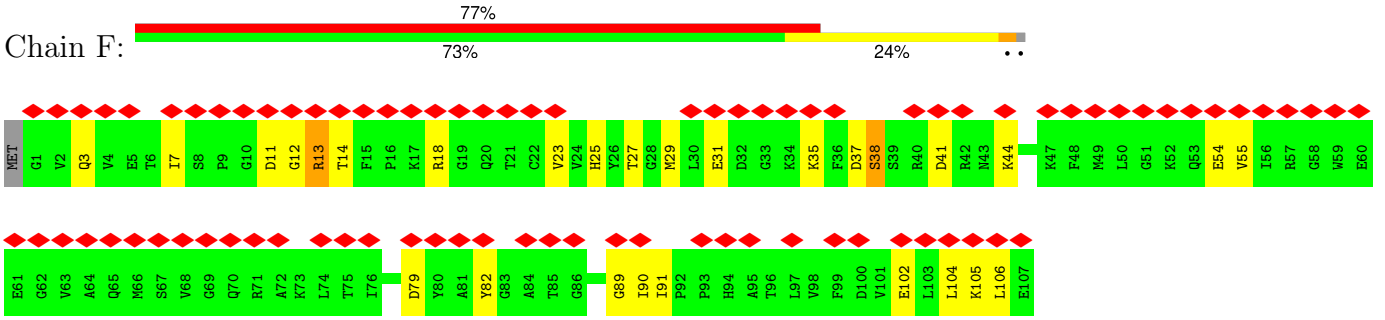
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain G:



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

Chain F:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	33308	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.428	Depositor
Minimum map value	-0.219	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.017	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	423.68, 423.68, 423.68	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.8275, 0.8275, 0.8275	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ATP, ZN, CA, A1BD5

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	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
1	B	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
1	C	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
1	D	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
2	E	0.31	0/850	0.61	0/1146
2	F	0.30	0/850	0.62	0/1146
2	G	0.32	0/850	0.62	0/1146
2	H	0.30	0/850	0.61	0/1146
All	All	0.28	4/147308 (0.0%)	0.54	28/199488 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
1	C	0	1
1	D	0	1
All	All	0	4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	2237	CYS	CB-SG	6.17	1.92	1.82
1	C	2237	CYS	CB-SG	6.17	1.92	1.82
1	A	2237	CYS	CB-SG	6.15	1.92	1.82
1	D	2237	CYS	CB-SG	6.14	1.92	1.82

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	227	MET	CA-CB-CG	7.46	125.98	113.30
1	A	227	MET	CA-CB-CG	7.44	125.95	113.30
1	B	227	MET	CA-CB-CG	7.43	125.93	113.30
1	D	227	MET	CA-CB-CG	7.41	125.90	113.30
1	D	2905	LEU	CA-CB-CG	6.32	129.83	115.30
1	B	2905	LEU	CA-CB-CG	6.31	129.82	115.30
1	C	2905	LEU	CA-CB-CG	6.31	129.81	115.30
1	A	2905	LEU	CA-CB-CG	6.30	129.80	115.30
1	D	3354	LEU	CA-CB-CG	5.85	128.76	115.30
1	A	3354	LEU	CA-CB-CG	5.85	128.75	115.30
1	C	3354	LEU	CA-CB-CG	5.85	128.75	115.30
1	B	3354	LEU	CA-CB-CG	5.83	128.71	115.30
1	D	3266	MET	CA-CB-CG	5.67	122.94	113.30
1	C	3266	MET	CA-CB-CG	5.66	122.93	113.30
1	A	3266	MET	CA-CB-CG	5.66	122.93	113.30
1	B	3266	MET	CA-CB-CG	5.65	122.90	113.30
1	B	29	LEU	CA-CB-CG	5.45	127.83	115.30
1	A	29	LEU	CA-CB-CG	5.45	127.82	115.30
1	C	29	LEU	CA-CB-CG	5.44	127.82	115.30
1	D	29	LEU	CA-CB-CG	5.44	127.81	115.30
1	D	3535	LEU	CA-CB-CG	5.29	127.47	115.30
1	A	3535	LEU	CA-CB-CG	5.29	127.47	115.30
1	C	3535	LEU	CA-CB-CG	5.29	127.46	115.30
1	B	3535	LEU	CA-CB-CG	5.28	127.43	115.30
1	B	2482	ASP	CB-CG-OD2	5.24	123.02	118.30
1	D	2482	ASP	CB-CG-OD2	5.23	123.01	118.30
1	A	2482	ASP	CB-CG-OD2	5.23	123.01	118.30
1	C	2482	ASP	CB-CG-OD2	5.22	123.00	118.30

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	2244	ARG	Sidechain
1	B	2244	ARG	Sidechain
1	C	2244	ARG	Sidechain
1	D	2244	ARG	Sidechain

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	35150	0	34794	1088	0
1	B	35150	0	34792	1077	0
1	C	35150	0	34792	1066	0
1	D	35150	0	34792	1074	0
2	E	831	0	831	25	0
2	F	831	0	831	21	0
2	G	831	0	831	27	0
2	H	831	0	831	27	0
3	A	31	0	12	1	0
3	B	31	0	12	1	0
3	C	31	0	12	1	0
3	D	31	0	12	0	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
6	A	15	0	0	0	0
6	B	15	0	0	0	0
6	C	15	0	0	0	0
6	D	15	0	0	0	0
7	A	1	0	0	0	0
7	B	1	0	0	0	0
7	C	1	0	0	0	0
7	D	1	0	0	0	0
All	All	144120	0	142542	4265	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 15.

All (4265) 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:A:3477:LYS:HE3	1:B:1141:ARG:CZ	1.20	1.58
1:A:3477:LYS:CE	1:B:1141:ARG:NH1	1.69	1.54
1:A:3477:LYS:CE	1:B:1141:ARG:HD3	1.33	1.53

Continued on next page...

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1141:ARG:NH1	1:D:3477:LYS:CE	1.70	1.43
1:A:3477:LYS:CE	1:B:1141:ARG:CZ	1.93	1.38
1:A:3477:LYS:CE	1:B:1141:ARG:CD	1.93	1.32
1:A:3477:LYS:NZ	1:B:1141:ARG:CG	1.95	1.26
1:A:3477:LYS:HZ1	1:B:1141:ARG:CG	1.46	1.26
1:A:3477:LYS:CE	1:B:1141:ARG:NE	2.00	1.24
1:A:3477:LYS:HZ1	1:B:1141:ARG:NE	1.37	1.20
1:A:1141:ARG:NH1	1:D:3477:LYS:HE3	0.90	1.16
1:A:3477:LYS:HE3	1:B:1141:ARG:NH1	0.77	1.08
1:A:1141:ARG:NH1	1:D:3477:LYS:CD	2.24	0.99
2:H:90:ILE:HD12	1:D:1687:SER:OG	1.63	0.98
2:G:90:ILE:HD12	1:C:1687:SER:OG	1.64	0.98
2:F:90:ILE:HG22	2:F:91:ILE:HD12	1.46	0.96
1:D:76:ARG:HH12	1:C:3936:TYR:N	1.64	0.96
1:A:1141:ARG:NH1	1:D:3477:LYS:HG3	1.81	0.95
2:E:90:ILE:HG22	2:E:91:ILE:HD12	1.47	0.94
1:A:3477:LYS:NZ	1:B:1141:ARG:HD2	1.28	0.94
1:B:3936:TYR:N	1:C:76:ARG:HH12	1.68	0.92
1:B:150:MET:HB2	1:B:169:LEU:HD11	1.54	0.89
1:A:150:MET:HB2	1:A:169:LEU:HD11	1.54	0.88
1:D:150:MET:HB2	1:D:169:LEU:HD11	1.54	0.88
1:C:150:MET:HB2	1:C:169:LEU:HD11	1.54	0.86
1:B:2902:HIS:HB3	1:B:2905:LEU:HD22	1.58	0.86
1:D:2902:HIS:HB3	1:D:2905:LEU:HD22	1.58	0.86
1:A:2902:HIS:HB3	1:A:2905:LEU:HD22	1.58	0.85
2:H:90:ILE:HD11	1:D:1684:ALA:HA	1.57	0.85
1:C:2902:HIS:HB3	1:C:2905:LEU:HD22	1.58	0.85
1:D:195:PHE:CE1	1:C:2358:ILE:HD12	2.11	0.84
2:G:90:ILE:HD11	1:C:1684:ALA:HA	1.57	0.84
1:B:2244:ARG:HH22	1:B:3860:ASN:HA	1.43	0.83
1:B:3400:VAL:HG23	1:B:3403:ARG:HH21	1.44	0.83
1:A:1141:ARG:NH1	1:D:3477:LYS:CG	2.40	0.83
1:D:2244:ARG:HH22	1:D:3860:ASN:HA	1.43	0.83
1:A:3477:LYS:HZ2	1:B:1141:ARG:CG	1.78	0.82
1:C:2244:ARG:HH22	1:C:3860:ASN:HA	1.43	0.82
1:D:3400:VAL:HG23	1:D:3403:ARG:HH21	1.44	0.82
1:A:2244:ARG:HH22	1:A:3860:ASN:HA	1.43	0.81
1:A:3400:VAL:HG23	1:A:3403:ARG:HH21	1.44	0.81
1:C:3400:VAL:HG23	1:C:3403:ARG:HH21	1.44	0.81
1:B:2358:ILE:HD12	1:C:195:PHE:CE1	2.14	0.81
1:A:3477:LYS:HE2	1:B:1141:ARG:CZ	2.09	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3477:LYS:CD	1:B:1141:ARG:NH1	2.43	0.81
1:D:3132:THR:HG23	1:D:3136:LEU:HB3	1.63	0.80
1:B:3132:THR:HG23	1:B:3136:LEU:HB3	1.63	0.80
1:A:3132:THR:HG23	1:A:3136:LEU:HB3	1.63	0.80
1:C:3132:THR:HG23	1:C:3136:LEU:HB3	1.63	0.79
1:B:4678:ALA:HB1	1:B:4720:VAL:HG21	1.64	0.79
1:A:76:ARG:HH12	1:D:3936:TYR:N	1.80	0.78
1:D:4678:ALA:HB1	1:D:4720:VAL:HG21	1.64	0.78
1:C:4678:ALA:HB1	1:C:4720:VAL:HG21	1.64	0.78
1:A:2667:THR:HG21	1:A:2672:LEU:HG	1.66	0.77
1:B:2667:THR:HG21	1:B:2672:LEU:HG	1.66	0.77
1:C:2667:THR:HG21	1:C:2672:LEU:HG	1.66	0.77
1:D:2667:THR:HG21	1:D:2672:LEU:HG	1.66	0.77
1:A:4678:ALA:HB1	1:A:4720:VAL:HG21	1.64	0.77
1:A:3936:TYR:N	1:B:76:ARG:HH12	1.82	0.77
1:B:790:ARG:HD3	1:B:1627:ALA:HB2	1.67	0.76
1:C:3106:MET:HE1	1:C:3132:THR:HB	1.67	0.76
1:A:790:ARG:HD3	1:A:1627:ALA:HB2	1.68	0.76
1:D:2667:THR:HG22	1:D:2669:GLU:H	1.51	0.76
1:D:2519:LEU:HA	1:D:2522:LEU:HD12	1.68	0.76
1:A:2001:PRO:HB3	1:A:3864:THR:HB	1.68	0.75
1:D:3107:VAL:HG11	1:D:3171:SER:HB2	1.68	0.75
1:C:790:ARG:HD3	1:C:1627:ALA:HB2	1.67	0.75
1:D:195:PHE:CZ	1:C:2358:ILE:HD12	2.21	0.75
1:A:2519:LEU:HA	1:A:2522:LEU:HD12	1.68	0.75
1:A:3107:VAL:HG11	1:A:3171:SER:HB2	1.69	0.75
1:D:2001:PRO:HB3	1:D:3864:THR:HB	1.68	0.75
1:A:3106:MET:HE1	1:A:3132:THR:HB	1.67	0.75
1:C:2667:THR:HG22	1:C:2669:GLU:H	1.51	0.75
1:A:4843:LEU:HD23	1:A:4928:LEU:HD21	1.69	0.75
1:D:4843:LEU:HD23	1:D:4928:LEU:HD21	1.69	0.75
1:B:2358:ILE:HD12	1:C:195:PHE:CZ	2.22	0.75
1:D:790:ARG:HD3	1:D:1627:ALA:HB2	1.67	0.75
1:A:929:LEU:HA	1:A:932:LEU:HD12	1.68	0.74
1:B:275:ARG:NH2	1:B:334:MET:O	2.20	0.74
1:D:3106:MET:HE1	1:D:3132:THR:HB	1.68	0.74
1:D:929:LEU:HA	1:D:932:LEU:HD12	1.68	0.74
1:A:2869:ARG:HH21	1:A:2870[B]:GLU:HG3	1.53	0.74
1:B:601:ASP:OD1	1:B:1668:ARG:NH2	2.21	0.74
1:C:275:ARG:NH2	1:C:334:MET:O	2.20	0.74
1:C:929:LEU:HA	1:C:932:LEU:HD12	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3107:VAL:HG11	1:B:3171:SER:HB2	1.69	0.74
1:C:2001:PRO:HB3	1:C:3864:THR:HB	1.68	0.74
1:D:2869:ARG:HH21	1:D:2870[B]:GLU:HG3	1.53	0.74
1:C:2519:LEU:HA	1:C:2522:LEU:HD12	1.68	0.74
1:B:2519:LEU:HA	1:B:2522:LEU:HD12	1.68	0.74
1:A:2667:THR:HG22	1:A:2669:GLU:H	1.51	0.74
1:B:3106:MET:HE1	1:B:3132:THR:HB	1.68	0.74
1:D:275:ARG:NH2	1:D:334:MET:O	2.20	0.74
1:C:3107:VAL:HG11	1:C:3171:SER:HB2	1.69	0.74
1:A:601:ASP:OD1	1:A:1668:ARG:NH2	2.21	0.74
1:D:2654:TYR:HB2	1:D:2661:TRP:HB2	1.70	0.74
1:B:575:LEU:HD12	1:B:609:CYS:HB3	1.69	0.73
1:B:2667:THR:HG22	1:B:2669:GLU:H	1.51	0.73
1:C:575:LEU:HD12	1:C:609:CYS:HB3	1.69	0.73
1:C:601:ASP:OD1	1:C:1668:ARG:NH2	2.21	0.73
1:A:275:ARG:NH2	1:A:334:MET:O	2.20	0.73
1:B:2001:PRO:HB3	1:B:3864:THR:HB	1.68	0.73
1:B:4843:LEU:HD23	1:B:4928:LEU:HD21	1.69	0.73
1:A:2654:TYR:HB2	1:A:2661:TRP:HB2	1.70	0.73
1:D:575:LEU:HD12	1:D:609:CYS:HB3	1.69	0.73
1:C:1753:LYS:HZ1	1:C:1759:ARG:HG2	1.53	0.73
1:B:2869:ARG:HH21	1:B:2870[B]:GLU:HG3	1.53	0.73
1:D:76:ARG:HH22	1:C:3936:TYR:HA	1.54	0.73
1:C:2869:ARG:HH21	1:C:2870[B]:GLU:HG3	1.53	0.73
1:A:575:LEU:HD12	1:A:609:CYS:HB3	1.69	0.73
1:A:3477:LYS:NZ	1:B:1141:ARG:NE	1.93	0.73
1:A:3675:ASP:OD1	1:A:3769:ARG:NH1	2.21	0.73
1:B:826:ILE:HG22	1:B:827:LYS:HG2	1.70	0.73
1:A:826:ILE:HG22	1:A:827:LYS:HG2	1.70	0.73
1:A:1141:ARG:HH12	1:D:3477:LYS:HG3	1.52	0.73
1:B:892:THR:HA	1:B:961:MET:HB2	1.71	0.73
1:C:826:ILE:HG22	1:C:827:LYS:HG2	1.70	0.73
1:D:892:THR:HA	1:D:961:MET:HB2	1.71	0.73
1:C:2654:TYR:HB2	1:C:2661:TRP:HB2	1.70	0.73
1:C:4843:LEU:HD23	1:C:4928:LEU:HD21	1.69	0.73
1:A:892:THR:HA	1:A:961:MET:HB2	1.71	0.72
1:D:601:ASP:OD1	1:D:1668:ARG:NH2	2.21	0.72
1:D:826:ILE:HG22	1:D:827:LYS:HG2	1.70	0.72
2:H:90:ILE:HG22	2:H:91:ILE:HD12	1.71	0.72
1:C:4094:GLN:HG2	1:C:4108:ILE:HG21	1.72	0.72
1:A:2519:LEU:HD13	1:A:2575:ARG:HG3	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2980:VAL:HB	1:B:2985:ARG:HA	1.72	0.72
1:B:2654:TYR:HB2	1:B:2661:TRP:HB2	1.70	0.72
1:B:929:LEU:HA	1:B:932:LEU:HD12	1.68	0.72
1:C:2980:VAL:HB	1:C:2985:ARG:HA	1.72	0.72
1:B:2519:LEU:HD13	1:B:2575:ARG:HG3	1.72	0.72
1:B:4094:GLN:HG2	1:B:4108:ILE:HG21	1.72	0.72
1:D:4094:GLN:HG2	1:D:4108:ILE:HG21	1.72	0.72
1:C:3110:LEU:HD12	1:C:3182:TYR:HB2	1.72	0.72
1:A:4094:GLN:HG2	1:A:4108:ILE:HG21	1.72	0.72
2:G:90:ILE:HG22	2:G:91:ILE:HD12	1.71	0.72
1:D:213:TYR:CD2	1:D:337:PRO:HG2	2.25	0.72
1:A:213:TYR:CD2	1:A:337:PRO:HG2	2.25	0.72
1:D:1573:MET:HE3	1:D:1574:PRO:HD2	1.70	0.72
1:D:1990:GLU:HA	1:D:1993:ARG:HH21	1.54	0.72
1:B:213:TYR:CD2	1:B:337:PRO:HG2	2.25	0.71
1:C:892:THR:HA	1:C:961:MET:HB2	1.71	0.71
1:C:1990:GLU:HA	1:C:1993:ARG:HH21	1.54	0.71
1:B:3675:ASP:OD1	1:B:3769:ARG:NH1	2.21	0.71
1:C:3675:ASP:OD1	1:C:3769:ARG:NH1	2.21	0.71
1:A:615:ARG:NH1	1:A:618:GLN:OE1	2.23	0.71
1:A:1990:GLU:HA	1:A:1993:ARG:HH21	1.55	0.71
1:A:3384:LYS:HD2	1:A:3386:GLU:H	1.55	0.71
1:B:1990:GLU:HA	1:B:1993:ARG:HH21	1.54	0.71
1:B:3384:LYS:HD2	1:B:3386:GLU:H	1.55	0.71
1:C:213:TYR:CD2	1:C:337:PRO:HG2	2.25	0.71
1:A:1617:THR:HG22	1:A:1628:VAL:HG12	1.73	0.71
1:A:1810:LYS:O	1:A:1814:MET:HG2	1.91	0.71
1:B:3110:LEU:HD12	1:B:3182:TYR:HB2	1.72	0.71
1:D:3110:LEU:HD12	1:D:3182:TYR:HB2	1.72	0.71
1:B:615:ARG:NH1	1:B:618:GLN:OE1	2.23	0.71
1:D:2519:LEU:HD13	1:D:2575:ARG:HG3	1.72	0.71
1:A:2980:VAL:HB	1:A:2985:ARG:HA	1.72	0.71
1:D:615:ARG:NH1	1:D:618:GLN:OE1	2.24	0.71
1:D:1810:LYS:O	1:D:1814:MET:HG2	1.91	0.71
1:A:2005:GLN:HA	1:A:2008:MET:HE2	1.71	0.71
1:D:2599:GLN:O	1:D:2603:ILE:HD12	1.91	0.71
1:A:3477:LYS:HZ1	1:B:1141:ARG:HD2	1.06	0.71
1:D:3675:ASP:OD1	1:D:3769:ARG:NH1	2.21	0.71
1:D:2980:VAL:HB	1:D:2985:ARG:HA	1.72	0.70
1:B:1810:LYS:O	1:B:1814:MET:HG2	1.91	0.70
1:C:1810:LYS:O	1:C:1814:MET:HG2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2519:LEU:HD13	1:C:2575:ARG:HG3	1.72	0.70
1:D:1617:THR:HG22	1:D:1628:VAL:HG12	1.73	0.70
1:C:1617:THR:HG22	1:C:1628:VAL:HG12	1.73	0.70
1:B:1293:LEU:HD21	1:B:1594:ARG:HD3	1.74	0.70
1:B:2599:GLN:O	1:B:2603:ILE:HD12	1.91	0.70
1:C:3384:LYS:HD2	1:C:3386:GLU:H	1.55	0.70
1:A:4761:PRO:HB2	1:A:4766:THR:HG21	1.74	0.70
2:G:90:ILE:CD1	1:C:1687:SER:OG	2.39	0.70
1:A:3110:LEU:HD12	1:A:3182:TYR:HB2	1.72	0.70
1:D:3384:LYS:HD2	1:D:3386:GLU:H	1.55	0.70
1:C:615:ARG:NH1	1:C:618:GLN:OE1	2.23	0.70
1:C:2599:GLN:O	1:C:2603:ILE:HD12	1.91	0.70
1:C:1293:LEU:HD21	1:C:1594:ARG:HD3	1.74	0.70
1:A:1293:LEU:HD21	1:A:1594:ARG:HD3	1.74	0.70
1:A:2599:GLN:O	1:A:2603:ILE:HD12	1.91	0.70
1:B:4761:PRO:HB2	1:B:4766:THR:HG21	1.74	0.70
2:G:3:GLN:OE1	2:G:3:GLN:N	2.25	0.69
1:C:2970:SER:HA	1:C:2973:PHE:CE1	2.27	0.69
1:B:1617:THR:HG22	1:B:1628:VAL:HG12	1.73	0.69
1:B:3510:ILE:HD12	1:B:3511:VAL:H	1.57	0.69
1:A:1753:LYS:HZ1	1:A:1759:ARG:HG2	1.57	0.69
1:C:1997:GLU:HB2	1:C:2008:MET:HE3	1.72	0.69
1:D:2970:SER:HA	1:D:2973:PHE:CE1	2.27	0.69
1:B:517:GLU:N	1:B:517:GLU:OE2	2.25	0.69
1:C:3510:ILE:HD12	1:C:3511:VAL:H	1.57	0.69
1:B:3936:TYR:HA	1:C:76:ARG:HH22	1.57	0.69
1:C:517:GLU:N	1:C:517:GLU:OE2	2.25	0.69
2:H:90:ILE:CD1	1:D:1687:SER:OG	2.38	0.69
2:G:90:ILE:HD11	1:C:1684:ALA:CA	2.23	0.69
1:D:1293:LEU:HD21	1:D:1594:ARG:HD3	1.74	0.69
1:D:4761:PRO:HB2	1:D:4766:THR:HG21	1.74	0.69
2:H:3:GLN:OE1	2:H:3:GLN:N	2.26	0.69
1:D:3510:ILE:HD12	1:D:3511:VAL:H	1.57	0.69
1:A:2970:SER:HA	1:A:2973:PHE:CE1	2.27	0.69
1:B:2970:SER:HA	1:B:2973:PHE:CE1	2.27	0.69
1:D:2005:GLN:HA	1:D:2008:MET:HE2	1.75	0.69
1:C:4761:PRO:HB2	1:C:4766:THR:HG21	1.74	0.69
1:A:3510:ILE:HD12	1:A:3511:VAL:H	1.57	0.69
1:A:3937:TYR:OH	1:A:3944:GLU:OE1	2.11	0.69
1:D:921:ASN:HA	1:D:924:MET:HG3	1.75	0.69
1:C:1753:LYS:HD3	1:C:1753:LYS:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2447:LYS:HD2	1:D:2450:ALA:H	1.59	0.68
1:D:4158:PRO:HA	1:D:4161:ARG:HD2	1.75	0.68
1:C:265:LEU:HD21	1:C:279:PRO:HB2	1.76	0.68
1:C:3213:TYR:CE2	1:C:3302:PRO:HD2	2.28	0.68
1:B:2219:GLU:HG2	1:B:2263:ILE:HG21	1.76	0.68
1:C:2219:GLU:HG2	1:C:2263:ILE:HG21	1.76	0.68
1:B:265:LEU:HD21	1:B:279:PRO:HB2	1.76	0.68
1:B:3213:TYR:CE2	1:B:3302:PRO:HD2	2.28	0.68
1:D:2219:GLU:HG2	1:D:2263:ILE:HG21	1.76	0.68
1:B:921:ASN:HA	1:B:924:MET:HG3	1.75	0.68
1:B:2447:LYS:HD2	1:B:2450:ALA:H	1.59	0.68
1:A:265:LEU:HD21	1:A:279:PRO:HB2	1.76	0.68
1:A:4158:PRO:HA	1:A:4161:ARG:HD2	1.75	0.68
1:D:2662:ALA:O	1:D:2663:ASN:ND2	2.27	0.68
1:C:3937:TYR:OH	1:C:3944:GLU:OE1	2.11	0.68
1:A:195:PHE:CE1	1:D:2358:ILE:HD12	2.29	0.68
1:A:2886:TRP:HH2	1:A:2904:LEU:HB3	1.59	0.68
1:D:517:GLU:OE2	1:D:517:GLU:N	2.25	0.68
1:C:67:PHE:HB3	1:C:109:LEU:HD22	1.76	0.68
1:A:1208:VAL:CG2	1:D:3575:LEU:HD11	2.24	0.68
1:A:1753:LYS:H	1:A:1753:LYS:HD3	1.58	0.68
1:A:2219:GLU:HG2	1:A:2263:ILE:HG21	1.76	0.68
1:D:3213:TYR:CE2	1:D:3302:PRO:HD2	2.28	0.68
1:A:2358:ILE:HD12	1:B:195:PHE:CE1	2.29	0.68
1:D:265:LEU:HD21	1:D:279:PRO:HB2	1.76	0.68
1:A:3510:ILE:HD12	1:A:3511:VAL:N	2.10	0.67
1:B:61:ASP:OD2	1:B:402:ARG:NH2	2.27	0.67
1:D:3510:ILE:HD12	1:D:3511:VAL:N	2.10	0.67
1:C:2662:ALA:O	1:C:2663:ASN:ND2	2.27	0.67
1:C:3354:LEU:HB3	1:C:3415:TYR:CE2	2.29	0.67
1:A:176:SER:OG	1:A:178:ARG:NH1	2.27	0.67
1:A:517:GLU:N	1:A:517:GLU:OE2	2.25	0.67
1:A:921:ASN:HA	1:A:924:MET:HG3	1.75	0.67
1:A:972:LEU:HD22	1:A:1044:ARG:HB3	1.76	0.67
1:D:972:LEU:HD22	1:D:1044:ARG:HB3	1.76	0.67
1:D:4917:ASP:OD2	1:C:4888:TYR:OH	2.10	0.67
1:C:1477:GLY:HA2	1:C:1483:VAL:HA	1.76	0.67
1:C:2447:LYS:HD2	1:C:2450:ALA:H	1.59	0.67
1:C:4158:PRO:HA	1:C:4161:ARG:HD2	1.75	0.67
2:H:90:ILE:HD11	1:D:1684:ALA:CA	2.23	0.67
2:F:31:GLU:N	2:F:31:GLU:OE2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1997:GLU:HB2	1:B:2008:MET:HE3	1.76	0.67
1:B:2886:TRP:HH2	1:B:2904:LEU:HB3	1.59	0.67
1:B:3510:ILE:HD12	1:B:3511:VAL:N	2.10	0.67
1:C:3510:ILE:HD12	1:C:3511:VAL:N	2.10	0.67
1:A:2447:LYS:HD2	1:A:2450:ALA:H	1.59	0.67
1:A:3354:LEU:HB3	1:A:3415:TYR:CE2	2.29	0.67
2:F:3:GLN:OE1	2:F:3:GLN:N	2.26	0.67
1:B:3937:TYR:OH	1:B:3944:GLU:OE1	2.11	0.67
1:D:176:SER:OG	1:D:178:ARG:NH1	2.27	0.67
1:C:873:LYS:O	1:C:873:LYS:NZ	2.27	0.67
1:B:1290:ARG:NH2	1:B:1644:GLU:OE1	2.28	0.67
1:B:1753:LYS:H	1:B:1753:LYS:HD3	1.58	0.67
1:D:2914:LYS:H	1:D:2914:LYS:HD2	1.60	0.67
1:C:2914:LYS:H	1:C:2914:LYS:HD2	1.60	0.67
1:A:2662:ALA:O	1:A:2663:ASN:ND2	2.27	0.67
1:A:3213:TYR:CE2	1:A:3302:PRO:HD2	2.28	0.67
1:B:2914:LYS:H	1:B:2914:LYS:HD2	1.60	0.67
1:B:4888:TYR:OH	1:C:4917:ASP:OD2	2.12	0.67
1:D:1454:THR:OG1	1:D:1456:ASP:OD2	2.13	0.67
1:D:1753:LYS:H	1:D:1753:LYS:HD3	1.58	0.67
1:B:4158:PRO:HA	1:B:4161:ARG:HD2	1.75	0.67
1:D:2661:TRP:HB3	1:D:2664:PHE:HB2	1.77	0.67
1:D:2886:TRP:HH2	1:D:2904:LEU:HB3	1.59	0.67
1:D:67:PHE:HB3	1:D:109:LEU:HD22	1.76	0.67
1:C:972:LEU:HD22	1:C:1044:ARG:HB3	1.76	0.67
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.27	0.67
1:A:1208:VAL:HG22	1:D:3575:LEU:HD11	1.77	0.67
2:E:3:GLN:OE1	2:E:3:GLN:N	2.28	0.67
1:B:4729:GLY:O	1:B:4733:GLY:N	2.28	0.67
1:C:176:SER:OG	1:C:178:ARG:NH1	2.27	0.67
1:A:3477:LYS:NZ	1:B:1141:ARG:CD	0.76	0.67
1:B:2661:TRP:HB3	1:B:2664:PHE:HB2	1.77	0.67
1:D:61:ASP:OD2	1:D:402:ARG:NH2	2.27	0.67
1:D:3354:LEU:HB3	1:D:3415:TYR:CE2	2.29	0.67
1:C:921:ASN:HA	1:C:924:MET:HG3	1.75	0.67
1:C:1290:ARG:NH2	1:C:1644:GLU:OE1	2.28	0.67
1:A:3477:LYS:HZ1	1:B:1141:ARG:CD	0.15	0.66
2:F:27:THR:HG23	2:F:38:SER:HB2	1.77	0.66
1:B:1477:GLY:HA2	1:B:1483:VAL:HA	1.76	0.66
1:B:2662:ALA:O	1:B:2663:ASN:ND2	2.27	0.66
1:A:1477:GLY:HA2	1:A:1483:VAL:HA	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:972:LEU:HB3	1:B:1044:ARG:HG2	1.76	0.66
1:B:4835:LYS:H	1:B:4835:LYS:HD2	1.61	0.66
1:D:4729:GLY:O	1:D:4733:GLY:N	2.28	0.66
1:C:4180:ARG:HD2	1:C:4981:GLU:HB2	1.76	0.66
1:A:67:PHE:HB3	1:A:109:LEU:HD22	1.76	0.66
1:A:870:ILE:HD11	1:A:947:GLU:HG2	1.78	0.66
1:A:1454:THR:OG1	1:A:1456:ASP:OD2	2.13	0.66
1:A:1573:MET:HE3	1:A:1574:PRO:HD2	1.78	0.66
1:B:1454:THR:OG1	1:B:1456:ASP:OD2	2.13	0.66
1:B:3354:LEU:HB3	1:B:3415:TYR:CE2	2.29	0.66
1:B:4180:ARG:HD2	1:B:4981:GLU:HB2	1.76	0.66
1:D:3937:TYR:OH	1:D:3944:GLU:OE1	2.11	0.66
1:A:4729:GLY:O	1:A:4733:GLY:N	2.28	0.66
1:B:67:PHE:HB3	1:B:109:LEU:HD22	1.76	0.66
1:D:870:ILE:HD11	1:D:947:GLU:HG2	1.78	0.66
1:D:972:LEU:HB3	1:D:1044:ARG:HG2	1.76	0.66
1:D:4180:ARG:HD2	1:D:4981:GLU:HB2	1.77	0.66
1:A:332:GLU:OE1	1:A:332:GLU:N	2.25	0.66
1:A:4835:LYS:H	1:A:4835:LYS:HD2	1.61	0.66
1:B:953:THR:HB	1:B:969:PRO:HG2	1.78	0.66
1:D:3318:ASN:OD1	1:D:3321:ARG:NH2	2.29	0.66
1:B:3214:ASN:HB2	1:B:3304:CYS:SG	2.36	0.66
1:B:3318:ASN:OD1	1:B:3321:ARG:NH2	2.29	0.66
1:D:2927:LEU:HA	1:D:2930:LEU:HD12	1.77	0.66
1:D:4835:LYS:HD2	1:D:4835:LYS:H	1.61	0.66
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.27	0.66
1:C:668:VAL:HA	1:C:789:VAL:HG23	1.78	0.66
1:C:2661:TRP:HB3	1:C:2664:PHE:HB2	1.77	0.66
1:C:2886:TRP:HH2	1:C:2904:LEU:HB3	1.59	0.66
1:C:2927:LEU:HA	1:C:2930:LEU:HD12	1.77	0.66
1:A:953:THR:HB	1:A:969:PRO:HG2	1.78	0.66
1:A:2661:TRP:HB3	1:A:2664:PHE:HB2	1.77	0.66
1:A:3995:VAL:O	1:A:3999:MET:HB2	1.96	0.66
1:B:870:ILE:HD11	1:B:947:GLU:HG2	1.78	0.66
1:D:873:LYS:O	1:D:873:LYS:NZ	2.27	0.66
1:D:1290:ARG:NH2	1:D:1644:GLU:OE1	2.28	0.66
1:C:1454:THR:OG1	1:C:1456:ASP:OD2	2.13	0.66
1:A:102:LEU:HB3	1:A:105:HIS:CD2	2.31	0.66
1:A:1560:ASN:N	1:A:1560:ASN:OD1	2.29	0.66
1:A:2358:ILE:HD12	1:B:195:PHE:CZ	2.31	0.66
1:A:3477:LYS:CD	1:B:1141:ARG:HD3	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:972:LEU:HD22	1:B:1044:ARG:HB3	1.76	0.66
1:D:668:VAL:HA	1:D:789:VAL:HG23	1.78	0.66
1:D:1477:GLY:HA2	1:D:1483:VAL:HA	1.76	0.66
1:C:3214:ASN:HB2	1:C:3304:CYS:SG	2.36	0.66
1:C:3318:ASN:OD1	1:C:3321:ARG:NH2	2.29	0.66
1:A:668:VAL:HA	1:A:789:VAL:HG23	1.78	0.65
1:D:3154:ASP:HA	1:D:3202:PRO:HB3	1.78	0.65
1:D:3214:ASN:HB2	1:D:3304:CYS:SG	2.36	0.65
1:C:4729:GLY:O	1:C:4733:GLY:N	2.28	0.65
1:A:873:LYS:O	1:A:873:LYS:NZ	2.27	0.65
1:B:4836:GLN:N	1:B:4836:GLN:OE1	2.30	0.65
1:D:953:THR:HB	1:D:969:PRO:HG2	1.78	0.65
1:A:2914:LYS:H	1:A:2914:LYS:HD2	1.60	0.65
1:A:3214:ASN:HB2	1:A:3304:CYS:SG	2.36	0.65
1:B:102:LEU:HB3	1:B:105:HIS:CD2	2.31	0.65
1:B:668:VAL:HA	1:B:789:VAL:HG23	1.78	0.65
1:D:332:GLU:OE1	1:D:332:GLU:N	2.25	0.65
1:C:953:THR:HB	1:C:969:PRO:HG2	1.78	0.65
1:C:4836:GLN:OE1	1:C:4836:GLN:N	2.29	0.65
1:A:2927:LEU:HA	1:A:2930:LEU:HD12	1.77	0.65
1:C:1560:ASN:N	1:C:1560:ASN:OD1	2.29	0.65
1:C:3154:ASP:HA	1:C:3202:PRO:HB3	1.78	0.65
1:C:3995:VAL:O	1:C:3999:MET:HB2	1.96	0.65
1:B:2927:LEU:HA	1:B:2930:LEU:HD12	1.77	0.65
1:D:2667:THR:HG23	1:D:2671:GLU:HG3	1.79	0.65
1:C:2794:TYR:HA	1:C:2797:PHE:HB2	1.79	0.65
1:A:2261:SER:HB2	1:A:2273:LEU:HB2	1.78	0.65
1:B:2199:ARG:NH1	1:B:2246:ASN:OD1	2.30	0.65
1:B:2794:TYR:HA	1:B:2797:PHE:HB2	1.79	0.65
1:D:3995:VAL:O	1:D:3999:MET:HB2	1.96	0.65
1:C:972:LEU:HB3	1:C:1044:ARG:HG2	1.76	0.65
1:A:2667:THR:HG23	1:A:2671:GLU:HG3	1.79	0.65
1:A:4180:ARG:HD2	1:A:4981:GLU:HB2	1.76	0.65
1:C:870:ILE:HD11	1:C:947:GLU:HG2	1.78	0.65
1:A:2265:LEU:HD21	1:A:2330:ARG:HB2	1.78	0.65
1:A:3154:ASP:HA	1:A:3202:PRO:HB3	1.78	0.65
1:A:3477:LYS:HZ3	1:B:1141:ARG:CD	1.30	0.65
1:D:2261:SER:HB2	1:D:2273:LEU:HB2	1.78	0.65
1:A:972:LEU:HB3	1:A:1044:ARG:HG2	1.76	0.65
1:A:2738:ARG:HD3	1:A:2738:ARG:H	1.62	0.65
1:A:3318:ASN:OD1	1:A:3321:ARG:NH2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4092:ASP:HA	1:A:4095:LYS:HE3	1.79	0.65
2:G:27:THR:HG23	2:G:38:SER:HB2	1.79	0.65
1:B:2738:ARG:H	1:B:2738:ARG:HD3	1.62	0.65
1:D:102:LEU:HB3	1:D:105:HIS:CD2	2.31	0.65
1:D:1560:ASN:N	1:D:1560:ASN:OD1	2.29	0.65
1:A:4848:VAL:HG11	1:A:4887:MET:HG2	1.79	0.65
1:B:176:SER:OG	1:B:178:ARG:NH1	2.27	0.65
1:B:943:ASP:HB3	1:B:945:LYS:HE3	1.79	0.65
1:B:2165:LEU:HD11	1:B:2177:LEU:HD23	1.79	0.65
1:B:2261:SER:HB2	1:B:2273:LEU:HB2	1.78	0.65
1:B:3154:ASP:HA	1:B:3202:PRO:HB3	1.78	0.65
1:B:3995:VAL:O	1:B:3999:MET:HB2	1.96	0.65
1:B:4848:VAL:HG11	1:B:4887:MET:HG2	1.79	0.65
1:D:2026:ASP:OD1	1:D:2027:ILE:N	2.30	0.65
1:C:102:LEU:HB3	1:C:105:HIS:CD2	2.31	0.65
1:C:2265:LEU:HD21	1:C:2330:ARG:HB2	1.78	0.65
1:D:2199:ARG:NH1	1:D:2246:ASN:OD1	2.30	0.64
1:D:891:TRP:HE1	1:D:902:ARG:HH21	1.45	0.64
1:D:2794:TYR:HA	1:D:2797:PHE:HB2	1.79	0.64
1:A:891:TRP:HE1	1:A:902:ARG:HH21	1.45	0.64
1:A:2794:TYR:HA	1:A:2797:PHE:HB2	1.79	0.64
1:B:1560:ASN:OD1	1:B:1560:ASN:N	2.29	0.64
1:B:2751:LEU:HD13	1:B:2823:ILE:HG21	1.79	0.64
1:A:2627:VAL:HA	1:A:2678:LEU:HD13	1.80	0.64
1:B:3213:TYR:HE2	1:B:3302:PRO:HD2	1.63	0.64
1:D:4836:GLN:OE1	1:D:4836:GLN:N	2.30	0.64
1:C:4835:LYS:H	1:C:4835:LYS:HD2	1.61	0.64
1:B:2265:LEU:HD21	1:B:2330:ARG:HB2	1.78	0.64
1:B:2792:ARG:NH2	1:B:2801:ASP:OD2	2.31	0.64
1:D:195:PHE:CD1	1:C:2358:ILE:HB	2.32	0.64
1:D:4092:ASP:HA	1:D:4095:LYS:HE3	1.79	0.64
1:C:943:ASP:HB3	1:C:945:LYS:HE3	1.79	0.64
1:C:2026:ASP:OD1	1:C:2027:ILE:N	2.30	0.64
1:A:2199:ARG:NH1	1:A:2246:ASN:OD1	2.30	0.64
1:A:4836:GLN:OE1	1:A:4836:GLN:N	2.30	0.64
2:E:27:THR:HG23	2:E:38:SER:HB2	1.79	0.64
1:B:2627:VAL:HA	1:B:2678:LEU:HD13	1.80	0.64
1:C:2738:ARG:HD3	1:C:2738:ARG:H	1.62	0.64
1:D:2265:LEU:HD21	1:D:2330:ARG:HB2	1.78	0.64
1:D:2792:ARG:NH2	1:D:2801:ASP:OD2	2.31	0.64
1:C:2261:SER:HB2	1:C:2273:LEU:HB2	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2751:LEU:HD13	1:C:2823:ILE:HG21	1.79	0.64
1:C:3213:TYR:HE2	1:C:3302:PRO:HD2	1.63	0.64
1:A:399:GLN:O	1:A:403:MET:HG3	1.98	0.64
2:H:18:ARG:HH11	2:H:18:ARG:HG3	1.63	0.64
2:H:27:THR:HG23	2:H:38:SER:HB2	1.79	0.64
1:B:399:GLN:O	1:B:403:MET:HG3	1.98	0.64
1:B:891:TRP:HE1	1:B:902:ARG:HH21	1.45	0.64
1:B:1573:MET:HE3	1:B:1574:PRO:HD2	1.80	0.64
1:D:2627:VAL:HA	1:D:2678:LEU:HD13	1.79	0.64
1:D:2738:ARG:H	1:D:2738:ARG:HD3	1.62	0.64
1:A:1290:ARG:NH2	1:A:1644:GLU:OE1	2.28	0.64
1:A:2165:LEU:HD11	1:A:2177:LEU:HD23	1.79	0.64
1:B:1753:LYS:HZ1	1:B:1759:ARG:HG2	1.63	0.64
1:B:2026:ASP:OD1	1:B:2027:ILE:N	2.30	0.64
1:D:1753:LYS:HZ1	1:D:1759:ARG:HG2	1.62	0.64
1:C:399:GLN:O	1:C:403:MET:HG3	1.98	0.64
1:A:2751:LEU:HD13	1:A:2823:ILE:HG21	1.79	0.63
2:F:23:VAL:HG12	2:F:104:LEU:HB2	1.79	0.63
1:B:2110:TYR:O	1:B:2112:GLN:NE2	2.31	0.63
1:D:399:GLN:O	1:D:403:MET:HG3	1.98	0.63
1:A:3213:TYR:HE2	1:A:3302:PRO:HD2	1.63	0.63
1:B:2667:THR:HG23	1:B:2671:GLU:HG3	1.79	0.63
1:B:2869:ARG:NH2	1:B:2870[A]:GLU:OE1	2.32	0.63
1:D:2869:ARG:NH2	1:D:2870[A]:GLU:OE1	2.32	0.63
1:C:2667:THR:HG23	1:C:2671:GLU:HG3	1.79	0.63
1:B:873:LYS:O	1:B:873:LYS:NZ	2.27	0.63
1:C:1252:HIS:O	1:C:1275:ARG:NH1	2.32	0.63
1:C:4092:ASP:HA	1:C:4095:LYS:HE3	1.79	0.63
1:C:4848:VAL:HG11	1:C:4887:MET:HG2	1.79	0.63
1:B:1079:LYS:NZ	1:B:1107:PRO:O	2.32	0.63
1:C:615:ARG:NH2	1:C:1676:LEU:O	2.32	0.63
1:C:2165:LEU:HD11	1:C:2177:LEU:HD23	1.80	0.63
1:C:2792:ARG:NH2	1:C:2801:ASP:OD2	2.31	0.63
1:C:2869:ARG:NH2	1:C:2870[A]:GLU:OE1	2.32	0.63
1:A:1079:LYS:NZ	1:A:1107:PRO:O	2.32	0.63
1:A:2792:ARG:NH2	1:A:2801:ASP:OD2	2.31	0.63
1:B:332:GLU:OE1	1:B:332:GLU:N	2.25	0.63
1:D:943:ASP:HB3	1:D:945:LYS:HE3	1.79	0.63
1:D:2751:LEU:HD13	1:D:2823:ILE:HG21	1.79	0.63
1:C:2627:VAL:HA	1:C:2678:LEU:HD13	1.79	0.63
1:A:1252:HIS:O	1:A:1275:ARG:NH1	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3477:LYS:HZ3	1:B:1141:ARG:HD2	1.05	0.63
1:B:2165:LEU:HB2	1:B:2178:MET:HE3	1.81	0.63
1:B:2994:GLU:OE1	1:B:2994:GLU:N	2.29	0.63
1:D:2178:MET:HB3	1:D:2228:MET:HE1	1.81	0.63
1:C:919:ASN:HA	1:C:922:LEU:HG	1.80	0.63
1:A:1435:TYR:HB2	1:A:1575:LEU:HD22	1.81	0.63
1:A:2026:ASP:OD1	1:A:2027:ILE:N	2.30	0.63
1:A:3568:SER:HA	1:A:3571:TRP:CD1	2.34	0.63
1:D:1435:TYR:HB2	1:D:1575:LEU:HD22	1.81	0.63
1:A:2110:TYR:O	1:A:2112:GLN:NE2	2.31	0.63
2:F:90:ILE:HD11	1:B:1684:ALA:HA	1.81	0.63
1:B:4092:ASP:HA	1:B:4095:LYS:HE3	1.79	0.63
1:C:1573:MET:HE3	1:C:1574:PRO:HD2	1.79	0.63
1:A:615:ARG:NH2	1:A:1676:LEU:O	2.32	0.63
1:D:1252:HIS:O	1:D:1275:ARG:NH1	2.32	0.63
1:D:2165:LEU:HD11	1:D:2177:LEU:HD23	1.79	0.63
1:C:3731:LYS:HA	1:C:3734:HIS:CD2	2.34	0.63
1:A:2869:ARG:NH2	1:A:2870[A]:GLU:OE1	2.32	0.62
1:A:3731:LYS:HA	1:A:3734:HIS:CD2	2.34	0.62
1:B:355:LEU:HB3	1:B:378:LEU:HB3	1.81	0.62
1:B:3731:LYS:HA	1:B:3734:HIS:CD2	2.34	0.62
1:B:3980:LEU:HD13	1:B:3985:LEU:HD22	1.81	0.62
1:D:615:ARG:NH2	1:D:1676:LEU:O	2.32	0.62
1:D:4848:VAL:HG11	1:D:4887:MET:HG2	1.79	0.62
1:D:919:ASN:HA	1:D:922:LEU:HG	1.80	0.62
1:C:891:TRP:HE1	1:C:902:ARG:HH21	1.45	0.62
1:A:195:PHE:CZ	1:D:2358:ILE:HD12	2.34	0.62
1:A:3535:LEU:HD13	1:A:3552:PHE:HE1	1.64	0.62
1:B:919:ASN:HA	1:B:922:LEU:HG	1.80	0.62
1:D:3731:LYS:HA	1:D:3734:HIS:CD2	2.34	0.62
1:C:1079:LYS:NZ	1:C:1107:PRO:O	2.32	0.62
1:A:919:ASN:HA	1:A:922:LEU:HG	1.80	0.62
1:B:5033:GLU:N	1:B:5033:GLU:OE2	2.33	0.62
1:D:102:LEU:HD11	1:C:3984:ARG:HH22	1.65	0.62
1:C:2199:ARG:NH1	1:C:2246:ASN:OD1	2.30	0.62
1:C:2247:GLN:OE1	1:C:2283:ASN:ND2	2.33	0.62
1:C:3980:LEU:HD13	1:C:3985:LEU:HD22	1.81	0.62
1:A:355:LEU:HB3	1:A:378:LEU:HB3	1.81	0.62
1:A:2284:ASN:HB2	1:A:3856:LEU:HD11	1.82	0.62
1:B:162:LYS:O	1:B:164:ARG:NH1	2.33	0.62
1:B:1252:HIS:O	1:B:1275:ARG:NH1	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1435:TYR:HB2	1:B:1575:LEU:HD22	1.81	0.62
1:D:2284:ASN:HB2	1:D:3856:LEU:HD11	1.82	0.62
1:D:3535:LEU:HD13	1:D:3552:PHE:HE1	1.64	0.62
1:C:355:LEU:HB3	1:C:378:LEU:HB3	1.81	0.62
1:C:1435:TYR:HB2	1:C:1575:LEU:HD22	1.81	0.62
1:C:2110:TYR:O	1:C:2112:GLN:NE2	2.31	0.62
1:A:3477:LYS:HE2	1:B:1141:ARG:NE	2.10	0.62
1:D:5033:GLU:N	1:D:5033:GLU:OE2	2.32	0.62
1:A:162:LYS:O	1:A:164:ARG:NH1	2.33	0.62
1:A:5033:GLU:OE2	1:A:5033:GLU:N	2.33	0.62
1:D:355:LEU:HB3	1:D:378:LEU:HB3	1.81	0.62
1:D:2110:TYR:O	1:D:2112:GLN:NE2	2.31	0.62
1:A:2002:PRO:HB2	1:A:3652:MET:HE1	1.82	0.62
1:A:2247:GLN:OE1	1:A:2283:ASN:ND2	2.33	0.62
1:B:2247:GLN:OE1	1:B:2283:ASN:ND2	2.32	0.62
1:B:2358:ILE:HB	1:C:195:PHE:CD1	2.34	0.62
1:B:3568:SER:HA	1:B:3571:TRP:CD1	2.34	0.62
1:D:937:CYS:HB2	1:D:1056:PRO:HD3	1.82	0.62
1:D:2165:LEU:HB2	1:D:2178:MET:HE3	1.82	0.62
1:D:2189:LYS:HA	1:D:2192:TYR:HD2	1.65	0.62
1:C:1125:ASN:ND2	1:C:1128:ARG:HG2	2.15	0.62
1:C:2165:LEU:HB2	1:C:2178:MET:HE3	1.82	0.62
1:C:2209:GLU:HA	1:C:2212:VAL:HG22	1.81	0.62
1:A:943:ASP:HB3	1:A:945:LYS:HE3	1.79	0.62
1:A:2189:LYS:HA	1:A:2192:TYR:HD2	1.65	0.62
1:A:2994:GLU:OE1	1:A:2994:GLU:N	2.29	0.62
2:H:31:GLU:N	2:H:31:GLU:OE2	2.33	0.62
1:B:615:ARG:NH2	1:B:1676:LEU:O	2.32	0.62
1:D:162:LYS:O	1:D:164:ARG:NH1	2.33	0.62
1:D:1079:LYS:NZ	1:D:1107:PRO:O	2.32	0.62
1:D:2209:GLU:HA	1:D:2212:VAL:HG22	1.81	0.62
1:D:2247:GLN:OE1	1:D:2283:ASN:ND2	2.33	0.62
1:D:3568:SER:HA	1:D:3571:TRP:CD1	2.34	0.62
1:C:162:LYS:O	1:C:164:ARG:NH1	2.33	0.62
1:A:1684:ALA:HA	2:E:90:ILE:HD11	1.81	0.61
1:A:3980:LEU:HD13	1:A:3985:LEU:HD22	1.81	0.61
1:B:3535:LEU:HD13	1:B:3552:PHE:HE1	1.64	0.61
1:C:2284:ASN:HB2	1:C:3856:LEU:HD11	1.82	0.61
1:C:3568:SER:HA	1:C:3571:TRP:CD1	2.34	0.61
1:D:3329:ILE:O	1:D:3403:ARG:NH2	2.34	0.61
1:C:530:ILE:HG22	1:C:536:ASN:HB3	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2002:PRO:HB2	1:C:3652:MET:HE1	1.81	0.61
1:A:937:CYS:HB2	1:A:1056:PRO:HD3	1.82	0.61
1:D:3980:LEU:HD13	1:D:3985:LEU:HD22	1.81	0.61
1:C:545:ASP:OD2	1:C:545:ASP:N	2.33	0.61
1:B:530:ILE:HG22	1:B:536:ASN:HB3	1.83	0.61
1:B:2779:GLU:HG3	1:B:2792:ARG:HG2	1.83	0.61
1:D:1639:LEU:HB2	1:D:1650:ILE:HD12	1.82	0.61
1:C:1639:LEU:HB2	1:C:1650:ILE:HD12	1.82	0.61
1:C:5033:GLU:N	1:C:5033:GLU:OE2	2.32	0.61
1:B:1125:ASN:ND2	1:B:1128:ARG:HG2	2.15	0.61
1:B:2002:PRO:HB2	1:B:3652:MET:HE1	1.82	0.61
1:B:2284:ASN:HB2	1:B:3856:LEU:HD11	1.82	0.61
1:D:4765:LEU:O	1:D:4768:LEU:N	2.34	0.61
1:C:3087:ILE:HD12	1:C:3088:VAL:H	1.66	0.61
1:A:2209:GLU:HA	1:A:2212:VAL:HG22	1.81	0.61
1:B:2102:VAL:HG13	1:B:2120:MET:HE2	1.82	0.61
1:B:2209:GLU:HA	1:B:2212:VAL:HG22	1.81	0.61
1:B:2250:MET:HA	1:B:2250:MET:HE3	1.83	0.61
1:B:3087:ILE:HD12	1:B:3088:VAL:H	1.66	0.61
1:C:2189:LYS:HA	1:C:2192:TYR:HD2	1.65	0.61
1:B:3611:HIS:ND1	1:B:3611:HIS:O	2.34	0.61
1:D:1125:ASN:ND2	1:D:1128:ARG:HG2	2.15	0.61
1:D:1208:VAL:CG2	1:C:3575:LEU:HD11	2.30	0.61
1:D:2233:CYS:O	1:D:2234:ARG:C	2.39	0.61
1:D:3213:TYR:HE2	1:D:3302:PRO:HD2	1.63	0.61
1:C:3535:LEU:HD13	1:C:3552:PHE:HE1	1.64	0.61
1:A:1577:ALA:HB1	1:A:1584:ARG:HA	1.83	0.61
1:A:2102:VAL:HG13	1:A:2120:MET:HE2	1.82	0.61
1:B:1753:LYS:HZ1	1:B:1759:ARG:H	1.48	0.61
1:B:2178:MET:HB3	1:B:2228:MET:HE1	1.82	0.61
1:B:2189:LYS:HA	1:B:2192:TYR:HD2	1.65	0.61
1:D:3087:ILE:HD12	1:D:3088:VAL:H	1.66	0.61
1:D:3340:VAL:HA	1:D:3343:GLN:HE21	1.66	0.61
1:A:530:ILE:HG22	1:A:536:ASN:HB3	1.83	0.61
1:A:3087:ILE:HD12	1:A:3088:VAL:H	1.66	0.61
1:B:953:THR:N	1:B:969:PRO:O	2.34	0.61
1:D:111:HIS:HE1	1:D:113:HIS:HB3	1.66	0.61
1:C:2858:GLN:HB2	1:C:2859:PRO:HD3	1.83	0.61
1:A:111:HIS:HE1	1:A:113:HIS:HB3	1.66	0.61
1:A:1125:ASN:ND2	1:A:1128:ARG:HG2	2.15	0.61
1:A:3329:ILE:O	1:A:3403:ARG:NH2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:226:HIS:HA	1:D:389:PHE:HE1	1.66	0.61
1:D:526:LEU:O	1:D:530:ILE:HG13	2.01	0.61
1:D:3731:LYS:HD3	1:D:3734:HIS:HE2	1.66	0.61
1:B:226:HIS:HA	1:B:389:PHE:HE1	1.66	0.60
1:B:545:ASP:N	1:B:545:ASP:OD2	2.33	0.60
1:D:1577:ALA:HB1	1:D:1584:ARG:HA	1.83	0.60
1:C:3247:ASP:OD2	1:C:3248:ARG:N	2.34	0.60
1:A:2430:ILE:HG21	1:A:2502:MET:HE3	1.83	0.60
1:A:3247:ASP:OD2	1:A:3248:ARG:N	2.34	0.60
1:A:3477:LYS:HG3	1:B:1141:ARG:NH1	2.16	0.60
1:A:4930:ALA:HB1	1:D:4937:ILE:HD11	1.82	0.60
1:B:4765:LEU:O	1:B:4768:LEU:N	2.34	0.60
1:D:953:THR:N	1:D:969:PRO:O	2.34	0.60
1:C:3329:ILE:O	1:C:3403:ARG:NH2	2.34	0.60
1:A:226:HIS:HA	1:A:389:PHE:HE1	1.66	0.60
1:A:835:ARG:NH2	1:A:1210:SER:O	2.34	0.60
1:A:3114:LYS:HE2	1:A:3125:VAL:HG11	1.83	0.60
1:B:1128:ARG:CZ	1:B:1128:ARG:HA	2.31	0.60
1:B:3586:ALA:O	1:B:3591:LYS:HD2	2.02	0.60
1:C:1128:ARG:HA	1:C:1128:ARG:CZ	2.31	0.60
2:F:54:GLU:HG2	2:F:55:VAL:HG13	1.82	0.60
1:D:1208:VAL:HG22	1:C:3575:LEU:HD11	1.83	0.60
1:C:127:MET:CE	1:C:127:MET:H	2.15	0.60
1:C:835:ARG:NH2	1:C:1210:SER:O	2.35	0.60
1:C:2102:VAL:HG13	1:C:2120:MET:HE2	1.82	0.60
1:C:3731:LYS:HD3	1:C:3734:HIS:HE2	1.66	0.60
1:C:4095:LYS:HA	1:C:4098:ASP:OD2	2.02	0.60
1:C:4765:LEU:O	1:C:4768:LEU:N	2.34	0.60
1:A:2165:LEU:HB2	1:A:2178:MET:HE3	1.83	0.60
1:B:3114:LYS:HE2	1:B:3125:VAL:HG11	1.83	0.60
1:D:3247:ASP:OD2	1:D:3248:ARG:N	2.34	0.60
1:A:1128:ARG:CZ	1:A:1128:ARG:HA	2.31	0.60
1:A:2858:GLN:HB2	1:A:2859:PRO:HD3	1.83	0.60
1:A:3586:ALA:O	1:A:3591:LYS:HD2	2.02	0.60
1:A:4095:LYS:HA	1:A:4098:ASP:OD2	2.02	0.60
1:B:111:HIS:HE1	1:B:113:HIS:HB3	1.66	0.60
1:B:127:MET:CE	1:B:127:MET:H	2.15	0.60
1:B:937:CYS:HB2	1:B:1056:PRO:HD3	1.82	0.60
1:B:3329:ILE:O	1:B:3403:ARG:NH2	2.34	0.60
1:C:1152:MET:HG2	1:C:1223:PHE:CD2	2.36	0.60
1:C:3112:LEU:HB2	1:C:3180:ASN:HD21	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3586:ALA:O	1:C:3591:LYS:HD2	2.02	0.60
1:A:953:THR:N	1:A:969:PRO:O	2.34	0.60
1:A:1639:LEU:HB2	1:A:1650:ILE:HD12	1.82	0.60
1:A:4765:LEU:O	1:A:4768:LEU:N	2.34	0.60
2:E:18:ARG:HD2	2:E:51:GLY:HA3	1.83	0.60
2:H:54:GLU:HG2	2:H:55:VAL:HG13	1.82	0.60
1:D:127:MET:H	1:D:127:MET:CE	2.15	0.60
1:D:504:ALA:HB2	1:D:512:ALA:HB2	1.83	0.60
1:D:2102:VAL:HG13	1:D:2120:MET:HE2	1.83	0.60
1:D:3552:PHE:O	1:D:3556:ASN:ND2	2.35	0.60
1:C:3552:PHE:O	1:C:3556:ASN:ND2	2.35	0.60
1:B:835:ARG:NH2	1:B:1210:SER:O	2.34	0.60
1:D:530:ILE:HG22	1:D:536:ASN:HB3	1.83	0.60
1:D:3112:LEU:HB2	1:D:3180:ASN:HD21	1.66	0.60
1:C:504:ALA:HB2	1:C:512:ALA:HB2	1.83	0.60
1:C:937:CYS:HB2	1:C:1056:PRO:HD3	1.82	0.60
1:C:3340:VAL:HA	1:C:3343:GLN:HE21	1.66	0.60
1:C:3350:ARG:O	1:C:3415:TYR:OH	2.20	0.60
1:A:2779:GLU:HG3	1:A:2792:ARG:HG2	1.83	0.60
1:A:3112:LEU:HB2	1:A:3180:ASN:HD21	1.66	0.60
1:A:3688:GLU:OE1	1:A:3688:GLU:N	2.35	0.60
1:B:913:LEU:O	1:B:918:ARG:NH2	2.33	0.60
1:B:1577:ALA:HB1	1:B:1584:ARG:HA	1.83	0.60
1:B:1639:LEU:HB2	1:B:1650:ILE:HD12	1.82	0.60
1:D:835:ARG:NH2	1:D:1210:SER:O	2.35	0.60
1:D:2779:GLU:HG3	1:D:2792:ARG:HG2	1.83	0.60
1:D:3114:LYS:HE2	1:D:3125:VAL:HG11	1.83	0.60
1:D:4095:LYS:HA	1:D:4098:ASP:OD2	2.02	0.60
1:C:111:HIS:HE1	1:C:113:HIS:HB3	1.66	0.60
1:A:1152:MET:HG2	1:A:1223:PHE:CD2	2.36	0.60
1:A:3340:VAL:HA	1:A:3343:GLN:HE21	1.66	0.60
1:A:3731:LYS:HD3	1:A:3734:HIS:HE2	1.66	0.60
1:C:243:ARG:HH21	1:C:302:VAL:HA	1.67	0.60
1:C:2233:CYS:O	1:C:2234:ARG:C	2.39	0.60
1:A:526:LEU:O	1:A:530:ILE:HG13	2.01	0.59
1:B:526:LEU:O	1:B:530:ILE:HG13	2.01	0.59
1:B:2858:GLN:HB2	1:B:2859:PRO:HD3	1.83	0.59
1:B:3247:ASP:OD2	1:B:3248:ARG:N	2.34	0.59
1:B:3350:ARG:O	1:B:3415:TYR:OH	2.20	0.59
1:D:3611:HIS:ND1	1:D:3611:HIS:O	2.34	0.59
1:D:3688:GLU:OE1	1:D:3688:GLU:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:526:LEU:O	1:C:530:ILE:HG13	2.01	0.59
1:C:2250:MET:HA	1:C:2250:MET:HE3	1.82	0.59
1:A:2627:VAL:HG22	1:A:2678:LEU:HB2	1.85	0.59
1:D:243:ARG:HH21	1:D:302:VAL:HA	1.67	0.59
1:D:1152:MET:HG2	1:D:1223:PHE:CD2	2.36	0.59
1:D:3350:ARG:O	1:D:3415:TYR:OH	2.20	0.59
1:A:3235:SER:HB3	1:A:3238:GLU:HB2	1.84	0.59
1:B:635:THR:OG1	1:B:1693:GLN:OE1	2.20	0.59
1:B:3235:SER:HB3	1:B:3238:GLU:HB2	1.84	0.59
1:B:3984:ARG:HH22	1:C:102:LEU:HD11	1.65	0.59
1:B:4150:LEU:HB3	1:B:4160:LEU:HD21	1.85	0.59
1:D:884:LEU:O	1:D:887:ILE:HG13	2.02	0.59
1:D:2285:GLU:OE1	1:D:2285:GLU:N	2.26	0.59
1:D:3235:SER:HB3	1:D:3238:GLU:HB2	1.84	0.59
1:C:226:HIS:HA	1:C:389:PHE:HE1	1.66	0.59
1:C:3235:SER:HB3	1:C:3238:GLU:HB2	1.84	0.59
1:C:3688:GLU:OE1	1:C:3688:GLU:N	2.35	0.59
1:A:504:ALA:HB2	1:A:512:ALA:HB2	1.83	0.59
1:A:884:LEU:O	1:A:887:ILE:HG13	2.02	0.59
1:A:913:LEU:O	1:A:918:ARG:NH2	2.33	0.59
1:A:1581:LEU:HD12	1:A:1584:ARG:HE	1.68	0.59
1:A:2540:THR:HG23	1:A:2541:PHE:CD1	2.38	0.59
1:B:2627:VAL:HG22	1:B:2678:LEU:HB2	1.85	0.59
1:B:3731:LYS:HD3	1:B:3734:HIS:HE2	1.66	0.59
1:D:1128:ARG:CZ	1:D:1128:ARG:HA	2.31	0.59
1:C:332:GLU:OE1	1:C:332:GLU:N	2.25	0.59
1:C:884:LEU:O	1:C:887:ILE:HG13	2.02	0.59
1:C:2779:GLU:HG3	1:C:2792:ARG:HG2	1.83	0.59
1:A:3552:PHE:O	1:A:3556:ASN:ND2	2.35	0.59
1:A:3611:HIS:ND1	1:A:3611:HIS:O	2.34	0.59
2:F:105:LYS:NZ	2:F:106:LEU:O	2.36	0.59
1:B:243:ARG:HH21	1:B:302:VAL:HA	1.67	0.59
1:B:1152:MET:HG2	1:B:1223:PHE:CD2	2.36	0.59
1:D:2627:VAL:HG22	1:D:2678:LEU:HB2	1.85	0.59
1:C:1577:ALA:HB1	1:C:1584:ARG:HA	1.83	0.59
1:C:3324:VAL:HG11	1:C:3361:THR:HG22	1.85	0.59
1:C:4150:LEU:HB3	1:C:4160:LEU:HD21	1.85	0.59
1:A:3477:LYS:HZ2	1:B:1141:ARG:HD3	0.80	0.59
1:A:4150:LEU:HB3	1:A:4160:LEU:HD21	1.85	0.59
1:B:2021:CYS:O	1:B:2028:ARG:NH2	2.36	0.59
1:B:3688:GLU:N	1:B:3688:GLU:OE1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4005:GLN:HA	1:B:4114:CYS:HA	1.85	0.59
1:D:2609:ALA:HA	1:D:2612[B]:ARG:HH11	1.68	0.59
1:C:3114:LYS:HE2	1:C:3125:VAL:HG11	1.83	0.59
1:C:3611:HIS:ND1	1:C:3611:HIS:O	2.34	0.59
1:A:3324:VAL:HG11	1:A:3361:THR:HG22	1.85	0.59
1:B:910:PHE:HE2	1:B:968:ALA:HB3	1.68	0.59
1:B:2430:ILE:HG21	1:B:2502:MET:HE3	1.84	0.59
1:B:3112:LEU:HB2	1:B:3180:ASN:HD21	1.66	0.59
1:D:3324:VAL:HG11	1:D:3361:THR:HG22	1.85	0.59
1:D:4098:ASP:O	1:D:4101:LYS:NZ	2.33	0.59
1:D:4150:LEU:HB3	1:D:4160:LEU:HD21	1.85	0.59
1:C:953:THR:N	1:C:969:PRO:O	2.34	0.59
1:B:504:ALA:HB2	1:B:512:ALA:HB2	1.83	0.59
1:B:1581:LEU:HD12	1:B:1584:ARG:HE	1.68	0.59
1:D:1581:LEU:HD12	1:D:1584:ARG:HE	1.68	0.59
1:D:1753:LYS:HZ1	1:D:1759:ARG:H	1.49	0.59
1:A:234:SER:HG	1:A:238:SER:HG	1.51	0.59
1:A:2233:CYS:O	1:A:2234:ARG:C	2.39	0.59
1:B:2005:GLN:HA	1:B:2008:MET:HE2	1.85	0.59
1:B:2233:CYS:O	1:B:2234:ARG:C	2.39	0.59
1:B:4095:LYS:HA	1:B:4098:ASP:OD2	2.02	0.59
1:D:131:LEU:CD1	1:D:195:PHE:H	2.16	0.59
1:D:2985:ARG:HG3	1:D:2985:ARG:HH11	1.68	0.59
1:D:3586:ALA:O	1:D:3591:LYS:HD2	2.02	0.59
1:C:910:PHE:HE2	1:C:968:ALA:HB3	1.68	0.59
1:C:2021:CYS:O	1:C:2028:ARG:NH2	2.36	0.59
1:C:4005:GLN:HA	1:C:4114:CYS:HA	1.85	0.59
1:A:127:MET:CE	1:A:127:MET:H	2.15	0.58
1:A:910:PHE:HE2	1:A:968:ALA:HB3	1.68	0.58
1:A:2871:LEU:HD13	1:A:2927:LEU:HD12	1.85	0.58
1:B:2871:LEU:HD13	1:B:2927:LEU:HD12	1.85	0.58
1:D:2751:LEU:O	1:D:2755:ILE:HG13	2.03	0.58
1:D:2871:LEU:HD13	1:D:2927:LEU:HD12	1.85	0.58
1:D:4731:ILE:HD12	1:D:4732:PHE:CD2	2.38	0.58
1:C:2285:GLU:OE1	1:C:2285:GLU:N	2.26	0.58
1:A:2463:LEU:HA	1:A:2466:LEU:HD12	1.85	0.58
1:B:2540:THR:HG23	1:B:2541:PHE:CD1	2.38	0.58
1:D:2244:ARG:NH2	1:D:3859:VAL:O	2.36	0.58
1:D:2463:LEU:HA	1:D:2466:LEU:HD12	1.85	0.58
1:D:2540:THR:HG23	1:D:2541:PHE:CD1	2.38	0.58
1:C:2540:THR:HG23	1:C:2541:PHE:CD1	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3350:ARG:O	1:A:3415:TYR:OH	2.20	0.58
1:A:4926:VAL:HG13	1:D:4933:GLN:HG3	1.84	0.58
1:B:884:LEU:O	1:B:887:ILE:HG13	2.02	0.58
1:B:3510:ILE:HD12	1:B:3511:VAL:HG12	1.85	0.58
1:D:910:PHE:HE2	1:D:968:ALA:HB3	1.68	0.58
1:C:2627:VAL:HG22	1:C:2678:LEU:HB2	1.85	0.58
1:A:76:ARG:HH22	1:D:3936:TYR:HA	1.68	0.58
1:A:2609:ALA:HA	1:A:2612[B]:ARG:HH11	1.68	0.58
1:D:913:LEU:O	1:D:918:ARG:NH2	2.33	0.58
1:D:3412:LEU:HD11	1:D:3434:LEU:HD21	1.85	0.58
1:C:1581:LEU:HD12	1:C:1584:ARG:HE	1.68	0.58
1:C:2871:LEU:HD13	1:C:2927:LEU:HD12	1.85	0.58
1:C:4731:ILE:HD12	1:C:4732:PHE:CD2	2.38	0.58
1:A:2021:CYS:O	1:A:2028:ARG:NH2	2.36	0.58
1:A:2244:ARG:NH2	1:A:3859:VAL:O	2.36	0.58
1:A:2751:LEU:O	1:A:2755:ILE:HG13	2.03	0.58
1:A:2985:ARG:HH11	1:A:2985:ARG:HG3	1.68	0.58
1:A:4876:CYS:HA	1:A:4882:CYS:HB2	1.85	0.58
2:G:82:TYR:HD1	1:C:1786:LEU:HG	1.68	0.58
1:B:2751:LEU:O	1:B:2755:ILE:HG13	2.03	0.58
1:B:3340:VAL:HA	1:B:3343:GLN:HE21	1.66	0.58
1:B:3412:LEU:HD11	1:B:3434:LEU:HD21	1.85	0.58
1:D:2858:GLN:HB2	1:D:2859:PRO:HD3	1.83	0.58
1:C:2244:ARG:NH2	1:C:3859:VAL:O	2.36	0.58
1:A:2206:THR:HA	1:A:2209:GLU:OE1	2.04	0.58
1:B:245:VAL:HG23	1:B:376:ALA:HB3	1.84	0.58
1:B:3324:VAL:HG11	1:B:3361:THR:HG22	1.85	0.58
1:D:3510:ILE:HD12	1:D:3511:VAL:HG12	1.85	0.58
1:C:131:LEU:CD1	1:C:195:PHE:H	2.16	0.58
1:C:2985:ARG:HH11	1:C:2985:ARG:HG3	1.68	0.58
1:A:76:ARG:O	1:A:80:GLU:HG2	2.04	0.58
1:A:243:ARG:HH21	1:A:302:VAL:HA	1.67	0.58
1:A:2250:MET:HA	1:A:2250:MET:HE3	1.84	0.58
1:A:3510:ILE:HD12	1:A:3511:VAL:HG12	1.85	0.58
1:B:131:LEU:CD1	1:B:195:PHE:H	2.16	0.58
1:B:2985:ARG:HH11	1:B:2985:ARG:HG3	1.68	0.58
1:B:3093:ARG:HD2	1:B:3160:ASP:OD2	2.04	0.58
1:D:545:ASP:OD2	1:D:545:ASP:N	2.33	0.58
1:D:2021:CYS:O	1:D:2028:ARG:NH2	2.36	0.58
1:D:2206:THR:HA	1:D:2209:GLU:OE1	2.04	0.58
1:C:245:VAL:HG23	1:C:376:ALA:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3412:LEU:HD11	1:A:3434:LEU:HD21	1.85	0.58
1:A:4005:GLN:HA	1:A:4114:CYS:HA	1.85	0.58
1:B:76:ARG:O	1:B:80:GLU:HG2	2.04	0.58
1:B:3552:PHE:O	1:B:3556:ASN:ND2	2.35	0.58
1:D:3093:ARG:HD2	1:D:3160:ASP:OD2	2.03	0.58
1:C:1619:ARG:HA	1:C:1626:TRP:HA	1.86	0.58
1:C:2206:THR:HA	1:C:2209:GLU:OE1	2.04	0.58
1:C:2751:LEU:O	1:C:2755:ILE:HG13	2.03	0.58
1:A:2178:MET:HB3	1:A:2228:MET:HE1	1.86	0.58
1:A:3202:PRO:HA	1:A:3283:ARG:NH2	2.19	0.58
1:C:1930:LYS:O	1:C:1930:LYS:HD2	2.04	0.58
1:C:2609:ALA:HA	1:C:2612[B]:ARG:HH11	1.68	0.58
1:B:2463:LEU:HA	1:B:2466:LEU:HD12	1.85	0.58
1:B:2609:ALA:HA	1:B:2612[B]:ARG:HH11	1.68	0.58
1:B:3106:MET:HG3	1:B:3110:LEU:CD2	2.34	0.58
1:B:3588:ASP:O	1:B:3592:ILE:HG13	2.04	0.58
1:C:4161:ARG:HA	1:C:4164:LEU:HD12	1.86	0.58
1:A:3384:LYS:HD2	1:A:3386:GLU:N	2.19	0.57
2:G:54:GLU:HG2	2:G:55:VAL:HG13	1.86	0.57
1:B:654:GLU:N	1:B:654:GLU:OE2	2.37	0.57
1:B:2244:ARG:NH2	1:B:3859:VAL:O	2.36	0.57
1:B:4161:ARG:HA	1:B:4164:LEU:HD12	1.86	0.57
1:D:239:ASP:OD2	1:D:239:ASP:N	2.37	0.57
1:D:2002:PRO:HB2	1:D:3652:MET:HE1	1.86	0.57
1:D:3106:MET:HG3	1:D:3110:LEU:CD2	2.34	0.57
1:C:892:THR:HG22	1:C:961:MET:HA	1.86	0.57
1:C:3510:ILE:HD12	1:C:3511:VAL:HG12	1.85	0.57
1:A:1619:ARG:HA	1:A:1626:TRP:HA	1.86	0.57
1:B:3202:PRO:HA	1:B:3283:ARG:NH2	2.19	0.57
1:D:463:GLU:OE2	1:D:463:GLU:N	2.29	0.57
1:D:654:GLU:N	1:D:654:GLU:OE2	2.37	0.57
1:D:1930:LYS:HD2	1:D:1930:LYS:O	2.04	0.57
1:D:3588:ASP:O	1:D:3592:ILE:HG13	2.04	0.57
1:D:3788:GLY:HA2	1:D:3835:LEU:HG	1.86	0.57
1:C:76:ARG:O	1:C:80:GLU:HG2	2.04	0.57
1:C:2096:GLU:N	1:C:2096:GLU:OE2	2.38	0.57
1:C:2463:LEU:HA	1:C:2466:LEU:HD12	1.85	0.57
1:C:3106:MET:HG3	1:C:3110:LEU:CD2	2.34	0.57
1:A:131:LEU:CD1	1:A:195:PHE:H	2.16	0.57
1:A:654:GLU:N	1:A:654:GLU:OE2	2.37	0.57
1:A:1930:LYS:HD2	1:A:1930:LYS:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3848:GLU:O	1:A:3852:LYS:HG2	2.05	0.57
1:A:4731:ILE:HD12	1:A:4732:PHE:CD2	2.38	0.57
1:A:4917:ASP:OD2	1:D:4888:TYR:OH	2.13	0.57
2:E:105:LYS:NZ	2:E:106:LEU:O	2.38	0.57
1:B:2244:ARG:HA	1:B:2247:GLN:HB2	1.87	0.57
1:B:3384:LYS:HD2	1:B:3386:GLU:N	2.19	0.57
1:D:2250:MET:HA	1:D:2250:MET:HE3	1.85	0.57
1:A:245:VAL:HG23	1:A:376:ALA:HB3	1.84	0.57
1:A:3106:MET:HG3	1:A:3110:LEU:CD2	2.34	0.57
1:A:3788:GLY:HA2	1:A:3835:LEU:HG	1.86	0.57
1:A:4980:LEU:HB3	1:A:4981:GLU:OE1	2.05	0.57
1:B:3575:LEU:HD11	1:C:1208:VAL:CG2	2.34	0.57
1:B:3575:LEU:HD11	1:C:1208:VAL:HG22	1.86	0.57
1:B:3848:GLU:O	1:B:3852:LYS:HG2	2.05	0.57
1:D:892:THR:HG22	1:D:961:MET:HA	1.86	0.57
1:D:2096:GLU:N	1:D:2096:GLU:OE2	2.38	0.57
1:C:2522:LEU:HA	1:C:2526:PHE:HB2	1.87	0.57
1:C:3588:ASP:O	1:C:3592:ILE:HG13	2.04	0.57
1:A:2011:HIS:ND1	1:A:2011:HIS:O	2.38	0.57
1:B:892:THR:HG22	1:B:961:MET:HA	1.86	0.57
1:B:2096:GLU:OE2	1:B:2096:GLU:N	2.38	0.57
1:B:2522:LEU:HA	1:B:2526:PHE:HB2	1.87	0.57
1:B:2863:SER:O	1:B:2928:LYS:NZ	2.38	0.57
1:B:4731:ILE:HD12	1:B:4732:PHE:CD2	2.38	0.57
1:D:76:ARG:O	1:D:80:GLU:HG2	2.04	0.57
1:D:3104:GLU:O	1:D:3107:VAL:HG22	2.05	0.57
1:D:4005:GLN:HA	1:D:4114:CYS:HA	1.85	0.57
1:D:4876:CYS:HA	1:D:4882:CYS:HB2	1.85	0.57
1:A:2522:LEU:HA	1:A:2526:PHE:HB2	1.87	0.57
1:A:3093:ARG:HD2	1:A:3160:ASP:OD2	2.04	0.57
2:F:82:TYR:HD1	1:B:1786:LEU:HG	1.69	0.57
1:B:1619:ARG:HA	1:B:1626:TRP:HA	1.85	0.57
1:B:1930:LYS:HD2	1:B:1930:LYS:O	2.04	0.57
1:B:3547:GLU:OE1	1:B:3547:GLU:N	2.38	0.57
1:D:245:VAL:HG23	1:D:376:ALA:HB3	1.84	0.57
1:D:3547:GLU:OE1	1:D:3547:GLU:N	2.38	0.57
1:A:2863:SER:O	1:A:2928:LYS:NZ	2.38	0.57
1:A:3547:GLU:OE1	1:A:3547:GLU:N	2.38	0.57
1:A:4161:ARG:HA	1:A:4164:LEU:HD12	1.86	0.57
2:G:18:ARG:HG3	2:G:18:ARG:HH11	1.70	0.57
1:B:1492:CYS:SG	1:B:1494:MET:HG3	2.45	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2244:ARG:NH1	1:B:2244:ARG:HB2	2.20	0.57
1:B:2867:LEU:HB2	1:B:2928:LYS:HE2	1.87	0.57
1:D:1492:CYS:SG	1:D:1494:MET:HG3	2.45	0.57
1:D:2867:LEU:HB2	1:D:2928:LYS:HE2	1.87	0.57
1:D:3202:PRO:HA	1:D:3283:ARG:NH2	2.19	0.57
1:C:3202:PRO:HA	1:C:3283:ARG:NH2	2.19	0.57
1:C:3412:LEU:HD11	1:C:3434:LEU:HD21	1.85	0.57
1:A:2867:LEU:HB2	1:A:2928:LYS:HE2	1.87	0.57
1:A:3104:GLU:O	1:A:3107:VAL:HG22	2.05	0.57
1:B:2206:THR:HA	1:B:2209:GLU:OE1	2.04	0.57
1:D:2863:SER:O	1:D:2928:LYS:NZ	2.38	0.57
1:D:3356:SER:HG	1:D:3357:HIS:HD1	1.51	0.57
1:D:4980:LEU:HB3	1:D:4981:GLU:OE1	2.05	0.57
1:C:3104:GLU:O	1:C:3107:VAL:HG22	2.05	0.57
1:A:239:ASP:OD2	1:A:239:ASP:N	2.37	0.57
1:A:1492:CYS:SG	1:A:1494:MET:HG3	2.45	0.57
1:A:2244:ARG:HA	1:A:2247:GLN:HB2	1.87	0.57
1:A:3588:ASP:O	1:A:3592:ILE:HG13	2.04	0.57
2:F:13:ARG:NH1	2:F:13:ARG:HB3	2.20	0.57
1:B:1068:ARG:HA	1:B:1071:ARG:HG2	1.87	0.57
1:B:4876:CYS:HA	1:B:4882:CYS:HB2	1.86	0.57
1:C:2011:HIS:ND1	1:C:2011:HIS:O	2.38	0.57
1:D:2011:HIS:ND1	1:D:2011:HIS:O	2.38	0.57
1:D:2823:ILE:HD11	1:D:2935:TYR:HB3	1.87	0.57
1:D:3848:GLU:O	1:D:3852:LYS:HG2	2.05	0.57
1:D:4161:ARG:HA	1:D:4164:LEU:HD12	1.86	0.57
1:C:2244:ARG:NH1	1:C:2244:ARG:HB2	2.20	0.57
1:C:3093:ARG:HD2	1:C:3160:ASP:OD2	2.03	0.57
1:C:3547:GLU:N	1:C:3547:GLU:OE1	2.38	0.57
1:C:3788:GLY:HA2	1:C:3835:LEU:HG	1.86	0.57
1:A:179:TYR:N	1:A:194:SER:O	2.38	0.56
1:A:2823:ILE:HD11	1:A:2935:TYR:HB3	1.87	0.56
1:A:3984:ARG:HH22	1:B:102:LEU:HD11	1.69	0.56
1:B:239:ASP:OD2	1:B:239:ASP:N	2.37	0.56
1:D:2244:ARG:HA	1:D:2247:GLN:HB2	1.87	0.56
1:D:2440:MET:SD	1:D:2444:GLN:NE2	2.78	0.56
1:D:2522:LEU:HA	1:D:2526:PHE:HB2	1.87	0.56
1:C:2863:SER:O	1:C:2928:LYS:NZ	2.38	0.56
1:C:4847:VAL:HA	1:C:4850:LEU:HD12	1.87	0.56
1:A:4041:ALA:O	1:A:4045:VAL:HG23	2.05	0.56
1:B:1186:ASP:OD1	1:B:1187:GLY:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2011:HIS:ND1	1:B:2011:HIS:O	2.38	0.56
1:B:4980:LEU:HB3	1:B:4981:GLU:OE1	2.05	0.56
1:D:1068:ARG:HA	1:D:1071:ARG:HG2	1.87	0.56
1:A:892:THR:HG22	1:A:961:MET:HA	1.86	0.56
1:A:1186:ASP:OD1	1:A:1187:GLY:N	2.38	0.56
1:A:1653:LEU:HD23	1:A:1707:LEU:HD11	1.87	0.56
1:A:2440:MET:SD	1:A:2444:GLN:NE2	2.78	0.56
1:B:894:GLY:HA3	1:B:903:LEU:HB3	1.87	0.56
1:D:76:ARG:HH12	1:C:3936:TYR:CA	2.18	0.56
1:D:1619:ARG:HA	1:D:1626:TRP:HA	1.86	0.56
1:D:3384:LYS:HD2	1:D:3386:GLU:N	2.19	0.56
1:D:3506:GLN:OE1	1:D:3506:GLN:N	2.38	0.56
1:C:2430:ILE:HG21	1:C:2502:MET:HE3	1.87	0.56
1:C:2994:GLU:OE1	1:C:2994:GLU:N	2.29	0.56
1:C:3848:GLU:O	1:C:3852:LYS:HG2	2.05	0.56
1:C:4738:ALA:HA	1:C:4743:MET:HG3	1.88	0.56
1:A:635:THR:OG1	1:A:1693:GLN:OE1	2.20	0.56
1:D:1653:LEU:HD23	1:D:1707:LEU:HD11	1.87	0.56
1:D:4041:ALA:O	1:D:4045:VAL:HG23	2.06	0.56
1:C:654:GLU:N	1:C:654:GLU:OE2	2.37	0.56
1:C:894:GLY:HA3	1:C:903:LEU:HB3	1.87	0.56
1:C:1068:ARG:HA	1:C:1071:ARG:HG2	1.87	0.56
1:C:1653:LEU:HD23	1:C:1707:LEU:HD11	1.87	0.56
1:C:2497:ASP:OD2	1:C:2498:HIS:N	2.38	0.56
1:B:445:LEU:O	1:B:449:ILE:HG13	2.06	0.56
1:B:3878:ASP:OD2	1:B:3879:GLU:N	2.39	0.56
1:B:4847:VAL:HA	1:B:4850:LEU:HD12	1.87	0.56
1:D:1079:LYS:HA	1:D:1189:LEU:HD11	1.87	0.56
1:D:3878:ASP:OD2	1:D:3879:GLU:N	2.39	0.56
1:A:719:LEU:HD11	2:E:7:ILE:HA	1.88	0.56
1:A:3936:TYR:HA	1:B:76:ARG:HH22	1.71	0.56
2:E:54:GLU:HG2	2:E:55:VAL:HG13	1.87	0.56
1:B:580:GLU:HG3	1:B:620:LEU:HD22	1.88	0.56
1:B:2440:MET:SD	1:B:2444:GLN:NE2	2.78	0.56
1:D:281:ARG:NE	1:D:309:THR:OG1	2.39	0.56
1:D:1186:ASP:OD1	1:D:1187:GLY:N	2.38	0.56
1:D:4847:VAL:HA	1:D:4850:LEU:HD12	1.87	0.56
1:C:4980:LEU:HB3	1:C:4981:GLU:OE1	2.05	0.56
1:A:445:LEU:O	1:A:449:ILE:HG13	2.06	0.56
1:A:1068:ARG:HA	1:A:1071:ARG:HG2	1.87	0.56
1:B:4041:ALA:O	1:B:4045:VAL:HG23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:580:GLU:HG3	1:D:620:LEU:HD22	1.88	0.56
1:D:883:ALA:HB1	1:D:907:LEU:HD13	1.88	0.56
1:D:1997:GLU:HB2	1:D:2008:MET:HE3	1.88	0.56
1:D:2497:ASP:OD2	1:D:2498:HIS:N	2.38	0.56
1:D:4016:LEU:O	1:D:4020:GLN:HG3	2.06	0.56
1:C:2867:LEU:HB2	1:C:2928:LYS:HE2	1.87	0.56
1:C:3384:LYS:HD2	1:C:3386:GLU:N	2.19	0.56
1:C:4876:CYS:HA	1:C:4882:CYS:HB2	1.85	0.56
1:A:580:GLU:HG3	1:A:620:LEU:HD22	1.88	0.56
1:A:2244:ARG:HB2	1:A:2244:ARG:NH1	2.20	0.56
1:A:3211:ASN:ND2	1:A:3236:VAL:HB	2.21	0.56
1:A:3351:PRO:O	1:A:3354:LEU:HG	2.06	0.56
1:A:3506:GLN:OE1	1:A:3506:GLN:N	2.38	0.56
1:A:3655:GLU:HA	1:A:3658:LYS:HZ3	1.71	0.56
2:H:82:TYR:HD1	1:D:1786:LEU:HG	1.70	0.56
1:D:2994:GLU:OE1	1:D:2994:GLU:N	2.29	0.56
1:C:913:LEU:O	1:C:918:ARG:NH2	2.33	0.56
1:C:3878:ASP:OD2	1:C:3879:GLU:N	2.39	0.56
1:A:1057:ASP:OD1	1:A:1057:ASP:N	2.39	0.56
1:B:1265:ASP:OD1	1:B:1265:ASP:N	2.38	0.56
1:D:138:GLN:NE2	1:D:146:CYS:SG	2.79	0.56
1:C:883:ALA:HB1	1:C:907:LEU:HD13	1.88	0.56
1:A:1079:LYS:HA	1:A:1189:LEU:HD11	1.87	0.56
1:A:4731:ILE:HD12	1:A:4732:PHE:HD2	1.71	0.56
1:A:4847:VAL:HA	1:A:4850:LEU:HD12	1.87	0.56
1:B:1079:LYS:HA	1:B:1189:LEU:HD11	1.87	0.56
1:B:2823:ILE:HD11	1:B:2935:TYR:HB3	1.87	0.56
1:D:965:TYR:HD1	1:D:966:LYS:H	1.54	0.56
1:D:3211:ASN:ND2	1:D:3236:VAL:HB	2.21	0.56
1:D:4738:ALA:HA	1:D:4743:MET:HG3	1.88	0.56
1:C:281:ARG:NE	1:C:309:THR:OG1	2.39	0.56
1:C:1057:ASP:OD1	1:C:1057:ASP:N	2.39	0.56
1:C:1465:ASP:OD1	1:C:1468:LYS:N	2.39	0.56
1:C:2440:MET:SD	1:C:2444:GLN:NE2	2.78	0.56
1:C:2823:ILE:HD11	1:C:2935:TYR:HB3	1.87	0.56
1:C:4016:LEU:O	1:C:4020:GLN:HG3	2.06	0.56
1:A:138:GLN:NE2	1:A:146:CYS:SG	2.79	0.55
1:A:651:GLY:N	1:A:658:GLN:OE1	2.36	0.55
1:A:965:TYR:HD1	1:A:966:LYS:H	1.54	0.55
1:B:179:TYR:N	1:B:194:SER:O	2.38	0.55
1:B:281:ARG:NE	1:B:309:THR:OG1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1465:ASP:OD1	1:B:1468:LYS:N	2.39	0.55
1:B:2821:TRP:HH2	1:B:2877:GLN:HB3	1.71	0.55
1:B:3104:GLU:O	1:B:3107:VAL:HG22	2.05	0.55
1:B:3788:GLY:HA2	1:B:3835:LEU:HG	1.86	0.55
1:D:2244:ARG:HB2	1:D:2244:ARG:NH1	2.20	0.55
1:D:2430:ILE:HG21	1:D:2502:MET:HE3	1.86	0.55
1:C:138:GLN:NE2	1:C:146:CYS:SG	2.79	0.55
1:C:2244:ARG:HA	1:C:2247:GLN:HB2	1.87	0.55
1:C:4041:ALA:O	1:C:4045:VAL:HG23	2.05	0.55
1:C:4731:ILE:HD12	1:C:4732:PHE:HD2	1.71	0.55
1:A:281:ARG:NE	1:A:309:THR:OG1	2.39	0.55
1:A:2497:ASP:OD2	1:A:2498:HIS:N	2.38	0.55
1:B:131:LEU:HD13	1:B:195:PHE:H	1.70	0.55
1:B:2497:ASP:OD2	1:B:2498:HIS:N	2.38	0.55
1:B:4738:ALA:HA	1:B:4743:MET:HG3	1.88	0.55
1:D:445:LEU:O	1:D:449:ILE:HG13	2.06	0.55
1:D:894:GLY:HA3	1:D:903:LEU:HB3	1.87	0.55
1:D:2821:TRP:HH2	1:D:2877:GLN:HB3	1.71	0.55
1:C:179:TYR:N	1:C:194:SER:O	2.39	0.55
1:C:1079:LYS:HA	1:C:1189:LEU:HD11	1.87	0.55
1:C:2821:TRP:HH2	1:C:2877:GLN:HB3	1.71	0.55
1:A:590:LEU:HD22	1:A:631:LEU:HD13	1.89	0.55
1:A:4016:LEU:O	1:A:4020:GLN:HG3	2.06	0.55
1:B:590:LEU:HD22	1:B:631:LEU:HD13	1.89	0.55
1:D:1057:ASP:N	1:D:1057:ASP:OD1	2.39	0.55
1:C:635:THR:OG1	1:C:1693:GLN:OE1	2.20	0.55
1:C:1186:ASP:OD1	1:C:1187:GLY:N	2.38	0.55
1:C:1492:CYS:SG	1:C:1494:MET:HG3	2.45	0.55
1:C:3211:ASN:ND2	1:C:3236:VAL:HB	2.21	0.55
1:C:4098:ASP:O	1:C:4101:LYS:NZ	2.33	0.55
1:C:4867:GLU:OE1	1:C:4867:GLU:N	2.37	0.55
1:A:545:ASP:OD2	1:A:545:ASP:N	2.33	0.55
1:A:2285:GLU:OE1	1:A:2285:GLU:N	2.26	0.55
1:A:3356:SER:HG	1:A:3357:HIS:HD1	1.52	0.55
1:A:3878:ASP:OD2	1:A:3879:GLU:N	2.39	0.55
1:B:1653:LEU:HD23	1:B:1707:LEU:HD11	1.87	0.55
1:B:3211:ASN:ND2	1:B:3236:VAL:HB	2.21	0.55
1:C:445:LEU:O	1:C:449:ILE:HG13	2.06	0.55
1:C:580:GLU:HG3	1:C:620:LEU:HD22	1.88	0.55
1:A:1228:ILE:HG12	1:D:3571:TRP:CE2	2.41	0.55
1:B:213:TYR:HD1	1:B:340:LYS:HD3	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3351:PRO:O	1:B:3354:LEU:HG	2.06	0.55
1:D:111:HIS:CE1	1:D:113:HIS:HB3	2.42	0.55
1:D:213:TYR:HD1	1:D:340:LYS:HD3	1.72	0.55
1:D:3351:PRO:O	1:D:3354:LEU:HG	2.06	0.55
1:C:880:GLU:OE1	1:C:969:PRO:HA	2.07	0.55
1:D:1465:ASP:OD1	1:D:1468:LYS:N	2.39	0.55
1:A:111:HIS:CE1	1:A:113:HIS:HB3	2.42	0.55
1:A:131:LEU:HD13	1:A:195:PHE:H	1.70	0.55
1:A:1291:LEU:HD13	1:A:1595:LEU:HD11	1.89	0.55
1:A:2096:GLU:N	1:A:2096:GLU:OE2	2.38	0.55
1:B:2668:SER:O	1:B:2669:GLU:HG3	2.07	0.55
1:D:880:GLU:OE1	1:D:969:PRO:HA	2.07	0.55
1:C:131:LEU:HD13	1:C:195:PHE:H	1.70	0.55
1:C:965:TYR:HD1	1:C:966:LYS:H	1.54	0.55
1:C:1291:LEU:HD13	1:C:1595:LEU:HD11	1.89	0.55
1:C:2973:PHE:CD2	1:C:2995:ILE:HG12	2.42	0.55
1:C:3351:PRO:O	1:C:3354:LEU:HG	2.06	0.55
1:C:3620:TRP:CD1	1:C:3622:LYS:HB3	2.42	0.55
1:A:894:GLY:HA3	1:A:903:LEU:HB3	1.87	0.55
1:A:1999:ARG:NH2	1:A:3638:MET:O	2.40	0.55
1:A:4738:ALA:HA	1:A:4743:MET:HG3	1.88	0.55
2:F:18:ARG:HH11	2:F:18:ARG:HG3	1.71	0.55
1:B:138:GLN:NE2	1:B:146:CYS:SG	2.79	0.55
1:C:33:LEU:HD12	1:C:53:SER:HB2	1.89	0.55
1:C:2668:SER:O	1:C:2669:GLU:HG3	2.07	0.55
1:C:4096:ALA:O	1:C:4100:GLN:HG2	2.07	0.55
1:A:2656:CYS:HA	1:A:2711:PRO:HG3	1.88	0.55
1:A:4091:LYS:O	1:A:4095:LYS:HG2	2.07	0.55
2:E:35:LYS:NZ	2:E:38:SER:HB3	2.22	0.55
1:B:358:THR:HG21	1:B:379:HIS:HB3	1.89	0.55
1:B:3108:GLU:HB3	1:B:3114:LYS:HZ2	1.72	0.55
1:B:3499:ARG:O	1:B:3499:ARG:NE	2.36	0.55
1:D:131:LEU:HD13	1:D:195:PHE:H	1.70	0.55
1:D:590:LEU:HD22	1:D:631:LEU:HD13	1.89	0.55
1:C:2656:CYS:HA	1:C:2711:PRO:HG3	1.88	0.55
1:A:213:TYR:HD1	1:A:340:LYS:HD3	1.72	0.55
1:A:3380:ARG:NH1	1:A:3391:GLU:OE1	2.40	0.55
1:B:1079:LYS:HG2	1:B:1107:PRO:HB3	1.89	0.55
1:B:1568:LYS:NZ	1:B:1569:GLN:O	2.40	0.55
1:B:3380:ARG:NH1	1:B:3391:GLU:OE1	2.40	0.55
1:A:883:ALA:HB1	1:A:907:LEU:HD13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2030:ASP:OD2	1:B:2031:LEU:N	2.40	0.54
1:B:2285:GLU:OE1	1:B:2285:GLU:N	2.26	0.54
1:B:3007:ASN:O	1:B:3011:THR:OG1	2.19	0.54
1:C:213:TYR:HD1	1:C:340:LYS:HD3	1.72	0.54
1:C:1265:ASP:OD1	1:C:1265:ASP:N	2.38	0.54
1:C:4687:TYR:OH	1:C:4699:GLY:O	2.20	0.54
1:A:33:LEU:HD12	1:A:53:SER:HB2	1.89	0.54
1:A:2030:ASP:OD2	1:A:2031:LEU:N	2.40	0.54
1:A:2821:TRP:HH2	1:A:2877:GLN:HB3	1.71	0.54
1:B:33:LEU:HD12	1:B:53:SER:HB2	1.89	0.54
1:B:2806:ARG:HG3	1:B:2810:LYS:NZ	2.22	0.54
1:B:3524:MET:O	1:B:3595:ARG:NH1	2.41	0.54
1:B:3943:ILE:HG13	1:B:4002:LYS:HE2	1.89	0.54
1:B:4016:LEU:O	1:B:4020:GLN:HG3	2.06	0.54
1:B:4731:ILE:HD12	1:B:4732:PHE:HD2	1.71	0.54
1:C:590:LEU:HD22	1:C:631:LEU:HD13	1.89	0.54
1:C:651:GLY:N	1:C:658:GLN:OE1	2.36	0.54
1:C:3499:ARG:O	1:C:3499:ARG:NE	2.36	0.54
1:A:299:LEU:HD13	1:A:378:LEU:HD11	1.89	0.54
1:A:385:ASP:OD1	1:A:385:ASP:N	2.38	0.54
1:A:1079:LYS:HG2	1:A:1107:PRO:HB3	1.89	0.54
1:A:2189:LYS:HA	1:A:2192:TYR:CD2	2.42	0.54
1:A:2668:SER:O	1:A:2669:GLU:HG3	2.07	0.54
1:B:426:ARG:NH1	1:B:509:GLU:OE1	2.34	0.54
1:B:883:ALA:HB1	1:B:907:LEU:HD13	1.88	0.54
1:B:1291:LEU:HD13	1:B:1595:LEU:HD11	1.89	0.54
1:B:2973:PHE:CD2	1:B:2995:ILE:HG12	2.42	0.54
1:C:801:LYS:HE2	1:C:801:LYS:HA	1.89	0.54
1:C:3380:ARG:NH1	1:C:3391:GLU:OE1	2.40	0.54
1:A:2973:PHE:CD2	1:A:2995:ILE:HG12	2.42	0.54
1:A:4096:ALA:O	1:A:4100:GLN:HG2	2.07	0.54
1:B:965:TYR:HD1	1:B:966:LYS:H	1.54	0.54
1:D:179:TYR:N	1:D:194:SER:O	2.38	0.54
1:D:515:TRP:O	1:D:519:VAL:HG13	2.08	0.54
1:D:1944:GLU:HB2	1:D:2123:LEU:HD11	1.89	0.54
1:D:2030:ASP:OD2	1:D:2031:LEU:N	2.41	0.54
1:D:2189:LYS:HA	1:D:2192:TYR:CD2	2.42	0.54
1:D:4867:GLU:OE1	1:D:4867:GLU:N	2.37	0.54
1:C:111:HIS:CE1	1:C:113:HIS:HB3	2.42	0.54
1:C:1975:SER:O	1:C:1979:LEU:HD22	2.08	0.54
1:A:296:ASP:OD2	1:A:296:ASP:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:463:GLU:OE2	1:A:463:GLU:N	2.29	0.54
1:A:2002:PRO:HD3	1:A:3638:MET:SD	2.48	0.54
1:A:4098:ASP:O	1:A:4101:LYS:NZ	2.33	0.54
1:B:3655:GLU:HA	1:B:3658:LYS:HZ3	1.71	0.54
1:B:4090:LYS:HE2	1:B:4112:LEU:HD22	1.89	0.54
1:B:4091:LYS:O	1:B:4095:LYS:HG2	2.07	0.54
1:B:4096:ALA:O	1:B:4100:GLN:HG2	2.07	0.54
1:D:33:LEU:HD12	1:D:53:SER:HB2	1.89	0.54
1:D:299:LEU:HD13	1:D:378:LEU:HD11	1.89	0.54
1:D:651:GLY:N	1:D:658:GLN:OE1	2.36	0.54
1:D:1291:LEU:HD13	1:D:1595:LEU:HD11	1.89	0.54
1:D:1999:ARG:NH2	1:D:3638:MET:O	2.40	0.54
1:D:2656:CYS:HA	1:D:2711:PRO:HG3	1.89	0.54
1:C:239:ASP:OD2	1:C:239:ASP:N	2.37	0.54
1:C:3373:VAL:HG11	1:C:3444:TYR:HB3	1.89	0.54
1:B:385:ASP:OD1	1:B:385:ASP:N	2.38	0.54
1:B:515:TRP:O	1:B:519:VAL:HG13	2.08	0.54
1:B:2002:PRO:HD3	1:B:3638:MET:SD	2.48	0.54
1:B:3373:VAL:HG11	1:B:3444:TYR:HB3	1.89	0.54
1:B:3620:TRP:CD1	1:B:3622:LYS:HB3	2.42	0.54
1:D:3007:ASN:O	1:D:3011:THR:OG1	2.19	0.54
1:D:4090:LYS:HE2	1:D:4112:LEU:HD22	1.89	0.54
1:C:4091:LYS:O	1:C:4095:LYS:HG2	2.07	0.54
1:A:358:THR:HG21	1:A:379:HIS:HB3	1.89	0.54
1:A:1753:LYS:HZ1	1:A:1759:ARG:H	1.55	0.54
2:E:18:ARG:HA	2:E:18:ARG:HH11	1.72	0.54
1:B:3320:LEU:HD11	1:B:3358:PHE:CE1	2.43	0.54
1:D:2668:SER:O	1:D:2669:GLU:HG3	2.07	0.54
1:D:3373:VAL:HG11	1:D:3444:TYR:HB3	1.89	0.54
1:D:4731:ILE:HD12	1:D:4732:PHE:HD2	1.71	0.54
1:C:3506:GLN:N	1:C:3506:GLN:OE1	2.38	0.54
1:C:4131:ARG:HG2	1:C:4132:PHE:CD2	2.43	0.54
1:A:801:LYS:HE2	1:A:801:LYS:HA	1.89	0.54
1:B:111:HIS:CE1	1:B:113:HIS:HB3	2.42	0.54
1:B:565:TYR:O	1:B:569:ILE:HG23	2.08	0.54
1:D:1537:ASN:OD1	1:D:1537:ASN:N	2.40	0.54
1:D:3524:MET:O	1:D:3595:ARG:NH1	2.41	0.54
1:C:294:THR:O	1:C:298:GLY:N	2.41	0.54
1:C:3300:ALA:HB3	1:C:3301:PRO:HD3	1.90	0.54
1:C:3515:LYS:HD3	1:C:3606:LEU:HD11	1.90	0.54
1:C:3943:ILE:HG13	1:C:4002:LYS:HE2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4725:LEU:HA	1:C:4737:ILE:HG21	1.90	0.54
1:A:515:TRP:O	1:A:519:VAL:HG13	2.08	0.54
1:A:3320:LEU:HD11	1:A:3358:PHE:CE1	2.43	0.54
1:A:3620:TRP:CD1	1:A:3622:LYS:HB3	2.42	0.54
1:B:954:LYS:HE3	1:B:966:LYS:HE3	1.90	0.54
1:B:1292:SER:OG	1:B:1596:GLU:O	2.26	0.54
1:D:294:THR:O	1:D:298:GLY:N	2.41	0.54
1:D:2806:ARG:HG3	1:D:2810:LYS:NZ	2.22	0.54
1:D:3380:ARG:NH1	1:D:3391:GLU:OE1	2.40	0.54
1:C:515:TRP:O	1:C:519:VAL:HG13	2.08	0.54
1:C:2005:GLN:HA	1:C:2008:MET:HE2	1.89	0.54
1:C:3524:MET:O	1:C:3595:ARG:NH1	2.41	0.54
1:A:3524:MET:O	1:A:3595:ARG:NH1	2.41	0.54
1:A:3943:ILE:HG13	1:A:4002:LYS:HE2	1.89	0.54
2:E:37:ASP:OD2	2:E:38:SER:N	2.40	0.54
1:B:3300:ALA:HB3	1:B:3301:PRO:HD3	1.90	0.54
1:D:635:THR:OG1	1:D:1693:GLN:OE1	2.20	0.54
1:D:2002:PRO:HD3	1:D:3638:MET:SD	2.48	0.54
1:D:2292:GLU:OE1	1:D:2292:GLU:N	2.41	0.54
1:D:3515:LYS:HD3	1:D:3606:LEU:HD11	1.90	0.54
1:D:3620:TRP:CD1	1:D:3622:LYS:HB3	2.42	0.54
1:D:3943:ILE:HG13	1:D:4002:LYS:HE2	1.89	0.54
1:D:4096:ALA:O	1:D:4100:GLN:HG2	2.07	0.54
1:C:999:ASP:OD1	1:C:1000:ARG:N	2.41	0.54
1:C:2806:ARG:HG3	1:C:2810:LYS:NZ	2.22	0.54
1:C:3621:HIS:HB3	1:C:3623:LEU:HD23	1.90	0.54
1:C:3729:MET:HB3	1:C:3770:LEU:HD11	1.91	0.54
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	1.90	0.54
1:A:880:GLU:OE1	1:A:969:PRO:HA	2.07	0.53
1:A:3169:LEU:HD12	1:A:3194:LEU:HD11	1.90	0.53
1:A:4090:LYS:HE2	1:A:4112:LEU:HD22	1.89	0.53
1:B:877:ASN:HA	1:B:880:GLU:OE1	2.09	0.53
1:B:999:ASP:OD1	1:B:1000:ARG:N	2.41	0.53
1:B:2189:LYS:HA	1:B:2192:TYR:CD2	2.42	0.53
1:B:4725:LEU:HA	1:B:4737:ILE:HG21	1.90	0.53
1:D:877:ASN:HA	1:D:880:GLU:OE1	2.09	0.53
1:D:1079:LYS:HG2	1:D:1107:PRO:HB3	1.89	0.53
1:D:3768:SER:HA	1:D:3771:HIS:CE1	2.43	0.53
1:C:3108:GLU:HB3	1:C:3114:LYS:HZ2	1.72	0.53
1:A:954:LYS:HE3	1:A:966:LYS:HE3	1.90	0.53
1:A:2806:ARG:HG3	1:A:2810:LYS:NZ	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3621:HIS:HB3	1:A:3623:LEU:HD23	1.90	0.53
1:B:880:GLU:OE1	1:B:969:PRO:HA	2.07	0.53
1:B:3515:LYS:HD3	1:B:3606:LEU:HD11	1.90	0.53
1:B:4098:ASP:O	1:B:4101:LYS:NZ	2.33	0.53
1:D:2973:PHE:CD2	1:D:2995:ILE:HG12	2.42	0.53
1:D:4091:LYS:O	1:D:4095:LYS:HG2	2.07	0.53
1:D:4131:ARG:HG2	1:D:4132:PHE:CD2	2.43	0.53
1:C:1115:LEU:HD13	1:C:1123:VAL:HG11	1.91	0.53
1:C:2192:TYR:HE1	1:C:2238:TYR:CE1	2.27	0.53
1:C:3356:SER:HG	1:C:3357:HIS:HD1	1.52	0.53
1:C:3768:SER:HA	1:C:3771:HIS:CE1	2.43	0.53
1:C:4090:LYS:HE2	1:C:4112:LEU:HD22	1.89	0.53
1:B:1999:ARG:NH2	1:B:3638:MET:O	2.40	0.53
1:B:2192:TYR:HE1	1:B:2238:TYR:CE1	2.27	0.53
1:B:3087:ILE:HD12	1:B:3088:VAL:N	2.24	0.53
1:D:426:ARG:NH1	1:D:509:GLU:OE1	2.34	0.53
1:D:565:TYR:O	1:D:569:ILE:HG23	2.08	0.53
1:D:999:ASP:OD1	1:D:1000:ARG:N	2.41	0.53
1:D:3320:LEU:HD11	1:D:3358:PHE:CE1	2.43	0.53
1:C:234:SER:HG	1:C:238:SER:HG	1.55	0.53
1:C:2030:ASP:OD2	1:C:2031:LEU:N	2.40	0.53
1:A:73:LEU:O	1:A:106:ALA:N	2.28	0.53
1:A:1944:GLU:HB2	1:A:2123:LEU:HD11	1.89	0.53
1:A:1970:GLN:HG2	1:A:3642:TYR:HA	1.90	0.53
1:A:2192:TYR:HE1	1:A:2238:TYR:CE1	2.27	0.53
1:A:4131:ARG:HG2	1:A:4132:PHE:CD2	2.43	0.53
1:B:651:GLY:N	1:B:658:GLN:OE1	2.36	0.53
1:B:1944:GLU:HB2	1:B:2123:LEU:HD11	1.89	0.53
1:D:1975:SER:O	1:D:1979:LEU:HD22	2.08	0.53
1:D:3169:LEU:HD12	1:D:3194:LEU:HD11	1.90	0.53
1:D:3368:ARG:O	1:D:3372:VAL:HG23	2.09	0.53
1:C:1079:LYS:HG2	1:C:1107:PRO:HB3	1.89	0.53
1:C:2189:LYS:HA	1:C:2192:TYR:CD2	2.42	0.53
1:A:877:ASN:HA	1:A:880:GLU:OE1	2.08	0.53
1:A:1975:SER:O	1:A:1979:LEU:HD22	2.08	0.53
1:A:2358:ILE:HB	1:B:195:PHE:CD1	2.44	0.53
1:A:3416:VAL:HG11	1:A:3517:MET:HG2	1.90	0.53
2:H:105:LYS:NZ	2:H:106:LEU:O	2.42	0.53
1:B:801:LYS:HE2	1:B:801:LYS:HA	1.89	0.53
1:B:1263:THR:OG1	1:B:1265:ASP:OD1	2.25	0.53
1:B:3506:GLN:OE1	1:B:3506:GLN:N	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4131:ARG:HG2	1:B:4132:PHE:CD2	2.43	0.53
1:D:801:LYS:HA	1:D:801:LYS:HE2	1.89	0.53
1:D:954:LYS:HE3	1:D:966:LYS:HE3	1.90	0.53
1:D:1115:LEU:HD13	1:D:1123:VAL:HG11	1.91	0.53
1:D:3087:ILE:HD12	1:D:3088:VAL:N	2.24	0.53
1:D:3108:GLU:HB3	1:D:3114:LYS:HZ2	1.72	0.53
1:C:1999:ARG:NH2	1:C:3638:MET:O	2.40	0.53
1:C:3320:LEU:HD11	1:C:3358:PHE:CE1	2.43	0.53
1:A:1106:ARG:NH2	1:A:1183:GLU:OE2	2.42	0.53
1:B:299:LEU:HD13	1:B:378:LEU:HD11	1.89	0.53
1:B:1106:ARG:NH2	1:B:1183:GLU:OE2	2.42	0.53
1:D:358:THR:HG21	1:D:379:HIS:HB3	1.89	0.53
1:D:1820:ARG:NH1	1:D:1820:ARG:HB2	2.24	0.53
1:D:1970:GLN:HG2	1:D:3642:TYR:HA	1.90	0.53
1:D:3240:CYS:HB2	1:D:3242:ASP:OD1	2.09	0.53
1:D:4640:GLU:HB3	1:D:4641:PRO:HD3	1.90	0.53
1:C:299:LEU:HD13	1:C:378:LEU:HD11	1.89	0.53
1:C:358:THR:HG21	1:C:379:HIS:HB3	1.89	0.53
1:C:1944:GLU:HB2	1:C:2123:LEU:HD11	1.89	0.53
1:A:565:TYR:O	1:A:569:ILE:HG23	2.08	0.53
1:A:950:LEU:HD22	1:A:970:LEU:HD11	1.91	0.53
1:A:3729:MET:HB3	1:A:3770:LEU:HD11	1.91	0.53
1:B:294:THR:O	1:B:298:GLY:N	2.41	0.53
1:B:1115:LEU:HD13	1:B:1123:VAL:HG11	1.91	0.53
1:B:2656:CYS:HA	1:B:2711:PRO:HG3	1.89	0.53
1:C:426:ARG:NE	1:C:427:GLY:O	2.42	0.53
1:A:164:ARG:HH11	1:A:164:ARG:HG3	1.74	0.53
1:A:213:TYR:CD1	1:A:340:LYS:HD3	2.44	0.53
1:A:3335:MET:SD	1:A:3403:ARG:NH1	2.82	0.53
1:A:4860:ARG:NH1	1:D:4630:TYR:OH	2.38	0.53
1:D:213:TYR:CD1	1:D:340:LYS:HD3	2.44	0.53
1:D:2299:VAL:HG11	1:D:2356:LEU:HB3	1.91	0.53
1:C:13:PHE:CE1	1:C:164:ARG:HG2	2.44	0.53
1:A:999:ASP:OD1	1:A:1000:ARG:N	2.41	0.53
1:A:3768:SER:HA	1:A:3771:HIS:CE1	2.43	0.53
2:G:35:LYS:HZ1	2:G:38:SER:HB3	1.74	0.53
1:B:463:GLU:OE2	1:B:463:GLU:N	2.29	0.53
1:B:1172:ASP:OD1	1:B:1172:ASP:N	2.35	0.53
1:B:3416:VAL:HG11	1:B:3517:MET:HG2	1.90	0.53
1:B:3768:SER:HA	1:B:3771:HIS:CE1	2.43	0.53
1:D:1106:ARG:NH2	1:D:1183:GLU:OE2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3729:MET:HB3	1:D:3770:LEU:HD11	1.91	0.53
1:D:4687:TYR:OH	1:D:4699:GLY:O	2.20	0.53
1:C:213:TYR:CD1	1:C:340:LYS:HD3	2.44	0.53
1:C:877:ASN:HA	1:C:880:GLU:OE1	2.08	0.53
1:C:1820:ARG:HB2	1:C:1820:ARG:NH1	2.24	0.53
1:C:2002:PRO:HD3	1:C:3638:MET:SD	2.48	0.53
1:A:901:LYS:HG3	1:A:903:LEU:HG	1.91	0.53
1:A:3300:ALA:HB3	1:A:3301:PRO:HD3	1.90	0.53
1:A:3368:ARG:O	1:A:3372:VAL:HG23	2.09	0.53
1:A:3515:LYS:HD3	1:A:3606:LEU:HD11	1.90	0.53
1:A:4725:LEU:HA	1:A:4737:ILE:HG21	1.90	0.53
1:B:13:PHE:CE1	1:B:164:ARG:HG2	2.44	0.53
1:B:164:ARG:HH11	1:B:164:ARG:HG3	1.74	0.53
1:B:426:ARG:NE	1:B:427:GLY:O	2.42	0.53
1:B:925:SER:O	1:B:928:THR:OG1	2.20	0.53
1:B:3621:HIS:HB3	1:B:3623:LEU:HD23	1.90	0.53
1:D:13:PHE:CE1	1:D:164:ARG:HG2	2.44	0.53
1:C:2821:TRP:HD1	1:C:2939:ARG:HA	1.74	0.53
1:C:3416:VAL:HG11	1:C:3517:MET:HG2	1.90	0.53
1:C:3966:THR:O	1:C:3970:GLN:HB2	2.09	0.53
1:C:4989:MET:O	1:C:4993:MET:HG3	2.09	0.53
1:A:195:PHE:CD1	1:D:2358:ILE:HB	2.44	0.52
1:A:426:ARG:NE	1:A:427:GLY:O	2.42	0.52
1:A:647:ASN:OD1	1:A:822:ARG:N	2.39	0.52
1:A:870:ILE:HD12	1:A:1049:TYR:CG	2.44	0.52
1:A:1141:ARG:HB2	1:D:3479:ALA:HA	1.90	0.52
1:A:3087:ILE:HD12	1:A:3088:VAL:N	2.24	0.52
1:A:3754:GLU:HB2	1:A:4718:LYS:HG3	1.91	0.52
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	1.90	0.52
1:B:73:LEU:O	1:B:106:ALA:N	2.28	0.52
1:B:213:TYR:CD1	1:B:340:LYS:HD3	2.44	0.52
1:D:950:LEU:HD22	1:D:970:LEU:HD11	1.91	0.52
1:D:3300:ALA:HB3	1:D:3301:PRO:HD3	1.90	0.52
1:C:565:TYR:O	1:C:569:ILE:HG23	2.08	0.52
1:C:954:LYS:HE3	1:C:966:LYS:HE3	1.90	0.52
1:C:1970:GLN:HG2	1:C:3642:TYR:HA	1.89	0.52
1:C:3187:ARG:HG3	1:C:3188:PRO:HD3	1.92	0.52
1:C:3240:CYS:HB2	1:C:3242:ASP:OD1	2.09	0.52
1:C:3655:GLU:HA	1:C:3658:LYS:HZ3	1.74	0.52
1:C:3754:GLU:HB2	1:C:4718:LYS:HG3	1.91	0.52
1:C:4705:VAL:HG22	1:C:4711:PHE:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:426:ARG:NH1	1:A:509:GLU:OE1	2.34	0.52
1:A:1115:LEU:HD13	1:A:1123:VAL:HG11	1.91	0.52
1:B:870:ILE:HD12	1:B:1049:TYR:CG	2.44	0.52
1:B:1975:SER:O	1:B:1979:LEU:HD22	2.08	0.52
1:B:3187:ARG:HG3	1:B:3188:PRO:HD3	1.92	0.52
1:B:3356:SER:HG	1:B:3357:HIS:HD1	1.50	0.52
1:D:164:ARG:HH11	1:D:164:ARG:HG3	1.74	0.52
1:D:879:HIS:NE2	1:D:918:ARG:HA	2.25	0.52
1:D:3335:MET:SD	1:D:3403:ARG:NH1	2.82	0.52
1:D:4725:LEU:HA	1:D:4737:ILE:HG21	1.90	0.52
1:D:4989:MET:O	1:D:4993:MET:HG3	2.09	0.52
1:C:1106:ARG:NH2	1:C:1183:GLU:OE2	2.42	0.52
1:C:3087:ILE:HD12	1:C:3088:VAL:N	2.24	0.52
1:C:4156:HIS:HA	1:C:4161:ARG:HH21	1.74	0.52
1:A:13:PHE:CE1	1:A:164:ARG:HG2	2.44	0.52
1:A:3373:VAL:HG11	1:A:3444:TYR:HB3	1.89	0.52
1:B:1970:GLN:HG2	1:B:3642:TYR:HA	1.89	0.52
1:B:3240:CYS:HB2	1:B:3242:ASP:OD1	2.09	0.52
1:B:4640:GLU:HB3	1:B:4641:PRO:HD3	1.90	0.52
1:B:4705:VAL:HG22	1:B:4711:PHE:HB2	1.92	0.52
1:D:901:LYS:HG3	1:D:903:LEU:HG	1.91	0.52
1:D:1568:LYS:NZ	1:D:1569:GLN:O	2.40	0.52
1:D:2821:TRP:HD1	1:D:2939:ARG:HA	1.74	0.52
1:D:3533:ILE:HG13	1:D:3596:VAL:HG13	1.92	0.52
1:C:877:ASN:HD21	1:C:970:LEU:HB2	1.74	0.52
1:C:1449:TRP:HB2	1:C:1553:PHE:HB2	1.91	0.52
1:A:870:ILE:HD12	1:A:1049:TYR:CD2	2.45	0.52
1:A:879:HIS:NE2	1:A:918:ARG:HA	2.25	0.52
1:A:3320:LEU:O	1:A:3324:VAL:HG13	2.10	0.52
1:B:3169:LEU:HD12	1:B:3194:LEU:HD11	1.90	0.52
1:B:3335:MET:SD	1:B:3403:ARG:NH1	2.82	0.52
1:B:3754:GLU:HB2	1:B:4718:LYS:HG3	1.91	0.52
1:B:3966:THR:O	1:B:3970:GLN:HB2	2.09	0.52
1:B:4717:ASP:OD2	1:B:4723:LYS:NZ	2.42	0.52
1:D:3187:ARG:HG3	1:D:3188:PRO:HD3	1.92	0.52
1:A:294:THR:O	1:A:298:GLY:N	2.41	0.52
1:A:1172:ASP:OD1	1:A:1172:ASP:N	2.35	0.52
1:A:2299:VAL:HG11	1:A:2356:LEU:HB3	1.91	0.52
1:A:3240:CYS:HB2	1:A:3242:ASP:OD1	2.09	0.52
1:B:214:VAL:HG22	1:B:341:TYR:CD2	2.45	0.52
1:D:214:VAL:HG22	1:D:341:TYR:CD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:426:ARG:NE	1:D:427:GLY:O	2.42	0.52
1:D:3416:VAL:HG11	1:D:3517:MET:HG2	1.90	0.52
1:C:879:HIS:NE2	1:C:918:ARG:HA	2.25	0.52
1:C:1753:LYS:HD3	1:C:1753:LYS:N	2.24	0.52
1:C:3368:ARG:O	1:C:3372:VAL:HG23	2.09	0.52
1:A:627:PRO:HD3	2:E:89:GLY:HA2	1.91	0.52
1:A:1568:LYS:NZ	1:A:1569:GLN:O	2.40	0.52
1:A:3533:ILE:HG13	1:A:3596:VAL:HG13	1.92	0.52
1:A:3966:THR:O	1:A:3970:GLN:HB2	2.09	0.52
1:B:950:LEU:HD22	1:B:970:LEU:HD11	1.91	0.52
1:D:647:ASN:OD1	1:D:822:ARG:N	2.39	0.52
1:D:870:ILE:HD12	1:D:1049:TYR:CG	2.44	0.52
1:D:2192:TYR:HE1	1:D:2238:TYR:CE1	2.27	0.52
1:C:296:ASP:OD2	1:C:296:ASP:N	2.40	0.52
1:C:618:GLN:O	1:C:622:THR:HG23	2.10	0.52
1:C:3169:LEU:HD12	1:C:3194:LEU:HD11	1.90	0.52
1:C:3320:LEU:O	1:C:3324:VAL:HG13	2.10	0.52
1:A:2587:TYR:CZ	1:A:2591:ARG:HD2	2.45	0.52
1:A:3187:ARG:HG3	1:A:3188:PRO:HD3	1.92	0.52
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.45	0.52
2:H:89:GLY:O	2:H:90:ILE:HD13	2.09	0.52
1:B:884:LEU:O	1:B:888:GLU:HG2	2.10	0.52
1:B:901:LYS:HG3	1:B:903:LEU:HG	1.91	0.52
1:B:3449:HIS:CE1	1:B:3453:ARG:HD2	2.45	0.52
1:D:870:ILE:HD12	1:D:1049:TYR:CD2	2.45	0.52
1:D:4705:VAL:HG22	1:D:4711:PHE:HB2	1.92	0.52
1:C:870:ILE:HD12	1:C:1049:TYR:CG	2.44	0.52
1:C:3007:ASN:O	1:C:3011:THR:OG1	2.19	0.52
1:A:214:VAL:HG22	1:A:341:TYR:CD2	2.45	0.52
1:A:1537:ASN:OD1	1:A:1537:ASN:N	2.40	0.52
1:A:4705:VAL:HG22	1:A:4711:PHE:HB2	1.92	0.52
2:G:89:GLY:O	2:G:90:ILE:HD13	2.09	0.52
1:B:870:ILE:HD12	1:B:1049:TYR:CD2	2.45	0.52
1:B:879:HIS:NE2	1:B:918:ARG:HA	2.25	0.52
1:B:2881:ASN:HA	1:B:2884:ASN:ND2	2.25	0.52
1:D:618:GLN:O	1:D:622:THR:HG23	2.10	0.52
1:D:884:LEU:O	1:D:888:GLU:HG2	2.10	0.52
1:D:3621:HIS:HB3	1:D:3623:LEU:HD23	1.90	0.52
1:D:3872:GLU:OE1	1:D:3872:GLU:N	2.42	0.52
1:C:164:ARG:HG3	1:C:164:ARG:HH11	1.74	0.52
1:C:214:VAL:HG22	1:C:341:TYR:CD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1101:ARG:HG2	1:C:1125:ASN:HB2	1.91	0.52
1:C:3335:MET:SD	1:C:3403:ARG:NH1	2.82	0.52
1:C:4068:LEU:O	1:C:4072:VAL:HG13	2.10	0.52
1:A:884:LEU:O	1:A:888:GLU:HG2	2.10	0.52
1:A:1101:ARG:HG2	1:A:1125:ASN:HB2	1.92	0.52
1:A:1820:ARG:NH1	1:A:1820:ARG:HB2	2.24	0.52
1:A:3033:ASN:HA	1:A:3036:LYS:HD2	1.92	0.52
1:A:3872:GLU:N	1:A:3872:GLU:OE1	2.42	0.52
1:B:1820:ARG:NH1	1:B:1820:ARG:HB2	2.24	0.52
1:B:3872:GLU:OE1	1:B:3872:GLU:N	2.42	0.52
1:D:3499:ARG:O	1:D:3499:ARG:NE	2.36	0.52
1:D:4068:LEU:O	1:D:4072:VAL:HG13	2.10	0.52
1:C:2881:ASN:HA	1:C:2884:ASN:ND2	2.25	0.52
1:C:3872:GLU:OE1	1:C:3872:GLU:N	2.42	0.52
1:A:877:ASN:HD21	1:A:970:LEU:HB2	1.74	0.52
1:A:3449:HIS:CE1	1:A:3453:ARG:HD2	2.45	0.52
1:B:2587:TYR:CZ	1:B:2591:ARG:HD2	2.45	0.52
1:B:2821:TRP:HD1	1:B:2939:ARG:HA	1.74	0.52
1:B:2992:GLU:HA	1:B:2995:ILE:HD12	1.92	0.52
1:B:4989:MET:O	1:B:4993:MET:HG3	2.09	0.52
1:D:1101:ARG:HG2	1:D:1125:ASN:HB2	1.91	0.52
1:D:3320:LEU:O	1:D:3324:VAL:HG13	2.10	0.52
1:C:1172:ASP:OD1	1:C:1172:ASP:N	2.35	0.52
1:C:2178:MET:HB3	1:C:2228:MET:HE1	1.92	0.52
1:C:3449:HIS:CE1	1:C:3453:ARG:HD2	2.45	0.52
1:A:618:GLN:O	1:A:622:THR:HG23	2.10	0.51
1:A:2005:GLN:HA	1:A:2008:MET:CE	2.40	0.51
1:B:1101:ARG:HG2	1:B:1125:ASN:HB2	1.92	0.51
1:B:3320:LEU:O	1:B:3324:VAL:HG13	2.10	0.51
1:B:3368:ARG:O	1:B:3372:VAL:HG23	2.09	0.51
1:B:4687:TYR:OH	1:B:4699:GLY:O	2.20	0.51
1:D:3145:GLN:HG2	1:D:3149:GLN:NE2	2.25	0.51
1:C:950:LEU:HD22	1:C:970:LEU:HD11	1.91	0.51
1:C:4548:ARG:HH21	1:C:4549:VAL:HG12	1.76	0.51
1:A:2881:ASN:HA	1:A:2884:ASN:ND2	2.25	0.51
1:A:2991:HIS:O	1:A:2995:ILE:HG13	2.11	0.51
2:F:37:ASP:OD1	2:F:38:SER:N	2.42	0.51
1:B:877:ASN:HD21	1:B:970:LEU:HB2	1.74	0.51
1:B:4156:HIS:HA	1:B:4161:ARG:HH21	1.74	0.51
1:B:4548:ARG:HH21	1:B:4549:VAL:HG12	1.75	0.51
1:D:877:ASN:HD21	1:D:970:LEU:HB2	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:647:ASN:OD1	1:C:822:ARG:N	2.39	0.51
1:C:2299:VAL:HG11	1:C:2356:LEU:HB3	1.91	0.51
1:C:4717:ASP:OD2	1:C:4723:LYS:NZ	2.43	0.51
1:A:2821:TRP:HD1	1:A:2939:ARG:HA	1.74	0.51
1:A:3477:LYS:CG	1:B:1141:ARG:NH1	2.73	0.51
1:B:870:ILE:HG13	1:B:1051:TYR:CZ	2.46	0.51
1:B:3598:GLU:O	1:B:3602:VAL:HG23	2.11	0.51
1:D:316:PHE:CD2	1:D:346:CYS:HB3	2.46	0.51
1:D:2587:TYR:CZ	1:D:2591:ARG:HD2	2.45	0.51
1:D:2992:GLU:HA	1:D:2995:ILE:HD12	1.93	0.51
1:D:3604:TYR:O	1:D:3607:GLU:HG3	2.11	0.51
1:D:3754:GLU:HB2	1:D:4718:LYS:HG3	1.91	0.51
1:C:870:ILE:HG13	1:C:1051:TYR:CZ	2.46	0.51
1:C:925:SER:O	1:C:928:THR:OG1	2.20	0.51
1:C:1568:LYS:NZ	1:C:1569:GLN:O	2.40	0.51
1:C:2005:GLN:HA	1:C:2008:MET:CE	2.40	0.51
1:C:3145:GLN:HG2	1:C:3149:GLN:NE2	2.25	0.51
1:C:3533:ILE:HG13	1:C:3596:VAL:HG13	1.92	0.51
1:C:4244:GLU:HG3	1:C:4668:LEU:HD22	1.92	0.51
1:A:1449:TRP:HB2	1:A:1553:PHE:HB2	1.91	0.51
1:A:2992:GLU:HA	1:A:2995:ILE:HD12	1.93	0.51
1:A:3007:ASN:O	1:A:3011:THR:OG1	2.19	0.51
1:A:3604:TYR:O	1:A:3607:GLU:HG3	2.11	0.51
1:A:4243:PHE:CE2	1:A:4247:ILE:HD11	2.46	0.51
1:B:3729:MET:HB3	1:B:3770:LEU:HD11	1.91	0.51
1:B:4243:PHE:CE2	1:B:4247:ILE:HD11	2.46	0.51
1:D:3391:GLU:OE2	1:D:3450:ASN:ND2	2.43	0.51
1:D:3472:ALA:O	1:D:3476:SER:OG	2.25	0.51
1:D:3966:THR:O	1:D:3970:GLN:HB2	2.09	0.51
1:D:4156:HIS:HA	1:D:4161:ARG:HH21	1.75	0.51
1:C:316:PHE:CD2	1:C:346:CYS:HB3	2.46	0.51
1:C:870:ILE:HD12	1:C:1049:TYR:CD2	2.45	0.51
1:C:901:LYS:HG3	1:C:903:LEU:HG	1.91	0.51
1:C:2208:MET:O	1:C:2212:VAL:HG13	2.11	0.51
1:C:2292:GLU:OE1	1:C:2292:GLU:N	2.41	0.51
1:C:3455:GLU:OE1	1:C:3503:TYR:OH	2.29	0.51
1:A:102:LEU:HD11	1:D:3984:ARG:HH22	1.75	0.51
1:A:3145:GLN:HG2	1:A:3149:GLN:NE2	2.25	0.51
1:A:3455:GLU:OE1	1:A:3503:TYR:OH	2.29	0.51
1:D:1228:ILE:HG12	1:C:3571:TRP:CE2	2.46	0.51
1:D:2881:ASN:HA	1:D:2884:ASN:ND2	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3449:HIS:CE1	1:D:3453:ARG:HD2	2.45	0.51
1:D:4243:PHE:CE2	1:D:4247:ILE:HD11	2.46	0.51
1:C:2587:TYR:CZ	1:C:2591:ARG:HD2	2.45	0.51
1:C:3590:GLU:O	1:C:3593:VAL:HG22	2.11	0.51
1:C:4217:PHE:O	1:C:4221:VAL:HG22	2.11	0.51
1:B:316:PHE:CE2	1:B:346:CYS:HB3	2.46	0.51
1:B:3936:TYR:CA	1:C:76:ARG:HH12	2.22	0.51
1:D:3875:MET:HB2	1:D:3953:LYS:HZ3	1.75	0.51
1:C:1773:PRO:HA	1:C:2153:MET:HE2	1.92	0.51
1:C:2876:GLU:O	1:C:2880:GLU:HG3	2.11	0.51
1:C:2992:GLU:HA	1:C:2995:ILE:HD12	1.93	0.51
1:C:3033:ASN:HA	1:C:3036:LYS:HD2	1.92	0.51
1:C:4243:PHE:CE2	1:C:4247:ILE:HD11	2.46	0.51
1:A:870:ILE:HG13	1:A:1051:TYR:CZ	2.46	0.51
1:A:2208:MET:O	1:A:2212:VAL:HG13	2.11	0.51
1:A:3598:GLU:O	1:A:3602:VAL:HG23	2.11	0.51
1:A:4576:ILE:HG21	1:A:4643:LEU:HB2	1.93	0.51
1:A:4717:ASP:OD2	1:A:4723:LYS:NZ	2.42	0.51
2:F:25:HIS:CD2	2:F:104:LEU:HD11	2.46	0.51
1:B:2876:GLU:O	1:B:2880:GLU:HG3	2.11	0.51
1:B:3033:ASN:HA	1:B:3036:LYS:HD2	1.92	0.51
1:B:3533:ILE:HG13	1:B:3596:VAL:HG13	1.92	0.51
1:D:870:ILE:HG13	1:D:1051:TYR:CZ	2.45	0.51
1:D:2991:HIS:O	1:D:2995:ILE:HG13	2.11	0.51
1:D:3455:GLU:OE1	1:D:3503:TYR:OH	2.29	0.51
1:D:4576:ILE:HG21	1:D:4643:LEU:HB2	1.93	0.51
1:C:3896:ASN:OD1	1:C:3899:PHE:HB2	2.11	0.51
1:C:4576:ILE:HG21	1:C:4643:LEU:HB2	1.93	0.51
1:A:316:PHE:CE2	1:A:346:CYS:HB3	2.46	0.51
1:A:689:THR:HG23	1:A:776:LEU:O	2.11	0.51
1:A:728:ARG:NH2	1:A:1489:CYS:SG	2.84	0.51
1:A:1753:LYS:HD3	1:A:1753:LYS:N	2.24	0.51
1:A:4156:HIS:HA	1:A:4161:ARG:HH21	1.74	0.51
1:A:4989:MET:O	1:A:4993:MET:HG3	2.09	0.51
1:B:15:ARG:HG3	1:B:98:HIS:HB3	1.93	0.51
1:B:3129:LEU:O	1:B:3133:THR:HG22	2.10	0.51
1:B:3823:LYS:HE2	1:B:3823:LYS:HA	1.93	0.51
1:B:4745:LEU:H	1:B:4745:LEU:HD12	1.76	0.51
1:D:385:ASP:OD1	1:D:385:ASP:N	2.38	0.51
1:D:2005:GLN:HA	1:D:2008:MET:CE	2.40	0.51
1:D:2208:MET:O	1:D:2212:VAL:HG13	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2707:ALA:HB1	1:D:3009:TYR:HD1	1.76	0.51
1:D:3033:ASN:HA	1:D:3036:LYS:HD2	1.92	0.51
1:D:4116:GLU:OE2	1:D:4131:ARG:NH1	2.44	0.51
1:C:3812:VAL:O	1:C:3816:MET:HG3	2.11	0.51
1:A:3129:LEU:O	1:A:3133:THR:HG22	2.10	0.51
1:A:4548:ARG:HH21	1:A:4549:VAL:HG12	1.76	0.51
1:B:316:PHE:CD2	1:B:346:CYS:HB3	2.46	0.51
1:B:421:PHE:HE1	1:B:436:LEU:HD11	1.76	0.51
1:B:2208:MET:O	1:B:2212:VAL:HG13	2.11	0.51
1:B:2299:VAL:HG11	1:B:2356:LEU:HB3	1.91	0.51
1:B:2716:ASP:N	1:B:2716:ASP:OD1	2.44	0.51
1:B:3107:VAL:HG12	1:B:3175:LEU:CD2	2.41	0.51
1:D:316:PHE:CE2	1:D:346:CYS:HB3	2.46	0.51
1:D:3129:LEU:O	1:D:3133:THR:HG22	2.10	0.51
1:D:3354:LEU:HD23	1:D:3415:TYR:CE1	2.46	0.51
1:D:4548:ARG:HH21	1:D:4549:VAL:HG12	1.76	0.51
1:C:3620:TRP:HE3	1:C:3620:TRP:H	1.58	0.51
1:C:3823:LYS:HE2	1:C:3823:LYS:HA	1.93	0.51
1:C:4745:LEU:HD12	1:C:4745:LEU:H	1.76	0.51
1:A:1786:LEU:HG	2:E:82:TYR:HD1	1.76	0.51
1:B:37:LEU:HD12	1:B:191:VAL:HG21	1.93	0.51
1:B:618:GLN:O	1:B:622:THR:HG23	2.10	0.51
1:B:2224:ARG:NH1	1:B:2224:ARG:HB2	2.26	0.51
1:B:2707:ALA:HB1	1:B:3009:TYR:HD1	1.76	0.51
1:B:3354:LEU:HD23	1:B:3415:TYR:CE1	2.46	0.51
1:B:3604:TYR:O	1:B:3607:GLU:HG3	2.11	0.51
1:B:3880:PHE:HA	1:B:3883:ASP:OD2	2.11	0.51
1:D:886:ARG:HB3	1:D:891:TRP:HB2	1.93	0.51
1:D:1449:TRP:HB2	1:D:1553:PHE:HB2	1.91	0.51
1:D:2573:GLU:OE2	1:D:2615:ARG:NE	2.44	0.51
1:D:3107:VAL:HG12	1:D:3175:LEU:CD2	2.41	0.51
1:D:4745:LEU:H	1:D:4745:LEU:HD12	1.76	0.51
1:C:37:LEU:HD12	1:C:191:VAL:HG21	1.93	0.51
1:C:1742:THR:HA	1:C:1745:ILE:HD12	1.93	0.51
1:C:3129:LEU:O	1:C:3133:THR:HG22	2.10	0.51
1:C:3604:TYR:O	1:C:3607:GLU:HG3	2.11	0.51
1:A:316:PHE:CD2	1:A:346:CYS:HB3	2.46	0.50
1:A:421:PHE:HE1	1:A:436:LEU:HD11	1.76	0.50
1:A:3590:GLU:O	1:A:3593:VAL:HG22	2.11	0.50
1:A:3880:PHE:HA	1:A:3883:ASP:OD2	2.11	0.50
2:F:11:ASP:OD2	2:F:12:GLY:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:35:LYS:NZ	2:F:38:SER:HB3	2.25	0.50
1:B:3455:GLU:OE1	1:B:3503:TYR:OH	2.29	0.50
1:B:3590:GLU:O	1:B:3593:VAL:HG22	2.11	0.50
1:B:4244:GLU:HG3	1:B:4668:LEU:HD22	1.92	0.50
1:D:3620:TRP:HE3	1:D:3620:TRP:H	1.58	0.50
1:C:181:HIS:HB3	1:C:194:SER:HB3	1.94	0.50
1:C:316:PHE:CE2	1:C:346:CYS:HB3	2.46	0.50
1:C:861:ILE:HA	1:C:930:LYS:HD2	1.93	0.50
1:C:884:LEU:O	1:C:888:GLU:HG2	2.10	0.50
1:C:886:ARG:HB3	1:C:891:TRP:HB2	1.93	0.50
1:C:2816:MET:HA	1:C:2878:LEU:HD21	1.93	0.50
1:C:3107:VAL:HG12	1:C:3175:LEU:CD2	2.41	0.50
1:C:3354:LEU:HD23	1:C:3415:TYR:CE1	2.46	0.50
1:C:3875:MET:HB2	1:C:3953:LYS:HZ3	1.76	0.50
1:A:2238:TYR:O	1:A:2242:ILE:HG13	2.12	0.50
1:A:2707:ALA:HB1	1:A:3009:TYR:HD1	1.76	0.50
1:A:4217:PHE:O	1:A:4221:VAL:HG22	2.11	0.50
1:B:181:HIS:HB3	1:B:194:SER:HB3	1.93	0.50
1:B:1449:TRP:HB2	1:B:1553:PHE:HB2	1.91	0.50
1:D:957:LYS:H	1:D:957:LYS:HE2	1.77	0.50
1:D:3880:PHE:HA	1:D:3883:ASP:OD2	2.11	0.50
1:D:4217:PHE:O	1:D:4221:VAL:HG22	2.11	0.50
1:D:4244:GLU:HG3	1:D:4668:LEU:HD22	1.92	0.50
1:C:421:PHE:HE1	1:C:436:LEU:HD11	1.76	0.50
1:C:2012:PHE:CZ	1:C:2031:LEU:HD23	2.47	0.50
1:C:2283:ASN:HB3	1:C:2286:LEU:HB2	1.93	0.50
1:C:4116:GLU:OE2	1:C:4131:ARG:NH1	2.44	0.50
1:A:3499:ARG:O	1:A:3499:ARG:NE	2.36	0.50
1:A:4068:LEU:O	1:A:4072:VAL:HG13	2.10	0.50
1:A:4745:LEU:H	1:A:4745:LEU:HD12	1.76	0.50
1:B:256:ALA:HB2	1:B:477:LEU:HD22	1.94	0.50
1:B:728:ARG:NH2	1:B:1489:CYS:SG	2.84	0.50
1:B:2005:GLN:HA	1:B:2008:MET:CE	2.40	0.50
1:B:3896:ASN:OD1	1:B:3899:PHE:HB2	2.11	0.50
1:D:421:PHE:HE1	1:D:436:LEU:HD11	1.76	0.50
1:D:1927:LEU:HD13	1:D:2101:MET:HG3	1.93	0.50
1:D:2816:MET:HA	1:D:2878:LEU:HD21	1.93	0.50
1:D:2876:GLU:O	1:D:2880:GLU:HG3	2.11	0.50
1:D:3590:GLU:O	1:D:3593:VAL:HG22	2.11	0.50
1:D:3598:GLU:O	1:D:3602:VAL:HG23	2.11	0.50
1:C:1753:LYS:HZ1	1:C:1759:ARG:H	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:256:ALA:HB2	1:A:477:LEU:HD22	1.94	0.50
1:A:1478:ASP:HB3	1:A:1482:ASN:HB2	1.94	0.50
1:A:1997:GLU:HB2	1:A:2008:MET:HE3	1.94	0.50
1:A:2886:TRP:CH2	1:A:2904:LEU:HB3	2.44	0.50
1:A:3812:VAL:O	1:A:3816:MET:HG3	2.11	0.50
1:B:689:THR:HG23	1:B:776:LEU:O	2.11	0.50
1:B:2010:LEU:HD12	1:B:3656:SER:HB3	1.94	0.50
1:B:2192:TYR:HE1	1:B:2238:TYR:HE1	1.60	0.50
1:B:2886:TRP:CH2	1:B:2904:LEU:HB3	2.43	0.50
1:B:3812:VAL:O	1:B:3816:MET:HG3	2.11	0.50
1:B:4068:LEU:O	1:B:4072:VAL:HG13	2.10	0.50
1:B:4217:PHE:O	1:B:4221:VAL:HG22	2.11	0.50
1:D:2716:ASP:N	1:D:2716:ASP:OD1	2.44	0.50
1:D:3655:GLU:HA	1:D:3658:LYS:HZ3	1.76	0.50
1:C:644:ILE:HG12	1:C:783:PHE:HZ	1.77	0.50
1:C:689:THR:HG23	1:C:776:LEU:O	2.11	0.50
1:C:2573:GLU:OE2	1:C:2615:ARG:NE	2.44	0.50
1:C:3391:GLU:OE2	1:C:3450:ASN:ND2	2.43	0.50
1:A:2876:GLU:O	1:A:2880:GLU:HG3	2.11	0.50
1:A:3823:LYS:HA	1:A:3823:LYS:HE2	1.93	0.50
1:B:1478:ASP:HB3	1:B:1482:ASN:HB2	1.94	0.50
1:B:2991:HIS:O	1:B:2995:ILE:HG13	2.11	0.50
1:D:15:ARG:HG3	1:D:98:HIS:HB3	1.93	0.50
1:D:37:LEU:HD12	1:D:191:VAL:HG21	1.93	0.50
1:D:151:HIS:O	1:D:170:ILE:HG22	2.11	0.50
1:D:728:ARG:NH2	1:D:1489:CYS:SG	2.84	0.50
1:D:2224:ARG:NH1	1:D:2224:ARG:HB2	2.26	0.50
1:D:2238:TYR:HD2	1:D:2241:ARG:HB2	1.77	0.50
1:D:3896:ASN:OD1	1:D:3899:PHE:HB2	2.11	0.50
1:D:4010:ILE:O	1:D:4014:LYS:HG3	2.12	0.50
1:D:4157:ASP:OD2	1:D:4160:LEU:N	2.39	0.50
1:D:4730:ASP:OD1	1:D:4731:ILE:N	2.45	0.50
1:C:728:ARG:NH2	1:C:1489:CYS:SG	2.84	0.50
1:C:957:LYS:HE2	1:C:957:LYS:H	1.77	0.50
1:C:1618:ARG:HB3	1:C:1618:ARG:NH1	2.27	0.50
1:C:2238:TYR:O	1:C:2242:ILE:HG13	2.12	0.50
1:A:15:ARG:HG3	1:A:98:HIS:HB3	1.93	0.50
1:A:628:GLY:O	2:E:34:LYS:NZ	2.43	0.50
1:A:957:LYS:H	1:A:957:LYS:HE2	1.77	0.50
1:A:1465:ASP:OD1	1:A:1468:LYS:N	2.39	0.50
1:A:3107:VAL:HG12	1:A:3175:LEU:CD2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3896:ASN:OD1	1:A:3899:PHE:HB2	2.11	0.50
1:A:4244:GLU:HG3	1:A:4668:LEU:HD22	1.92	0.50
1:A:4730:ASP:OD1	1:A:4731:ILE:N	2.45	0.50
1:B:1422:ASP:OD1	1:B:1571:ASN:N	2.39	0.50
1:B:2012:PHE:CZ	1:B:2031:LEU:HD23	2.46	0.50
1:B:4010:ILE:O	1:B:4014:LYS:HG3	2.12	0.50
1:D:3034:LYS:HZ1	1:D:3038:MET:HG3	1.76	0.50
1:D:3873:LYS:HD3	1:D:3873:LYS:N	2.27	0.50
1:C:1292:SER:OG	1:C:1596:GLU:O	2.26	0.50
1:C:2224:ARG:NH1	1:C:2224:ARG:HB2	2.26	0.50
1:C:2991:HIS:O	1:C:2995:ILE:HG13	2.11	0.50
1:A:2573:GLU:OE2	1:A:2615:ARG:NE	2.44	0.50
1:A:2716:ASP:OD1	1:A:2716:ASP:N	2.44	0.50
1:A:4681:LEU:HD11	1:A:4706:LEU:HD22	1.94	0.50
2:H:37:ASP:OD1	2:H:38:SER:N	2.45	0.50
1:B:151:HIS:O	1:B:170:ILE:HG22	2.11	0.50
1:B:1773:PRO:HA	1:B:2153:MET:HE2	1.93	0.50
1:B:2238:TYR:HD2	1:B:2241:ARG:HB2	1.77	0.50
1:B:2238:TYR:O	1:B:2242:ILE:HG13	2.12	0.50
1:D:689:THR:HG23	1:D:776:LEU:O	2.11	0.50
1:D:1115:LEU:HD12	1:D:1193:SER:HB3	1.94	0.50
1:D:1618:ARG:NH1	1:D:1618:ARG:HB3	2.27	0.50
1:D:2238:TYR:O	1:D:2242:ILE:HG13	2.12	0.50
1:D:2340:PHE:CD1	1:D:2435:ARG:HD3	2.47	0.50
1:D:3357:HIS:O	1:D:3361:THR:HG23	2.12	0.50
1:D:3948:LYS:HD3	1:D:4012:LEU:HD22	1.94	0.50
1:C:2010:LEU:HD12	1:C:3656:SER:HB3	1.94	0.50
1:A:181:HIS:HB3	1:A:194:SER:HB3	1.94	0.50
1:A:2012:PHE:CZ	1:A:2031:LEU:HD23	2.47	0.50
1:A:2157:GLU:O	1:A:2161:GLN:HG2	2.12	0.50
1:A:2192:TYR:HE1	1:A:2238:TYR:HE1	1.60	0.50
1:A:2224:ARG:NH1	1:A:2224:ARG:HB2	2.26	0.50
1:A:2886:TRP:O	1:A:2889:LYS:HG2	2.12	0.50
1:A:3354:LEU:HD23	1:A:3415:TYR:CE1	2.46	0.50
1:A:3405:LEU:HD21	1:A:3510:ILE:HG23	1.94	0.50
1:A:4010:ILE:O	1:A:4014:LYS:HG3	2.12	0.50
1:B:952:LYS:HE2	1:B:970:LEU:HG	1.94	0.50
1:B:957:LYS:H	1:B:957:LYS:HE2	1.77	0.50
1:B:3405:LEU:HD21	1:B:3510:ILE:HG23	1.94	0.50
1:B:3592:ILE:HA	1:B:3595:ARG:HE	1.77	0.50
1:B:4116:GLU:OE2	1:B:4131:ARG:NH1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4730:ASP:OD1	1:B:4731:ILE:N	2.45	0.50
1:D:1742:THR:HA	1:D:1745:ILE:HD12	1.93	0.50
1:D:2283:ASN:HB3	1:D:2286:LEU:HB2	1.93	0.50
1:D:3683:GLN:HA	1:D:3686:GLU:HB2	1.94	0.50
1:C:151:HIS:O	1:C:170:ILE:HG22	2.11	0.50
1:C:2340:PHE:CD1	1:C:2435:ARG:HD3	2.47	0.50
1:C:3598:GLU:O	1:C:3602:VAL:HG23	2.10	0.50
1:C:4730:ASP:OD1	1:C:4731:ILE:N	2.45	0.50
1:A:1618:ARG:NH1	1:A:1618:ARG:HB3	2.27	0.50
1:A:3244:PRO:HG2	1:A:3249:LEU:HD13	1.94	0.50
1:A:3628:ARG:HH11	1:A:3628:ARG:HA	1.77	0.50
1:A:3683:GLN:HA	1:A:3686:GLU:HB2	1.94	0.50
1:B:923:GLN:O	1:B:927:GLU:HG2	2.12	0.50
1:B:2292:GLU:OE1	1:B:2292:GLU:N	2.41	0.50
1:B:2669:GLU:HA	1:B:2672:LEU:HB2	1.94	0.50
1:B:3145:GLN:HG2	1:B:3149:GLN:NE2	2.25	0.50
1:B:3550:ARG:HG3	1:B:3597:GLN:HG3	1.94	0.50
1:B:4681:LEU:HD11	1:B:4706:LEU:HD22	1.94	0.50
1:D:181:HIS:HB3	1:D:194:SER:HB3	1.94	0.50
1:D:923:GLN:O	1:D:927:GLU:HG2	2.11	0.50
1:D:2019:GLU:N	1:D:2019:GLU:OE1	2.45	0.50
1:D:2792:ARG:HH21	1:D:2798:SER:H	1.59	0.50
1:D:2886:TRP:O	1:D:2889:LYS:HG2	2.12	0.50
1:D:3434:LEU:O	1:D:3438:VAL:HG12	2.12	0.50
1:D:3812:VAL:O	1:D:3816:MET:HG3	2.11	0.50
1:D:3823:LYS:HA	1:D:3823:LYS:HE2	1.93	0.50
1:C:1927:LEU:HD13	1:C:2101:MET:HG3	1.93	0.50
1:C:3256:LEU:HD22	1:C:3266:MET:HG3	1.94	0.50
1:A:2867:LEU:HD23	1:A:2872:GLN:HG3	1.94	0.49
1:A:3620:TRP:HE3	1:A:3620:TRP:H	1.58	0.49
1:B:2867:LEU:HD23	1:B:2872:GLN:HG3	1.94	0.49
1:B:3434:LEU:O	1:B:3438:VAL:HG12	2.12	0.49
1:B:4576:ILE:HG21	1:B:4643:LEU:HB2	1.93	0.49
1:D:3106:MET:CE	1:D:3132:THR:HB	2.40	0.49
1:D:3628:ARG:HH11	1:D:3628:ARG:HA	1.77	0.49
1:D:4681:LEU:HD11	1:D:4706:LEU:HD22	1.94	0.49
1:C:955:LEU:HD13	1:C:967:PRO:HD2	1.94	0.49
1:C:1115:LEU:HD12	1:C:1193:SER:HB3	1.94	0.49
1:C:1478:ASP:HB3	1:C:1482:ASN:HB2	1.94	0.49
1:C:2192:TYR:HE1	1:C:2238:TYR:HE1	1.60	0.49
1:C:3592:ILE:HA	1:C:3595:ARG:HE	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:151:HIS:O	1:A:170:ILE:HG22	2.11	0.49
1:A:886:ARG:HB3	1:A:891:TRP:HB2	1.93	0.49
1:A:1742:THR:HA	1:A:1745:ILE:HD12	1.93	0.49
1:A:2292:GLU:OE1	1:A:2292:GLU:N	2.41	0.49
1:A:4116:GLU:OE2	1:A:4131:ARG:NH1	2.44	0.49
1:B:1112:ASP:OD1	1:B:1112:ASP:N	2.44	0.49
1:B:1927:LEU:HD13	1:B:2101:MET:HG3	1.93	0.49
1:B:2573:GLU:OE2	1:B:2615:ARG:NE	2.44	0.49
1:B:4543:GLU:HA	1:B:4546:VAL:HG12	1.93	0.49
1:D:1958:LEU:HD23	1:D:2138:LEU:HD21	1.95	0.49
1:D:2012:PHE:CZ	1:D:2031:LEU:HD23	2.46	0.49
1:D:4717:ASP:OD2	1:D:4723:LYS:NZ	2.43	0.49
1:C:2707:ALA:HB1	1:C:3009:TYR:HD1	1.76	0.49
1:C:3948:LYS:HD3	1:C:4012:LEU:HD22	1.94	0.49
1:A:923:GLN:O	1:A:927:GLU:HG2	2.12	0.49
1:A:1115:LEU:HD12	1:A:1193:SER:HB3	1.94	0.49
1:A:2920:ARG:O	1:A:2924:GLN:HG2	2.12	0.49
2:H:11:ASP:OD2	2:H:12:GLY:N	2.45	0.49
2:G:37:ASP:OD1	2:G:38:SER:N	2.45	0.49
1:B:644:ILE:HG12	1:B:783:PHE:HZ	1.77	0.49
1:B:3244:PRO:HG2	1:B:3249:LEU:HD13	1.94	0.49
1:B:3620:TRP:H	1:B:3620:TRP:HE3	1.58	0.49
1:C:463:GLU:OE2	1:C:463:GLU:N	2.29	0.49
1:C:3628:ARG:HA	1:C:3628:ARG:HH11	1.77	0.49
1:C:4681:LEU:HD11	1:C:4706:LEU:HD22	1.94	0.49
1:A:37:LEU:HD12	1:A:191:VAL:HG21	1.93	0.49
1:A:955:LEU:HD13	1:A:967:PRO:HD2	1.94	0.49
1:A:1927:LEU:HD13	1:A:2101:MET:HG3	1.93	0.49
1:A:1958:LEU:HD23	1:A:2138:LEU:HD21	1.95	0.49
1:A:2238:TYR:HD2	1:A:2241:ARG:HB2	1.77	0.49
1:A:3357:HIS:O	1:A:3361:THR:HG23	2.12	0.49
1:A:3592:ILE:HA	1:A:3595:ARG:HE	1.77	0.49
1:B:20:VAL:HG12	1:B:204:PRO:HA	1.94	0.49
1:B:180:LEU:HD23	1:B:200:TRP:CE2	2.48	0.49
1:B:955:LEU:HD13	1:B:967:PRO:HD2	1.94	0.49
1:B:1270:LEU:HB2	1:B:1564:PHE:HB2	1.94	0.49
1:B:2816:MET:HA	1:B:2878:LEU:HD21	1.93	0.49
1:B:2886:TRP:O	1:B:2889:LYS:HG2	2.12	0.49
1:B:3256:LEU:HD22	1:B:3266:MET:HG3	1.94	0.49
1:B:3628:ARG:HA	1:B:3628:ARG:HH11	1.77	0.49
1:D:644:ILE:HG12	1:D:783:PHE:HZ	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1478:ASP:HB3	1:D:1482:ASN:HB2	1.94	0.49
1:D:2192:TYR:HE1	1:D:2238:TYR:HE1	1.60	0.49
1:D:2867:LEU:HD23	1:D:2872:GLN:HG3	1.95	0.49
1:C:952:LYS:HE2	1:C:970:LEU:HG	1.94	0.49
1:C:2669:GLU:HA	1:C:2672:LEU:HB2	1.94	0.49
1:A:257:ARG:O	1:A:284:HIS:NE2	2.28	0.49
1:A:2669:GLU:HA	1:A:2672:LEU:HB2	1.94	0.49
1:A:2816:MET:HA	1:A:2878:LEU:HD21	1.93	0.49
1:A:3948:LYS:HD3	1:A:4012:LEU:HD22	1.94	0.49
1:B:1753:LYS:HD3	1:B:1753:LYS:N	2.24	0.49
1:B:3683:GLN:HA	1:B:3686:GLU:HB2	1.94	0.49
1:D:180:LEU:HD23	1:D:200:TRP:CE2	2.48	0.49
1:D:4926:VAL:HG13	1:C:4933:GLN:HG3	1.95	0.49
1:C:2792:ARG:HH21	1:C:2798:SER:H	1.59	0.49
1:C:2825:LYS:HB3	1:C:2935:TYR:HA	1.95	0.49
1:C:3244:PRO:HG2	1:C:3249:LEU:HD13	1.94	0.49
1:C:3683:GLN:HA	1:C:3686:GLU:HB2	1.94	0.49
1:A:180:LEU:HD23	1:A:200:TRP:CE2	2.48	0.49
1:A:952:LYS:HE2	1:A:970:LEU:HG	1.94	0.49
1:A:3106:MET:CE	1:A:3132:THR:HB	2.40	0.49
1:A:3108:GLU:HB3	1:A:3114:LYS:HZ2	1.78	0.49
1:A:4926:VAL:CG1	1:D:4933:GLN:HG3	2.43	0.49
2:E:25:HIS:CD2	2:E:104:LEU:HD11	2.47	0.49
1:B:13:PHE:CD1	1:B:162:LYS:HG3	2.48	0.49
1:B:1077:ALA:HB3	1:B:1189:LEU:HD22	1.94	0.49
1:B:1759:ARG:HA	1:B:1759:ARG:CZ	2.43	0.49
1:B:2283:ASN:HB3	1:B:2286:LEU:HB2	1.93	0.49
1:B:3948:LYS:HD3	1:B:4012:LEU:HD22	1.94	0.49
1:B:4933:GLN:HG3	1:C:4926:VAL:HG13	1.94	0.49
1:D:73:LEU:O	1:D:106:ALA:N	2.28	0.49
1:D:1773:PRO:HA	1:D:2153:MET:HE2	1.95	0.49
1:D:2157:GLU:O	1:D:2161:GLN:HG2	2.12	0.49
1:D:2825:LYS:HB3	1:D:2935:TYR:HA	1.95	0.49
1:D:3256:LEU:HD22	1:D:3266:MET:HG3	1.94	0.49
1:D:3592:ILE:HA	1:D:3595:ARG:HE	1.77	0.49
1:D:3707:ARG:O	1:D:3711:THR:HG23	2.13	0.49
1:D:4543:GLU:HA	1:D:4546:VAL:HG12	1.93	0.49
1:C:426:ARG:NH1	1:C:509:GLU:OE1	2.34	0.49
1:C:923:GLN:O	1:C:927:GLU:HG2	2.11	0.49
1:C:2867:LEU:HD23	1:C:2872:GLN:HG3	1.95	0.49
1:C:3235:SER:OG	1:C:3237:GLU:OE1	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3434:LEU:O	1:C:3438:VAL:HG12	2.12	0.49
1:C:3880:PHE:HA	1:C:3883:ASP:OD2	2.11	0.49
1:A:1076:ARG:HB3	1:A:1191:VAL:HG23	1.95	0.49
1:A:4867:GLU:OE1	1:A:4867:GLU:N	2.37	0.49
2:E:60:GLU:OE1	2:E:60:GLU:HA	2.13	0.49
1:B:965:TYR:HD1	1:B:966:LYS:N	2.11	0.49
1:B:1057:ASP:OD1	1:B:1057:ASP:N	2.39	0.49
1:B:1076:ARG:HB3	1:B:1191:VAL:HG23	1.95	0.49
1:D:13:PHE:CD1	1:D:162:LYS:HG3	2.48	0.49
1:C:2157:GLU:O	1:C:2161:GLN:HG2	2.12	0.49
1:C:2886:TRP:O	1:C:2889:LYS:HG2	2.12	0.49
1:C:3873:LYS:HD3	1:C:3873:LYS:N	2.27	0.49
1:A:13:PHE:CD1	1:A:162:LYS:HG3	2.48	0.49
1:A:861:ILE:HA	1:A:930:LYS:HD2	1.93	0.49
1:A:2010:LEU:HD12	1:A:3656:SER:HB3	1.94	0.49
1:B:861:ILE:HA	1:B:930:LYS:HD2	1.93	0.49
1:B:1618:ARG:HB3	1:B:1618:ARG:NH1	2.27	0.49
1:B:2019:GLU:OE1	1:B:2019:GLU:N	2.45	0.49
1:B:3391:GLU:OE2	1:B:3450:ASN:ND2	2.43	0.49
1:D:861:ILE:HA	1:D:930:LYS:HD2	1.93	0.49
1:D:1076:ARG:HB3	1:D:1191:VAL:HG23	1.95	0.49
1:D:1448:VAL:HG22	1:D:1554:VAL:HG23	1.95	0.49
1:D:2495:VAL:HG12	1:D:2497:ASP:H	1.78	0.49
1:C:13:PHE:CD1	1:C:162:LYS:HG3	2.48	0.49
1:C:1270:LEU:HB2	1:C:1564:PHE:HB2	1.94	0.49
1:C:3357:HIS:O	1:C:3361:THR:HG23	2.12	0.49
1:C:3405:LEU:HD21	1:C:3510:ILE:HG23	1.94	0.49
1:A:1994:ARG:CZ	1:A:1994:ARG:HA	2.43	0.49
1:A:2340:PHE:CD1	1:A:2435:ARG:HD3	2.47	0.49
1:A:2495:VAL:HG12	1:A:2497:ASP:H	1.78	0.49
1:A:3256:LEU:HD22	1:A:3266:MET:HG3	1.94	0.49
1:A:3550:ARG:HG3	1:A:3597:GLN:HG3	1.94	0.49
1:B:1115:LEU:HD12	1:B:1193:SER:HB3	1.94	0.49
1:B:2495:VAL:HG12	1:B:2497:ASP:H	1.78	0.49
1:D:965:TYR:HD1	1:D:966:LYS:N	2.11	0.49
1:C:1958:LEU:HD23	1:C:2138:LEU:HD21	1.95	0.49
1:C:3211:ASN:OD1	1:C:3212:GLU:N	2.46	0.49
1:A:869:ARG:HD2	1:A:870:ILE:N	2.28	0.49
1:A:2283:ASN:HB3	1:A:2286:LEU:HB2	1.93	0.49
1:A:2412:GLU:H	1:A:2412:GLU:CD	2.16	0.49
1:A:2792:ARG:HH21	1:A:2798:SER:H	1.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3434:LEU:O	1:A:3438:VAL:HG12	2.12	0.49
1:A:4543:GLU:HA	1:A:4546:VAL:HG12	1.93	0.49
1:B:886:ARG:HB3	1:B:891:TRP:HB2	1.93	0.49
1:B:1958:LEU:HD23	1:B:2138:LEU:HD21	1.94	0.49
1:B:2792:ARG:HH21	1:B:2798:SER:H	1.59	0.49
1:B:2825:LYS:HB3	1:B:2935:TYR:HA	1.95	0.49
1:D:1089:TYR:HD1	1:D:1152:MET:HG3	1.78	0.49
1:D:2920:ARG:O	1:D:2924:GLN:HG2	2.12	0.49
1:D:3235:SER:OG	1:D:3237:GLU:OE1	2.30	0.49
1:D:4063:ASP:OD1	1:D:4064:MET:N	2.46	0.49
1:C:15:ARG:HG3	1:C:98:HIS:HB3	1.93	0.49
1:C:20:VAL:HG12	1:C:204:PRO:HA	1.94	0.49
1:C:78:LEU:O	1:C:81:MET:HG3	2.13	0.49
1:C:2238:TYR:HD2	1:C:2241:ARG:HB2	1.77	0.49
1:C:3332:ALA:HB1	1:C:3334:TRP:CD1	2.48	0.49
1:A:78:LEU:O	1:A:81:MET:HG3	2.13	0.48
1:B:647:ASN:OD1	1:B:822:ARG:N	2.39	0.48
1:B:1742:THR:HA	1:B:1745:ILE:HD12	1.93	0.48
1:B:2340:PHE:CD1	1:B:2435:ARG:HD3	2.47	0.48
1:D:256:ALA:HB2	1:D:477:LEU:HD22	1.93	0.48
1:D:2010:LEU:HD12	1:D:3656:SER:HB3	1.94	0.48
1:D:3332:ALA:HB1	1:D:3334:TRP:CD1	2.48	0.48
1:D:3621:HIS:O	1:D:3622:LYS:HG3	2.13	0.48
1:C:4157:ASP:OD2	1:C:4160:LEU:N	2.39	0.48
1:C:4543:GLU:HA	1:C:4546:VAL:HG12	1.93	0.48
1:A:2138:LEU:HB3	1:A:3658:LYS:HE3	1.95	0.48
1:B:1228:ILE:HG22	1:B:1827:ARG:HH21	1.79	0.48
1:B:2157:GLU:O	1:B:2161:GLN:HG2	2.12	0.48
1:B:3707:ARG:O	1:B:3711:THR:HG23	2.13	0.48
1:D:234:SER:OG	1:D:238:SER:OG	2.24	0.48
1:D:323:LEU:HB3	1:D:325:THR:HG23	1.95	0.48
1:D:952:LYS:HE2	1:D:970:LEU:HG	1.94	0.48
1:D:1077:ALA:HB3	1:D:1189:LEU:HD22	1.94	0.48
1:D:1759:ARG:HA	1:D:1759:ARG:CZ	2.43	0.48
1:D:2138:LEU:HB3	1:D:3658:LYS:HE3	1.95	0.48
1:C:180:LEU:HD23	1:C:200:TRP:CE2	2.48	0.48
1:C:1994:ARG:CZ	1:C:1994:ARG:HA	2.43	0.48
1:C:3707:ARG:O	1:C:3711:THR:HG23	2.13	0.48
1:A:20:VAL:HG12	1:A:204:PRO:HA	1.94	0.48
1:A:965:TYR:HD1	1:A:966:LYS:N	2.11	0.48
1:A:1228:ILE:HG22	1:A:1827:ARG:HH21	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.13	0.48
1:A:3529:ASP:OD2	1:A:3592:ILE:HG23	2.14	0.48
1:B:828:GLU:OE1	1:B:828:GLU:N	2.41	0.48
1:B:4063:ASP:OD1	1:B:4064:MET:N	2.46	0.48
1:B:4157:ASP:OD2	1:B:4160:LEU:N	2.39	0.48
1:D:20:VAL:HG12	1:D:204:PRO:HA	1.94	0.48
1:D:869:ARG:HD2	1:D:870:ILE:N	2.28	0.48
1:D:925:SER:O	1:D:928:THR:OG1	2.20	0.48
1:D:3211:ASN:OD1	1:D:3212:GLU:N	2.46	0.48
1:D:3244:PRO:HG2	1:D:3249:LEU:HD13	1.94	0.48
1:D:3405:LEU:HD21	1:D:3510:ILE:HG23	1.94	0.48
1:C:256:ALA:HB2	1:C:477:LEU:HD22	1.94	0.48
1:C:323:LEU:HB3	1:C:325:THR:HG23	1.96	0.48
1:C:965:TYR:HD1	1:C:966:LYS:N	2.11	0.48
1:C:1076:ARG:HB3	1:C:1191:VAL:HG23	1.95	0.48
1:C:1759:ARG:CZ	1:C:1759:ARG:HA	2.43	0.48
1:C:2965:ARG:HE	1:C:2969:ILE:HD11	1.78	0.48
1:C:3550:ARG:HG3	1:C:3597:GLN:HG3	1.94	0.48
1:C:4010:ILE:O	1:C:4014:LYS:HG3	2.12	0.48
1:A:644:ILE:HG12	1:A:783:PHE:HZ	1.77	0.48
1:A:772:ASN:HD21	1:A:1470:ARG:HA	1.79	0.48
1:A:1077:ALA:HB3	1:A:1189:LEU:HD22	1.94	0.48
1:A:2358:ILE:HB	1:B:195:PHE:CE1	2.48	0.48
1:A:3873:LYS:N	1:A:3873:LYS:HD3	2.27	0.48
1:A:4687:TYR:OH	1:A:4699:GLY:O	2.20	0.48
2:E:79:ASP:OD2	2:E:79:ASP:N	2.46	0.48
1:B:2123:LEU:O	1:B:2127:GLN:HG2	2.13	0.48
1:B:2412:GLU:H	1:B:2412:GLU:CD	2.16	0.48
1:B:2920:ARG:O	1:B:2924:GLN:HG2	2.12	0.48
1:B:3235:SER:OG	1:B:3237:GLU:OE1	2.30	0.48
1:D:2669:GLU:HA	1:D:2672:LEU:HB2	1.94	0.48
1:C:308:HIS:CE1	1:C:311:ALA:H	2.32	0.48
1:C:1228:ILE:HG22	1:C:1827:ARG:HH21	1.79	0.48
1:C:2019:GLU:OE1	1:C:2019:GLU:N	2.45	0.48
1:C:2716:ASP:OD1	1:C:2716:ASP:N	2.44	0.48
1:C:4063:ASP:OD1	1:C:4064:MET:N	2.46	0.48
1:A:925:SER:O	1:A:928:THR:OG1	2.20	0.48
1:A:1089:TYR:HD1	1:A:1152:MET:HG3	1.78	0.48
1:A:2825:LYS:HB3	1:A:2935:TYR:HA	1.95	0.48
1:A:2865:VAL:O	1:A:2928:LYS:NZ	2.41	0.48
1:A:3211:ASN:OD1	1:A:3212:GLU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:23:VAL:HG12	2:E:104:LEU:HB2	1.96	0.48
1:B:1727:ARG:HD3	1:B:1727:ARG:HA	1.62	0.48
1:B:2288:LEU:O	1:B:3849:ARG:NH1	2.47	0.48
1:B:3357:HIS:O	1:B:3361:THR:HG23	2.12	0.48
1:B:3532:LEU:HB3	1:B:3596:VAL:HG11	1.95	0.48
1:B:3873:LYS:HD3	1:B:3873:LYS:N	2.27	0.48
1:D:3233:PRO:HB3	1:D:3238:GLU:HB3	1.95	0.48
1:D:3550:ARG:HG3	1:D:3597:GLN:HG3	1.94	0.48
1:D:4910:GLU:O	1:D:4914:VAL:HG13	2.14	0.48
1:C:78:LEU:O	1:C:82:LEU:HG	2.14	0.48
1:C:1062:GLN:NE2	1:C:1064:GLU:OE1	2.40	0.48
1:C:1089:TYR:HD1	1:C:1152:MET:HG3	1.78	0.48
1:C:2920:ARG:O	1:C:2924:GLN:HG2	2.12	0.48
1:C:3655:GLU:HA	1:C:3658:LYS:NZ	2.29	0.48
1:C:4131:ARG:HG2	1:C:4132:PHE:CE2	2.49	0.48
1:A:1759:ARG:CZ	1:A:1759:ARG:HA	2.43	0.48
1:A:3352:GLU:H	1:A:3352:GLU:CD	2.17	0.48
1:B:308:HIS:CE1	1:B:311:ALA:H	2.31	0.48
1:B:869:ARG:HD2	1:B:870:ILE:N	2.28	0.48
1:B:1753:LYS:NZ	1:B:1759:ARG:HG2	2.29	0.48
1:B:3089:LYS:O	1:B:3093:ARG:HG3	2.14	0.48
1:B:3352:GLU:H	1:B:3352:GLU:CD	2.17	0.48
1:B:3472:ALA:O	1:B:3476:SER:OG	2.25	0.48
1:B:3621:HIS:O	1:B:3622:LYS:HG3	2.13	0.48
1:B:3655:GLU:HA	1:B:3658:LYS:NZ	2.28	0.48
1:D:772:ASN:HD21	1:D:1470:ARG:HA	1.79	0.48
1:D:955:LEU:HD13	1:D:967:PRO:HD2	1.94	0.48
1:D:1228:ILE:HG22	1:D:1827:ARG:HH21	1.79	0.48
1:D:1270:LEU:HB2	1:D:1564:PHE:HB2	1.94	0.48
1:D:2865:VAL:O	1:D:2928:LYS:NZ	2.41	0.48
1:C:220:LEU:HD21	1:C:262:LEU:HD21	1.96	0.48
1:C:1077:ALA:HB3	1:C:1189:LEU:HD22	1.94	0.48
1:C:2495:VAL:HG12	1:C:2497:ASP:H	1.78	0.48
1:A:264:PRO:HB2	1:A:266:ARG:HG2	1.96	0.48
1:A:3621:HIS:O	1:A:3622:LYS:HG3	2.13	0.48
1:A:4885:PHE:O	1:A:4889:VAL:HG22	2.14	0.48
2:G:11:ASP:OD2	2:G:12:GLY:N	2.46	0.48
2:F:79:ASP:OD2	2:F:79:ASP:N	2.47	0.48
1:B:1062:GLN:NE2	1:B:1064:GLU:OE1	2.40	0.48
1:B:1994:ARG:HA	1:B:1994:ARG:CZ	2.43	0.48
1:B:4131:ARG:HG2	1:B:4132:PHE:CE2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4910:GLU:O	1:B:4914:VAL:HG13	2.14	0.48
1:D:1994:ARG:CZ	1:D:1994:ARG:HA	2.43	0.48
1:D:2755:ILE:HG22	1:D:2809:ILE:HG22	1.96	0.48
1:D:2825:LYS:HB2	1:D:2827:ARG:HE	1.79	0.48
1:D:2965:ARG:HE	1:D:2969:ILE:HD11	1.78	0.48
1:D:2967:MET:HE3	1:D:3049:LEU:HG	1.96	0.48
1:C:1109:LEU:HA	1:C:1120:LEU:HD13	1.95	0.48
1:C:2138:LEU:HB3	1:C:3658:LYS:HE3	1.95	0.48
1:C:4223:ASN:HB3	1:C:4224:GLU:CD	2.34	0.48
1:A:2019:GLU:OE1	1:A:2019:GLU:N	2.45	0.48
1:A:2825:LYS:HB2	1:A:2827:ARG:HE	1.79	0.48
1:A:3332:ALA:HB1	1:A:3334:TRP:CD1	2.48	0.48
1:A:3573:MET:HG3	1:A:3577:ARG:NH2	2.29	0.48
1:A:3707:ARG:O	1:A:3711:THR:HG23	2.13	0.48
1:A:4063:ASP:OD1	1:A:4064:MET:N	2.46	0.48
1:A:4223:ASN:HB3	1:A:4224:GLU:CD	2.34	0.48
1:B:234:SER:OG	1:B:238:SER:OG	2.24	0.48
1:B:772:ASN:HD21	1:B:1470:ARG:HA	1.79	0.48
1:B:3211:ASN:OD1	1:B:3212:GLU:N	2.46	0.48
1:B:4223:ASN:HB3	1:B:4224:GLU:CD	2.34	0.48
1:D:188:GLU:OE1	1:D:188:GLU:N	2.39	0.48
1:D:296:ASP:OD2	1:D:296:ASP:N	2.40	0.48
1:D:643:SER:OG	1:D:826:ILE:HD12	2.14	0.48
1:D:1163:THR:HG22	1:D:1168:VAL:HA	1.96	0.48
1:D:1422:ASP:OD1	1:D:1571:ASN:N	2.39	0.48
1:D:1585:LYS:HE2	1:D:1585:LYS:HA	1.96	0.48
1:D:2412:GLU:H	1:D:2412:GLU:CD	2.16	0.48
1:D:3089:LYS:O	1:D:3093:ARG:HG3	2.14	0.48
1:D:3262:ARG:HD3	1:D:3262:ARG:HA	1.66	0.48
1:D:3529:ASP:OD2	1:D:3592:ILE:HG23	2.14	0.48
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.14	0.48
1:C:2412:GLU:CD	1:C:2412:GLU:H	2.16	0.48
1:C:2527:LEU:HD21	1:C:2582:MET:HB2	1.96	0.48
1:C:2967:MET:HE3	1:C:3049:LEU:HG	1.95	0.48
1:C:3354:LEU:HD23	1:C:3415:TYR:CZ	2.49	0.48
1:A:78:LEU:O	1:A:82:LEU:HG	2.14	0.48
1:A:1112:ASP:N	1:A:1112:ASP:OD1	2.44	0.48
1:A:1270:LEU:HB2	1:A:1564:PHE:HB2	1.94	0.48
1:A:1448:VAL:HG22	1:A:1554:VAL:HG23	1.95	0.48
1:A:2740:VAL:HG21	1:A:2819:TRP:HE1	1.79	0.48
1:A:3532:LEU:HB3	1:A:3596:VAL:HG11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:60:GLU:HA	2:G:60:GLU:OE2	2.14	0.48
1:B:784:SER:OG	1:B:785:ALA:N	2.47	0.48
1:B:1566:LEU:HD23	1:B:1575:LEU:HD23	1.96	0.48
1:B:3332:ALA:HB1	1:B:3334:TRP:CD1	2.48	0.48
1:D:308:HIS:CE1	1:D:311:ALA:H	2.32	0.48
1:D:1753:LYS:HD3	1:D:1753:LYS:N	2.24	0.48
1:D:1997:GLU:HB2	1:D:2008:MET:CE	2.44	0.48
1:D:2527:LEU:HD21	1:D:2582:MET:HB2	1.96	0.48
1:D:3655:GLU:HA	1:D:3658:LYS:NZ	2.29	0.48
1:D:4885:PHE:O	1:D:4889:VAL:HG22	2.14	0.48
1:C:772:ASN:HD21	1:C:1470:ARG:HA	1.79	0.48
1:C:869:ARG:HD2	1:C:870:ILE:N	2.28	0.48
1:C:3089:LYS:O	1:C:3093:ARG:HG3	2.14	0.48
1:C:3573:MET:HG3	1:C:3577:ARG:NH2	2.29	0.48
1:C:4581:LYS:HG2	1:C:4633:GLU:HB2	1.96	0.48
1:A:220:LEU:HD21	1:A:262:LEU:HD21	1.96	0.48
1:A:323:LEU:HB3	1:A:325:THR:HG23	1.95	0.48
1:A:2288:LEU:O	1:A:3849:ARG:NH1	2.47	0.48
2:G:90:ILE:HD12	1:C:1687:SER:CB	2.44	0.48
1:B:135:VAL:HG21	1:B:180:LEU:HD12	1.96	0.48
1:B:1089:TYR:HD1	1:B:1152:MET:HG3	1.78	0.48
1:B:3233:PRO:HB3	1:B:3238:GLU:HB3	1.95	0.48
1:B:3529:ASP:OD2	1:B:3592:ILE:HG23	2.14	0.48
1:D:76:ARG:NH2	1:C:3936:TYR:HA	2.24	0.48
1:D:78:LEU:O	1:D:81:MET:HG3	2.13	0.48
1:D:125:ARG:HD3	1:D:134:ASP:OD1	2.14	0.48
1:D:1109:LEU:HA	1:D:1120:LEU:HD13	1.95	0.48
1:D:3526:ALA:O	1:D:3529:ASP:HB2	2.14	0.48
1:D:4223:ASN:HB3	1:D:4224:GLU:CD	2.34	0.48
1:C:828:GLU:OE1	1:C:828:GLU:N	2.41	0.48
1:C:1422:ASP:OD1	1:C:1571:ASN:N	2.39	0.48
1:C:2218:GLY:HA3	1:C:2221:LYS:HE2	1.96	0.48
1:C:3621:HIS:O	1:C:3622:LYS:HG3	2.14	0.48
1:C:4910:GLU:O	1:C:4914:VAL:HG13	2.14	0.48
1:C:5000:GLU:OE1	1:C:5000:GLU:N	2.44	0.48
1:A:867:LEU:HD12	1:A:929:LEU:HD23	1.96	0.47
1:A:1566:LEU:HD23	1:A:1575:LEU:HD23	1.96	0.47
1:A:2004:GLU:N	1:A:2004:GLU:OE1	2.47	0.47
1:A:2715:VAL:HG13	1:A:2953:LYS:HB3	1.96	0.47
1:A:4101:LYS:HD3	1:B:4730:ASP:HB2	1.96	0.47
2:G:44:LYS:NZ	2:G:44:LYS:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:264:PRO:HB2	1:B:266:ARG:HG2	1.96	0.47
1:B:1585:LYS:HA	1:B:1585:LYS:HE2	1.96	0.47
1:B:3475:LYS:HD3	1:B:3475:LYS:HA	1.74	0.47
1:B:4581:LYS:HG2	1:B:4633:GLU:HB2	1.96	0.47
1:D:3859:VAL:HG13	1:D:3864:THR:HG23	1.96	0.47
1:D:4131:ARG:HG2	1:D:4132:PHE:CE2	2.49	0.47
1:D:4769:MET:HE3	1:D:4769:MET:H	1.78	0.47
1:C:125:ARG:HD3	1:C:134:ASP:OD1	2.14	0.47
1:C:1448:VAL:HG22	1:C:1554:VAL:HG23	1.95	0.47
1:C:2004:GLU:OE1	1:C:2004:GLU:N	2.47	0.47
1:C:2755:ILE:HG22	1:C:2809:ILE:HG22	1.96	0.47
1:C:3532:LEU:HB3	1:C:3596:VAL:HG11	1.95	0.47
1:C:3843:ASP:H	1:C:3874:VAL:HG12	1.80	0.47
1:C:3859:VAL:HG13	1:C:3864:THR:HG23	1.96	0.47
1:C:4069:LYS:HD3	1:C:4133:GLN:HG3	1.96	0.47
1:A:643:SER:OG	1:A:826:ILE:HD12	2.14	0.47
1:A:1163:THR:HG22	1:A:1168:VAL:HA	1.96	0.47
1:A:2924:GLN:O	1:A:2928:LYS:HG2	2.14	0.47
1:A:3354:LEU:HD23	1:A:3415:TYR:CZ	2.49	0.47
1:A:3629:ARG:HG3	1:A:3630:ARG:N	2.30	0.47
1:A:3981:ALA:HB2	1:A:4040:ILE:HD11	1.97	0.47
2:H:41:ASP:N	2:H:41:ASP:OD1	2.47	0.47
1:B:2825:LYS:HB2	1:B:2827:ARG:HE	1.79	0.47
1:B:4056:GLU:OE1	1:B:4056:GLU:HA	2.14	0.47
1:B:4885:PHE:O	1:B:4889:VAL:HG22	2.14	0.47
1:D:110:ARG:HA	1:D:117:TYR:HA	1.97	0.47
1:D:2715:VAL:HG13	1:D:2953:LYS:HB3	1.96	0.47
1:D:2740:VAL:HG21	1:D:2819:TRP:HE1	1.79	0.47
1:D:3384:LYS:HB3	1:D:3384:LYS:HE2	1.66	0.47
1:D:3629:ARG:HA	1:D:3632:VAL:HG22	1.96	0.47
1:D:4581:LYS:HG2	1:D:4633:GLU:HB2	1.96	0.47
1:A:16:THR:OG1	1:A:99:ARG:N	2.48	0.47
1:A:135:VAL:HG21	1:A:180:LEU:HD12	1.96	0.47
1:A:784:SER:OG	1:A:785:ALA:N	2.47	0.47
1:A:1155:LEU:HD23	1:A:1184:ILE:HG12	1.97	0.47
1:A:4131:ARG:HG2	1:A:4132:PHE:CE2	2.49	0.47
1:A:4157:ASP:OD2	1:A:4160:LEU:N	2.39	0.47
1:A:4253:GLU:HG3	1:A:4557:ARG:HH21	1.79	0.47
2:E:11:ASP:OD2	2:E:12:GLY:N	2.47	0.47
1:B:78:LEU:O	1:B:81:MET:HG3	2.13	0.47
1:B:78:LEU:O	1:B:82:LEU:HG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:273:HIS:O	1:B:275:ARG:NE	2.44	0.47
1:B:296:ASP:OD2	1:B:296:ASP:N	2.40	0.47
1:B:308:HIS:O	1:B:309:THR:HG22	2.15	0.47
1:B:1997:GLU:HB2	1:B:2008:MET:CE	2.44	0.47
1:B:2715:VAL:HG13	1:B:2953:LYS:HB3	1.96	0.47
1:B:3354:LEU:HD23	1:B:3415:TYR:CZ	2.49	0.47
1:B:4069:LYS:HD3	1:B:4133:GLN:HG3	1.96	0.47
1:D:2924:GLN:O	1:D:2928:LYS:HG2	2.15	0.47
1:C:73:LEU:O	1:C:106:ALA:N	2.28	0.47
1:C:234:SER:OG	1:C:238:SER:OG	2.24	0.47
1:C:2502:MET:HE3	1:C:2502:MET:HA	1.96	0.47
1:C:3460:VAL:HG12	1:C:3502:ARG:HH22	1.80	0.47
1:C:4885:PHE:O	1:C:4889:VAL:HG22	2.14	0.47
1:A:244:LEU:HB3	1:A:375:LYS:HZ3	1.79	0.47
1:A:273:HIS:O	1:A:275:ARG:NE	2.44	0.47
1:A:2965:ARG:HE	1:A:2969:ILE:HD11	1.78	0.47
1:B:247:TYR:CE1	1:B:359:TYR:HA	2.50	0.47
1:B:323:LEU:HB3	1:B:325:THR:HG23	1.95	0.47
1:B:867:LEU:HD12	1:B:929:LEU:HD23	1.96	0.47
1:B:1155:LEU:HD23	1:B:1184:ILE:HG12	1.97	0.47
1:B:1520:VAL:HG12	1:B:1527:MET:HG2	1.96	0.47
1:B:2000:SER:O	1:B:3638:MET:HE2	2.15	0.47
1:B:2218:GLY:HA3	1:B:2221:LYS:HE2	1.96	0.47
1:B:2301:TYR:HB3	1:B:2331:TYR:CE2	2.49	0.47
1:B:3571:TRP:CE2	1:C:1228:ILE:HG12	2.49	0.47
1:B:3629:ARG:HA	1:B:3632:VAL:HG22	1.96	0.47
1:B:3843:ASP:H	1:B:3874:VAL:HG12	1.79	0.47
1:D:784:SER:OG	1:D:785:ALA:N	2.47	0.47
1:D:2004:GLU:OE1	1:D:2004:GLU:N	2.47	0.47
1:D:2123:LEU:O	1:D:2127:GLN:HG2	2.13	0.47
1:D:2218:GLY:HA3	1:D:2221:LYS:HE2	1.96	0.47
1:D:2288:LEU:O	1:D:3849:ARG:NH1	2.47	0.47
1:D:3582:ARG:H	1:D:3582:ARG:HG2	1.43	0.47
1:D:4680:LYS:HE3	1:D:4686:LEU:HD22	1.97	0.47
1:C:939:VAL:HG12	1:C:1053:ILE:HG23	1.97	0.47
1:C:1155:LEU:HD23	1:C:1184:ILE:HG12	1.97	0.47
1:C:1566:LEU:HD23	1:C:1575:LEU:HD23	1.96	0.47
1:C:1585:LYS:HE2	1:C:1585:LYS:HA	1.96	0.47
1:C:2301:TYR:HB3	1:C:2331:TYR:CE2	2.50	0.47
1:C:3106:MET:CE	1:C:3132:THR:HB	2.40	0.47
1:C:3514:LEU:HD12	1:C:3606:LEU:HD13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4069:LYS:HB2	1:C:4133:GLN:HE21	1.80	0.47
1:A:110:ARG:HA	1:A:117:TYR:HA	1.97	0.47
1:A:2799:GLU:O	1:A:2803:GLU:HG2	2.14	0.47
1:A:2985:ARG:HG3	1:A:2985:ARG:NH1	2.30	0.47
1:A:3391:GLU:OE2	1:A:3450:ASN:ND2	2.43	0.47
1:A:3526:ALA:O	1:A:3529:ASP:HB2	2.14	0.47
1:B:244:LEU:HB3	1:B:375:LYS:HZ3	1.78	0.47
1:B:1448:VAL:HG22	1:B:1554:VAL:HG23	1.95	0.47
1:B:2679:PHE:HB2	1:B:2706:ILE:HG21	1.97	0.47
1:B:2965:ARG:HE	1:B:2969:ILE:HD11	1.79	0.47
1:B:3981:ALA:HB2	1:B:4040:ILE:HD11	1.97	0.47
1:D:2301:TYR:HB3	1:D:2331:TYR:CE2	2.50	0.47
1:D:2874:MET:HE3	1:D:2939:ARG:HE	1.78	0.47
1:D:3354:LEU:HD23	1:D:3415:TYR:CZ	2.49	0.47
1:C:247:TYR:CE1	1:C:359:TYR:HA	2.50	0.47
1:C:421:PHE:CZ	1:C:507:ALA:HB2	2.50	0.47
1:C:2584[B]:HIS:HE1	1:C:2621:HIS:HB3	1.79	0.47
1:C:2715:VAL:HG13	1:C:2953:LYS:HB3	1.96	0.47
1:C:3233:PRO:HB3	1:C:3238:GLU:HB3	1.95	0.47
1:C:3526:ALA:O	1:C:3529:ASP:HB2	2.14	0.47
1:C:3529:ASP:OD2	1:C:3592:ILE:HG23	2.14	0.47
1:A:50:GLU:OE2	1:A:61:ASP:N	2.44	0.47
1:A:70:GLU:OE1	1:A:110:ARG:HB3	2.15	0.47
1:A:338:GLU:N	1:A:338:GLU:OE2	2.48	0.47
1:A:1773:PRO:HA	1:A:2153:MET:HE2	1.96	0.47
1:A:1997:GLU:HB2	1:A:2008:MET:CE	2.44	0.47
1:A:2679:PHE:HB2	1:A:2706:ILE:HG21	1.97	0.47
1:A:3089:LYS:O	1:A:3093:ARG:HG3	2.14	0.47
1:A:3460:VAL:HG12	1:A:3502:ARG:HH22	1.80	0.47
1:A:3477:LYS:HZ2	1:B:1141:ARG:HG3	1.69	0.47
1:A:4069:LYS:HD3	1:A:4133:GLN:HG3	1.96	0.47
1:B:70:GLU:OE1	1:B:110:ARG:HB3	2.15	0.47
1:B:1163:THR:HG22	1:B:1168:VAL:HA	1.96	0.47
1:B:2755:ILE:HG22	1:B:2809:ILE:HG22	1.96	0.47
1:B:3629:ARG:HG3	1:B:3630:ARG:N	2.30	0.47
1:D:4069:LYS:HD3	1:D:4133:GLN:HG3	1.97	0.47
1:C:135:VAL:HG21	1:C:180:LEU:HD12	1.97	0.47
1:C:2292:GLU:H	1:C:2292:GLU:CD	2.18	0.47
1:C:2886:TRP:CH2	1:C:2904:LEU:HB3	2.43	0.47
1:A:125:ARG:HD3	1:A:134:ASP:OD1	2.14	0.47
1:A:308:HIS:CE1	1:A:311:ALA:H	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1585:LYS:HE2	1:A:1585:LYS:HA	1.96	0.47
1:A:2005:GLN:O	1:A:2008:MET:HG2	2.14	0.47
1:A:3235:SER:OG	1:A:3237:GLU:OE1	2.30	0.47
1:A:3655:GLU:HA	1:A:3658:LYS:NZ	2.29	0.47
1:A:3843:ASP:H	1:A:3874:VAL:HG12	1.80	0.47
1:A:4680:LYS:HE3	1:A:4686:LEU:HD22	1.97	0.47
1:A:4910:GLU:O	1:A:4914:VAL:HG13	2.14	0.47
1:B:338:GLU:N	1:B:338:GLU:OE2	2.48	0.47
1:B:421:PHE:CZ	1:B:507:ALA:HB2	2.50	0.47
1:B:906:CYS:SG	1:B:913:LEU:HD22	2.55	0.47
1:B:1109:LEU:HA	1:B:1120:LEU:HD13	1.95	0.47
1:B:1421:ARG:H	1:B:1421:ARG:HE	1.62	0.47
1:B:2265:LEU:HD12	1:B:2265:LEU:HA	1.75	0.47
1:B:2351:ASN:O	1:B:2355:ARG:HG3	2.15	0.47
1:B:2358:ILE:HB	1:C:195:PHE:CE1	2.50	0.47
1:B:2584[B]:HIS:HE1	1:B:2621:HIS:HB3	1.79	0.47
1:B:2985:ARG:HG3	1:B:2985:ARG:NH1	2.30	0.47
1:B:3106:MET:CE	1:B:3132:THR:HB	2.40	0.47
1:B:3526:ALA:O	1:B:3529:ASP:HB2	2.14	0.47
1:B:3582:ARG:H	1:B:3582:ARG:HG2	1.42	0.47
1:B:5000:GLU:OE1	1:B:5000:GLU:N	2.44	0.47
1:D:16:THR:OG1	1:D:99:ARG:N	2.48	0.47
1:D:102:LEU:CD1	1:C:3984:ARG:HH22	2.28	0.47
1:D:220:LEU:HD21	1:D:262:LEU:HD21	1.96	0.47
1:D:264:PRO:HB2	1:D:266:ARG:HG2	1.96	0.47
1:D:1155:LEU:HD23	1:D:1184:ILE:HG12	1.96	0.47
1:D:1292:SER:OG	1:D:1596:GLU:O	2.26	0.47
1:D:1520:VAL:HG12	1:D:1527:MET:HG2	1.96	0.47
1:D:1566:LEU:HD23	1:D:1575:LEU:HD23	1.96	0.47
1:D:2005:GLN:O	1:D:2008:MET:HG2	2.14	0.47
1:D:2292:GLU:CD	1:D:2292:GLU:H	2.18	0.47
1:D:2799:GLU:O	1:D:2803:GLU:HG2	2.14	0.47
1:D:3352:GLU:H	1:D:3352:GLU:CD	2.17	0.47
1:D:3532:LEU:HB3	1:D:3596:VAL:HG11	1.96	0.47
1:C:784:SER:OG	1:C:785:ALA:N	2.47	0.47
1:C:2288:LEU:O	1:C:3849:ARG:NH1	2.47	0.47
1:C:2924:GLN:O	1:C:2928:LYS:HG2	2.14	0.47
1:C:3034:LYS:HZ1	1:C:3038:MET:HG3	1.80	0.47
1:C:3629:ARG:HG3	1:C:3630:ARG:N	2.30	0.47
1:C:4543:GLU:O	1:C:4547:GLN:HG2	2.15	0.47
1:A:308:HIS:O	1:A:309:THR:HG22	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:906:CYS:SG	1:A:913:LEU:HD22	2.55	0.47
1:A:2518:LEU:O	1:A:2521:VAL:HG12	2.15	0.47
1:A:2962:GLN:OE1	1:A:2965:ARG:NH1	2.48	0.47
1:A:4707:ASN:HB3	1:A:4774:LYS:HZ2	1.80	0.47
1:B:499:THR:OG1	1:B:500:ALA:N	2.48	0.47
1:B:3935:TRP:CE3	1:C:80:GLU:HG3	2.50	0.47
1:B:4680:LYS:HE3	1:B:4686:LEU:HD22	1.97	0.47
1:D:70:GLU:OE1	1:D:110:ARG:HB3	2.15	0.47
1:D:78:LEU:O	1:D:82:LEU:HG	2.14	0.47
1:D:273:HIS:O	1:D:275:ARG:NE	2.44	0.47
1:D:3573:MET:HG3	1:D:3577:ARG:NH2	2.29	0.47
1:D:4253:GLU:HG3	1:D:4557:ARG:HH21	1.79	0.47
1:C:16:THR:OG1	1:C:99:ARG:N	2.48	0.47
1:C:264:PRO:HB2	1:C:266:ARG:HG2	1.96	0.47
1:C:643:SER:OG	1:C:826:ILE:HD12	2.14	0.47
1:C:906:CYS:SG	1:C:913:LEU:HD22	2.55	0.47
1:C:2799:GLU:O	1:C:2803:GLU:HG2	2.14	0.47
1:C:3834:ALA:O	1:C:3838:THR:HG23	2.15	0.47
1:C:4748:LEU:HD12	1:C:4749:GLU:N	2.30	0.47
1:A:1109:LEU:HA	1:A:1120:LEU:HD13	1.95	0.47
1:A:1520:VAL:HG12	1:A:1527:MET:HG2	1.96	0.47
1:A:1703:LEU:HD23	1:A:1704:PRO:HD2	1.97	0.47
1:B:13:PHE:HE1	1:B:164:ARG:HG2	1.80	0.47
1:B:16:THR:OG1	1:B:99:ARG:N	2.48	0.47
1:B:643:SER:OG	1:B:826:ILE:HD12	2.14	0.47
1:B:730:VAL:HG23	1:B:1476:MET:HE1	1.97	0.47
1:B:2138:LEU:HB3	1:B:3658:LYS:HE3	1.95	0.47
1:B:4581:LYS:HE2	1:B:4581:LYS:HB2	1.64	0.47
1:D:308:HIS:O	1:D:309:THR:HG22	2.15	0.47
1:D:1421:ARG:HE	1:D:1421:ARG:H	1.62	0.47
1:D:2502:MET:HE3	1:D:2502:MET:HA	1.97	0.47
1:D:3384:LYS:HE3	1:D:3386:GLU:HB3	1.97	0.47
1:D:3834:ALA:O	1:D:3838:THR:HG23	2.15	0.47
1:D:4069:LYS:HB2	1:D:4133:GLN:HE21	1.80	0.47
1:C:867:LEU:HD12	1:C:929:LEU:HD23	1.96	0.47
1:C:1163:THR:HG22	1:C:1168:VAL:HA	1.96	0.47
1:C:2369[B]:ARG:HD3	1:C:2369[B]:ARG:HA	1.57	0.47
1:C:2962:GLN:OE1	1:C:2965:ARG:NH1	2.48	0.47
1:C:3384:LYS:HE3	1:C:3386:GLU:HB3	1.97	0.47
1:C:3629:ARG:HA	1:C:3632:VAL:HG22	1.96	0.47
1:A:247:TYR:CE1	1:A:359:TYR:HA	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3629:ARG:HA	1:A:3632:VAL:HG22	1.96	0.47
2:H:79:ASP:OD2	2:H:79:ASP:N	2.47	0.47
1:B:110:ARG:HA	1:B:117:TYR:HA	1.96	0.47
1:B:125:ARG:HD3	1:B:134:ASP:OD1	2.14	0.47
1:B:259:LEU:HD21	1:B:393:CYS:HB2	1.97	0.47
1:B:1260:MET:HE3	1:B:1269:CYS:HB2	1.97	0.47
1:B:1763:PRO:HG3	1:B:2094:LEU:HD22	1.97	0.47
1:B:2005:GLN:O	1:B:2008:MET:HG2	2.14	0.47
1:B:2672:LEU:HD23	1:B:2672:LEU:HA	1.81	0.47
1:B:2962:GLN:OE1	1:B:2965:ARG:NH1	2.48	0.47
1:B:3859:VAL:HG13	1:B:3864:THR:HG23	1.96	0.47
1:D:867:LEU:HD12	1:D:929:LEU:HD23	1.96	0.47
1:D:4230:LYS:HG2	1:D:4231:MET:CE	2.45	0.47
1:C:1260:MET:HE3	1:C:1269:CYS:HB2	1.97	0.47
1:A:1727:ARG:HD3	1:A:1727:ARG:HA	1.62	0.46
1:A:2218:GLY:HA3	1:A:2221:LYS:HE2	1.96	0.46
1:A:2292:GLU:H	1:A:2292:GLU:CD	2.18	0.46
1:A:2527:LEU:HD21	1:A:2582:MET:HB2	1.96	0.46
1:A:2584[B]:HIS:HE1	1:A:2621:HIS:HB3	1.79	0.46
1:A:2874:MET:HE3	1:A:2939:ARG:HE	1.79	0.46
1:A:3859:VAL:HG13	1:A:3864:THR:HG23	1.96	0.46
1:B:590:LEU:HB2	1:B:599:VAL:HG11	1.97	0.46
1:B:939:VAL:HG12	1:B:1053:ILE:HG23	1.97	0.46
1:B:2740:VAL:HG21	1:B:2819:TRP:HE1	1.79	0.46
1:D:135:VAL:HG21	1:D:180:LEU:HD12	1.96	0.46
1:D:906:CYS:SG	1:D:913:LEU:HD22	2.55	0.46
1:D:2294:ASP:O	1:D:2298:VAL:HG23	2.15	0.46
1:D:2584[B]:HIS:HE1	1:D:2621:HIS:HB3	1.79	0.46
1:D:2886:TRP:CH2	1:D:2904:LEU:HB3	2.43	0.46
1:D:4056:GLU:OE1	1:D:4056:GLU:HA	2.14	0.46
1:D:4543:GLU:O	1:D:4547:GLN:HG2	2.15	0.46
1:C:110:ARG:HA	1:C:117:TYR:HA	1.97	0.46
1:C:2351:ASN:O	1:C:2355:ARG:HG3	2.15	0.46
1:C:2825:LYS:HB2	1:C:2827:ARG:HE	1.79	0.46
1:C:4253:GLU:HG3	1:C:4557:ARG:HH21	1.79	0.46
1:A:2294:ASP:O	1:A:2298:VAL:HG23	2.15	0.46
1:A:3003:LEU:HB2	1:A:3004:PRO:HD3	1.97	0.46
1:A:4069:LYS:HB2	1:A:4133:GLN:HE21	1.80	0.46
2:G:41:ASP:OD1	2:G:41:ASP:N	2.47	0.46
1:B:1703:LEU:HD23	1:B:1704:PRO:HD2	1.97	0.46
1:B:1808:ARG:HG3	1:B:1809:ASP:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2292:GLU:H	1:B:2292:GLU:CD	2.18	0.46
1:B:2527:LEU:HD21	1:B:2582:MET:HB2	1.96	0.46
1:B:2653:LYS:HB2	1:B:2653:LYS:HE2	1.72	0.46
1:B:2770:LYS:HD2	1:B:2787:THR:HG22	1.98	0.46
1:B:4069:LYS:HB2	1:B:4133:GLN:HE21	1.80	0.46
1:D:247:TYR:CE1	1:D:359:TYR:HA	2.50	0.46
1:D:1703:LEU:HD23	1:D:1704:PRO:HD2	1.97	0.46
1:D:2481:LYS:HA	1:D:2481:LYS:HD3	1.78	0.46
1:D:2679:PHE:HB2	1:D:2706:ILE:HG21	1.97	0.46
1:D:4748:LEU:HD12	1:D:4749:GLU:N	2.30	0.46
1:C:1738:LEU:HD13	1:C:1963:GLU:HG3	1.97	0.46
1:C:2284:ASN:OD1	1:C:2342:ASN:ND2	2.49	0.46
1:C:3070:ILE:O	1:C:3074:SER:OG	2.28	0.46
1:A:2301:TYR:HB3	1:A:2331:TYR:CE2	2.49	0.46
1:A:3384:LYS:HE3	1:A:3386:GLU:HB3	1.97	0.46
1:A:4581:LYS:HG2	1:A:4633:GLU:HB2	1.96	0.46
2:H:90:ILE:HD12	1:D:1687:SER:CB	2.43	0.46
2:G:79:ASP:OD2	2:G:79:ASP:N	2.49	0.46
1:B:516:LYS:O	1:B:520:ASN:ND2	2.40	0.46
1:B:2799:GLU:O	1:B:2803:GLU:HG2	2.14	0.46
1:B:2924:GLN:O	1:B:2928:LYS:HG2	2.14	0.46
1:B:3003:LEU:HB2	1:B:3004:PRO:HD3	1.97	0.46
1:B:3573:MET:HG3	1:B:3577:ARG:NH2	2.29	0.46
1:B:4003:LEU:HA	1:B:4009:GLN:NE2	2.31	0.46
1:D:80:GLU:HG3	1:C:3935:TRP:CE3	2.51	0.46
1:D:262:LEU:HD12	1:D:262:LEU:O	2.16	0.46
1:D:2203:MET:HG3	1:D:2235:PHE:HZ	1.81	0.46
1:D:2351:ASN:O	1:D:2355:ARG:HG3	2.15	0.46
1:D:2518:LEU:HD22	1:D:2565:CYS:HB3	1.98	0.46
1:D:2977:LEU:HA	1:D:2980:VAL:HG22	1.97	0.46
1:D:5000:GLU:OE1	1:D:5000:GLU:N	2.44	0.46
1:C:472:ARG:NH1	1:C:475:GLN:OE1	2.49	0.46
1:C:669:ASP:OD2	1:C:788:LYS:NZ	2.49	0.46
1:C:1520:VAL:HG12	1:C:1527:MET:HG2	1.96	0.46
1:C:2000:SER:O	1:C:3638:MET:HE2	2.14	0.46
1:C:2005:GLN:O	1:C:2008:MET:HG2	2.14	0.46
1:C:2196:ASN:OD1	1:C:2199:ARG:NH2	2.48	0.46
1:C:2985:ARG:HG3	1:C:2985:ARG:NH1	2.29	0.46
1:A:2351:ASN:O	1:A:2355:ARG:HG3	2.15	0.46
1:A:3233:PRO:HB3	1:A:3238:GLU:HB3	1.95	0.46
1:A:4230:LYS:HG2	1:A:4231:MET:CE	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4543:GLU:O	1:A:4547:GLN:HG2	2.15	0.46
1:A:4748:LEU:HD12	1:A:4749:GLU:N	2.30	0.46
1:B:1248:VAL:HG22	1:B:1599:MET:HB3	1.97	0.46
1:B:1252:HIS:HD2	1:B:1255:TYR:HB2	1.80	0.46
1:B:1537:ASN:OD1	1:B:1537:ASN:N	2.40	0.46
1:B:2004:GLU:OE1	1:B:2004:GLU:N	2.47	0.46
1:B:4867:GLU:OE1	1:B:4867:GLU:N	2.36	0.46
1:D:1172:ASP:OD1	1:D:1172:ASP:N	2.35	0.46
1:D:1763:PRO:HG3	1:D:2094:LEU:HD22	1.97	0.46
1:D:1808:ARG:HG3	1:D:1809:ASP:N	2.31	0.46
1:D:2196:ASN:OD1	1:D:2199:ARG:NH2	2.48	0.46
1:D:2624:ARG:HD3	1:D:2910:THR:HB	1.97	0.46
1:D:3629:ARG:NH2	1:D:3633:VAL:HG21	2.30	0.46
1:D:3843:ASP:H	1:D:3874:VAL:HG12	1.80	0.46
1:C:70:GLU:OE1	1:C:110:ARG:HB3	2.15	0.46
1:C:308:HIS:O	1:C:309:THR:HG22	2.15	0.46
1:C:1537:ASN:OD1	1:C:1537:ASN:N	2.40	0.46
1:A:2518:LEU:HD22	1:A:2565:CYS:HB3	1.98	0.46
1:A:2755:ILE:HG22	1:A:2809:ILE:HG22	1.96	0.46
1:A:3378:GLN:HA	1:A:3381:LEU:HD23	1.98	0.46
1:A:3834:ALA:O	1:A:3838:THR:HG23	2.15	0.46
1:A:4056:GLU:OE1	1:A:4056:GLU:HA	2.14	0.46
1:A:5000:GLU:OE1	1:A:5000:GLU:N	2.44	0.46
2:E:44:LYS:HB3	2:E:44:LYS:NZ	2.30	0.46
1:B:2284:ASN:OD1	1:B:2342:ASN:ND2	2.49	0.46
1:B:3378:GLN:HA	1:B:3381:LEU:HD23	1.98	0.46
1:B:3460:VAL:HG12	1:B:3502:ARG:HH22	1.80	0.46
1:B:3984:ARG:HH22	1:C:102:LEU:CD1	2.29	0.46
1:B:4748:LEU:HD12	1:B:4749:GLU:N	2.30	0.46
1:D:50:GLU:OE2	1:D:61:ASP:N	2.44	0.46
1:D:883:ALA:O	1:D:887:ILE:HG23	2.16	0.46
1:D:1753:LYS:NZ	1:D:1759:ARG:HG2	2.29	0.46
1:D:2770:LYS:HD2	1:D:2787:THR:HG22	1.98	0.46
1:C:938:HIS:ND1	1:C:1054:GLU:OE2	2.45	0.46
1:C:1703:LEU:HD23	1:C:1704:PRO:HD2	1.97	0.46
1:C:1808:ARG:HG3	1:C:1809:ASP:N	2.31	0.46
1:C:2570:ALA:HB2	1:C:2613:TYR:HB3	1.98	0.46
1:C:3348:ARG:HA	1:C:3348:ARG:CZ	2.46	0.46
1:C:3981:ALA:HB2	1:C:4040:ILE:HD11	1.97	0.46
1:C:4230:LYS:HG2	1:C:4231:MET:CE	2.46	0.46
1:A:897:ARG:HG3	1:A:905:PRO:HD2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2310:CYS:H	1:A:2324:ASN:HB2	1.81	0.46
1:A:3348:ARG:CZ	1:A:3348:ARG:HA	2.46	0.46
1:A:3537:LYS:HE2	1:A:3537:LYS:HB3	1.70	0.46
1:B:171:LEU:O	1:B:179:TYR:HA	2.16	0.46
1:B:220:LEU:HD21	1:B:262:LEU:HD21	1.96	0.46
1:B:1738:LEU:HD13	1:B:1963:GLU:HG3	1.98	0.46
1:B:2294:ASP:O	1:B:2298:VAL:HG23	2.15	0.46
1:B:3384:LYS:HE3	1:B:3386:GLU:HB3	1.97	0.46
1:B:3514:LEU:HD12	1:B:3606:LEU:HD13	1.97	0.46
1:B:4543:GLU:O	1:B:4547:GLN:HG2	2.15	0.46
1:D:171:LEU:O	1:D:179:TYR:HA	2.16	0.46
1:D:195:PHE:CE1	1:C:2358:ILE:HB	2.51	0.46
1:D:2570:ALA:HB2	1:D:2613:TYR:HB3	1.98	0.46
1:D:3348:ARG:CZ	1:D:3348:ARG:HA	2.46	0.46
1:C:338:GLU:N	1:C:338:GLU:OE2	2.48	0.46
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.97	0.46
1:C:897:ARG:HG3	1:C:905:PRO:HD2	1.98	0.46
1:C:1974:ARG:NH1	1:C:3642:TYR:HB2	2.31	0.46
1:C:3354:LEU:HB3	1:C:3415:TYR:CZ	2.51	0.46
1:C:4680:LYS:HE3	1:C:4686:LEU:HD22	1.97	0.46
1:A:259:LEU:HD21	1:A:393:CYS:HB2	1.97	0.46
1:A:421:PHE:CZ	1:A:507:ALA:HB2	2.50	0.46
1:A:669:ASP:OD2	1:A:788:LYS:NZ	2.49	0.46
1:A:883:ALA:O	1:A:887:ILE:HG23	2.16	0.46
1:A:975:VAL:HG11	1:A:1044:ARG:HA	1.98	0.46
1:A:2284:ASN:OD1	1:A:2342:ASN:ND2	2.49	0.46
1:A:2477:PRO:HD2	1:A:2536:LEU:HD21	1.98	0.46
1:A:2816:MET:O	1:A:2821:TRP:HB2	2.16	0.46
1:A:3034:LYS:NZ	1:A:3038:MET:HG3	2.31	0.46
1:A:3514:LEU:HD12	1:A:3606:LEU:HD13	1.97	0.46
2:F:7:ILE:HA	1:B:719:LEU:HD11	1.97	0.46
1:B:476:SER:O	1:B:480:GLU:HG2	2.16	0.46
1:B:675:LEU:HD23	1:B:1633:PRO:HB3	1.98	0.46
1:B:2115:GLU:H	1:B:2115:GLU:CD	2.19	0.46
1:B:2226:PRO:HB2	1:B:2267:MET:CE	2.46	0.46
1:B:4253:GLU:HG3	1:B:4557:ARG:HH21	1.79	0.46
1:D:338:GLU:N	1:D:338:GLU:OE2	2.48	0.46
1:D:2204:HIS:HA	1:D:2235:PHE:HE1	1.81	0.46
1:D:3354:LEU:HB3	1:D:3415:TYR:CZ	2.51	0.46
1:D:3460:VAL:HG12	1:D:3502:ARG:HH22	1.80	0.46
1:C:476:SER:O	1:C:480:GLU:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2204:HIS:HA	1:C:2235:PHE:HE1	1.81	0.46
1:C:2740:VAL:HG21	1:C:2819:TRP:HE1	1.79	0.46
1:C:4056:GLU:OE1	1:C:4056:GLU:HA	2.14	0.46
1:A:13:PHE:HE1	1:A:164:ARG:HG2	1.80	0.46
1:A:1421:ARG:HE	1:A:1421:ARG:H	1.62	0.46
1:A:1808:ARG:HG3	1:A:1809:ASP:N	2.31	0.46
1:A:2000:SER:O	1:A:3638:MET:HE2	2.16	0.46
1:A:2226:PRO:HB2	1:A:2267:MET:CE	2.46	0.46
1:A:2570:ALA:HB2	1:A:2613:TYR:HB3	1.98	0.46
1:A:2806:ARG:HG3	1:A:2810:LYS:HZ1	1.80	0.46
1:A:3629:ARG:NH2	1:A:3633:VAL:HG21	2.31	0.46
1:A:4003:LEU:HA	1:A:4009:GLN:NE2	2.31	0.46
2:H:44:LYS:NZ	2:H:44:LYS:HB3	2.31	0.46
1:B:244:LEU:HD13	1:B:375:LYS:HE2	1.98	0.46
1:B:1444:GLU:HA	1:B:1444:GLU:OE1	2.16	0.46
1:B:1581:LEU:O	1:B:1584:ARG:HG2	2.16	0.46
1:B:2204:HIS:HA	1:B:2235:PHE:HE1	1.81	0.46
1:B:2570:ALA:HB2	1:B:2613:TYR:HB3	1.98	0.46
1:B:3629:ARG:NH2	1:B:3633:VAL:HG21	2.31	0.46
1:B:4097:MET:HE2	1:B:4108:ILE:HG12	1.98	0.46
1:D:244:LEU:HD13	1:D:375:LYS:HE2	1.98	0.46
1:D:259:LEU:HD21	1:D:393:CYS:HB2	1.97	0.46
1:D:369:LEU:H	1:D:369:LEU:HD12	1.81	0.46
1:D:426:ARG:HH11	1:D:508:GLY:HA2	1.81	0.46
1:D:2310:CYS:H	1:D:2324:ASN:HB2	1.81	0.46
1:D:2816:MET:O	1:D:2821:TRP:HB2	2.16	0.46
1:D:4707:ASN:HB3	1:D:4774:LYS:HZ2	1.80	0.46
1:C:262:LEU:O	1:C:262:LEU:HD12	2.16	0.46
1:C:499:THR:OG1	1:C:500:ALA:N	2.48	0.46
1:C:1421:ARG:HE	1:C:1421:ARG:H	1.62	0.46
1:C:2679:PHE:HB2	1:C:2706:ILE:HG21	1.97	0.46
1:C:2913:ALA:O	1:C:2917:ALA:N	2.49	0.46
1:A:426:ARG:HH11	1:A:508:GLY:HA2	1.81	0.46
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.97	0.46
1:A:1248:VAL:HG22	1:A:1599:MET:HB3	1.97	0.46
1:A:1292:SER:OG	1:A:1596:GLU:O	2.26	0.46
1:A:1422:ASP:OD1	1:A:1571:ASN:N	2.39	0.46
1:A:2977:LEU:HA	1:A:2980:VAL:HG22	1.97	0.46
1:A:4860:ARG:HG3	1:A:4876:CYS:HB3	1.98	0.46
1:B:262:LEU:HD12	1:B:262:LEU:O	2.16	0.46
1:B:897:ARG:HG3	1:B:905:PRO:HD2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2477:PRO:HD2	1:B:2536:LEU:HD21	1.98	0.46
1:B:2518:LEU:O	1:B:2521:VAL:HG12	2.15	0.46
1:B:2977:LEU:HA	1:B:2980:VAL:HG22	1.97	0.46
1:B:3348:ARG:CZ	1:B:3348:ARG:HA	2.46	0.46
1:B:3354:LEU:HB3	1:B:3415:TYR:CZ	2.51	0.46
1:B:3834:ALA:O	1:B:3838:THR:HG23	2.15	0.46
1:B:4230:LYS:HG2	1:B:4231:MET:CE	2.46	0.46
1:D:13:PHE:HE1	1:D:164:ARG:HG2	1.80	0.46
1:D:421:PHE:CZ	1:D:507:ALA:HB2	2.50	0.46
1:D:472:ARG:NH1	1:D:475:GLN:OE1	2.49	0.46
1:D:476:SER:O	1:D:480:GLU:HG2	2.16	0.46
1:D:1226:PHE:O	1:D:1827:ARG:NH2	2.42	0.46
1:D:1252:HIS:HD2	1:D:1255:TYR:HB2	1.81	0.46
1:D:1974:ARG:NH1	1:D:3642:TYR:HB2	2.31	0.46
1:D:2518:LEU:O	1:D:2521:VAL:HG12	2.15	0.46
1:D:2962:GLN:OE1	1:D:2965:ARG:NH1	2.48	0.46
1:C:345:LEU:HA	1:C:345:LEU:HD23	1.74	0.46
1:C:1581:LEU:O	1:C:1584:ARG:HG2	2.16	0.46
1:C:2310:CYS:H	1:C:2324:ASN:HB2	1.81	0.46
1:C:2874:MET:HE3	1:C:2939:ARG:HE	1.79	0.46
1:C:3629:ARG:NH2	1:C:3633:VAL:HG21	2.30	0.46
1:A:472:ARG:NH1	1:A:475:GLN:OE1	2.49	0.46
1:A:894:GLY:HA3	1:A:903:LEU:HD13	1.98	0.46
1:A:2115:GLU:H	1:A:2115:GLU:CD	2.19	0.46
1:B:369:LEU:H	1:B:369:LEU:HD12	1.81	0.46
1:B:975:VAL:HG11	1:B:1044:ARG:HA	1.98	0.46
1:B:2805:TYR:O	1:B:2808:PRO:HD2	2.16	0.46
1:B:2816:MET:O	1:B:2821:TRP:HB2	2.16	0.46
1:B:4067:LYS:HE3	1:B:4102:GLN:HB3	1.98	0.46
1:D:345:LEU:HD23	1:D:345:LEU:HA	1.74	0.46
1:D:2477:PRO:HD2	1:D:2536:LEU:HD21	1.98	0.46
1:D:2805:TYR:O	1:D:2808:PRO:HD2	2.16	0.46
1:D:2913:ALA:O	1:D:2917:ALA:N	2.49	0.46
1:C:45:ARG:HA	1:C:45:ARG:HD3	1.74	0.46
1:C:76:ARG:NH2	1:C:80:GLU:OE2	2.49	0.46
1:C:883:ALA:O	1:C:887:ILE:HG23	2.16	0.46
1:C:1248:VAL:HG22	1:C:1599:MET:HB3	1.97	0.46
1:C:1763:PRO:HG3	1:C:2094:LEU:HD22	1.97	0.46
1:C:2226:PRO:HB2	1:C:2267:MET:CE	2.46	0.46
1:C:2518:LEU:O	1:C:2521:VAL:HG12	2.15	0.46
1:C:2770:LYS:HD2	1:C:2787:THR:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3352:GLU:H	1:C:3352:GLU:CD	2.17	0.46
1:C:3716:LEU:HD13	1:C:3785:ALA:HB1	1.98	0.46
1:C:4003:LEU:HA	1:C:4009:GLN:NE2	2.31	0.46
1:A:476:SER:O	1:A:480:GLU:HG2	2.16	0.45
1:A:499:THR:OG1	1:A:500:ALA:N	2.48	0.45
1:A:675:LEU:HD23	1:A:1633:PRO:HB3	1.98	0.45
1:A:939:VAL:HG12	1:A:1053:ILE:HG23	1.97	0.45
1:A:1815:LEU:HD22	1:A:1845:VAL:HG21	1.98	0.45
1:A:2196:ASN:OD1	1:A:2199:ARG:NH2	2.48	0.45
1:A:2239:PHE:HA	1:A:2242:ILE:HD12	1.98	0.45
1:A:3935:TRP:CE3	1:B:80:GLU:HG3	2.51	0.45
1:B:255:HIS:CD2	1:B:480:GLU:HG3	2.52	0.45
1:B:472:ARG:NH1	1:B:475:GLN:OE1	2.49	0.45
1:B:632:LEU:O	1:B:634:GLN:NE2	2.46	0.45
1:B:669:ASP:OD2	1:B:788:LYS:NZ	2.49	0.45
1:B:2803:GLU:HB3	1:B:2806:ARG:HE	1.81	0.45
1:D:170:ILE:HD12	1:D:170:ILE:HA	1.79	0.45
1:D:897:ARG:HG3	1:D:905:PRO:HD2	1.98	0.45
1:D:1126:GLY:HA3	1:D:1143:TRP:CD2	2.51	0.45
1:D:2724:GLU:HB2	1:D:2725:LYS:HD2	1.99	0.45
1:D:2827:ARG:NE	1:D:2827:ARG:O	2.49	0.45
1:D:3716:LEU:HD13	1:D:3785:ALA:HB1	1.98	0.45
1:C:534:ARG:HE	1:C:534:ARG:HB3	1.47	0.45
1:C:1444:GLU:OE1	1:C:1444:GLU:HA	2.16	0.45
1:C:2294:ASP:O	1:C:2298:VAL:HG23	2.15	0.45
1:C:2977:LEU:HA	1:C:2980:VAL:HG22	1.97	0.45
1:A:1763:PRO:HG3	1:A:2094:LEU:HD22	1.97	0.45
1:A:2624:ARG:HD3	1:A:2910:THR:HB	1.97	0.45
1:A:2827:ARG:NE	1:A:2827:ARG:O	2.49	0.45
1:A:4730:ASP:HB2	1:D:4101:LYS:HD3	1.97	0.45
1:B:1974:ARG:NH1	1:B:3642:TYR:HB2	2.31	0.45
1:B:2330:ARG:HA	1:B:2333:ASP:OD2	2.16	0.45
1:B:2724:GLU:HB2	1:B:2725:LYS:HD2	1.99	0.45
1:B:4184:MET:HE1	1:B:4188:ARG:HA	1.98	0.45
1:D:1045:THR:HG22	1:D:1049:TYR:CZ	2.52	0.45
1:D:1581:LEU:O	1:D:1584:ARG:HG2	2.16	0.45
1:D:2284:ASN:OD1	1:D:2342:ASN:ND2	2.49	0.45
1:D:2330:ARG:HA	1:D:2333:ASP:OD2	2.16	0.45
1:D:2788:HIS:CD2	1:D:2789:PRO:HD2	2.51	0.45
1:D:2985:ARG:HG3	1:D:2985:ARG:NH1	2.30	0.45
1:D:3003:LEU:HB2	1:D:3004:PRO:HD3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:171:LEU:O	1:C:179:TYR:HA	2.16	0.45
1:C:255:HIS:CD2	1:C:480:GLU:HG3	2.52	0.45
1:C:626:LEU:HB3	1:C:1688:HIS:NE2	2.32	0.45
1:C:1997:GLU:HB2	1:C:2008:MET:CE	2.44	0.45
1:C:2805:TYR:O	1:C:2808:PRO:HD2	2.16	0.45
1:C:3659:ALA:HA	1:C:3663:LEU:HD12	1.97	0.45
1:A:255:HIS:CD2	1:A:480:GLU:HG3	2.52	0.45
1:A:262:LEU:HD12	1:A:262:LEU:O	2.16	0.45
1:A:369:LEU:HD12	1:A:369:LEU:H	1.81	0.45
1:A:2512:ILE:HG13	1:A:2565:CYS:SG	2.56	0.45
1:B:16:THR:HG1	1:B:99:ARG:N	2.14	0.45
1:B:76:ARG:NH2	1:B:80:GLU:OE2	2.49	0.45
1:B:883:ALA:O	1:B:887:ILE:HG23	2.16	0.45
1:B:1815:LEU:HD22	1:B:1845:VAL:HG21	1.99	0.45
1:B:2755:ILE:HG12	1:B:2813:LEU:HG	1.99	0.45
1:B:2913:ALA:O	1:B:2917:ALA:N	2.49	0.45
1:B:3788:GLY:HA3	1:B:3834:ALA:HB3	1.98	0.45
1:B:4860:ARG:HG3	1:B:4876:CYS:HB3	1.98	0.45
1:D:590:LEU:HB2	1:D:599:VAL:HG11	1.97	0.45
1:D:1444:GLU:OE1	1:D:1444:GLU:HA	2.16	0.45
1:D:2355:ARG:HG3	1:D:2355:ARG:HH11	1.82	0.45
1:D:3629:ARG:HG3	1:D:3630:ARG:N	2.30	0.45
1:D:3996:PHE:CD2	1:D:4020:GLN:HG2	2.52	0.45
1:D:4673:ARG:O	1:D:4676:GLU:HG3	2.17	0.45
1:C:244:LEU:HD13	1:C:375:LYS:HE2	1.98	0.45
1:C:259:LEU:HD21	1:C:393:CYS:HB2	1.97	0.45
1:C:675:LEU:HD23	1:C:1633:PRO:HB3	1.98	0.45
1:C:2203:MET:HG3	1:C:2235:PHE:HZ	1.80	0.45
1:C:2239:PHE:HA	1:C:2242:ILE:HD12	1.99	0.45
1:A:1260:MET:HE3	1:A:1269:CYS:HB2	1.98	0.45
1:A:1444:GLU:OE1	1:A:1444:GLU:HA	2.16	0.45
1:A:1581:LEU:O	1:A:1584:ARG:HG2	2.16	0.45
1:A:1747:LEU:HD13	1:A:1957:SER:HB2	1.99	0.45
1:A:2203:MET:HG3	1:A:2235:PHE:HZ	1.81	0.45
1:A:2913:ALA:O	1:A:2917:ALA:N	2.49	0.45
1:B:426:ARG:HH11	1:B:508:GLY:HA2	1.81	0.45
1:B:2310:CYS:H	1:B:2324:ASN:HB2	1.81	0.45
1:B:2756:ASN:O	1:B:2760:GLU:HG2	2.17	0.45
1:B:4015:GLU:HA	1:B:4018:ASP:OD2	2.17	0.45
1:D:1747:LEU:HD13	1:D:1957:SER:HB2	1.99	0.45
1:D:2756:ASN:O	1:D:2760:GLU:HG2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3034:LYS:NZ	1:D:3038:MET:HG3	2.31	0.45
1:C:13:PHE:HE1	1:C:164:ARG:HG2	1.80	0.45
1:C:369:LEU:H	1:C:369:LEU:HD12	1.81	0.45
1:C:975:VAL:HG11	1:C:1044:ARG:HA	1.97	0.45
1:C:1126:GLY:HA3	1:C:1143:TRP:CD2	2.51	0.45
1:C:2265:LEU:HD12	1:C:2265:LEU:HA	1.75	0.45
1:C:2355:ARG:HG3	1:C:2355:ARG:HH11	1.81	0.45
1:C:2803:GLU:HB3	1:C:2806:ARG:HE	1.81	0.45
1:C:2827:ARG:NE	1:C:2827:ARG:O	2.49	0.45
1:C:3034:LYS:NZ	1:C:3038:MET:HG3	2.31	0.45
1:C:3147:ILE:HG13	1:C:3152:PHE:HB2	1.99	0.45
1:C:3469:PHE:CE2	1:C:3509:LEU:HD21	2.52	0.45
1:C:4097:MET:HE2	1:C:4108:ILE:HG12	1.98	0.45
1:A:3147:ILE:HG13	1:A:3152:PHE:HB2	1.99	0.45
1:A:3659:ALA:HA	1:A:3663:LEU:HD12	1.97	0.45
1:A:3996:PHE:CD2	1:A:4020:GLN:HG2	2.52	0.45
2:G:7:ILE:HA	1:C:719:LEU:HD11	1.98	0.45
2:G:35:LYS:NZ	2:G:38:SER:HB3	2.31	0.45
1:B:894:GLY:HA3	1:B:903:LEU:HD13	1.98	0.45
1:B:1747:LEU:HD13	1:B:1957:SER:HB2	1.99	0.45
1:B:3070:ILE:O	1:B:3074:SER:OG	2.28	0.45
1:B:3384:LYS:HB3	1:B:3384:LYS:HE2	1.66	0.45
1:B:4929:LEU:HD23	1:B:4929:LEU:HA	1.84	0.45
1:D:499:THR:OG1	1:D:500:ALA:N	2.48	0.45
1:D:626:LEU:HB3	1:D:1688:HIS:NE2	2.32	0.45
1:D:669:ASP:OD2	1:D:788:LYS:NZ	2.49	0.45
1:D:1128:ARG:HB3	1:D:1130:GLN:NE2	2.32	0.45
1:D:1248:VAL:HG22	1:D:1599:MET:HB3	1.97	0.45
1:D:1260:MET:HE3	1:D:1269:CYS:HB2	1.98	0.45
1:D:1634:LEU:HD23	1:D:1634:LEU:HA	1.84	0.45
1:D:2226:PRO:HB2	1:D:2267:MET:CE	2.46	0.45
1:D:4003:LEU:HA	1:D:4009:GLN:NE2	2.31	0.45
1:D:4184:MET:HE1	1:D:4188:ARG:HA	1.97	0.45
1:C:426:ARG:HH11	1:C:508:GLY:HA2	1.81	0.45
1:C:1252:HIS:HD2	1:C:1255:TYR:HB2	1.81	0.45
1:C:2116:LEU:O	1:C:2120:MET:HG2	2.17	0.45
1:C:2755:ILE:HG12	1:C:2813:LEU:HG	1.99	0.45
1:C:2756:ASN:O	1:C:2760:GLU:HG2	2.17	0.45
1:A:1990:GLU:HA	1:A:1993:ARG:NH2	2.29	0.45
1:A:2369[B]:ARG:HD3	1:A:2369[B]:ARG:HA	1.56	0.45
1:A:2770:LYS:HD2	1:A:2787:THR:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4015:GLU:HA	1:A:4018:ASP:OD2	2.17	0.45
1:B:1996:ARG:HA	1:B:1996:ARG:NE	2.32	0.45
1:B:2512:ILE:HG13	1:B:2565:CYS:SG	2.56	0.45
1:B:2518:LEU:HD22	1:B:2565:CYS:HB3	1.98	0.45
1:B:2624:ARG:CZ	1:B:2910:THR:HA	2.47	0.45
1:B:2827:ARG:O	1:B:2827:ARG:NE	2.49	0.45
1:B:3061:ALA:O	1:B:3065:VAL:HG13	2.17	0.45
1:B:3576:TYR:CE1	1:B:3582:ARG:HD3	2.52	0.45
1:D:255:HIS:CD2	1:D:480:GLU:HG3	2.52	0.45
1:D:894:GLY:HA3	1:D:903:LEU:HD13	1.98	0.45
1:D:939:VAL:HG12	1:D:1053:ILE:HG23	1.97	0.45
1:D:1449:TRP:N	1:D:1553:PHE:O	2.50	0.45
1:D:1613:LEU:HG	1:D:1630:CYS:SG	2.57	0.45
1:D:1738:LEU:HD13	1:D:1963:GLU:HG3	1.97	0.45
1:D:2042:CYS:HB2	1:D:2044:ILE:HG22	1.99	0.45
1:D:2116:LEU:O	1:D:2120:MET:HG2	2.17	0.45
1:D:3378:GLN:HA	1:D:3381:LEU:HD23	1.98	0.45
1:D:3391:GLU:O	1:D:3394:VAL:HG12	2.17	0.45
1:D:3514:LEU:HD12	1:D:3606:LEU:HD13	1.97	0.45
1:D:3537:LYS:NZ	1:D:3607:GLU:HG2	2.32	0.45
1:D:3981:ALA:HB2	1:D:4040:ILE:HD11	1.97	0.45
1:D:4015:GLU:HA	1:D:4018:ASP:OD2	2.17	0.45
1:C:2001:PRO:O	1:C:2005:GLN:HG3	2.17	0.45
1:C:2512:ILE:HG13	1:C:2565:CYS:SG	2.56	0.45
1:C:2816:MET:O	1:C:2821:TRP:HB2	2.16	0.45
1:C:3378:GLN:HA	1:C:3381:LEU:HD23	1.98	0.45
1:C:3788:GLY:HA3	1:C:3834:ALA:HB3	1.98	0.45
1:C:3802:ILE:HD11	1:C:3883:ASP:O	2.16	0.45
1:C:3996:PHE:CD2	1:C:4020:GLN:HG2	2.52	0.45
1:A:244:LEU:HD13	1:A:375:LYS:HE2	1.98	0.45
1:A:1208:VAL:HG21	1:D:3575:LEU:HD11	1.95	0.45
1:A:1226:PHE:O	1:A:1827:ARG:NH2	2.42	0.45
1:A:1277:TRP:HD1	1:A:1559:GLN:HG3	1.82	0.45
1:A:2355:ARG:HG3	1:A:2355:ARG:HH11	1.82	0.45
1:A:2803:GLU:HB3	1:A:2806:ARG:HE	1.81	0.45
1:A:3537:LYS:NZ	1:A:3607:GLU:HG2	2.32	0.45
1:A:3576:TYR:CE1	1:A:3582:ARG:HD3	2.52	0.45
1:A:3576:TYR:OH	1:A:3582:ARG:NH1	2.50	0.45
2:F:44:LYS:NZ	2:F:44:LYS:HB3	2.31	0.45
1:B:214:VAL:HG13	1:B:341:TYR:HE2	1.82	0.45
1:B:1128:ARG:HB3	1:B:1130:GLN:NE2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2788:HIS:CD2	1:B:2789:PRO:HD2	2.51	0.45
1:B:3469:PHE:CE2	1:B:3509:LEU:HD21	2.52	0.45
1:B:3537:LYS:NZ	1:B:3607:GLU:HG2	2.32	0.45
1:B:3576:TYR:OH	1:B:3582:ARG:NH1	2.50	0.45
1:B:4769:MET:HE3	1:B:4769:MET:H	1.81	0.45
1:D:76:ARG:NH2	1:D:80:GLU:OE2	2.49	0.45
1:D:76:ARG:HH11	1:D:76:ARG:HG3	1.82	0.45
1:D:534:ARG:HE	1:D:534:ARG:HB3	1.47	0.45
1:D:1815:LEU:HD22	1:D:1845:VAL:HG21	1.99	0.45
1:D:2044:ILE:HD13	1:D:2131:LEU:HD22	1.99	0.45
1:D:2512:ILE:HG13	1:D:2565:CYS:SG	2.56	0.45
1:D:2960:LEU:HB3	1:D:3038:MET:HE3	1.99	0.45
1:D:3535:LEU:O	1:D:3538:THR:OG1	2.25	0.45
1:D:3659:ALA:HA	1:D:3663:LEU:HD12	1.97	0.45
1:D:4826:ILE:O	1:D:4829:SER:OG	2.31	0.45
1:D:4911:LEU:HD23	1:D:4911:LEU:HA	1.77	0.45
1:C:273:HIS:O	1:C:275:ARG:NE	2.44	0.45
1:C:1128:ARG:HB3	1:C:1130:GLN:NE2	2.32	0.45
1:C:1996:ARG:NE	1:C:1996:ARG:HA	2.32	0.45
1:C:4015:GLU:HA	1:C:4018:ASP:OD2	2.17	0.45
1:A:171:LEU:O	1:A:179:TYR:HA	2.16	0.45
1:A:938:HIS:ND1	1:A:1054:GLU:OE2	2.45	0.45
1:A:1126:GLY:HA3	1:A:1143:TRP:CD2	2.51	0.45
1:A:1738:LEU:HD13	1:A:1963:GLU:HG3	1.97	0.45
1:A:2204:HIS:HA	1:A:2235:PHE:HE1	1.81	0.45
1:A:2330:ARG:HA	1:A:2333:ASP:OD2	2.16	0.45
1:A:3391:GLU:O	1:A:3394:VAL:HG12	2.17	0.45
1:A:3716:LEU:HD13	1:A:3785:ALA:HB1	1.98	0.45
1:B:188:GLU:OE1	1:B:188:GLU:N	2.39	0.45
1:B:1126:GLY:HA3	1:B:1143:TRP:CD2	2.51	0.45
1:B:1613:LEU:HG	1:B:1630:CYS:SG	2.57	0.45
1:B:2974:ILE:HG13	1:B:2975:ALA:N	2.32	0.45
1:B:3034:LYS:NZ	1:B:3038:MET:HG3	2.31	0.45
1:B:3147:ILE:HG13	1:B:3152:PHE:HB2	1.99	0.45
1:B:3802:ILE:HD11	1:B:3883:ASP:O	2.16	0.45
1:B:4956:THR:O	1:B:4965:SER:N	2.50	0.45
1:D:214:VAL:HG13	1:D:341:TYR:HE2	1.82	0.45
1:D:975:VAL:HG11	1:D:1044:ARG:HA	1.98	0.45
1:D:2001:PRO:O	1:D:2005:GLN:HG3	2.17	0.45
1:D:2226:PRO:HB2	1:D:2267:MET:HE3	1.98	0.45
1:D:3371:LYS:HE2	1:D:3371:LYS:HB2	1.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:384:MET:CE	1:C:384:MET:H	2.29	0.45
1:C:1045:THR:HG22	1:C:1049:TYR:CZ	2.52	0.45
1:C:2518:LEU:HD22	1:C:2565:CYS:HB3	1.98	0.45
1:C:2624:ARG:HD3	1:C:2910:THR:HB	1.97	0.45
1:C:2624:ARG:CZ	1:C:2910:THR:HA	2.47	0.45
1:C:2974:ILE:HG13	1:C:2975:ALA:N	2.32	0.45
1:C:3003:LEU:HB2	1:C:3004:PRO:HD3	1.97	0.45
1:C:3756:LYS:HG2	1:C:3760:LYS:HE2	1.99	0.45
1:A:1974:ARG:NH1	1:A:3642:TYR:HB2	2.31	0.45
1:A:2788:HIS:CD2	1:A:2789:PRO:HD2	2.51	0.45
1:A:3469:PHE:CE2	1:A:3509:LEU:HD21	2.52	0.45
1:B:76:ARG:HG3	1:B:76:ARG:HH11	1.82	0.45
1:B:626:LEU:HB3	1:B:1688:HIS:NE2	2.32	0.45
1:B:978:THR:O	1:B:982:THR:HG23	2.17	0.45
1:B:2203:MET:HG3	1:B:2235:PHE:HZ	1.81	0.45
1:B:2355:ARG:HG3	1:B:2355:ARG:HH11	1.82	0.45
1:B:3269:VAL:HA	1:B:3273:THR:HB	1.99	0.45
1:B:3337:ARG:HA	1:B:3340:VAL:HG22	1.99	0.45
1:D:1005:TRP:HA	1:D:1016:ARG:HG2	1.99	0.45
1:D:1728:ARG:HA	1:D:1731:LEU:HD12	1.99	0.45
1:D:2095:GLN:HA	1:D:2127:GLN:HE21	1.82	0.45
1:D:2115:GLU:H	1:D:2115:GLU:CD	2.19	0.45
1:D:3469:PHE:CE2	1:D:3509:LEU:HD21	2.52	0.45
1:D:4067:LYS:HE3	1:D:4102:GLN:HB3	1.98	0.45
1:C:1613:LEU:HG	1:C:1630:CYS:SG	2.57	0.45
1:C:1962:ALA:O	1:C:1966:VAL:HG22	2.17	0.45
1:C:3269:VAL:HA	1:C:3273:THR:HB	1.99	0.45
1:C:4680:LYS:HE2	1:C:4680:LYS:HB2	1.73	0.45
1:C:4860:ARG:HG3	1:C:4876:CYS:HB3	1.98	0.45
1:A:214:VAL:HG13	1:A:341:TYR:HE2	1.82	0.45
1:A:384:MET:CE	1:A:384:MET:H	2.29	0.45
1:A:978:THR:O	1:A:982:THR:HG23	2.17	0.45
1:A:1045:THR:HG22	1:A:1049:TYR:CZ	2.52	0.45
1:A:1128:ARG:HB3	1:A:1130:GLN:NE2	2.32	0.45
1:A:1252:HIS:HD2	1:A:1255:TYR:HB2	1.80	0.45
1:A:1263:THR:OG1	1:A:1265:ASP:OD1	2.25	0.45
1:A:1613:LEU:HG	1:A:1630:CYS:SG	2.57	0.45
1:A:1753:LYS:NZ	1:A:1759:ARG:HG2	2.29	0.45
1:A:1996:ARG:NE	1:A:1996:ARG:HA	2.32	0.45
1:A:2044:ILE:HD13	1:A:2131:LEU:HD22	1.99	0.45
1:A:2653:LYS:HB2	1:A:2653:LYS:HE2	1.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2671:GLU:H	1:A:2671:GLU:HG2	1.61	0.45
1:A:2755:ILE:HG12	1:A:2813:LEU:HG	1.99	0.45
1:A:2805:TYR:O	1:A:2808:PRO:HD2	2.16	0.45
1:A:2974:ILE:HG13	1:A:2975:ALA:N	2.32	0.45
1:A:3788:GLY:HA3	1:A:3834:ALA:HB3	1.99	0.45
2:H:7:ILE:HA	1:D:719:LEU:HD11	1.98	0.45
2:H:35:LYS:NZ	2:H:38:SER:HB3	2.32	0.45
1:B:257:ARG:O	1:B:284:HIS:NE2	2.28	0.45
1:B:2502:MET:HE3	1:B:2502:MET:HA	1.99	0.45
1:B:3390:GLY:O	1:B:3393:LEU:HG	2.17	0.45
1:B:3477:LYS:O	1:B:3478:MET:HB2	2.17	0.45
1:B:4074:SER:O	1:B:4078:GLN:HG2	2.17	0.45
1:B:4673:ARG:HH12	1:B:4698:LYS:HD2	1.82	0.45
1:D:848:HIS:O	1:D:852:VAL:HG23	2.17	0.45
1:C:730:VAL:HG23	1:C:1476:MET:HE1	1.99	0.45
1:C:4673:ARG:HH12	1:C:4698:LYS:HD2	1.82	0.45
1:A:76:ARG:NH2	1:A:80:GLU:OE2	2.49	0.44
1:A:2116:LEU:O	1:A:2120:MET:HG2	2.17	0.44
1:A:3390:GLY:O	1:A:3393:LEU:HG	2.17	0.44
1:A:4067:LYS:HE3	1:A:4102:GLN:HB3	1.98	0.44
1:A:4077:PHE:HE1	1:A:4125:PHE:CD2	2.35	0.44
1:B:2044:ILE:HD13	1:B:2131:LEU:HD22	1.99	0.44
1:B:2116:LEU:O	1:B:2120:MET:HG2	2.17	0.44
1:B:2369[B]:ARG:HA	1:B:2369[B]:ARG:HD3	1.57	0.44
1:B:2874:MET:HE3	1:B:2939:ARG:HE	1.80	0.44
1:B:3260:GLY:HA2	1:B:3325:ASN:ND2	2.33	0.44
1:B:3716:LEU:HD13	1:B:3785:ALA:HB1	1.98	0.44
1:B:4077:PHE:HE1	1:B:4125:PHE:CD2	2.35	0.44
1:D:828:GLU:OE1	1:D:828:GLU:N	2.41	0.44
1:D:872:GLU:O	1:D:876:GLU:HG3	2.18	0.44
1:D:3756:LYS:HG2	1:D:3760:LYS:HE2	1.99	0.44
1:D:3802:ILE:HD11	1:D:3883:ASP:O	2.17	0.44
1:C:683:ARG:NH1	1:C:709:ASP:OD1	2.45	0.44
1:C:1005:TRP:HA	1:C:1016:ARG:HG2	1.99	0.44
1:C:2330:ARG:HA	1:C:2333:ASP:OD2	2.16	0.44
1:C:2477:PRO:HD2	1:C:2536:LEU:HD21	1.98	0.44
1:C:2788:HIS:CD2	1:C:2789:PRO:HD2	2.51	0.44
1:C:3061:ALA:O	1:C:3065:VAL:HG13	2.17	0.44
1:C:3535:LEU:O	1:C:3538:THR:OG1	2.25	0.44
1:A:76:ARG:HH11	1:A:76:ARG:HG3	1.82	0.44
1:A:3061:ALA:O	1:A:3065:VAL:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3206:LEU:HB3	1:A:3246:LEU:HB2	2.00	0.44
1:A:4911:LEU:HD23	1:A:4911:LEU:HA	1.77	0.44
1:A:4956:THR:O	1:A:4965:SER:N	2.50	0.44
1:B:164:ARG:NH1	1:B:164:ARG:HG3	2.32	0.44
1:B:887:ILE:HG21	1:B:955:LEU:HD11	2.00	0.44
1:B:1180:ARG:O	1:B:1181:GLU:HG3	2.17	0.44
1:B:2624:ARG:HD3	1:B:2910:THR:HB	1.97	0.44
1:B:3391:GLU:O	1:B:3394:VAL:HG12	2.17	0.44
1:B:3936:TYR:HA	1:C:76:ARG:NH2	2.28	0.44
1:D:392:ARG:HE	1:D:393:CYS:H	1.65	0.44
1:D:1996:ARG:NE	1:D:1996:ARG:HA	2.31	0.44
1:D:2755:ILE:HG12	1:D:2813:LEU:HG	1.99	0.44
1:C:76:ARG:HH11	1:C:76:ARG:HG3	1.82	0.44
1:C:796:ARG:HA	1:C:796:ARG:CZ	2.48	0.44
1:C:872:GLU:O	1:C:876:GLU:HG3	2.18	0.44
1:C:887:ILE:HG21	1:C:955:LEU:HD11	2.00	0.44
1:C:1180:ARG:O	1:C:1181:GLU:HG3	2.17	0.44
1:C:1277:TRP:HD1	1:C:1559:GLN:HG3	1.82	0.44
1:C:1547:LYS:HB2	1:C:1547:LYS:HE2	1.80	0.44
1:C:1747:LEU:HD13	1:C:1957:SER:HB2	1.99	0.44
1:C:3477:LYS:O	1:C:3478:MET:HB2	2.17	0.44
1:A:266:ARG:O	1:A:270:SER:OG	2.32	0.44
1:A:828:GLU:OE1	1:A:828:GLU:N	2.41	0.44
1:A:1962:ALA:O	1:A:1966:VAL:HG22	2.17	0.44
1:A:2756:ASN:O	1:A:2760:GLU:HG2	2.17	0.44
1:A:2986:VAL:HG22	1:A:2989:SER:H	1.82	0.44
1:A:4097:MET:HE2	1:A:4108:ILE:HG12	1.98	0.44
1:B:796:ARG:CZ	1:B:796:ARG:HA	2.48	0.44
1:B:1653:LEU:HD11	1:B:1659:LEU:HB3	2.00	0.44
1:B:2239:PHE:HA	1:B:2242:ILE:HD12	1.98	0.44
1:B:3206:LEU:HB3	1:B:3246:LEU:HB2	2.00	0.44
1:B:3249:LEU:HD12	1:B:3249:LEU:HA	1.87	0.44
1:B:3403:ARG:HA	1:B:3458:PHE:CE2	2.53	0.44
1:B:3659:ALA:HA	1:B:3663:LEU:HD12	1.98	0.44
1:D:384:MET:H	1:D:384:MET:CE	2.30	0.44
1:D:675:LEU:HD23	1:D:1633:PRO:HB3	1.98	0.44
1:D:1112:ASP:OD1	1:D:1112:ASP:N	2.44	0.44
1:D:1180:ARG:O	1:D:1181:GLU:HG3	2.17	0.44
1:D:1962:ALA:O	1:D:1966:VAL:HG22	2.17	0.44
1:D:2239:PHE:HA	1:D:2242:ILE:HD12	1.98	0.44
1:D:2974:ILE:HG13	1:D:2975:ALA:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3147:ILE:HG13	1:D:3152:PHE:HB2	1.99	0.44
1:D:3403:ARG:HA	1:D:3458:PHE:CE2	2.52	0.44
1:D:4860:ARG:HG3	1:D:4876:CYS:HB3	1.98	0.44
1:C:1449:TRP:N	1:C:1553:PHE:O	2.50	0.44
1:C:2865:VAL:O	1:C:2928:LYS:NZ	2.41	0.44
1:C:3391:GLU:O	1:C:3394:VAL:HG12	2.17	0.44
1:C:4673:ARG:O	1:C:4676:GLU:HG3	2.17	0.44
1:A:626:LEU:HB3	1:A:1688:HIS:NE2	2.32	0.44
1:A:796:ARG:HA	1:A:796:ARG:CZ	2.48	0.44
1:A:2207:VAL:HA	1:A:2210:VAL:HG22	1.99	0.44
1:A:2960:LEU:HB3	1:A:3038:MET:HE3	1.99	0.44
1:A:3260:GLY:HA2	1:A:3325:ASN:ND2	2.33	0.44
1:A:3354:LEU:HB3	1:A:3415:TYR:CZ	2.51	0.44
1:A:3802:ILE:HD11	1:A:3883:ASP:O	2.17	0.44
1:A:4673:ARG:O	1:A:4676:GLU:HG3	2.17	0.44
2:F:90:ILE:HD13	1:B:1782:PHE:CD1	2.52	0.44
1:B:265:LEU:HD23	1:B:265:LEU:H	1.83	0.44
1:B:384:MET:CE	1:B:384:MET:H	2.29	0.44
1:B:848:HIS:O	1:B:852:VAL:HG23	2.17	0.44
1:B:951:LYS:HG3	1:B:971:ASP:HB3	2.00	0.44
1:B:1045:THR:HG22	1:B:1049:TYR:CZ	2.52	0.44
1:B:2986:VAL:HG22	1:B:2989:SER:H	1.82	0.44
1:B:3535:LEU:O	1:B:3538:THR:OG1	2.25	0.44
1:D:280:LEU:HD21	1:D:316:PHE:HD1	1.83	0.44
1:D:3043:PHE:HA	1:D:3071:LEU:HD23	2.00	0.44
1:D:3061:ALA:O	1:D:3065:VAL:HG13	2.17	0.44
1:D:3596:VAL:O	1:D:3600:SER:OG	2.26	0.44
1:D:4071:ILE:HD13	1:D:4071:ILE:HA	1.79	0.44
1:D:4673:ARG:HH12	1:D:4698:LYS:HD2	1.82	0.44
1:C:214:VAL:HG13	1:C:341:TYR:HE2	1.82	0.44
1:C:317:ARG:NE	1:C:349:GLN:OE1	2.51	0.44
1:C:392:ARG:HE	1:C:393:CYS:H	1.65	0.44
1:C:1451:GLY:HA3	1:C:1494:MET:HA	2.00	0.44
1:C:1634:LEU:HD23	1:C:1634:LEU:HA	1.84	0.44
1:C:1815:LEU:HD22	1:C:1845:VAL:HG21	1.98	0.44
1:C:2044:ILE:HD13	1:C:2131:LEU:HD22	1.99	0.44
1:C:2892:GLN:HA	1:C:2895:GLU:HG2	2.00	0.44
1:C:3576:TYR:CE1	1:C:3582:ARG:HD3	2.52	0.44
1:C:4077:PHE:HE1	1:C:4125:PHE:CD2	2.35	0.44
1:A:872:GLU:O	1:A:876:GLU:HG3	2.18	0.44
1:A:2724:GLU:HB2	1:A:2725:LYS:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3262:ARG:HA	1:A:3262:ARG:HD3	1.66	0.44
1:A:3791:GLY:O	1:A:3794:VAL:HG12	2.17	0.44
1:A:4074:SER:O	1:A:4078:GLN:HG2	2.17	0.44
1:B:2477:PRO:HD3	1:B:2546:MET:HG2	2.00	0.44
1:B:2865:VAL:O	1:B:2928:LYS:NZ	2.41	0.44
1:D:632:LEU:O	1:D:634:GLN:NE2	2.46	0.44
1:D:2395:PRO:HB2	1:D:2397:VAL:HG23	2.00	0.44
1:D:2638:LYS:O	1:D:2641:LEU:HG	2.18	0.44
1:D:2788:HIS:HB3	1:D:2791:LEU:HG	2.00	0.44
1:D:3206:LEU:HB3	1:D:3246:LEU:HB2	2.00	0.44
1:D:4730:ASP:HB2	1:C:4101:LYS:HD3	1.99	0.44
1:C:349:GLN:HB3	1:C:356:TRP:CE3	2.53	0.44
1:C:848:HIS:O	1:C:852:VAL:HG23	2.17	0.44
1:C:894:GLY:HA3	1:C:903:LEU:HD13	1.98	0.44
1:C:2042:CYS:HB2	1:C:2044:ILE:HG22	1.99	0.44
1:C:2638:LYS:O	1:C:2641:LEU:HG	2.18	0.44
1:C:3206:LEU:HB3	1:C:3246:LEU:HB2	2.00	0.44
1:C:3390:GLY:O	1:C:3393:LEU:HG	2.17	0.44
1:C:4067:LYS:HE3	1:C:4102:GLN:HB3	1.98	0.44
1:C:4184:MET:HE1	1:C:4188:ARG:HA	1.99	0.44
1:A:78:LEU:HD22	1:A:106:ALA:CB	2.48	0.44
1:A:234:SER:OG	1:A:238:SER:OG	2.24	0.44
1:A:921:ASN:OD1	1:A:921:ASN:N	2.51	0.44
1:A:1180:ARG:O	1:A:1181:GLU:HG3	2.17	0.44
1:A:1653:LEU:HD11	1:A:1659:LEU:HB3	2.00	0.44
1:A:2477:PRO:HD3	1:A:2546:MET:HG2	2.00	0.44
1:A:3269:VAL:HA	1:A:3273:THR:HB	1.99	0.44
1:A:3498:ARG:HB2	1:A:3499:ARG:H	1.58	0.44
1:A:4673:ARG:HH12	1:A:4698:LYS:HD2	1.82	0.44
1:A:4943:LEU:O	1:A:4947:GLN:HG2	2.17	0.44
2:F:89:GLY:HA2	1:B:627:PRO:HD3	1.98	0.44
1:B:708:GLY:HA3	1:B:722:TRP:HB3	1.99	0.44
1:B:1066:GLN:HG3	1:B:1070:ASP:OD1	2.18	0.44
1:B:1451:GLY:HA3	1:B:1494:MET:HA	2.00	0.44
1:B:1962:ALA:O	1:B:1966:VAL:HG22	2.17	0.44
1:B:2001:PRO:O	1:B:2005:GLN:HG3	2.17	0.44
1:B:2638:LYS:O	1:B:2641:LEU:HG	2.18	0.44
1:B:3479:ALA:HA	1:C:1141:ARG:HB2	2.00	0.44
1:B:3996:PHE:CD2	1:B:4020:GLN:HG2	2.52	0.44
1:D:796:ARG:CZ	1:D:796:ARG:HA	2.48	0.44
1:D:1277:TRP:HD1	1:D:1559:GLN:HG3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1759:ARG:HA	1:D:1759:ARG:NH1	2.33	0.44
1:D:2624:ARG:CZ	1:D:2910:THR:HA	2.47	0.44
1:D:2707:ALA:HB1	1:D:3009:TYR:CD1	2.53	0.44
1:D:4097:MET:HE2	1:D:4108:ILE:HG12	1.99	0.44
1:D:4926:VAL:CG1	1:C:4933:GLN:HG3	2.48	0.44
1:C:78:LEU:HD22	1:C:106:ALA:CB	2.48	0.44
1:C:164:ARG:NH1	1:C:164:ARG:HG3	2.32	0.44
1:C:265:LEU:HD23	1:C:265:LEU:H	1.83	0.44
1:C:951:LYS:HG3	1:C:971:ASP:HB3	2.00	0.44
1:C:1066:GLN:HG3	1:C:1070:ASP:OD1	2.18	0.44
1:C:1728:ARG:HA	1:C:1731:LEU:HD12	1.99	0.44
1:C:3043:PHE:HA	1:C:3071:LEU:HD23	2.00	0.44
1:C:3337:ARG:HA	1:C:3340:VAL:HG22	1.99	0.44
1:C:4943:LEU:O	1:C:4947:GLN:HG2	2.17	0.44
1:A:280:LEU:HD21	1:A:316:PHE:HD1	1.83	0.44
1:A:392:ARG:HE	1:A:393:CYS:H	1.65	0.44
1:A:1005:TRP:HA	1:A:1016:ARG:HG2	1.99	0.44
1:A:1066:GLN:HG3	1:A:1070:ASP:OD1	2.18	0.44
1:A:2788:HIS:HB3	1:A:2791:LEU:HG	2.00	0.44
1:A:2907:PRO:HB2	1:A:2910:THR:HG23	2.00	0.44
1:A:3182:TYR:HA	1:A:3185:LYS:HG2	2.00	0.44
1:A:3337:ARG:HA	1:A:3340:VAL:HG22	1.99	0.44
1:A:3477:LYS:NZ	1:B:1141:ARG:HG3	2.18	0.44
1:A:3477:LYS:HZ3	1:B:1141:ARG:HD3	1.08	0.44
1:A:3805:LEU:HB3	1:A:3890:LEU:HB3	1.99	0.44
1:A:4184:MET:HE1	1:A:4188:ARG:HA	1.98	0.44
1:B:45:ARG:HA	1:B:45:ARG:HD3	1.74	0.44
1:B:426:ARG:HG3	1:B:431:PRO:HA	2.00	0.44
1:B:688:LEU:HD12	1:B:776:LEU:O	2.18	0.44
1:B:872:GLU:O	1:B:876:GLU:HG3	2.18	0.44
1:B:1277:TRP:HD1	1:B:1559:GLN:HG3	1.82	0.44
1:B:2240:CYS:SG	1:B:2250:MET:HG3	2.58	0.44
1:B:2892:GLN:HA	1:B:2895:GLU:HG2	2.00	0.44
1:B:2960:LEU:HB3	1:B:3038:MET:HE3	2.00	0.44
1:B:2967:MET:HE3	1:B:3049:LEU:HG	1.99	0.44
1:B:3805:LEU:HB3	1:B:3890:LEU:HB3	1.99	0.44
1:D:164:ARG:NH1	1:D:164:ARG:HG3	2.32	0.44
1:D:317:ARG:NE	1:D:349:GLN:OE1	2.51	0.44
1:D:978:THR:O	1:D:982:THR:HG23	2.17	0.44
1:D:1302:ARG:HH21	1:D:1523:ALA:HB3	1.83	0.44
1:D:3576:TYR:CE1	1:D:3582:ARG:HD3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3805:LEU:HB3	1:D:3890:LEU:HB3	1.99	0.44
1:D:4077:PHE:HE1	1:D:4125:PHE:CD2	2.35	0.44
1:C:886:ARG:HD3	1:C:904:HIS:CD2	2.53	0.44
1:C:1000:ARG:HB3	1:C:1005:TRP:HB2	2.00	0.44
1:C:2348:GLU:O	1:C:2352:VAL:HG23	2.18	0.44
1:C:2672:LEU:HA	1:C:2672:LEU:HD23	1.81	0.44
1:C:3260:GLY:HA2	1:C:3325:ASN:ND2	2.33	0.44
1:C:4074:SER:O	1:C:4078:GLN:HG2	2.17	0.44
1:A:170:ILE:HD12	1:A:170:ILE:HA	1.80	0.44
1:A:317:ARG:NE	1:A:349:GLN:OE1	2.51	0.44
1:A:951:LYS:HG3	1:A:971:ASP:HB3	2.00	0.44
1:A:1449:TRP:N	1:A:1553:PHE:O	2.50	0.44
1:A:2001:PRO:O	1:A:2005:GLN:HG3	2.17	0.44
1:A:2458:ARG:HG2	1:A:2510:TYR:CE1	2.53	0.44
1:A:3230:LEU:HD23	1:A:3230:LEU:H	1.83	0.44
1:A:4628:VAL:HG21	1:B:4860:ARG:HH22	1.83	0.44
2:G:82:TYR:OH	1:C:1782:PHE:O	2.32	0.44
1:B:214:VAL:HG13	1:B:341:TYR:CE2	2.53	0.44
1:B:392:ARG:HE	1:B:393:CYS:H	1.65	0.44
1:B:1005:TRP:HA	1:B:1016:ARG:HG2	1.99	0.44
1:B:1828:ASP:OD1	1:B:1828:ASP:N	2.51	0.44
1:B:2207:VAL:HA	1:B:2210:VAL:HG22	1.99	0.44
1:B:2907:PRO:HB2	1:B:2910:THR:HG23	2.00	0.44
1:B:3182:TYR:HA	1:B:3185:LYS:HG2	2.00	0.44
1:D:887:ILE:HG21	1:D:955:LEU:HD11	2.00	0.44
1:D:951:LYS:HG3	1:D:971:ASP:HB3	2.00	0.44
1:D:1466:LEU:HA	1:D:1469:VAL:HG23	2.00	0.44
1:D:2803:GLU:HB3	1:D:2806:ARG:HE	1.81	0.44
1:D:2986:VAL:HG22	1:D:2989:SER:H	1.82	0.44
1:D:3269:VAL:HA	1:D:3273:THR:HB	1.99	0.44
1:D:4956:THR:O	1:D:4965:SER:N	2.50	0.44
1:C:688:LEU:HD12	1:C:776:LEU:O	2.18	0.44
1:C:978:THR:O	1:C:982:THR:HG23	2.17	0.44
1:C:1773:PRO:HA	1:C:1774:PRO:HD3	1.91	0.44
1:C:3805:LEU:HB3	1:C:3890:LEU:HB3	1.99	0.44
1:C:4904:PRO:HB3	1:C:4913:ARG:HG2	2.00	0.44
1:A:14:LEU:HD13	1:A:163:VAL:HG12	2.00	0.44
1:A:110:ARG:NH2	1:A:117:TYR:OH	2.51	0.44
1:A:1728:ARG:HA	1:A:1731:LEU:HD12	1.99	0.44
1:A:2224:ARG:HB2	1:A:2224:ARG:HH11	1.83	0.44
1:A:2265:LEU:HD12	1:A:2265:LEU:HA	1.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2321:ILE:HG22	1:A:2322:GLY:H	1.83	0.44
1:A:2395:PRO:HB2	1:A:2397:VAL:HG23	2.00	0.44
1:A:2624:ARG:CZ	1:A:2910:THR:HA	2.47	0.44
1:A:2638:LYS:O	1:A:2641:LEU:HG	2.18	0.44
1:A:2707:ALA:HB1	1:A:3009:TYR:CD1	2.53	0.44
1:A:2886:TRP:NE1	1:A:2890:LYS:HD3	2.33	0.44
1:A:3043:PHE:HA	1:A:3071:LEU:HD23	2.00	0.44
1:A:3284:TRP:HB3	1:A:3305:THR:HG21	2.00	0.44
1:A:3403:ARG:HA	1:A:3458:PHE:CE2	2.53	0.44
1:A:3477:LYS:O	1:A:3478:MET:HB2	2.17	0.44
1:A:3756:LYS:HG2	1:A:3760:LYS:HE2	1.99	0.44
2:E:35:LYS:HZ1	2:E:38:SER:HB3	1.82	0.44
1:B:2095:GLN:HA	1:B:2127:GLN:HE21	1.82	0.44
1:B:2321:ILE:HG22	1:B:2322:GLY:H	1.83	0.44
1:B:3534:MET:O	1:B:3538:THR:HG23	2.18	0.44
1:B:3791:GLY:O	1:B:3794:VAL:HG12	2.17	0.44
1:B:3875:MET:HB2	1:B:3953:LYS:HZ3	1.83	0.44
1:B:4673:ARG:O	1:B:4676:GLU:HG3	2.17	0.44
1:B:4933:GLN:HG3	1:C:4926:VAL:CG1	2.47	0.44
1:D:2886:TRP:NE1	1:D:2890:LYS:HD3	2.33	0.44
1:D:3390:GLY:O	1:D:3393:LEU:HG	2.17	0.44
1:D:3576:TYR:OH	1:D:3582:ARG:NH1	2.50	0.44
1:C:1263:THR:OG1	1:C:1265:ASP:OD1	2.25	0.44
1:C:2724:GLU:HB2	1:C:2725:LYS:HD2	1.99	0.44
1:C:2907:PRO:HB2	1:C:2910:THR:HG23	2.00	0.44
1:C:3537:LYS:NZ	1:C:3607:GLU:HG2	2.32	0.44
1:C:4769:MET:H	1:C:4769:MET:HE3	1.82	0.44
1:A:214:VAL:HG13	1:A:341:TYR:CE2	2.53	0.43
1:A:632:LEU:O	1:A:634:GLN:NE2	2.46	0.43
1:A:848:HIS:O	1:A:852:VAL:HG23	2.17	0.43
1:A:1451:GLY:HA3	1:A:1494:MET:HA	2.00	0.43
1:A:2318:TYR:CZ	1:A:2395:PRO:HD3	2.53	0.43
2:H:23:VAL:HG12	2:H:104:LEU:HB2	2.00	0.43
1:B:280:LEU:HD21	1:B:316:PHE:HD1	1.83	0.43
1:B:460:GLN:HB2	1:B:463:GLU:OE2	2.18	0.43
1:B:1819:VAL:HG22	1:B:1929:MET:HE3	2.00	0.43
1:B:3043:PHE:HA	1:B:3071:LEU:HD23	2.00	0.43
1:D:110:ARG:NH2	1:D:117:TYR:OH	2.51	0.43
1:D:460:GLN:HB2	1:D:463:GLU:OE2	2.18	0.43
1:D:886:ARG:HD3	1:D:904:HIS:CD2	2.53	0.43
1:D:3260:GLY:HA2	1:D:3325:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3477:LYS:O	1:D:3478:MET:HB2	2.17	0.43
1:D:3499:ARG:HH22	1:D:3503:TYR:HB3	1.83	0.43
1:D:4943:LEU:O	1:D:4947:GLN:HG2	2.17	0.43
1:C:1653:LEU:HD11	1:C:1659:LEU:HB3	2.00	0.43
1:C:2207:VAL:HA	1:C:2210:VAL:HG22	1.99	0.43
1:C:2224:ARG:HB2	1:C:2224:ARG:HH11	1.83	0.43
1:C:2597:LYS:O	1:C:2597:LYS:HD3	2.18	0.43
1:C:3384:LYS:HB3	1:C:3384:LYS:HE2	1.66	0.43
1:C:3403:ARG:HA	1:C:3458:PHE:CE2	2.53	0.43
1:C:3499:ARG:HH22	1:C:3503:TYR:HB3	1.83	0.43
1:A:265:LEU:H	1:A:265:LEU:HD23	1.83	0.43
1:A:1466:LEU:HA	1:A:1469:VAL:HG23	2.00	0.43
1:A:2095:GLN:HA	1:A:2127:GLN:HE21	1.82	0.43
1:A:3617:LYS:HA	1:A:3617:LYS:HD3	1.84	0.43
1:A:4802:GLY:HA2	1:A:4808:PHE:HB2	2.01	0.43
1:B:170:ILE:HD12	1:B:170:ILE:HA	1.80	0.43
1:B:921:ASN:N	1:B:921:ASN:OD1	2.51	0.43
1:B:1759:ARG:HA	1:B:1759:ARG:NH1	2.33	0.43
1:B:2707:ALA:HB1	1:B:3009:TYR:CD1	2.53	0.43
1:B:2788:HIS:HB3	1:B:2791:LEU:HG	2.00	0.43
1:B:2985:ARG:NH1	1:B:2987:GLU:OE2	2.52	0.43
1:B:3676:ASP:HA	1:B:3679:LYS:NZ	2.34	0.43
1:B:4904:PRO:HB3	1:B:4913:ARG:HG2	2.00	0.43
1:D:862:VAL:O	1:D:863:LEU:HD23	2.18	0.43
1:D:938:HIS:ND1	1:D:1054:GLU:OE2	2.45	0.43
1:D:1141:ARG:HB2	1:C:3479:ALA:HA	2.00	0.43
1:D:1730:MET:HG3	1:D:1773:PRO:HD2	2.00	0.43
1:D:2369[B]:ARG:HD3	1:D:2369[B]:ARG:HA	1.57	0.43
1:D:2477:PRO:HD3	1:D:2546:MET:HG2	2.00	0.43
1:D:3158:LEU:HG	1:D:3159:ASP:N	2.33	0.43
1:D:3534:MET:O	1:D:3538:THR:HG23	2.18	0.43
1:D:4003:LEU:HA	1:D:4009:GLN:HE21	1.82	0.43
1:D:4680:LYS:HB2	1:D:4680:LYS:HE2	1.73	0.43
1:C:708:GLY:HA3	1:C:722:TRP:HB3	1.99	0.43
1:C:1929:MET:O	1:C:1930:LYS:HG3	2.18	0.43
1:C:2240:CYS:SG	1:C:2250:MET:HG3	2.58	0.43
1:C:2431:ASP:O	1:C:2435:ARG:HG3	2.18	0.43
1:C:2489:LYS:HB2	1:C:2489:LYS:HE3	1.75	0.43
1:C:2788:HIS:HB3	1:C:2791:LEU:HG	2.00	0.43
1:C:2986:VAL:HG22	1:C:2989:SER:H	1.82	0.43
1:A:349:GLN:HB3	1:A:356:TRP:CE3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:460:GLN:HB2	1:A:463:GLU:OE2	2.18	0.43
1:A:887:ILE:HG21	1:A:955:LEU:HD11	2.00	0.43
1:A:2597:LYS:O	1:A:2597:LYS:HD3	2.18	0.43
1:A:3499:ARG:HH22	1:A:3503:TYR:HB3	1.83	0.43
1:A:3875:MET:HB2	1:A:3953:LYS:HZ3	1.83	0.43
1:B:78:LEU:HD22	1:B:106:ALA:CB	2.48	0.43
1:B:862:VAL:O	1:B:863:LEU:HD23	2.18	0.43
1:B:1000:ARG:HB3	1:B:1005:TRP:HB2	2.00	0.43
1:B:1466:LEU:HA	1:B:1469:VAL:HG23	2.00	0.43
1:B:1973:GLN:HG2	1:B:1998:PHE:CE1	2.53	0.43
1:B:2042:CYS:HB2	1:B:2044:ILE:HG22	1.99	0.43
1:B:2751:LEU:HD13	1:B:2823:ILE:HG12	2.00	0.43
1:B:2763:HIS:CE1	1:B:2802:LYS:HD2	2.54	0.43
1:B:3158:LEU:HG	1:B:3159:ASP:N	2.33	0.43
1:B:4148:THR:O	1:B:4152:GLU:HG3	2.19	0.43
1:B:4943:LEU:O	1:B:4947:GLN:HG2	2.17	0.43
1:D:14:LEU:HD13	1:D:163:VAL:HG12	2.00	0.43
1:D:1000:ARG:HB3	1:D:1005:TRP:HB2	2.00	0.43
1:D:2240:CYS:SG	1:D:2250:MET:HG3	2.58	0.43
1:D:3230:LEU:HD23	1:D:3230:LEU:H	1.83	0.43
1:D:4074:SER:O	1:D:4078:GLN:HG2	2.17	0.43
1:C:15:ARG:HD3	1:C:100:THR:HA	2.00	0.43
1:C:50:GLU:OE2	1:C:61:ASP:N	2.44	0.43
1:C:426:ARG:HG3	1:C:431:PRO:HA	2.00	0.43
1:C:1425:GLU:H	1:C:1425:GLU:HG3	1.65	0.43
1:C:1466:LEU:HA	1:C:1469:VAL:HG23	2.00	0.43
1:C:3534:MET:O	1:C:3538:THR:HG23	2.18	0.43
1:C:3676:ASP:HA	1:C:3679:LYS:NZ	2.34	0.43
1:C:4956:THR:O	1:C:4965:SER:N	2.50	0.43
1:A:15:ARG:HD3	1:A:100:THR:HA	2.01	0.43
1:A:708:GLY:HA3	1:A:722:TRP:HB3	1.99	0.43
1:A:1759:ARG:HA	1:A:1759:ARG:NH1	2.33	0.43
1:A:3676:ASP:HA	1:A:3679:LYS:NZ	2.33	0.43
1:A:4148:THR:O	1:A:4152:GLU:HG3	2.19	0.43
1:B:1226:PHE:O	1:B:1827:ARG:NH2	2.42	0.43
1:B:1302:ARG:HH21	1:B:1523:ALA:HB3	1.83	0.43
1:B:1929:MET:O	1:B:1930:LYS:HG3	2.18	0.43
1:B:3230:LEU:HD23	1:B:3230:LEU:H	1.83	0.43
1:B:3284:TRP:HB3	1:B:3305:THR:HG21	2.00	0.43
1:B:4101:LYS:HD3	1:C:4730:ASP:HB2	1.98	0.43
1:B:4707:ASN:HB3	1:B:4774:LYS:HZ2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4708:THR:HB	1:B:4772:ASP:OD2	2.19	0.43
1:B:4897:ILE:HD12	1:B:4897:ILE:HA	1.91	0.43
1:D:78:LEU:HD22	1:D:106:ALA:CB	2.48	0.43
1:D:921:ASN:OD1	1:D:921:ASN:N	2.51	0.43
1:D:1451:GLY:HA3	1:D:1494:MET:HA	2.00	0.43
1:D:2564:LYS:HB3	1:D:2564:LYS:HE3	1.85	0.43
1:D:2907:PRO:HB2	1:D:2910:THR:HG23	2.00	0.43
1:D:3788:GLY:HA3	1:D:3834:ALA:HB3	1.99	0.43
1:C:921:ASN:N	1:C:921:ASN:OD1	2.51	0.43
1:C:1730:MET:HG3	1:C:1773:PRO:HD2	2.00	0.43
1:C:2285:GLU:H	1:C:2285:GLU:CD	2.18	0.43
1:C:2707:ALA:HB1	1:C:3009:TYR:CD1	2.53	0.43
1:A:534:ARG:HE	1:A:534:ARG:HB3	1.47	0.43
1:A:862:VAL:O	1:A:863:LEU:HD23	2.18	0.43
1:A:2042:CYS:HB2	1:A:2044:ILE:HG22	1.99	0.43
1:A:2431:ASP:O	1:A:2435:ARG:HG3	2.18	0.43
1:A:2763:HIS:CE1	1:A:2802:LYS:HD2	2.54	0.43
1:A:3408:LEU:HD23	1:A:3408:LEU:HA	1.92	0.43
1:A:3472:ALA:O	1:A:3476:SER:OG	2.25	0.43
1:A:4060:LYS:HA	1:A:4060:LYS:HD2	1.81	0.43
2:E:13:ARG:NH1	2:E:13:ARG:HB2	2.34	0.43
1:B:15:ARG:HD3	1:B:100:THR:HA	2.01	0.43
1:B:470:SER:O	1:B:474:ARG:HG3	2.18	0.43
1:B:2431:ASP:O	1:B:2435:ARG:HG3	2.18	0.43
1:B:3756:LYS:HG2	1:B:3760:LYS:HE2	1.99	0.43
1:D:1973:GLN:HG2	1:D:1998:PHE:CE1	2.53	0.43
1:D:2000:SER:O	1:D:3638:MET:HE2	2.17	0.43
1:D:2224:ARG:HB2	1:D:2224:ARG:HH11	1.83	0.43
1:D:2318:TYR:CZ	1:D:2395:PRO:HD3	2.53	0.43
1:D:2348:GLU:O	1:D:2352:VAL:HG23	2.18	0.43
1:D:3182:TYR:HA	1:D:3185:LYS:HG2	2.00	0.43
1:D:3358:PHE:CZ	1:D:3415:TYR:HD2	2.37	0.43
1:D:3475:LYS:HA	1:D:3475:LYS:HD3	1.74	0.43
1:C:181:HIS:HA	1:C:198:THR:HB	2.01	0.43
1:C:689:THR:HA	1:C:778:PHE:HE2	1.84	0.43
1:C:954:LYS:HD3	1:C:954:LYS:HA	1.74	0.43
1:C:2224:ARG:HG2	1:C:2225:PHE:CE2	2.54	0.43
1:C:3158:LEU:HG	1:C:3159:ASP:N	2.33	0.43
1:C:3182:TYR:HA	1:C:3185:LYS:HG2	2.00	0.43
1:C:3230:LEU:HD23	1:C:3230:LEU:H	1.83	0.43
1:C:3371:LYS:HE2	1:C:3371:LYS:HB2	1.78	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4148:THR:O	1:C:4152:GLU:HG3	2.19	0.43
1:A:80:GLU:HG3	1:D:3935:TRP:CE3	2.53	0.43
1:A:164:ARG:NH1	1:A:164:ARG:HG3	2.32	0.43
1:A:1929:MET:O	1:A:1930:LYS:HG3	2.19	0.43
1:A:2240:CYS:SG	1:A:2250:MET:HG3	2.58	0.43
1:A:2348:GLU:O	1:A:2352:VAL:HG23	2.18	0.43
1:A:2502:MET:HE3	1:A:2502:MET:HA	2.00	0.43
1:A:4907:ASP:OD2	1:A:4908:GLU:N	2.52	0.43
1:B:349:GLN:HB3	1:B:356:TRP:CE3	2.53	0.43
1:B:796:ARG:HA	1:B:796:ARG:NH1	2.34	0.43
1:B:2597:LYS:O	1:B:2597:LYS:HD3	2.18	0.43
1:D:15:ARG:HD3	1:D:100:THR:HA	2.00	0.43
1:D:181:HIS:HA	1:D:198:THR:HB	2.01	0.43
1:D:265:LEU:H	1:D:265:LEU:HD23	1.83	0.43
1:D:708:GLY:HA3	1:D:722:TRP:HB3	1.99	0.43
1:D:2431:ASP:O	1:D:2435:ARG:HG3	2.18	0.43
1:D:4006:ASP:OD2	1:D:4007:SER:N	2.52	0.43
1:C:110:ARG:NH2	1:C:117:TYR:OH	2.51	0.43
1:C:470:SER:O	1:C:474:ARG:HG3	2.18	0.43
1:C:862:VAL:O	1:C:863:LEU:HD23	2.18	0.43
1:C:2095:GLN:HA	1:C:2127:GLN:HE21	1.82	0.43
1:C:2115:GLU:H	1:C:2115:GLU:CD	2.19	0.43
1:C:2906:VAL:CG2	1:C:2911:LEU:HB3	2.49	0.43
1:C:3576:TYR:OH	1:C:3582:ARG:NH1	2.50	0.43
1:C:4836:GLN:O	1:C:4840:THR:HG22	2.19	0.43
1:C:4890:GLY:O	1:C:4925:ILE:HD11	2.19	0.43
1:A:470:SER:O	1:A:474:ARG:HG3	2.18	0.43
1:A:526:LEU:HD12	1:A:526:LEU:HA	1.86	0.43
1:A:1062:GLN:NE2	1:A:1064:GLU:OE1	2.40	0.43
1:A:1479:GLU:H	1:A:1479:GLU:CD	2.22	0.43
1:A:1973:GLN:HG2	1:A:1998:PHE:CE1	2.53	0.43
1:A:2005:GLN:O	1:A:2009:LEU:HG	2.19	0.43
1:A:2751:LEU:HD13	1:A:2823:ILE:HG12	2.00	0.43
1:A:2810:LYS:HA	1:A:2810:LYS:HD3	1.76	0.43
1:A:4006:ASP:OD2	1:A:4007:SER:N	2.52	0.43
1:A:4895:GLY:O	1:D:4892:ARG:HD2	2.18	0.43
1:B:317:ARG:NE	1:B:349:GLN:OE1	2.51	0.43
1:B:952:LYS:HB3	1:B:968:ALA:HB1	2.00	0.43
1:B:954:LYS:HD3	1:B:954:LYS:HA	1.74	0.43
1:B:1231[B]:GLN:NE2	1:B:1828:ASP:O	2.48	0.43
1:B:1691:GLN:O	1:B:1695:LEU:HG	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1728:ARG:HA	1:B:1731:LEU:HD12	1.99	0.43
1:B:2005:GLN:O	1:B:2009:LEU:HG	2.19	0.43
1:B:2318:TYR:CZ	1:B:2395:PRO:HD3	2.54	0.43
1:B:2395:PRO:HB2	1:B:2397:VAL:HG23	2.00	0.43
1:B:3409:TYR:N	1:B:3410:PRO:HD2	2.34	0.43
1:D:13:PHE:HB2	1:D:15:ARG:HH21	1.83	0.43
1:D:426:ARG:HG3	1:D:431:PRO:HA	2.00	0.43
1:D:1062:GLN:NE2	1:D:1064:GLU:OE1	2.40	0.43
1:D:1653:LEU:HD11	1:D:1659:LEU:HB3	2.00	0.43
1:D:3676:ASP:HA	1:D:3679:LYS:NZ	2.34	0.43
1:D:3791:GLY:O	1:D:3794:VAL:HG12	2.18	0.43
1:D:4148:THR:O	1:D:4152:GLU:HG3	2.19	0.43
1:D:4757:LYS:O	1:D:4757:LYS:HD3	2.19	0.43
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.54	0.43
1:C:280:LEU:HD21	1:C:316:PHE:HD1	1.83	0.43
1:C:460:GLN:HB2	1:C:463:GLU:OE2	2.18	0.43
1:C:1226:PHE:O	1:C:1827:ARG:NH2	2.42	0.43
1:C:1759:ARG:HA	1:C:1759:ARG:NH1	2.33	0.43
1:C:2477:PRO:HD3	1:C:2546:MET:HG2	2.00	0.43
1:C:3051:ARG:HA	1:C:3131:TYR:CE1	2.54	0.43
1:C:3284:TRP:HB3	1:C:3305:THR:HG21	2.00	0.43
1:C:3527:PRO:HD3	1:C:3576:TYR:CD1	2.54	0.43
1:C:4757:LYS:O	1:C:4757:LYS:HD3	2.19	0.43
1:A:181:HIS:HA	1:A:198:THR:HB	2.01	0.43
1:A:426:ARG:HG3	1:A:431:PRO:HA	2.00	0.43
1:A:1302:ARG:HH21	1:A:1523:ALA:HB3	1.83	0.43
1:A:2000:SER:O	1:A:2005:GLN:NE2	2.51	0.43
1:A:2256:TYR:O	1:A:2259:GLU:HG3	2.18	0.43
1:A:2892:GLN:HA	1:A:2895:GLU:HG2	2.00	0.43
1:A:2967:MET:HE3	1:A:3049:LEU:HG	2.00	0.43
1:A:3158:LEU:HG	1:A:3159:ASP:N	2.33	0.43
1:A:3182:TYR:O	1:A:3185:LYS:HG3	2.19	0.43
1:A:3255:GLY:O	1:A:3258:GLU:HG3	2.19	0.43
1:A:3582:ARG:H	1:A:3582:ARG:HG2	1.43	0.43
1:A:3696:ASP:OD2	1:A:3773:ARG:NH2	2.52	0.43
1:A:4133:GLN:OE1	1:A:4133:GLN:HA	2.19	0.43
2:G:13:ARG:NH1	2:G:13:ARG:HB2	2.34	0.43
1:B:113:HIS:CE1	1:B:402:ARG:HB3	2.54	0.43
1:B:1449:TRP:N	1:B:1553:PHE:O	2.50	0.43
1:B:1965:TYR:CE1	1:B:2027:ILE:HG23	2.54	0.43
1:B:2244:ARG:HB2	1:B:2244:ARG:CZ	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2906:VAL:CG2	1:B:2911:LEU:HB3	2.49	0.43
1:B:4003:LEU:HA	1:B:4009:GLN:HE21	1.82	0.43
1:B:4006:ASP:OD2	1:B:4007:SER:N	2.52	0.43
1:B:4802:GLY:HA2	1:B:4808:PHE:HB2	2.01	0.43
1:D:1066:GLN:HG3	1:D:1070:ASP:OD1	2.18	0.43
1:D:1147:ASP:HB3	1:D:1164:LEU:HD11	2.01	0.43
1:D:2224:ARG:HG2	1:D:2225:PHE:CE2	2.54	0.43
1:D:2597:LYS:O	1:D:2597:LYS:HD3	2.18	0.43
1:D:3051:ARG:HA	1:D:3131:TYR:CE1	2.54	0.43
1:D:3337:ARG:HA	1:D:3340:VAL:HG22	1.99	0.43
1:D:4186:ALA:O	1:D:4188:ARG:NH1	2.52	0.43
1:C:2256:TYR:O	1:C:2259:GLU:HG3	2.18	0.43
1:C:2318:TYR:CZ	1:C:2395:PRO:HD3	2.53	0.43
1:C:3262:ARG:HA	1:C:3262:ARG:HD3	1.66	0.43
1:C:3359:ILE:HG13	1:C:3437:MET:HE3	2.00	0.43
1:C:4133:GLN:OE1	1:C:4133:GLN:HA	2.19	0.43
1:C:4708:THR:HB	1:C:4772:ASP:OD2	2.19	0.43
1:C:4911:LEU:HD23	1:C:4911:LEU:HA	1.77	0.43
1:A:28:VAL:O	1:A:31:GLU:HG3	2.19	0.43
1:A:273:HIS:HB3	1:A:337:PRO:HB3	2.01	0.43
1:A:1265:ASP:OD1	1:A:1265:ASP:N	2.38	0.43
1:A:4708:THR:HB	1:A:4772:ASP:OD2	2.19	0.43
1:A:4757:LYS:O	1:A:4757:LYS:HD3	2.19	0.43
1:B:14:LEU:HD13	1:B:163:VAL:HG12	2.00	0.43
1:B:1753:LYS:NZ	1:B:1759:ARG:H	2.16	0.43
1:B:2256:TYR:O	1:B:2259:GLU:HG3	2.18	0.43
1:B:2671:GLU:H	1:B:2671:GLU:HG2	1.61	0.43
1:B:3374:ALA:O	1:B:3377:GLU:HG3	2.19	0.43
1:B:3499:ARG:HH22	1:B:3503:TYR:HB3	1.83	0.43
1:D:113:HIS:CE1	1:D:402:ARG:HB3	2.54	0.43
1:D:219:VAL:HG22	1:D:261:ARG:HB2	2.01	0.43
1:D:663:TYR:CD2	1:D:804:PRO:HB3	2.54	0.43
1:D:689:THR:HA	1:D:778:PHE:HE2	1.84	0.43
1:D:2321:ILE:HG22	1:D:2322:GLY:H	1.83	0.43
1:D:2927:LEU:HA	1:D:2927:LEU:HD13	1.92	0.43
1:D:2985:ARG:NH1	1:D:2987:GLU:OE2	2.52	0.43
1:D:3182:TYR:O	1:D:3185:LYS:HG3	2.19	0.43
1:D:4708:THR:HB	1:D:4772:ASP:OD2	2.19	0.43
1:C:13:PHE:HB2	1:C:15:ARG:HH21	1.83	0.43
1:C:14:LEU:HD13	1:C:163:VAL:HG12	2.00	0.43
1:C:1071:ARG:HD2	1:C:1071:ARG:HA	1.74	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1147:ASP:HB3	1:C:1164:LEU:HD11	2.01	0.43
1:C:1727:ARG:HD3	1:C:1727:ARG:HA	1.62	0.43
1:C:1965:TYR:CE1	1:C:2027:ILE:HG23	2.54	0.43
1:C:2395:PRO:HB2	1:C:2397:VAL:HG23	2.00	0.43
1:C:2653:LYS:HB2	1:C:2653:LYS:HE2	1.72	0.43
1:C:2686:LEU:HD12	1:C:2686:LEU:HA	1.90	0.43
1:C:3082:LYS:HD3	1:C:3082:LYS:HA	1.86	0.43
1:C:4003:LEU:HA	1:C:4009:GLN:HE21	1.82	0.43
1:A:13:PHE:HB2	1:A:15:ARG:HH21	1.83	0.43
1:A:426:ARG:NH1	1:A:508:GLY:HA2	2.34	0.43
1:A:688:LEU:HD12	1:A:776:LEU:O	2.18	0.43
1:A:796:ARG:HA	1:A:796:ARG:NH1	2.34	0.43
1:A:1753:LYS:NZ	1:A:1759:ARG:H	2.16	0.43
1:A:3762:ARG:CZ	1:A:4755:GLU:HB2	2.49	0.43
1:A:4003:LEU:HA	1:A:4009:GLN:HE21	1.82	0.43
1:A:4090:LYS:HG3	1:A:4121:GLU:HB3	2.00	0.43
1:A:4929:LEU:HD23	1:A:4929:LEU:HA	1.84	0.43
1:B:110:ARG:NH2	1:B:117:TYR:OH	2.51	0.43
1:B:886:ARG:HD3	1:B:904:HIS:CD2	2.53	0.43
1:B:2196:ASN:OD1	1:B:2199:ARG:NH2	2.48	0.43
1:B:2224:ARG:HG2	1:B:2225:PHE:CE2	2.54	0.43
1:B:2515:GLN:CD	1:B:2572:THR:HG23	2.39	0.43
1:B:3051:ARG:HA	1:B:3131:TYR:CE1	2.54	0.43
1:B:3359:ILE:HG13	1:B:3437:MET:HE3	2.00	0.43
1:B:3537:LYS:HE2	1:B:3537:LYS:HB3	1.70	0.43
1:D:1991:THR:O	1:D:1995:THR:OG1	2.23	0.43
1:D:2170:MET:HG3	1:D:2225:PHE:CE2	2.54	0.43
1:D:2207:VAL:HA	1:D:2210:VAL:HG22	1.99	0.43
1:D:2821:TRP:HB3	1:D:2937:VAL:CG2	2.49	0.43
1:D:4133:GLN:OE1	1:D:4133:GLN:HA	2.19	0.43
1:D:4890:GLY:O	1:D:4925:ILE:HD11	2.19	0.43
1:C:214:VAL:HG13	1:C:341:TYR:CE2	2.53	0.43
1:C:663:TYR:CD2	1:C:804:PRO:HB3	2.54	0.43
1:C:820:ARG:CZ	1:C:820:ARG:HA	2.49	0.43
1:C:1973:GLN:HG2	1:C:1998:PHE:CE1	2.53	0.43
1:C:2000:SER:O	1:C:2005:GLN:NE2	2.51	0.43
1:C:2751:LEU:HD13	1:C:2823:ILE:HG12	2.01	0.43
1:C:3137:LEU:HD12	1:C:3137:LEU:HA	1.90	0.43
1:C:3194:LEU:HD12	1:C:3194:LEU:HA	1.72	0.43
1:C:3409:TYR:N	1:C:3410:PRO:HD2	2.34	0.43
1:C:3791:GLY:O	1:C:3794:VAL:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:663:TYR:CD2	1:A:804:PRO:HB3	2.54	0.42
1:A:2515:GLN:CD	1:A:2572:THR:HG23	2.39	0.42
1:A:3571:TRP:HZ3	1:A:3575:LEU:HD12	1.84	0.42
2:H:13:ARG:NH1	2:H:13:ARG:HB2	2.34	0.42
2:G:50:LEU:H	2:G:50:LEU:HD12	1.84	0.42
1:B:28:VAL:O	1:B:31:GLU:HG3	2.19	0.42
1:B:336:PRO:HA	1:B:337:PRO:HD3	1.83	0.42
1:B:1204:LEU:HD12	1:B:1226:PHE:CD2	2.54	0.42
1:B:1479:GLU:H	1:B:1479:GLU:CD	2.22	0.42
1:B:2000:SER:O	1:B:2005:GLN:NE2	2.51	0.42
1:B:2481:LYS:HA	1:B:2481:LYS:HD3	1.78	0.42
1:B:2885:THR:O	1:B:2889:LYS:HE3	2.19	0.42
1:B:3255:GLY:O	1:B:3258:GLU:HG3	2.19	0.42
1:B:4090:LYS:HG3	1:B:4121:GLU:HB3	2.00	0.42
1:D:170:ILE:HG13	1:D:179:TYR:CD1	2.54	0.42
1:D:273:HIS:HB3	1:D:337:PRO:HB3	2.01	0.42
1:D:648:ILE:HG23	1:D:814:ALA:HB3	2.01	0.42
1:D:688:LEU:HD12	1:D:776:LEU:O	2.18	0.42
1:D:818:ARG:NH2	1:D:1029:GLU:OE2	2.52	0.42
1:D:1105:ALA:HB1	1:D:1109:LEU:HD13	2.01	0.42
1:D:1204:LEU:HD12	1:D:1226:PHE:CD2	2.54	0.42
1:D:2013:LYS:NZ	1:D:3665:GLU:HB2	2.34	0.42
1:D:2013:LYS:HZ1	1:D:3665:GLU:HB2	1.84	0.42
1:D:2248:ARG:HE	1:D:2248:ARG:HB2	1.66	0.42
1:D:2458:ARG:HG2	1:D:2510:TYR:CE1	2.53	0.42
1:D:2751:LEU:HD13	1:D:2823:ILE:HG12	2.01	0.42
1:D:2757:LYS:HD2	1:D:2761:TYR:CE1	2.54	0.42
1:D:2763:HIS:CE1	1:D:2802:LYS:HD2	2.54	0.42
1:D:2906:VAL:CG2	1:D:2911:LEU:HB3	2.49	0.42
1:D:3284:TRP:HB3	1:D:3305:THR:HG21	1.99	0.42
1:D:3292:PRO:HA	1:D:3293:PRO:HD3	1.93	0.42
1:D:4802:GLY:HA2	1:D:4808:PHE:HB2	2.01	0.42
1:C:64:ILE:H	1:C:64:ILE:HG12	1.66	0.42
1:C:341:TYR:CE1	1:C:392:ARG:HB2	2.54	0.42
1:C:1105:ALA:HB1	1:C:1109:LEU:HD13	2.01	0.42
1:C:1204:LEU:HD12	1:C:1226:PHE:CD2	2.54	0.42
1:C:2985:ARG:NH1	1:C:2987:GLU:OE2	2.52	0.42
1:C:4655:PHE:CE2	1:C:4659:ILE:HD11	2.54	0.42
1:A:993:HIS:NE2	1:A:1022:VAL:O	2.50	0.42
1:A:2884:ASN:OD1	1:A:2885:THR:N	2.52	0.42
1:A:3051:ARG:HA	1:A:3131:TYR:CE1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3243:ILE:HD12	1:A:3243:ILE:O	2.19	0.42
1:A:3374:ALA:O	1:A:3377:GLU:HG3	2.19	0.42
1:A:3409:TYR:N	1:A:3410:PRO:HD2	2.34	0.42
1:A:3527:PRO:HD3	1:A:3576:TYR:CD1	2.54	0.42
1:A:3534:MET:O	1:A:3538:THR:HG23	2.18	0.42
1:A:4067:LYS:HA	1:A:4070:ASP:OD2	2.19	0.42
1:A:4933:GLN:HG3	1:B:4926:VAL:HG13	2.00	0.42
1:B:1105:ALA:HB1	1:B:1109:LEU:HD13	2.01	0.42
1:B:2458:ARG:HG2	1:B:2510:TYR:CE1	2.53	0.42
1:B:2886:TRP:NE1	1:B:2890:LYS:HD3	2.33	0.42
1:B:3182:TYR:O	1:B:3185:LYS:HG3	2.19	0.42
1:B:3210:LEU:HB2	1:B:3304:CYS:O	2.19	0.42
1:B:3762:ARG:CZ	1:B:4755:GLU:HB2	2.49	0.42
1:B:4890:GLY:O	1:B:4925:ILE:HD11	2.19	0.42
1:D:169:LEU:HD12	1:D:170:ILE:H	1.85	0.42
1:D:341:TYR:CE1	1:D:392:ARG:HB2	2.54	0.42
1:D:349:GLN:HB3	1:D:356:TRP:CE3	2.53	0.42
1:D:426:ARG:NH1	1:D:508:GLY:HA2	2.34	0.42
1:D:820:ARG:HA	1:D:820:ARG:CZ	2.49	0.42
1:D:1929:MET:O	1:D:1930:LYS:HG3	2.19	0.42
1:D:1965:TYR:CE1	1:D:2027:ILE:HG23	2.54	0.42
1:D:2000:SER:O	1:D:2005:GLN:NE2	2.51	0.42
1:D:2005:GLN:O	1:D:2009:LEU:HG	2.19	0.42
1:D:2010:LEU:HD23	1:D:2010:LEU:HA	1.83	0.42
1:D:3255:GLY:O	1:D:3258:GLU:HG3	2.19	0.42
1:D:3527:PRO:HD3	1:D:3576:TYR:CD1	2.54	0.42
1:D:3940:LYS:HE2	1:D:3940:LYS:HB2	1.86	0.42
1:D:4836:GLN:O	1:D:4840:THR:HG22	2.19	0.42
1:C:1819:VAL:HG22	1:C:1929:MET:HE3	2.01	0.42
1:C:3182:TYR:O	1:C:3185:LYS:HG3	2.19	0.42
1:C:3498:ARG:HB2	1:C:3499:ARG:H	1.58	0.42
1:A:45:ARG:HD3	1:A:45:ARG:HA	1.74	0.42
1:A:169:LEU:HD12	1:A:170:ILE:H	1.85	0.42
1:A:170:ILE:HG13	1:A:179:TYR:CD1	2.54	0.42
1:A:516:LYS:O	1:A:520:ASN:ND2	2.40	0.42
1:A:820:ARG:HA	1:A:820:ARG:CZ	2.49	0.42
1:A:985:VAL:HG11	1:A:1040:CYS:HB2	2.01	0.42
1:A:1000:ARG:HB3	1:A:1005:TRP:HB2	2.00	0.42
1:A:1025:ARG:HD3	1:A:1025:ARG:H	1.85	0.42
1:A:1071:ARG:HA	1:A:1071:ARG:HD2	1.74	0.42
1:A:1105:ALA:HB1	1:A:1109:LEU:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2156:LEU:HD23	1:A:2156:LEU:HA	1.88	0.42
1:A:2226:PRO:HB2	1:A:2267:MET:HE3	2.01	0.42
1:A:2500:ALA:HB2	1:A:2553:TYR:HD2	1.84	0.42
1:A:2821:TRP:HB3	1:A:2937:VAL:CG2	2.49	0.42
1:A:2906:VAL:CG2	1:A:2911:LEU:HB3	2.49	0.42
1:A:3358:PHE:CZ	1:A:3415:TYR:HD2	2.37	0.42
1:A:4582:VAL:HG11	1:B:4860:ARG:HD2	2.01	0.42
2:H:18:ARG:HG3	2:H:18:ARG:NH1	2.33	0.42
1:B:50:GLU:OE2	1:B:61:ASP:N	2.44	0.42
1:B:219:VAL:HG22	1:B:261:ARG:HB2	2.01	0.42
1:B:818:ARG:NH2	1:B:1029:GLU:OE2	2.52	0.42
1:B:1025:ARG:H	1:B:1025:ARG:HD3	1.84	0.42
1:B:2224:ARG:HB2	1:B:2224:ARG:HH11	1.83	0.42
1:B:2757:LYS:HD2	1:B:2761:TYR:CE1	2.54	0.42
1:B:2884:ASN:OD1	1:B:2885:THR:N	2.52	0.42
1:B:3527:PRO:HD3	1:B:3576:TYR:CD1	2.54	0.42
1:B:4836:GLN:O	1:B:4840:THR:HG22	2.19	0.42
1:D:796:ARG:HA	1:D:796:ARG:NH1	2.34	0.42
1:D:1819:VAL:HG22	1:D:1929:MET:HE3	2.00	0.42
1:D:3307:VAL:HA	1:D:3311:HIS:ND1	2.34	0.42
1:C:137:LEU:HD23	1:C:137:LEU:HA	1.90	0.42
1:C:364:PRO:O	1:C:365:LYS:HB3	2.19	0.42
1:C:1112:ASP:OD1	1:C:1112:ASP:N	2.44	0.42
1:C:2013:LYS:NZ	1:C:3665:GLU:HB2	2.34	0.42
1:C:2458:ARG:HG2	1:C:2510:TYR:CE1	2.53	0.42
1:C:2810:LYS:HA	1:C:2810:LYS:HD3	1.76	0.42
1:C:4186:ALA:O	1:C:4188:ARG:NH1	2.52	0.42
1:A:722:TRP:CZ2	1:A:727:ALA:HB2	2.54	0.42
1:A:846:LEU:HD23	1:A:846:LEU:HA	1.90	0.42
1:A:952:LYS:HB3	1:A:968:ALA:HB1	2.01	0.42
1:A:2170:MET:HG3	1:A:2225:PHE:CE2	2.54	0.42
1:A:2346:VAL:HG23	1:A:2349:ASN:HB2	2.01	0.42
1:A:2703:LEU:HD23	1:A:2703:LEU:HA	1.88	0.42
1:A:3103:ILE:HD13	1:A:3168:THR:HG23	2.02	0.42
1:A:3157:ILE:O	1:A:3202:PRO:HG3	2.20	0.42
1:A:3208:PRO:O	1:A:3236:VAL:HG11	2.20	0.42
1:A:4186:ALA:O	1:A:4188:ARG:NH1	2.52	0.42
2:H:48:PHE:HZ	2:H:63:VAL:HG21	1.84	0.42
1:B:2348:GLU:O	1:B:2352:VAL:HG23	2.18	0.42
1:B:4006:ASP:OD1	1:B:4008:SER:OG	2.35	0.42
1:B:4757:LYS:O	1:B:4757:LYS:HD3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:28:VAL:O	1:D:31:GLU:HG3	2.19	0.42
1:D:175:SER:O	1:C:2452:ARG:HD3	2.19	0.42
1:D:470:SER:O	1:D:474:ARG:HG3	2.18	0.42
1:D:722:TRP:CZ2	1:D:727:ALA:HB2	2.54	0.42
1:D:971:ASP:HB3	1:D:974:HIS:HE1	1.84	0.42
1:D:1076:ARG:NH2	1:D:1655:GLU:OE1	2.33	0.42
1:D:1547:LYS:HB2	1:D:1547:LYS:HE2	1.80	0.42
1:D:1691:GLN:O	1:D:1695:LEU:HG	2.19	0.42
1:D:2244:ARG:HB2	1:D:2244:ARG:CZ	2.49	0.42
1:D:2256:TYR:O	1:D:2259:GLU:HG3	2.18	0.42
1:D:2500:ALA:HB2	1:D:2553:TYR:HD2	1.84	0.42
1:D:3617:LYS:HD3	1:D:3617:LYS:HA	1.84	0.42
1:D:3762:ARG:CZ	1:D:4755:GLU:HB2	2.49	0.42
1:D:4655:PHE:CE2	1:D:4659:ILE:HD11	2.54	0.42
1:D:4930:ALA:HB1	1:C:4937:ILE:HD11	2.01	0.42
1:C:170:ILE:HD12	1:C:170:ILE:HA	1.80	0.42
1:C:426:ARG:NH1	1:C:508:GLY:HA2	2.34	0.42
1:C:468:LEU:O	1:C:472:ARG:HG2	2.20	0.42
1:C:985:VAL:HG11	1:C:1040:CYS:HB2	2.01	0.42
1:C:1280:GLN:CD	1:C:1281:ASN:H	2.23	0.42
1:C:1302:ARG:HH21	1:C:1523:ALA:HB3	1.83	0.42
1:C:2763:HIS:CE1	1:C:2802:LYS:HD2	2.54	0.42
1:C:2886:TRP:NE1	1:C:2890:LYS:HD3	2.33	0.42
1:C:3255:GLY:O	1:C:3258:GLU:HG3	2.19	0.42
1:C:4090:LYS:HG3	1:C:4121:GLU:HB3	2.00	0.42
1:A:195:PHE:CE1	1:D:2358:ILE:HB	2.55	0.42
1:A:648:ILE:HG23	1:A:814:ALA:HB3	2.01	0.42
1:A:744:VAL:HG22	1:A:759:ILE:HD13	2.01	0.42
1:A:1691:GLN:O	1:A:1695:LEU:HG	2.19	0.42
1:A:1965:TYR:CE1	1:A:2027:ILE:HG23	2.54	0.42
1:A:2224:ARG:HG2	1:A:2225:PHE:CE2	2.54	0.42
1:A:4836:GLN:O	1:A:4840:THR:HG22	2.19	0.42
1:B:273:HIS:HB3	1:B:337:PRO:HB3	2.01	0.42
1:B:534:ARG:HE	1:B:534:ARG:HB3	1.47	0.42
1:B:722:TRP:CZ2	1:B:727:ALA:HB2	2.54	0.42
1:B:860:GLN:HE22	1:B:862:VAL:CG2	2.33	0.42
1:B:1027:LEU:HD23	1:B:1032:LYS:HB3	2.01	0.42
1:B:2013:LYS:NZ	1:B:3665:GLU:HB2	2.34	0.42
1:B:2437:ALA:HB2	1:B:2509:VAL:HG12	2.01	0.42
1:B:3262:ARG:HD3	1:B:3262:ARG:HA	1.66	0.42
1:B:3696:ASP:OD2	1:B:3773:ARG:NH2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3758:MET:CE	1:B:3758:MET:HA	2.50	0.42
1:B:4907:ASP:OD2	1:B:4908:GLU:N	2.52	0.42
1:D:1479:GLU:H	1:D:1479:GLU:CD	2.22	0.42
1:D:2346:VAL:HG23	1:D:2349:ASN:HB2	2.01	0.42
1:D:2527:LEU:HD12	1:D:2531:ARG:HH12	1.85	0.42
1:D:3405:LEU:HG	1:D:3409:TYR:CD1	2.55	0.42
1:D:3499:ARG:NH2	1:D:3503:TYR:HB3	2.35	0.42
1:D:3758:MET:HA	1:D:3758:MET:CE	2.50	0.42
1:D:4085:ARG:HE	1:D:4085:ARG:HB2	1.63	0.42
1:D:4090:LYS:HG3	1:D:4121:GLU:HB3	2.00	0.42
1:D:4907:ASP:OD2	1:D:4908:GLU:N	2.52	0.42
1:C:1224:GLU:OE1	1:C:1228:ILE:HG21	2.20	0.42
1:C:2005:GLN:O	1:C:2009:LEU:HG	2.19	0.42
1:C:2321:ILE:HG22	1:C:2322:GLY:H	1.83	0.42
1:C:2527:LEU:HD12	1:C:2531:ARG:HH12	1.85	0.42
1:C:2885:THR:O	1:C:2889:LYS:HE3	2.19	0.42
1:C:2959:PHE:O	1:C:2963:LEU:HG	2.20	0.42
1:C:3157:ILE:O	1:C:3202:PRO:HG3	2.20	0.42
1:C:3208:PRO:O	1:C:3236:VAL:HG11	2.20	0.42
1:C:3696:ASP:OD2	1:C:3773:ARG:NH2	2.52	0.42
1:C:4707:ASN:HB3	1:C:4774:LYS:HZ2	1.84	0.42
1:C:4802:GLY:HA2	1:C:4808:PHE:HB2	2.01	0.42
1:A:73:LEU:HD23	1:A:73:LEU:HA	1.84	0.42
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.54	0.42
1:A:737:LEU:HD12	1:A:737:LEU:HA	1.84	0.42
1:A:886:ARG:HD3	1:A:904:HIS:CD2	2.53	0.42
1:A:1027:LEU:HD23	1:A:1032:LYS:HB3	2.01	0.42
1:A:1634:LEU:HD23	1:A:1634:LEU:HA	1.84	0.42
1:A:1819:VAL:HG22	1:A:1929:MET:HE3	2.01	0.42
1:A:2122:SER:O	1:A:2126:ARG:HG3	2.20	0.42
1:A:2244:ARG:HB2	1:A:2244:ARG:CZ	2.49	0.42
1:A:2757:LYS:HD2	1:A:2761:TYR:CE1	2.54	0.42
1:A:2977:LEU:HD13	1:A:3056:LEU:HD21	2.02	0.42
1:A:3082:LYS:HA	1:A:3082:LYS:HD3	1.86	0.42
1:A:3210:LEU:HB2	1:A:3304:CYS:O	2.19	0.42
1:A:3477:LYS:HG3	1:B:1141:ARG:HH12	1.83	0.42
1:A:3499:ARG:NH2	1:A:3503:TYR:HB3	2.35	0.42
1:A:3758:MET:HA	1:A:3758:MET:CE	2.50	0.42
1:A:4890:GLY:O	1:A:4925:ILE:HD11	2.19	0.42
1:A:4904:PRO:HB3	1:A:4913:ARG:HG2	2.00	0.42
1:B:341:TYR:CE1	1:B:392:ARG:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:737:LEU:HD12	1:B:737:LEU:HA	1.84	0.42
1:B:1211:LEU:H	1:B:1211:LEU:HD12	1.85	0.42
1:B:2346:VAL:HG23	1:B:2349:ASN:HB2	2.01	0.42
1:B:3307:VAL:HA	1:B:3311:HIS:ND1	2.34	0.42
1:B:4655:PHE:CE2	1:B:4659:ILE:HD11	2.54	0.42
1:B:4937:ILE:HD11	1:C:4930:ALA:HB1	2.00	0.42
1:D:364:PRO:O	1:D:365:LYS:HB3	2.19	0.42
1:D:2644:LEU:HD13	1:D:2678:LEU:HD21	2.02	0.42
1:D:3103:ILE:HD13	1:D:3168:THR:HG23	2.02	0.42
1:D:3571:TRP:HZ3	1:D:3575:LEU:HD12	1.84	0.42
1:D:4851:TYR:HD1	1:D:4916:PHE:CE1	2.38	0.42
1:C:28:VAL:O	1:C:31:GLU:HG3	2.19	0.42
1:C:365:LYS:HB3	1:C:365:LYS:HE3	1.80	0.42
1:C:818:ARG:NH2	1:C:1029:GLU:OE2	2.52	0.42
1:C:2500:ALA:HB2	1:C:2553:TYR:HD2	1.84	0.42
1:C:3571:TRP:HZ3	1:C:3575:LEU:HD12	1.84	0.42
1:C:4067:LYS:HA	1:C:4070:ASP:OD2	2.19	0.42
1:C:4907:ASP:OD2	1:C:4908:GLU:N	2.52	0.42
1:A:818:ARG:NH2	1:A:1029:GLU:OE2	2.52	0.42
1:A:2013:LYS:NZ	1:A:3665:GLU:HB2	2.34	0.42
1:A:2985:ARG:NH1	1:A:2987:GLU:OE2	2.52	0.42
1:A:3405:LEU:HG	1:A:3409:TYR:CD1	2.55	0.42
1:A:3540:TYR:CZ	1:A:3549:VAL:HG11	2.55	0.42
1:A:4096:ALA:O	1:A:4099:SER:OG	2.28	0.42
1:A:4122:MET:HE2	1:A:4122:MET:HA	2.01	0.42
1:B:169:LEU:HD12	1:B:170:ILE:H	1.85	0.42
1:B:689:THR:HA	1:B:778:PHE:HE2	1.84	0.42
1:B:1730:MET:HG3	1:B:1773:PRO:HD2	2.00	0.42
1:B:2520:HIS:O	1:B:2524:VAL:HG22	2.20	0.42
1:B:3154:ASP:OD1	1:B:3283:ARG:NH2	2.53	0.42
1:B:3499:ARG:NH2	1:B:3503:TYR:HB3	2.35	0.42
1:B:3571:TRP:HZ3	1:B:3575:LEU:HD12	1.84	0.42
1:B:3842:LEU:HD23	1:B:3842:LEU:HA	1.89	0.42
1:B:4648:LEU:HD12	1:B:4803:HIS:CE1	2.55	0.42
1:B:4911:LEU:HA	1:B:4911:LEU:HD23	1.77	0.42
1:D:860:GLN:HE22	1:D:862:VAL:CG2	2.33	0.42
1:D:1476:MET:O	1:D:1484:HIS:N	2.52	0.42
1:D:1786:LEU:HD22	1:D:1787:PRO:HD2	2.01	0.42
1:D:2885:THR:O	1:D:2889:LYS:HE3	2.19	0.42
1:D:3023:LYS:HB3	1:D:3023:LYS:HE3	1.89	0.42
1:D:4064:MET:SD	1:D:4107:GLU:HG2	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:219:VAL:HG22	1:C:261:ARG:HB2	2.01	0.42
1:C:2170:MET:HG3	1:C:2225:PHE:CE2	2.54	0.42
1:C:2244:ARG:HB2	1:C:2244:ARG:CZ	2.49	0.42
1:C:2515:GLN:CD	1:C:2572:THR:HG23	2.40	0.42
1:C:3256:LEU:HD13	1:C:3269:VAL:HG21	2.01	0.42
1:C:3358:PHE:CZ	1:C:3415:TYR:HD2	2.37	0.42
1:C:3758:MET:HA	1:C:3758:MET:CE	2.50	0.42
1:C:3762:ARG:CZ	1:C:4755:GLU:HB2	2.49	0.42
1:A:971:ASP:HB3	1:A:974:HIS:HE1	1.84	0.42
1:A:1224:GLU:OE1	1:A:1228:ILE:HG21	2.20	0.42
1:A:1613:LEU:HD13	1:A:1634:LEU:HB2	2.02	0.42
1:A:3263:TYR:N	1:A:3326:ASN:OD1	2.47	0.42
1:A:4769:MET:HE3	1:A:4769:MET:H	1.83	0.42
1:A:4897:ILE:O	1:A:4901:ILE:HG12	2.20	0.42
2:E:18:ARG:HA	2:E:18:ARG:HD3	1.83	0.42
1:B:426:ARG:NH1	1:B:508:GLY:HA2	2.34	0.42
1:B:754:SER:HA	1:B:768:PHE:O	2.20	0.42
1:B:860:GLN:HE22	1:B:862:VAL:HG23	1.85	0.42
1:B:1573:MET:CE	1:B:1574:PRO:HD2	2.48	0.42
1:B:1754:GLY:O	1:B:1758:ARG:HG3	2.20	0.42
1:B:2244:ARG:NH2	1:B:3860:ASN:HA	2.24	0.42
1:B:3103:ILE:HD13	1:B:3168:THR:HG23	2.02	0.42
1:B:3358:PHE:CZ	1:B:3415:TYR:HD2	2.37	0.42
1:B:3971:GLY:N	1:B:3972:PRO:HA	2.35	0.42
1:D:468:LEU:O	1:D:472:ARG:HG2	2.20	0.42
1:D:998:ARG:HG2	1:D:998:ARG:HH11	1.85	0.42
1:D:1027:LEU:HD23	1:D:1032:LYS:HB3	2.01	0.42
1:D:2437:ALA:HB2	1:D:2509:VAL:HG12	2.01	0.42
1:D:2702:CYS:O	1:D:2706:ILE:HG13	2.20	0.42
1:D:2742:THR:HB	1:D:2814:LYS:HB3	2.02	0.42
1:D:2884:ASN:OD1	1:D:2885:THR:N	2.53	0.42
1:D:2977:LEU:HD13	1:D:3056:LEU:HD21	2.02	0.42
1:D:3256:LEU:HD13	1:D:3269:VAL:HG21	2.01	0.42
1:D:3498:ARG:HB2	1:D:3499:ARG:H	1.58	0.42
1:D:4097:MET:HE1	1:D:4108:ILE:HG23	2.02	0.42
1:C:860:GLN:HE22	1:C:862:VAL:CG2	2.33	0.42
1:C:1691:GLN:O	1:C:1695:LEU:HG	2.19	0.42
1:C:2437:ALA:HB2	1:C:2509:VAL:HG12	2.01	0.42
1:C:2702:CYS:O	1:C:2706:ILE:HG13	2.20	0.42
1:C:2821:TRP:HB3	1:C:2937:VAL:CG2	2.49	0.42
1:C:2960:LEU:HB3	1:C:3038:MET:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3103:ILE:HD13	1:C:3168:THR:HG23	2.02	0.42
1:C:3145:GLN:CD	1:C:3196:ARG:HE	2.23	0.42
1:C:3243:ILE:O	1:C:3243:ILE:HD12	2.19	0.42
1:C:3767:GLN:O	1:C:3771:HIS:ND1	2.53	0.42
1:C:4851:TYR:HD1	1:C:4916:PHE:CE1	2.38	0.42
1:C:4897:ILE:O	1:C:4901:ILE:HG12	2.20	0.42
1:A:293:LEU:HD13	1:A:378:LEU:HD12	2.02	0.42
1:A:689:THR:HA	1:A:778:PHE:HE2	1.84	0.42
1:A:1547:LYS:HB2	1:A:1547:LYS:HE2	1.80	0.42
1:A:1730:MET:HG3	1:A:1773:PRO:HD2	2.00	0.42
1:A:1754:GLY:O	1:A:1758:ARG:HG3	2.20	0.42
1:A:2527:LEU:HD12	1:A:2531:ARG:HH12	1.85	0.42
1:A:2885:THR:O	1:A:2889:LYS:HE3	2.19	0.42
1:A:3767:GLN:O	1:A:3771:HIS:ND1	2.53	0.42
1:A:3842:LEU:HD23	1:A:3842:LEU:HA	1.89	0.42
1:A:3971:GLY:N	1:A:3972:PRO:HA	2.35	0.42
1:A:4648:LEU:HD12	1:A:4803:HIS:CE1	2.55	0.42
1:A:4655:PHE:CE2	1:A:4659:ILE:HD11	2.54	0.42
1:B:13:PHE:HB2	1:B:15:ARG:HH21	1.83	0.42
1:B:744:VAL:HG22	1:B:759:ILE:HD13	2.01	0.42
1:B:1147:ASP:HB3	1:B:1164:LEU:HD11	2.01	0.42
1:B:1224:GLU:OE1	1:B:1228:ILE:HG21	2.20	0.42
1:B:1280:GLN:CD	1:B:1281:ASN:H	2.23	0.42
1:B:1786:LEU:HD22	1:B:1787:PRO:HD2	2.01	0.42
1:B:2757:LYS:HD2	1:B:2761:TYR:CD1	2.55	0.42
1:B:2977:LEU:HD13	1:B:3056:LEU:HD21	2.02	0.42
1:B:3767:GLN:O	1:B:3771:HIS:ND1	2.53	0.42
1:D:214:VAL:HG13	1:D:341:TYR:CE2	2.53	0.42
1:D:243:ARG:NH2	1:D:302:VAL:HA	2.35	0.42
1:D:257:ARG:O	1:D:284:HIS:NE2	2.28	0.42
1:D:869:ARG:HE	1:D:1051:TYR:HH	1.68	0.42
1:D:1025:ARG:H	1:D:1025:ARG:HD3	1.85	0.42
1:D:1280:GLN:CD	1:D:1281:ASN:H	2.23	0.42
1:D:2892:GLN:HA	1:D:2895:GLU:HG2	2.00	0.42
1:D:3696:ASP:OD2	1:D:3773:ARG:NH2	2.52	0.42
1:D:4122:MET:HE2	1:D:4122:MET:HA	2.02	0.42
1:D:4648:LEU:HD12	1:D:4803:HIS:CE1	2.55	0.42
1:C:866:HIS:HB2	1:C:1051:TYR:OH	2.20	0.42
1:C:869:ARG:HD2	1:C:870:ILE:HG12	2.02	0.42
1:C:1027:LEU:HD23	1:C:1032:LYS:HB3	2.01	0.42
1:C:1753:LYS:NZ	1:C:1759:ARG:H	2.16	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1753:LYS:NZ	1:C:1759:ARG:HG2	2.29	0.42
1:C:2644:LEU:HD13	1:C:2678:LEU:HD21	2.02	0.42
1:C:2884:ASN:OD1	1:C:2885:THR:N	2.52	0.42
1:C:2977:LEU:HD13	1:C:3056:LEU:HD21	2.02	0.42
1:C:3210:LEU:HB2	1:C:3304:CYS:O	2.19	0.42
1:A:341:TYR:CE1	1:A:392:ARG:HB2	2.54	0.42
1:A:860:GLN:HE22	1:A:862:VAL:HG23	1.85	0.42
1:A:2520:HIS:O	1:A:2524:VAL:HG22	2.20	0.42
1:A:2644:LEU:HD13	1:A:2678:LEU:HD21	2.02	0.42
1:A:3256:LEU:HD13	1:A:3269:VAL:HG21	2.01	0.42
1:A:3359:ILE:HG13	1:A:3437:MET:HE3	2.01	0.42
1:A:3384:LYS:HB3	1:A:3384:LYS:HE2	1.67	0.42
1:A:3846:ALA:HB1	1:A:3873:LYS:HB2	2.02	0.42
1:A:4047:MET:HE2	1:A:4048:LEU:HD23	2.02	0.42
1:A:4064:MET:SD	1:A:4107:GLU:HG2	2.60	0.42
2:H:35:LYS:HZ1	2:H:38:SER:HB3	1.85	0.42
1:B:73:LEU:HD23	1:B:73:LEU:HA	1.84	0.42
1:B:181:HIS:HA	1:B:198:THR:HB	2.01	0.42
1:B:492:ASP:O	1:B:496:VAL:HG13	2.20	0.42
1:B:1288:PHE:CE2	1:B:1460:HIS:HA	2.55	0.42
1:B:2527:LEU:HD12	1:B:2531:ARG:HH12	1.85	0.42
1:B:2644:LEU:HD13	1:B:2678:LEU:HD21	2.02	0.42
1:B:2821:TRP:HB3	1:B:2937:VAL:CG2	2.49	0.42
1:B:2881:ASN:O	1:B:2885:THR:HG23	2.20	0.42
1:B:3137:LEU:HD12	1:B:3137:LEU:HA	1.90	0.42
1:B:3145:GLN:CD	1:B:3196:ARG:HE	2.23	0.42
1:B:3208:PRO:O	1:B:3236:VAL:HG11	2.20	0.42
1:D:866:HIS:HB2	1:D:1051:TYR:OH	2.20	0.42
1:D:985:VAL:HG11	1:D:1040:CYS:HB2	2.01	0.42
1:D:3157:ILE:O	1:D:3202:PRO:HG3	2.20	0.42
1:D:3208:PRO:O	1:D:3236:VAL:HG11	2.20	0.42
1:D:3374:ALA:O	1:D:3377:GLU:HG3	2.19	0.42
1:D:3462:ASN:HB3	1:D:3464:ILE:HG23	2.02	0.42
1:D:3767:GLN:O	1:D:3771:HIS:ND1	2.53	0.42
1:D:4067:LYS:HA	1:D:4070:ASP:OD2	2.20	0.42
1:D:4646:LEU:HD23	1:D:4646:LEU:HA	1.86	0.42
1:D:4866:SER:OG	1:D:4871:GLU:O	2.35	0.42
1:C:244:LEU:HB3	1:C:375:LYS:HZ3	1.84	0.42
1:C:632:LEU:O	1:C:634:GLN:NE2	2.46	0.42
1:C:648:ILE:HG23	1:C:814:ALA:HB3	2.01	0.42
1:C:796:ARG:HA	1:C:796:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2318:TYR:CE2	1:C:2394:GLY:HA2	2.55	0.42
1:C:2881:ASN:O	1:C:2885:THR:HG23	2.20	0.42
1:C:3576:TYR:O	1:C:3582:ARG:HG3	2.20	0.42
1:C:3940:LYS:HB2	1:C:3940:LYS:HE2	1.86	0.42
1:C:3971:GLY:N	1:C:3972:PRO:HA	2.35	0.42
1:C:4006:ASP:OD2	1:C:4007:SER:N	2.52	0.42
1:A:730:VAL:HG23	1:A:1476:MET:HE1	2.02	0.41
1:A:904:HIS:CE1	1:A:906:CYS:HB3	2.55	0.41
1:A:1147:ASP:HB3	1:A:1164:LEU:HD11	2.01	0.41
1:A:1573:MET:CE	1:A:1574:PRO:HD2	2.48	0.41
1:A:1982:ARG:H	1:A:1982:ARG:HG2	1.73	0.41
1:A:2881:ASN:O	1:A:2885:THR:HG23	2.20	0.41
1:A:3462:ASN:HB3	1:A:3464:ILE:HG23	2.02	0.41
1:B:364:PRO:O	1:B:365:LYS:HB3	2.19	0.41
1:B:820:ARG:CZ	1:B:820:ARG:HA	2.49	0.41
1:B:904:HIS:CE1	1:B:906:CYS:HB3	2.55	0.41
1:B:998:ARG:HG2	1:B:998:ARG:HH11	1.85	0.41
1:B:2122:SER:O	1:B:2126:ARG:HG3	2.20	0.41
1:B:2890:LYS:HD2	1:B:2890:LYS:N	2.35	0.41
1:B:4064:MET:HE2	1:B:4064:MET:HB2	1.89	0.41
1:B:4067:LYS:HA	1:B:4070:ASP:OD2	2.19	0.41
1:B:4186:ALA:O	1:B:4188:ARG:NH1	2.52	0.41
1:D:76:ARG:HB3	1:C:3935:TRP:HB3	2.01	0.41
1:D:640:TYR:CE1	1:D:1636:MET:HB3	2.55	0.41
1:D:683:ARG:NH1	1:D:709:ASP:OD1	2.45	0.41
1:D:1211:LEU:H	1:D:1211:LEU:HD12	1.84	0.41
1:D:1613:LEU:HD13	1:D:1634:LEU:HB2	2.02	0.41
1:D:2122:SER:O	1:D:2126:ARG:HG3	2.20	0.41
1:D:2265:LEU:HD12	1:D:2265:LEU:HA	1.75	0.41
1:D:2703:LEU:HD23	1:D:2703:LEU:HA	1.88	0.41
1:D:3070:ILE:O	1:D:3074:SER:OG	2.28	0.41
1:D:3194:LEU:HD12	1:D:3194:LEU:HA	1.72	0.41
1:D:3210:LEU:HB2	1:D:3304:CYS:O	2.19	0.41
1:D:3263:TYR:N	1:D:3326:ASN:OD1	2.46	0.41
1:D:3846:ALA:HB1	1:D:3873:LYS:HB2	2.02	0.41
1:C:169:LEU:HD12	1:C:170:ILE:H	1.85	0.41
1:C:170:ILE:HG13	1:C:179:TYR:CD1	2.54	0.41
1:C:492:ASP:O	1:C:496:VAL:HG13	2.20	0.41
1:C:998:ARG:HG2	1:C:998:ARG:HH11	1.85	0.41
1:C:1025:ARG:HD3	1:C:1025:ARG:H	1.85	0.41
1:C:3307:VAL:HA	1:C:3311:HIS:ND1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3374:ALA:O	1:C:3377:GLU:HG3	2.19	0.41
1:C:3405:LEU:HG	1:C:3409:TYR:CD1	2.55	0.41
1:C:3462:ASN:HB3	1:C:3464:ILE:HG23	2.02	0.41
1:A:869:ARG:HD2	1:A:870:ILE:HG12	2.02	0.41
1:A:1204:LEU:HD12	1:A:1226:PHE:CD2	2.54	0.41
1:A:2010:LEU:HD23	1:A:2010:LEU:HA	1.83	0.41
1:A:2238:TYR:HA	1:A:2241:ARG:NE	2.36	0.41
1:A:2959:PHE:O	1:A:2963:LEU:HG	2.20	0.41
1:A:3576:TYR:O	1:A:3582:ARG:HG3	2.20	0.41
2:E:53:GLN:OE1	2:E:53:GLN:N	2.53	0.41
1:B:293:LEU:HD13	1:B:378:LEU:HD12	2.02	0.41
1:B:553:ARG:O	1:B:557:SER:OG	2.36	0.41
1:B:1076:ARG:NH2	1:B:1655:GLU:OE1	2.33	0.41
1:B:2170:MET:HG3	1:B:2225:PHE:CE2	2.54	0.41
1:B:2500:ALA:HB2	1:B:2553:TYR:HD2	1.84	0.41
1:B:2959:PHE:O	1:B:2963:LEU:HG	2.20	0.41
1:B:3157:ILE:O	1:B:3202:PRO:HG3	2.20	0.41
1:B:3243:ILE:HD12	1:B:3243:ILE:O	2.19	0.41
1:B:3462:ASN:HB3	1:B:3464:ILE:HG23	2.02	0.41
1:B:4133:GLN:OE1	1:B:4133:GLN:HA	2.19	0.41
1:B:4897:ILE:O	1:B:4901:ILE:HG12	2.20	0.41
1:D:2515:GLN:CD	1:D:2572:THR:HG23	2.39	0.41
1:D:2520:HIS:O	1:D:2524:VAL:HG22	2.20	0.41
1:D:2697:ARG:HD2	1:D:2697:ARG:C	2.41	0.41
1:D:3368:ARG:HA	1:D:3371:LYS:HE2	2.03	0.41
1:D:3842:LEU:HD23	1:D:3842:LEU:HA	1.89	0.41
1:D:4904:PRO:HB3	1:D:4913:ARG:HG2	2.00	0.41
1:C:952:LYS:HB3	1:C:968:ALA:HB1	2.01	0.41
1:C:971:ASP:HB3	1:C:974:HIS:HE1	1.84	0.41
1:C:1288:PHE:CE2	1:C:1460:HIS:HA	2.55	0.41
1:C:1931:LEU:H	1:C:1931:LEU:HG	1.65	0.41
1:C:2520:HIS:O	1:C:2524:VAL:HG22	2.20	0.41
1:C:2757:LYS:HD2	1:C:2761:TYR:CE1	2.54	0.41
1:C:3249:LEU:HD12	1:C:3249:LEU:HA	1.87	0.41
1:C:3540:TYR:CZ	1:C:3549:VAL:HG11	2.55	0.41
1:C:3846:ALA:HB1	1:C:3873:LYS:HB2	2.02	0.41
1:A:364:PRO:O	1:A:365:LYS:HB3	2.19	0.41
1:A:860:GLN:HE22	1:A:862:VAL:CG2	2.33	0.41
1:A:1288:PHE:CE2	1:A:1460:HIS:HA	2.55	0.41
1:A:1786:LEU:HD22	1:A:1787:PRO:HD2	2.01	0.41
1:A:2013:LYS:HZ1	1:A:3665:GLU:HB2	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2437:ALA:HB2	1:A:2509:VAL:HG12	2.01	0.41
1:A:3307:VAL:HA	1:A:3311:HIS:ND1	2.34	0.41
1:B:1425:GLU:H	1:B:1425:GLU:HG3	1.65	0.41
1:B:2452:ARG:HD3	1:C:175:SER:O	2.19	0.41
1:B:3145:GLN:NE2	1:B:3196:ARG:HH21	2.18	0.41
1:B:3535:LEU:HD12	1:B:3536:ALA:N	2.36	0.41
1:D:102:LEU:HB3	1:D:105:HIS:HD2	1.85	0.41
1:D:744:VAL:HG22	1:D:759:ILE:HD13	2.01	0.41
1:D:869:ARG:HD2	1:D:870:ILE:HG12	2.02	0.41
1:D:1071:ARG:HA	1:D:1071:ARG:HD2	1.74	0.41
1:D:1265:ASP:OD1	1:D:1265:ASP:N	2.38	0.41
1:D:1600:LEU:HD12	1:D:1600:LEU:HA	1.92	0.41
1:D:2495:VAL:O	1:D:2498:HIS:HB2	2.20	0.41
1:D:2805:TYR:O	1:D:2805:TYR:HD1	2.04	0.41
1:D:2890:LYS:N	1:D:2890:LYS:HD2	2.35	0.41
1:D:3145:GLN:CD	1:D:3196:ARG:HE	2.23	0.41
1:D:3145:GLN:NE2	1:D:3196:ARG:HH21	2.18	0.41
1:D:3409:TYR:N	1:D:3410:PRO:HD2	2.34	0.41
1:D:4698:LYS:HA	1:D:4698:LYS:HD3	1.88	0.41
1:D:4897:ILE:O	1:D:4901:ILE:HG12	2.20	0.41
1:D:4995:LEU:HD23	1:D:4995:LEU:HA	1.89	0.41
1:C:414:PHE:CE2	1:C:418:LEU:HD11	2.55	0.41
1:C:993:HIS:NE2	1:C:1022:VAL:O	2.50	0.41
1:C:1527:MET:HE3	1:C:1527:MET:HB3	1.94	0.41
1:C:1786:LEU:HD22	1:C:1787:PRO:HD2	2.01	0.41
1:C:3154:ASP:OD1	1:C:3283:ARG:NH2	2.53	0.41
1:C:3263:TYR:N	1:C:3326:ASN:OD1	2.47	0.41
1:C:4980:LEU:HD12	1:C:4980:LEU:HA	1.86	0.41
1:A:69:LEU:HD22	1:A:101:LEU:HD11	2.01	0.41
1:A:418:LEU:HA	1:A:421:PHE:CE1	2.56	0.41
1:A:468:LEU:O	1:A:472:ARG:HG2	2.20	0.41
1:A:640:TYR:CE1	1:A:1636:MET:HB3	2.55	0.41
1:A:1476:MET:O	1:A:1484:HIS:N	2.52	0.41
1:A:2757:LYS:HD2	1:A:2761:TYR:CD1	2.55	0.41
1:A:2765:LYS:HD3	1:A:2765:LYS:HA	1.92	0.41
1:A:3984:ARG:HH22	1:B:102:LEU:CD1	2.32	0.41
1:B:468:LEU:O	1:B:472:ARG:HG2	2.20	0.41
1:B:2013:LYS:HZ1	1:B:3665:GLU:HB2	1.85	0.41
1:B:2719:TYR:HB2	1:B:2953:LYS:HE2	2.03	0.41
1:B:3371:LYS:HE2	1:B:3371:LYS:HB2	1.78	0.41
1:B:3405:LEU:HG	1:B:3409:TYR:CD1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3540:TYR:CZ	1:B:3549:VAL:HG11	2.55	0.41
1:B:3974:THR:O	1:B:3978:GLN:HG2	2.21	0.41
1:B:4851:TYR:HD1	1:B:4916:PHE:CE1	2.38	0.41
1:B:4980:LEU:HD12	1:B:4980:LEU:HA	1.86	0.41
1:D:293:LEU:HD13	1:D:378:LEU:HD12	2.02	0.41
1:D:418:LEU:HA	1:D:421:PHE:CE1	2.56	0.41
1:D:952:LYS:HB3	1:D:968:ALA:HB1	2.01	0.41
1:D:1753:LYS:HE2	1:D:1758:ARG:HA	2.02	0.41
1:D:2238:TYR:HA	1:D:2241:ARG:NE	2.36	0.41
1:D:2757:LYS:HD2	1:D:2761:TYR:CD1	2.55	0.41
1:D:2888:ARG:O	1:D:2892:GLN:HG2	2.20	0.41
1:D:3243:ILE:HD12	1:D:3243:ILE:O	2.19	0.41
1:D:3296:LEU:HB3	1:D:3297:PRO:HD3	2.03	0.41
1:D:3424:LEU:HD23	1:D:3424:LEU:HA	1.84	0.41
1:D:3540:TYR:CZ	1:D:3549:VAL:HG11	2.55	0.41
1:D:3576:TYR:O	1:D:3582:ARG:HG3	2.20	0.41
1:C:860:GLN:HE22	1:C:862:VAL:HG23	1.85	0.41
1:C:904:HIS:CE1	1:C:906:CYS:HB3	2.55	0.41
1:C:1211:LEU:H	1:C:1211:LEU:HD12	1.85	0.41
1:C:1754:GLY:O	1:C:1758:ARG:HG3	2.20	0.41
1:C:2248:ARG:HE	1:C:2248:ARG:HB2	1.66	0.41
1:C:2757:LYS:HD2	1:C:2761:TYR:CD1	2.55	0.41
1:C:2805:TYR:O	1:C:2805:TYR:HD1	2.04	0.41
1:C:3587:ASP:HB2	1:C:3592:ILE:HD11	2.03	0.41
1:C:4648:LEU:HD12	1:C:4803:HIS:CE1	2.55	0.41
1:C:4722:ARG:HE	1:C:4748:LEU:HB2	1.86	0.41
1:A:219:VAL:HG22	1:A:261:ARG:HB2	2.01	0.41
1:A:1433:TYR:CD1	1:A:1578:ALA:HB2	2.56	0.41
1:A:3145:GLN:NE2	1:A:3196:ARG:HH21	2.18	0.41
1:A:3180:ASN:HB2	1:A:3183:VAL:HG23	2.03	0.41
1:A:3274:LEU:HD23	1:A:3274:LEU:HA	1.94	0.41
1:A:3940:LYS:HB2	1:A:3940:LYS:HE2	1.86	0.41
1:A:4071:ILE:HA	1:A:4071:ILE:HD13	1.79	0.41
1:A:4722:ARG:HE	1:A:4748:LEU:HB2	1.86	0.41
1:B:278:GLN:HB2	1:B:328:LYS:HE2	2.03	0.41
1:B:648:ILE:HG23	1:B:814:ALA:HB3	2.01	0.41
1:B:663:TYR:CD2	1:B:804:PRO:HB3	2.54	0.41
1:B:866:HIS:HB2	1:B:1051:TYR:OH	2.20	0.41
1:B:971:ASP:HB3	1:B:974:HIS:HE1	1.84	0.41
1:B:1126:GLY:O	1:B:1142:PRO:HA	2.20	0.41
1:B:1613:LEU:HD13	1:B:1634:LEU:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2318:TYR:CE2	1:B:2394:GLY:HA2	2.55	0.41
1:B:3256:LEU:HD13	1:B:3269:VAL:HG21	2.01	0.41
1:B:3263:TYR:N	1:B:3326:ASN:OD1	2.47	0.41
1:D:81:MET:SD	1:D:82:LEU:HD23	2.61	0.41
1:D:278:GLN:HB2	1:D:328:LYS:HE2	2.03	0.41
1:D:516:LYS:O	1:D:520:ASN:ND2	2.40	0.41
1:D:860:GLN:HE22	1:D:862:VAL:HG23	1.85	0.41
1:D:1224:GLU:OE1	1:D:1228:ILE:HG21	2.20	0.41
1:D:1671:ARG:HH12	1:D:1710:GLY:HA2	1.86	0.41
1:D:1753:LYS:NZ	1:D:1759:ARG:H	2.16	0.41
1:D:1754:GLY:O	1:D:1758:ARG:HG3	2.20	0.41
1:D:2347:GLU:OE2	1:D:3852:LYS:NZ	2.53	0.41
1:D:2742:THR:HB	1:D:2814:LYS:HD2	2.03	0.41
1:D:2810:LYS:HA	1:D:2810:LYS:HD3	1.76	0.41
1:D:2959:PHE:O	1:D:2963:LEU:HG	2.20	0.41
1:D:3154:ASP:OD1	1:D:3283:ARG:NH2	2.53	0.41
1:D:4863:TYR:HH	1:D:4886:HIS:CE1	2.38	0.41
1:C:273:HIS:HB3	1:C:337:PRO:HB3	2.01	0.41
1:C:1126:GLY:O	1:C:1142:PRO:HA	2.21	0.41
1:C:1613:LEU:HD13	1:C:1634:LEU:HB2	2.02	0.41
1:C:1990:GLU:HA	1:C:1993:ARG:NH2	2.29	0.41
1:C:2719:TYR:HB2	1:C:2953:LYS:HE2	2.03	0.41
1:C:2764:GLU:HB3	1:C:2857:PRO:HD3	2.03	0.41
1:C:3023:LYS:HE3	1:C:3023:LYS:HB3	1.89	0.41
1:C:3145:GLN:NE2	1:C:3196:ARG:HH21	2.18	0.41
1:C:4064:MET:SD	1:C:4107:GLU:HG2	2.60	0.41
1:C:4725:LEU:HD11	1:C:4734:ARG:HE	1.85	0.41
1:A:754:SER:HA	1:A:768:PHE:O	2.20	0.41
1:A:866:HIS:HB2	1:A:1051:TYR:OH	2.20	0.41
1:A:998:ARG:HG2	1:A:998:ARG:HH11	1.85	0.41
1:A:2481:LYS:HA	1:A:2481:LYS:HD3	1.78	0.41
1:A:2637:ALA:C	1:A:2640:PRO:HD2	2.41	0.41
1:A:2697:ARG:HD2	1:A:2697:ARG:C	2.41	0.41
1:A:2764:GLU:HB3	1:A:2857:PRO:HD3	2.03	0.41
1:A:3145:GLN:CD	1:A:3196:ARG:HE	2.24	0.41
1:A:4851:TYR:HD1	1:A:4916:PHE:CE1	2.38	0.41
2:G:25:HIS:CD2	2:G:104:LEU:HD11	2.56	0.41
1:B:869:ARG:HD2	1:B:870:ILE:HG12	2.02	0.41
1:B:1671:ARG:HH12	1:B:1710:GLY:HA2	1.86	0.41
1:B:2191:PHE:CD1	1:B:2198:MET:HG3	2.56	0.41
1:B:2238:TYR:HA	1:B:2241:ARG:NE	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2489:LYS:HB2	1:B:2489:LYS:HE3	1.75	0.41
1:B:3180:ASN:HB2	1:B:3183:VAL:HG23	2.03	0.41
1:D:1208:VAL:HG21	1:C:3575:LEU:HD11	2.02	0.41
1:D:1990:GLU:HA	1:D:1993:ARG:NH2	2.29	0.41
1:D:2138:LEU:HD23	1:D:2138:LEU:HA	1.83	0.41
1:D:2191:PHE:CD1	1:D:2198:MET:HG3	2.56	0.41
1:D:2410:PRO:HB3	1:D:2415:ARG:HB3	2.02	0.41
1:D:4753:HIS:CE1	1:D:4754:ASN:HB2	2.56	0.41
1:C:278:GLN:HB2	1:C:328:LYS:HE2	2.03	0.41
1:C:2191:PHE:CD1	1:C:2198:MET:HG3	2.56	0.41
1:C:2742:THR:HB	1:C:2814:LYS:HB3	2.02	0.41
1:C:2811:GLU:HA	1:C:2814:LYS:HZ3	1.86	0.41
1:C:3499:ARG:NH2	1:C:3503:TYR:HB3	2.35	0.41
1:C:3974:THR:O	1:C:3978:GLN:HG2	2.21	0.41
1:C:4753:HIS:CE1	1:C:4754:ASN:HB2	2.56	0.41
1:C:4897:ILE:HD12	1:C:4897:ILE:HA	1.91	0.41
1:A:103:TYR:HB3	1:A:152:PRO:HD3	2.03	0.41
1:A:414:PHE:CE2	1:A:418:LEU:HD11	2.55	0.41
1:A:469:ARG:HG3	1:A:470:SER:N	2.36	0.41
1:A:1126:GLY:O	1:A:1142:PRO:HA	2.21	0.41
1:A:2318:TYR:CE2	1:A:2394:GLY:HA2	2.55	0.41
1:A:2805:TYR:O	1:A:2805:TYR:HD1	2.04	0.41
1:A:2888:ARG:O	1:A:2892:GLN:HG2	2.20	0.41
1:A:2909:ASP:OD1	1:A:2909:ASP:N	2.54	0.41
1:A:3368:ARG:HA	1:A:3371:LYS:HE2	2.03	0.41
2:F:55:VAL:HA	1:B:1784:ALA:HA	2.02	0.41
1:B:69:LEU:HD22	1:B:101:LEU:HD11	2.01	0.41
1:B:81:MET:SD	1:B:82:LEU:HD23	2.61	0.41
1:B:640:TYR:CE1	1:B:1636:MET:HB3	2.55	0.41
1:B:1297:PHE:CD2	1:B:1522:LEU:HA	2.56	0.41
1:B:1433:TYR:CD1	1:B:1578:ALA:HB2	2.56	0.41
1:B:1839:VAL:HG12	1:B:1843:LYS:HD2	2.03	0.41
1:B:2697:ARG:HD2	1:B:2697:ARG:C	2.41	0.41
1:B:2909:ASP:N	1:B:2909:ASP:OD1	2.54	0.41
1:B:2996:LYS:O	1:B:3000:LYS:HG2	2.21	0.41
1:B:3296:LEU:HB3	1:B:3297:PRO:HD3	2.03	0.41
1:B:4064:MET:SD	1:B:4107:GLU:HG2	2.60	0.41
1:B:4725:LEU:HD11	1:B:4734:ARG:HE	1.85	0.41
1:D:479:GLN:HG3	1:D:480:GLU:OE2	2.21	0.41
1:D:870:ILE:HD13	1:D:870:ILE:HA	1.90	0.41
1:D:1671:ARG:NH1	1:D:1710:GLY:O	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1839:VAL:HG12	1:D:1843:LYS:HD2	2.03	0.41
1:D:2686:LEU:HD12	1:D:2686:LEU:HA	1.90	0.41
1:D:2719:TYR:HB2	1:D:2953:LYS:HE2	2.03	0.41
1:D:4159:ARG:HE	1:D:4159:ARG:HB2	1.72	0.41
1:D:4722:ARG:HE	1:D:4748:LEU:HB2	1.86	0.41
1:C:81:MET:SD	1:C:82:LEU:HD23	2.61	0.41
1:C:722:TRP:CZ2	1:C:727:ALA:HB2	2.54	0.41
1:C:1297:PHE:CD2	1:C:1522:LEU:HA	2.56	0.41
1:C:2010:LEU:HD23	1:C:2010:LEU:HA	1.83	0.41
1:C:2346:VAL:HG23	1:C:2349:ASN:HB2	2.01	0.41
1:C:2410:PRO:HB3	1:C:2415:ARG:HB3	2.02	0.41
1:C:2890:LYS:HD2	1:C:2890:LYS:N	2.35	0.41
1:C:2927:LEU:HA	1:C:2927:LEU:HD13	1.92	0.41
1:C:2996:LYS:O	1:C:3000:LYS:HG2	2.21	0.41
1:C:3368:ARG:HA	1:C:3371:LYS:HE2	2.03	0.41
1:C:3535:LEU:HD12	1:C:3536:ALA:N	2.35	0.41
1:C:3539:ARG:HB3	1:C:3544:ASP:OD1	2.21	0.41
1:C:4061:PHE:CE2	1:C:4065:PHE:HE2	2.39	0.41
1:A:233:ILE:H	1:A:233:ILE:HG13	1.64	0.41
1:A:1739:THR:HG23	1:A:1742:THR:H	1.86	0.41
1:A:2221:LYS:H	1:A:2221:LYS:HG2	1.69	0.41
1:A:2495:VAL:HG13	1:A:2496:PRO:HD2	2.03	0.41
1:A:2702:CYS:O	1:A:2706:ILE:HG13	2.20	0.41
1:A:2719:TYR:HB2	1:A:2953:LYS:HE2	2.03	0.41
1:A:2742:THR:HB	1:A:2814:LYS:HB3	2.02	0.41
1:A:2890:LYS:N	1:A:2890:LYS:HD2	2.35	0.41
1:A:3154:ASP:OD1	1:A:3283:ARG:NH2	2.53	0.41
1:B:414:PHE:CE2	1:B:418:LEU:HD11	2.55	0.41
1:B:2928:LYS:HA	1:B:2928:LYS:HD3	1.87	0.41
1:B:3023:LYS:HB3	1:B:3023:LYS:HE3	1.89	0.41
1:D:754:SER:HA	1:D:768:PHE:O	2.20	0.41
1:D:2021:CYS:HA	1:D:2022:PRO:HD3	1.94	0.41
1:D:2909:ASP:OD1	1:D:2909:ASP:N	2.54	0.41
1:D:4061:PHE:CE2	1:D:4065:PHE:HE2	2.39	0.41
1:D:4202:ARG:O	1:D:4206:GLU:HG2	2.21	0.41
1:C:418:LEU:HA	1:C:421:PHE:CE1	2.56	0.41
1:C:688:LEU:HD12	1:C:688:LEU:HA	1.95	0.41
1:C:744:VAL:HG22	1:C:759:ILE:HD13	2.01	0.41
1:C:754:SER:HA	1:C:768:PHE:O	2.20	0.41
1:C:2888:ARG:O	1:C:2892:GLN:HG2	2.20	0.41
1:C:3408:LEU:HD23	1:C:3408:LEU:HA	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:81:MET:SD	1:A:82:LEU:HD23	2.61	0.41
1:A:274:LEU:HD22	1:A:280:LEU:HD23	2.03	0.41
1:A:479:GLN:HG3	1:A:480:GLU:OE2	2.21	0.41
1:A:604:CYS:SG	1:A:1668:ARG:NH1	2.94	0.41
1:A:683:ARG:NH1	1:A:709:ASP:OD1	2.45	0.41
1:A:1079:LYS:HD2	1:A:1655:GLU:HG3	2.03	0.41
1:A:1211:LEU:HD12	1:A:1211:LEU:H	1.84	0.41
1:A:1231[B]:GLN:NE2	1:A:1828:ASP:O	2.48	0.41
1:A:1619:ARG:HE	1:A:1619:ARG:HB2	1.72	0.41
1:A:1839:VAL:HG12	1:A:1843:LYS:HD2	2.03	0.41
1:A:2191:PHE:CD1	1:A:2198:MET:HG3	2.56	0.41
1:A:2410:PRO:HB3	1:A:2415:ARG:HB3	2.02	0.41
1:A:2737:PRO:O	1:A:2888:ARG:NH2	2.47	0.41
1:A:2742:THR:HB	1:A:2814:LYS:HD2	2.03	0.41
1:A:3292:PRO:HA	1:A:3293:PRO:HD3	1.93	0.41
1:A:3296:LEU:HB3	1:A:3297:PRO:HD3	2.03	0.41
1:A:3535:LEU:HD12	1:A:3536:ALA:N	2.36	0.41
1:A:3539:ARG:HB3	1:A:3544:ASP:OD1	2.21	0.41
1:A:3644:LEU:HD23	1:A:3645:PRO:O	2.21	0.41
1:A:3974:THR:O	1:A:3978:GLN:HG2	2.21	0.41
1:A:4753:HIS:CE1	1:A:4754:ASN:HB2	2.56	0.41
1:A:4985:LEU:HD23	3:A:5301:ATP:N1	2.36	0.41
1:B:604:CYS:SG	1:B:1668:ARG:NH1	2.94	0.41
1:B:985:VAL:HG11	1:B:1040:CYS:HB2	2.01	0.41
1:B:1134:LEU:HD12	1:B:1134:LEU:HA	1.91	0.41
1:B:1658:ASP:N	1:B:1658:ASP:OD1	2.54	0.41
1:B:2410:PRO:HB3	1:B:2415:ARG:HB3	2.02	0.41
1:B:2495:VAL:HG13	1:B:2496:PRO:HD2	2.03	0.41
1:B:2505:PHE:CE1	1:B:2509:VAL:HG21	2.56	0.41
1:B:2702:CYS:O	1:B:2706:ILE:HG13	2.20	0.41
1:B:2742:THR:HB	1:B:2814:LYS:HB3	2.02	0.41
1:B:2764:GLU:HB3	1:B:2857:PRO:HD3	2.03	0.41
1:B:2805:TYR:O	1:B:2805:TYR:HD1	2.04	0.41
1:B:2888:ARG:O	1:B:2892:GLN:HG2	2.20	0.41
1:B:3516:LYS:O	1:B:3519:PRO:HD2	2.21	0.41
1:B:3846:ALA:HB1	1:B:3873:LYS:HB2	2.02	0.41
1:B:3930:ILE:HG22	1:B:3995:VAL:HG11	2.03	0.41
1:B:3940:LYS:HE2	1:B:3940:LYS:HB2	1.86	0.41
1:B:4753:HIS:CE1	1:B:4754:ASN:HB2	2.56	0.41
1:D:73:LEU:HD23	1:D:73:LEU:HA	1.84	0.41
1:D:244:LEU:HD22	1:D:375:LYS:HZ3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:604:CYS:SG	1:D:1668:ARG:NH1	2.94	0.41
1:D:904:HIS:CE1	1:D:906:CYS:HB3	2.55	0.41
1:D:1141:ARG:HH12	1:C:3477:LYS:HG3	1.50	0.41
1:D:1931:LEU:HD22	1:D:1935:VAL:CG1	2.51	0.41
1:D:2244:ARG:NH2	1:D:3860:ASN:HA	2.24	0.41
1:D:2318:TYR:CE2	1:D:2394:GLY:HA2	2.55	0.41
1:D:2495:VAL:HG13	1:D:2496:PRO:HD2	2.03	0.41
1:D:2639:MET:CE	1:D:2640:PRO:HD3	2.51	0.41
1:D:2764:GLU:HB3	1:D:2857:PRO:HD3	2.03	0.41
1:D:3335:MET:HE3	1:D:3407:ALA:CB	2.51	0.41
1:D:3359:ILE:HG13	1:D:3437:MET:HE3	2.01	0.41
1:D:3539:ARG:HB3	1:D:3544:ASP:OD1	2.21	0.41
1:D:3587:ASP:HB2	1:D:3592:ILE:HD11	2.03	0.41
1:D:3798:LEU:HD22	1:D:3884:LEU:HA	2.03	0.41
1:D:3996:PHE:HE2	1:D:4023:MET:HE2	1.86	0.41
1:D:4651:THR:HG1	1:D:4803:HIS:CD2	2.34	0.41
1:C:275:ARG:HA	1:C:275:ARG:HD3	1.96	0.41
1:C:604:CYS:SG	1:C:1668:ARG:NH1	2.94	0.41
1:C:640:TYR:CE1	1:C:1636:MET:HB3	2.56	0.41
1:C:1433:TYR:CD1	1:C:1578:ALA:HB2	2.56	0.41
1:C:1479:GLU:H	1:C:1479:GLU:CD	2.22	0.41
1:C:1658:ASP:N	1:C:1658:ASP:OD1	2.54	0.41
1:C:1671:ARG:HH12	1:C:1710:GLY:HA2	1.86	0.41
1:C:2481:LYS:HA	1:C:2481:LYS:HD3	1.78	0.41
1:C:2495:VAL:O	1:C:2498:HIS:HB2	2.21	0.41
1:C:2615:ARG:HB2	1:C:2618:MET:SD	2.61	0.41
1:C:2770:LYS:HD3	1:C:2770:LYS:HA	1.89	0.41
1:C:3114:LYS:CE	1:C:3125:VAL:HG11	2.51	0.41
1:C:3335:MET:HE3	1:C:3407:ALA:CB	2.50	0.41
1:C:3644:LEU:HD23	1:C:3645:PRO:O	2.21	0.41
1:C:3778:MET:O	1:C:3782:MET:HG2	2.21	0.41
1:C:4202:ARG:O	1:C:4206:GLU:HG2	2.21	0.41
1:A:213:TYR:CE2	1:A:337:PRO:HG2	2.56	0.41
1:A:1225:PRO:HG2	1:A:1228:ILE:HD13	2.03	0.41
1:A:2347:GLU:OE2	1:A:3852:LYS:NZ	2.53	0.41
1:A:2505:PHE:CE1	1:A:2509:VAL:HG21	2.56	0.41
1:A:2679:PHE:HB2	1:A:2706:ILE:CG2	2.51	0.41
1:A:2878:LEU:HA	1:A:2881:ASN:ND2	2.36	0.41
1:A:3798:LEU:HD22	1:A:3884:LEU:HA	2.03	0.41
1:A:4202:ARG:O	1:A:4206:GLU:HG2	2.21	0.41
1:B:170:ILE:HG13	1:B:179:TYR:CD1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:479:GLN:HG3	1:B:480:GLU:OE2	2.21	0.41
1:B:1225:PRO:HG2	1:B:1228:ILE:HD13	2.03	0.41
1:B:1653:LEU:HD12	1:B:1653:LEU:HA	1.92	0.41
1:B:2418:LEU:HD23	1:B:2418:LEU:HA	1.91	0.41
1:B:2615:ARG:HB2	1:B:2618:MET:SD	2.61	0.41
1:B:3335:MET:HE3	1:B:3407:ALA:CB	2.51	0.41
1:B:3368:ARG:HA	1:B:3371:LYS:HE2	2.03	0.41
1:B:4697:VAL:HG13	1:B:4698:LYS:HE2	2.03	0.41
1:D:137:LEU:HD23	1:D:137:LEU:HA	1.90	0.41
1:D:213:TYR:CE2	1:D:337:PRO:HG2	2.56	0.41
1:D:530:ILE:HG21	1:D:540:PHE:HE1	1.86	0.41
1:D:737:LEU:HD12	1:D:737:LEU:HA	1.84	0.41
1:D:1115:LEU:HD23	1:D:1115:LEU:HA	1.90	0.41
1:D:1225:PRO:HG2	1:D:1228:ILE:HD13	2.03	0.41
1:D:2221:LYS:H	1:D:2221:LYS:HG2	1.69	0.41
1:D:2825:LYS:HD3	1:D:2827:ARG:HH21	1.86	0.41
1:D:3093:ARG:O	1:D:3097:GLU:HG2	2.21	0.41
1:D:3180:ASN:HB2	1:D:3183:VAL:HG23	2.03	0.41
1:C:553:ARG:O	1:C:557:SER:OG	2.36	0.41
1:C:1024:TYR:CZ	1:C:1032:LYS:HB2	2.57	0.41
1:C:1839:VAL:HG12	1:C:1843:LYS:HD2	2.03	0.41
1:C:2122:SER:O	1:C:2126:ARG:HG3	2.20	0.41
1:C:2505:PHE:CE1	1:C:2509:VAL:HG21	2.56	0.41
1:C:3093:ARG:O	1:C:3097:GLU:HG2	2.21	0.41
1:C:3180:ASN:HB2	1:C:3183:VAL:HG23	2.03	0.41
1:C:3821:LYS:O	1:C:3824:LYS:HG3	2.22	0.41
1:C:3936:TYR:O	1:C:3940:LYS:NZ	2.38	0.41
1:C:4122:MET:HE2	1:C:4122:MET:HA	2.02	0.41
1:C:4248:ALA:HA	1:C:4251:ILE:HG12	2.04	0.41
1:C:4985:LEU:HD23	3:C:5301:ATP:N1	2.36	0.41
1:A:102:LEU:HB3	1:A:105:HIS:HD2	1.85	0.40
1:A:188:GLU:OE1	1:A:188:GLU:N	2.39	0.40
1:A:418:LEU:HD23	1:A:421:PHE:CE1	2.56	0.40
1:A:1154:ASP:O	1:A:1158:ASN:N	2.54	0.40
1:A:2639:MET:CE	1:A:2640:PRO:HD3	2.51	0.40
1:A:3326:ASN:HB2	1:A:3334:TRP:HZ2	1.86	0.40
1:A:4628:VAL:HG21	1:B:4860:ARG:NH2	2.36	0.40
1:A:4646:LEU:HD23	1:A:4646:LEU:HA	1.86	0.40
2:G:23:VAL:HG12	2:G:104:LEU:HB2	2.02	0.40
1:B:213:TYR:CE2	1:B:337:PRO:HG2	2.57	0.40
1:B:469:ARG:HG3	1:B:470:SER:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1842:LEU:HD23	1:B:1842:LEU:HA	1.87	0.40
1:B:2637:ALA:C	1:B:2640:PRO:HD2	2.41	0.40
1:B:2679:PHE:HB2	1:B:2706:ILE:CG2	2.51	0.40
1:B:2878:LEU:HA	1:B:2881:ASN:ND2	2.36	0.40
1:B:3587:ASP:HB2	1:B:3592:ILE:HD11	2.03	0.40
1:B:4753:HIS:ND1	1:B:4754:ASN:HB2	2.37	0.40
1:D:103:TYR:HB3	1:D:152:PRO:HD3	2.03	0.40
1:D:790:ARG:HG3	1:D:1626:TRP:O	2.22	0.40
1:D:1126:GLY:O	1:D:1142:PRO:HA	2.20	0.40
1:D:1433:TYR:CD1	1:D:1578:ALA:HB2	2.56	0.40
1:D:2637:ALA:C	1:D:2640:PRO:HD2	2.41	0.40
1:D:2871:LEU:HD23	1:D:2871:LEU:HA	1.88	0.40
1:D:2881:ASN:O	1:D:2885:THR:HG23	2.20	0.40
1:D:2996:LYS:O	1:D:3000:LYS:HG2	2.21	0.40
1:D:3509:LEU:HD23	1:D:3509:LEU:HA	1.89	0.40
1:C:188:GLU:OE1	1:C:188:GLU:N	2.39	0.40
1:C:479:GLN:HG3	1:C:480:GLU:OE2	2.21	0.40
1:C:631:LEU:HD23	1:C:631:LEU:HA	1.85	0.40
1:C:1753:LYS:HE2	1:C:1758:ARG:HA	2.03	0.40
1:C:2230:THR:O	1:C:2234:ARG:HG2	2.22	0.40
1:C:2765:LYS:HD3	1:C:2765:LYS:HA	1.92	0.40
1:C:2909:ASP:OD1	1:C:2909:ASP:N	2.54	0.40
1:A:278:GLN:HB2	1:A:328:LYS:HE2	2.03	0.40
1:A:492:ASP:O	1:A:496:VAL:HG13	2.20	0.40
1:A:688:LEU:HD12	1:A:688:LEU:HA	1.95	0.40
1:A:2092:GLN:HE21	1:A:2092:GLN:HB3	1.61	0.40
1:A:3093:ARG:O	1:A:3097:GLU:HG2	2.21	0.40
1:A:4697:VAL:HG13	1:A:4698:LYS:HE2	2.03	0.40
1:B:418:LEU:HD23	1:B:421:PHE:CE1	2.56	0.40
1:B:869:ARG:HE	1:B:1051:TYR:HH	1.68	0.40
1:B:2347:GLU:OE2	1:B:3852:LYS:NZ	2.53	0.40
1:B:2412:GLU:OE2	1:B:2412:GLU:N	2.51	0.40
1:B:3093:ARG:O	1:B:3097:GLU:HG2	2.21	0.40
1:B:3821:LYS:O	1:B:3824:LYS:HG3	2.22	0.40
1:B:4061:PHE:CE2	1:B:4065:PHE:HE2	2.39	0.40
1:B:4096:ALA:O	1:B:4099:SER:OG	2.28	0.40
1:B:4549:VAL:O	1:B:4553:ASN:ND2	2.54	0.40
1:B:4722:ARG:HE	1:B:4748:LEU:HB2	1.86	0.40
1:B:5006:GLN:H	1:B:5006:GLN:HG3	1.57	0.40
1:D:214:VAL:HG21	1:D:390:LEU:HD12	2.03	0.40
1:D:645:ARG:HG2	1:D:826:ILE:HG12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1231[B]:GLN:NE2	1:D:1828:ASP:O	2.48	0.40
1:D:1653:LEU:HD12	1:D:1653:LEU:HA	1.92	0.40
1:D:1739:THR:HG23	1:D:1742:THR:H	1.86	0.40
1:D:1931:LEU:HD22	1:D:1935:VAL:HG12	2.03	0.40
1:D:2615:ARG:HB2	1:D:2618:MET:SD	2.61	0.40
1:D:2794:TYR:HA	1:D:2794:TYR:HD1	1.80	0.40
1:D:3018:LEU:HD23	1:D:3018:LEU:HA	1.93	0.40
1:D:3537:LYS:HE2	1:D:3537:LYS:HB3	1.70	0.40
1:D:3778:MET:O	1:D:3782:MET:HG2	2.21	0.40
1:C:469:ARG:HG3	1:C:470:SER:N	2.36	0.40
1:C:1033:ARG:HA	1:C:1036:ARG:HH11	1.86	0.40
1:C:1476:MET:O	1:C:1484:HIS:N	2.52	0.40
1:C:1573:MET:CE	1:C:1574:PRO:HD2	2.48	0.40
1:C:2286:LEU:HD23	1:C:2286:LEU:HA	1.89	0.40
1:C:2347:GLU:OE2	1:C:3852:LYS:NZ	2.53	0.40
1:C:3248:ARG:NH1	1:C:3252:ASP:OD1	2.55	0.40
1:C:4746:ALA:O	1:C:4750:ILE:HG22	2.21	0.40
1:A:530:ILE:HG21	1:A:540:PHE:HE1	1.87	0.40
1:A:954:LYS:HA	1:A:954:LYS:HD3	1.74	0.40
1:A:1433:TYR:CG	1:A:1578:ALA:HB2	2.56	0.40
1:A:2489:LYS:HB2	1:A:2489:LYS:HE3	1.75	0.40
1:A:2615:ARG:HB2	1:A:2618:MET:SD	2.61	0.40
1:A:2825:LYS:HD3	1:A:2827:ARG:HH21	1.86	0.40
1:A:2996:LYS:O	1:A:3000:LYS:HG2	2.21	0.40
1:A:4069:LYS:O	1:A:4072:VAL:HG22	2.22	0.40
1:A:4746:ALA:O	1:A:4750:ILE:HG22	2.21	0.40
1:B:103:TYR:HB3	1:B:152:PRO:HD3	2.03	0.40
1:B:345:LEU:HD23	1:B:345:LEU:HA	1.74	0.40
1:B:1433:TYR:CG	1:B:1578:ALA:HB2	2.56	0.40
1:B:1931:LEU:HD22	1:B:1935:VAL:CG1	2.51	0.40
1:B:2286:LEU:HD23	1:B:2286:LEU:HA	1.89	0.40
1:B:2495:VAL:O	1:B:2498:HIS:HB2	2.20	0.40
1:B:2793:PRO:O	1:B:2797:PHE:N	2.55	0.40
1:B:3576:TYR:O	1:B:3582:ARG:HG3	2.20	0.40
1:B:3644:LEU:HD23	1:B:3645:PRO:O	2.21	0.40
1:B:4010:ILE:HA	1:B:4013:LEU:HB3	2.03	0.40
1:B:4060:LYS:HA	1:B:4063:ASP:OD2	2.22	0.40
1:D:414:PHE:CE2	1:D:418:LEU:HD11	2.55	0.40
1:D:1297:PHE:CD2	1:D:1522:LEU:HA	2.56	0.40
1:D:1460:HIS:HB3	1:D:1600:LEU:HD23	2.03	0.40
1:D:4060:LYS:HA	1:D:4063:ASP:OD2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4697:VAL:HG13	1:D:4698:LYS:HE2	2.03	0.40
1:C:69:LEU:HD22	1:C:101:LEU:HD11	2.01	0.40
1:C:418:LEU:HD23	1:C:421:PHE:CE1	2.56	0.40
1:C:1433:TYR:CG	1:C:1578:ALA:HB2	2.56	0.40
1:C:1671:ARG:NH1	1:C:1710:GLY:O	2.54	0.40
1:C:2697:ARG:HD2	1:C:2697:ARG:C	2.41	0.40
1:C:3296:LEU:HB3	1:C:3297:PRO:HD3	2.03	0.40
1:C:3930:ILE:HG22	1:C:3995:VAL:HG11	2.03	0.40
1:A:1280:GLN:CD	1:A:1281:ASN:H	2.23	0.40
1:A:1753:LYS:HE2	1:A:1758:ARG:HA	2.02	0.40
1:A:1828:ASP:OD1	1:A:1828:ASP:N	2.50	0.40
1:A:1931:LEU:HD22	1:A:1935:VAL:CG1	2.51	0.40
1:A:2138:LEU:HD23	1:A:2138:LEU:HA	1.83	0.40
1:A:2495:VAL:O	1:A:2498:HIS:HB2	2.20	0.40
1:A:3475:LYS:HA	1:A:3475:LYS:HD3	1.74	0.40
1:A:3969:ILE:HG21	1:A:3980:LEU:HD12	2.03	0.40
1:A:4549:VAL:O	1:A:4553:ASN:ND2	2.54	0.40
2:E:2:VAL:HG11	2:E:61:GLU:HB2	2.04	0.40
1:B:64:ILE:H	1:B:64:ILE:HG12	1.66	0.40
1:B:280:LEU:N	1:B:314:PHE:O	2.49	0.40
1:B:2226:PRO:HB2	1:B:2267:MET:HE3	2.03	0.40
1:B:2825:LYS:HD3	1:B:2827:ARG:HH21	1.86	0.40
1:B:3784:SER:O	1:B:3787:LYS:HG3	2.21	0.40
1:B:4122:MET:HA	1:B:4122:MET:HE2	2.02	0.40
1:D:2505:PHE:CE1	1:D:2509:VAL:HG21	2.56	0.40
1:D:3936:TYR:O	1:D:3940:LYS:NZ	2.38	0.40
1:D:3971:GLY:N	1:D:3972:PRO:HA	2.35	0.40
1:D:4711:PHE:CD2	1:D:4712:PRO:HD3	2.57	0.40
1:C:790:ARG:HG3	1:C:1626:TRP:O	2.22	0.40
1:C:901:LYS:HA	1:C:901:LYS:HD2	1.91	0.40
1:C:1079:LYS:HD2	1:C:1655:GLU:HG3	2.03	0.40
1:C:1225:PRO:HG2	1:C:1228:ILE:HD13	2.03	0.40
1:C:1739:THR:HG23	1:C:1742:THR:H	1.86	0.40
1:C:2637:ALA:C	1:C:2640:PRO:HD2	2.41	0.40
1:C:2793:PRO:O	1:C:2797:PHE:N	2.55	0.40
1:C:2878:LEU:HA	1:C:2881:ASN:ND2	2.36	0.40
1:C:3333:THR:HA	1:C:3336:LYS:NZ	2.37	0.40
1:C:3516:LYS:O	1:C:3519:PRO:HD2	2.21	0.40
1:C:3551:GLU:HA	1:C:3551:GLU:OE2	2.22	0.40
1:C:3617:LYS:HA	1:C:3617:LYS:HD3	1.84	0.40
1:C:3784:SER:O	1:C:3787:LYS:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4064:MET:HE2	1:C:4064:MET:HB2	1.94	0.40
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.57	0.40
1:A:1658:ASP:OD1	1:A:1658:ASP:N	2.54	0.40
1:A:1671:ARG:HH12	1:A:1710:GLY:HA2	1.86	0.40
1:A:3249:LEU:HD12	1:A:3249:LEU:HA	1.87	0.40
1:A:3532:LEU:HD23	1:A:3532:LEU:HA	1.87	0.40
1:A:3551:GLU:HA	1:A:3551:GLU:OE2	2.22	0.40
1:A:3969:ILE:HD12	1:A:4030:LEU:HG	2.04	0.40
1:A:4060:LYS:HA	1:A:4063:ASP:OD2	2.22	0.40
1:A:4061:PHE:CE2	1:A:4065:PHE:HE2	2.39	0.40
1:A:4217:PHE:CZ	1:A:4234:PHE:HA	2.57	0.40
2:G:105:LYS:HZ1	2:G:107:GLU:HB3	1.86	0.40
1:B:418:LEU:HA	1:B:421:PHE:CE1	2.56	0.40
1:B:790:ARG:HG3	1:B:1626:TRP:O	2.22	0.40
1:B:1033:ARG:HA	1:B:1036:ARG:HH11	1.86	0.40
1:B:1079:LYS:HD2	1:B:1655:GLU:HG3	2.03	0.40
1:B:1476:MET:O	1:B:1484:HIS:N	2.52	0.40
1:B:1671:ARG:NH1	1:B:1710:GLY:O	2.54	0.40
1:B:1990:GLU:HA	1:B:1993:ARG:NH2	2.29	0.40
1:B:2151:ASP:OD1	1:B:2189:LYS:HG2	2.22	0.40
1:B:2632:ILE:H	1:B:2632:ILE:HD12	1.87	0.40
1:B:3034:LYS:HZ1	1:B:3038:MET:HG3	1.86	0.40
1:B:4985:LEU:HD23	3:B:5301:ATP:N1	2.36	0.40
1:D:69:LEU:HD22	1:D:101:LEU:HD11	2.02	0.40
1:D:233:ILE:H	1:D:233:ILE:HG13	1.64	0.40
1:D:492:ASP:O	1:D:496:VAL:HG13	2.20	0.40
1:D:2765:LYS:HD3	1:D:2765:LYS:HA	1.92	0.40
1:D:3104:GLU:HA	1:D:3107:VAL:HG22	2.03	0.40
1:D:3516:LYS:O	1:D:3519:PRO:HD2	2.21	0.40
1:D:4248:ALA:HA	1:D:4251:ILE:HG12	2.04	0.40
1:D:4549:VAL:O	1:D:4553:ASN:ND2	2.54	0.40
1:D:4581:LYS:HE2	1:D:4581:LYS:HB2	1.64	0.40
1:C:73:LEU:HD23	1:C:73:LEU:HA	1.84	0.40
1:C:289:ARG:HH11	1:C:301:VAL:HG23	1.87	0.40
1:C:2513:GLU:H	1:C:2513:GLU:CD	2.25	0.40
1:C:2742:THR:HB	1:C:2814:LYS:HD2	2.03	0.40
1:C:2794:TYR:HA	1:C:2794:TYR:HD1	1.80	0.40
1:C:3848:GLU:OE2	1:C:3849:ARG:HD2	2.21	0.40
1:C:3969:ILE:HG21	1:C:3980:LEU:HD12	2.03	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	4385/5037 (87%)	4306 (98%)	79 (2%)	0	100	100
1	B	4385/5037 (87%)	4305 (98%)	80 (2%)	0	100	100
1	C	4385/5037 (87%)	4307 (98%)	78 (2%)	0	100	100
1	D	4385/5037 (87%)	4304 (98%)	81 (2%)	0	100	100
2	E	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	F	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	G	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	H	105/108 (97%)	104 (99%)	1 (1%)	0	100	100
All	All	17960/20580 (87%)	17635 (98%)	325 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3836/4276 (90%)	3577 (93%)	259 (7%)	13	43
1	B	3836/4276 (90%)	3575 (93%)	261 (7%)	13	43
1	C	3836/4276 (90%)	3577 (93%)	259 (7%)	13	43
1	D	3836/4276 (90%)	3577 (93%)	259 (7%)	13	43
2	E	89/90 (99%)	83 (93%)	6 (7%)	13	44
2	F	89/90 (99%)	83 (93%)	6 (7%)	13	44

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	G	89/90 (99%)	81 (91%)	8 (9%)	8 30
2	H	89/90 (99%)	84 (94%)	5 (6%)	17 50
All	All	15700/17464 (90%)	14637 (93%)	1063 (7%)	16 43

All (1063) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	24	CYS
1	A	30	LYS
1	A	69	LEU
1	A	99	ARG
1	A	113	HIS
1	A	125	ARG
1	A	127	MET
1	A	154	SER
1	A	155	LYS
1	A	158	SER
1	A	162	LYS
1	A	194	SER
1	A	222	LEU
1	A	227	MET
1	A	257	ARG
1	A	265	LEU
1	A	295	GLU
1	A	306	LYS
1	A	328	LYS
1	A	365	LYS
1	A	373	LYS
1	A	384	MET
1	A	389	PHE
1	A	392	ARG
1	A	393	CYS
1	A	402	ARG
1	A	421	PHE
1	A	424	LYS
1	A	439	GLU
1	A	469	ARG
1	A	545	ASP
1	A	550	LYS
1	A	592	LYS

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Mol	Chain	Res	Type
1	A	645	ARG
1	A	667	MET
1	A	772	ASN
1	A	790	ARG
1	A	791	PHE
1	A	820	ARG
1	A	827	LYS
1	A	830	ARG
1	A	835	ARG
1	A	850	ASP
1	A	869	ARG
1	A	877	ASN
1	A	897	ARG
1	A	902	ARG
1	A	921	ASN
1	A	945	LYS
1	A	950	LEU
1	A	955	LEU
1	A	959	TYR
1	A	960	MET
1	A	961	MET
1	A	965	TYR
1	A	976	ARG
1	A	984	LEU
1	A	1025	ARG
1	A	1028	ASP
1	A	1044	ARG
1	A	1068	ARG
1	A	1128	ARG
1	A	1143	TRP
1	A	1144	GLN
1	A	1155	LEU
1	A	1172	ASP
1	A	1209	SER
1	A	1231[A]	GLN
1	A	1231[B]	GLN
1	A	1421	ARG
1	A	1425	GLU
1	A	1435	TYR
1	A	1460	HIS
1	A	1462	MET
1	A	1468	LYS

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Mol	Chain	Res	Type
1	A	1492	CYS
1	A	1511	HIS
1	A	1534	LYS
1	A	1538	THR
1	A	1560	ASN
1	A	1576	SER
1	A	1636	MET
1	A	1661	ARG
1	A	1691	GLN
1	A	1753	LYS
1	A	1810	LYS
1	A	1835	GLU
1	A	1923	GLU
1	A	1930	LYS
1	A	1931	LEU
1	A	1994	ARG
1	A	1996	ARG
1	A	2000	SER
1	A	2011	HIS
1	A	2022	PRO
1	A	2093	SER
1	A	2140	ARG
1	A	2169	GLN
1	A	2186	MET
1	A	2189	LYS
1	A	2208	MET
1	A	2256	TYR
1	A	2267	MET
1	A	2268[A]	GLN
1	A	2268[B]	GLN
1	A	2292	GLU
1	A	2310	CYS
1	A	2312	MET
1	A	2314	LEU
1	A	2316	LYS
1	A	2336	ARG
1	A	2340	PHE
1	A	2344	GLU
1	A	2392	ARG
1	A	2414	ASN
1	A	2440	MET
1	A	2447	LYS

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Mol	Chain	Res	Type
1	A	2482	ASP
1	A	2553	TYR
1	A	2569	PHE
1	A	2578	MET
1	A	2582	MET
1	A	2596	THR
1	A	2612[A]	ARG
1	A	2612[B]	ARG
1	A	2624	ARG
1	A	2628	PHE
1	A	2639	MET
1	A	2661	TRP
1	A	2663	ASN
1	A	2676	ARG
1	A	2700	MET
1	A	2719	TYR
1	A	2722	LYS
1	A	2725	LYS
1	A	2738	ARG
1	A	2744	ASN
1	A	2754	PHE
1	A	2765	LYS
1	A	2776	SER
1	A	2779	GLU
1	A	2782	ASP
1	A	2784	GLU
1	A	2790	MET
1	A	2794	TYR
1	A	2797	PHE
1	A	2805	TYR
1	A	2806	ARG
1	A	2825	LYS
1	A	2827	ARG
1	A	2890	LYS
1	A	2891	LYS
1	A	2897	LYS
1	A	2905	LEU
1	A	2914	LYS
1	A	2931	GLN
1	A	2939	ARG
1	A	2985	ARG
1	A	3016	TYR

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Mol	Chain	Res	Type
1	A	3023	LYS
1	A	3060	ASP
1	A	3081	MET
1	A	3123	LYS
1	A	3128	ASN
1	A	3131	TYR
1	A	3137	LEU
1	A	3160	ASP
1	A	3162	GLN
1	A	3166	TYR
1	A	3182	TYR
1	A	3185	LYS
1	A	3192	GLU
1	A	3201	MET
1	A	3213	TYR
1	A	3222	LYS
1	A	3225	ARG
1	A	3263	TYR
1	A	3266	MET
1	A	3276	MET
1	A	3283	ARG
1	A	3331	GLU
1	A	3384	LYS
1	A	3394	VAL
1	A	3419	ASN
1	A	3426	GLU
1	A	3449	HIS
1	A	3451	PHE
1	A	3452	LYS
1	A	3498	ARG
1	A	3499	ARG
1	A	3501	ASP
1	A	3502	ARG
1	A	3511	VAL
1	A	3515	LYS
1	A	3535	LEU
1	A	3544	ASP
1	A	3582	ARG
1	A	3585	ASP
1	A	3587	ASP
1	A	3607	GLU
1	A	3622	LYS

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Mol	Chain	Res	Type
1	A	3623	LEU
1	A	3628	ARG
1	A	3629	ARG
1	A	3637	ARG
1	A	3638	MET
1	A	3652	MET
1	A	3658	LYS
1	A	3715	LYS
1	A	3720	TYR
1	A	3734	HIS
1	A	3757	GLU
1	A	3766	GLN
1	A	3793	MET
1	A	3825	GLU
1	A	3849	ARG
1	A	3868	ARG
1	A	3874	VAL
1	A	3899	PHE
1	A	3931	SER
1	A	3933	PHE
1	A	3940	LYS
1	A	3944	GLU
1	A	3945	GLU
1	A	3970	GLN
1	A	3987	ASP
1	A	3999	MET
1	A	4039	MET
1	A	4070	ASP
1	A	4103	PHE
1	A	4125	PHE
1	A	4131	ARG
1	A	4153	HIS
1	A	4188	ARG
1	A	4540	PHE
1	A	4541	TRP
1	A	4580	TYR
1	A	4583	SER
1	A	4584	ASP
1	A	4585	SER
1	A	4665	LYS
1	A	4676	GLU
1	A	4694	ASP

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Mol	Chain	Res	Type
1	A	4711	PHE
1	A	4718	LYS
1	A	4732	PHE
1	A	4735	GLU
1	A	4743	MET
1	A	4753	HIS
1	A	4756	ARG
1	A	4769	MET
1	A	4816	ILE
1	A	4871	GLU
1	A	4876	CYS
1	A	4880	MET
1	A	4951	LYS
1	A	4985	LEU
1	A	5013	MET
2	E	14	THR
2	E	18	ARG
2	E	29	MET
2	E	31	GLU
2	E	38	SER
2	E	102	GLU
2	H	14	THR
2	H	29	MET
2	H	38	SER
2	H	41	ASP
2	H	102	GLU
2	G	14	THR
2	G	29	MET
2	G	32	ASP
2	G	38	SER
2	G	41	ASP
2	G	43	ASN
2	G	102	GLU
2	G	105	LYS
2	F	13	ARG
2	F	14	THR
2	F	29	MET
2	F	38	SER
2	F	41	ASP
2	F	102	GLU
1	B	23	GLN
1	B	24	CYS

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Mol	Chain	Res	Type
1	B	30	LYS
1	B	69	LEU
1	B	99	ARG
1	B	113	HIS
1	B	125	ARG
1	B	127	MET
1	B	154	SER
1	B	155	LYS
1	B	158	SER
1	B	162	LYS
1	B	194	SER
1	B	222	LEU
1	B	227	MET
1	B	257	ARG
1	B	265	LEU
1	B	295	GLU
1	B	306	LYS
1	B	309	THR
1	B	328	LYS
1	B	365	LYS
1	B	373	LYS
1	B	384	MET
1	B	389	PHE
1	B	392	ARG
1	B	393	CYS
1	B	402	ARG
1	B	421	PHE
1	B	424	LYS
1	B	439	GLU
1	B	469	ARG
1	B	545	ASP
1	B	550	LYS
1	B	592	LYS
1	B	645	ARG
1	B	667	MET
1	B	714	TYR
1	B	772	ASN
1	B	790	ARG
1	B	791	PHE
1	B	820	ARG
1	B	827	LYS
1	B	830	ARG

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Mol	Chain	Res	Type
1	B	835	ARG
1	B	850	ASP
1	B	869	ARG
1	B	877	ASN
1	B	897	ARG
1	B	902	ARG
1	B	921	ASN
1	B	945	LYS
1	B	950	LEU
1	B	955	LEU
1	B	959	TYR
1	B	960	MET
1	B	961	MET
1	B	965	TYR
1	B	976	ARG
1	B	984	LEU
1	B	1025	ARG
1	B	1028	ASP
1	B	1044	ARG
1	B	1068	ARG
1	B	1128	ARG
1	B	1143	TRP
1	B	1144	GLN
1	B	1155	LEU
1	B	1172	ASP
1	B	1209	SER
1	B	1231[A]	GLN
1	B	1231[B]	GLN
1	B	1421	ARG
1	B	1425	GLU
1	B	1435	TYR
1	B	1460	HIS
1	B	1462	MET
1	B	1468	LYS
1	B	1492	CYS
1	B	1511	HIS
1	B	1534	LYS
1	B	1538	THR
1	B	1560	ASN
1	B	1576	SER
1	B	1636	MET
1	B	1661	ARG

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Mol	Chain	Res	Type
1	B	1691	GLN
1	B	1753	LYS
1	B	1810	LYS
1	B	1835	GLU
1	B	1923	GLU
1	B	1930	LYS
1	B	1931	LEU
1	B	1994	ARG
1	B	1996	ARG
1	B	2000	SER
1	B	2011	HIS
1	B	2022	PRO
1	B	2093	SER
1	B	2140	ARG
1	B	2169	GLN
1	B	2186	MET
1	B	2189	LYS
1	B	2208	MET
1	B	2256	TYR
1	B	2267	MET
1	B	2268[A]	GLN
1	B	2268[B]	GLN
1	B	2292	GLU
1	B	2310	CYS
1	B	2312	MET
1	B	2314	LEU
1	B	2316	LYS
1	B	2336	ARG
1	B	2340	PHE
1	B	2344	GLU
1	B	2392	ARG
1	B	2414	ASN
1	B	2440	MET
1	B	2447	LYS
1	B	2482	ASP
1	B	2553	TYR
1	B	2569	PHE
1	B	2578	MET
1	B	2582	MET
1	B	2596	THR
1	B	2612[A]	ARG
1	B	2612[B]	ARG

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Mol	Chain	Res	Type
1	B	2624	ARG
1	B	2628	PHE
1	B	2639	MET
1	B	2661	TRP
1	B	2663	ASN
1	B	2676	ARG
1	B	2700	MET
1	B	2719	TYR
1	B	2722	LYS
1	B	2725	LYS
1	B	2738	ARG
1	B	2744	ASN
1	B	2754	PHE
1	B	2765	LYS
1	B	2776	SER
1	B	2779	GLU
1	B	2782	ASP
1	B	2784	GLU
1	B	2790	MET
1	B	2794	TYR
1	B	2797	PHE
1	B	2805	TYR
1	B	2806	ARG
1	B	2825	LYS
1	B	2827	ARG
1	B	2890	LYS
1	B	2891	LYS
1	B	2897	LYS
1	B	2905	LEU
1	B	2914	LYS
1	B	2931	GLN
1	B	2939	ARG
1	B	2985	ARG
1	B	3016	TYR
1	B	3023	LYS
1	B	3060	ASP
1	B	3081	MET
1	B	3123	LYS
1	B	3128	ASN
1	B	3131	TYR
1	B	3137	LEU
1	B	3160	ASP

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Mol	Chain	Res	Type
1	B	3162	GLN
1	B	3166	TYR
1	B	3182	TYR
1	B	3185	LYS
1	B	3192	GLU
1	B	3201	MET
1	B	3213	TYR
1	B	3222	LYS
1	B	3225	ARG
1	B	3263	TYR
1	B	3266	MET
1	B	3276	MET
1	B	3283	ARG
1	B	3331	GLU
1	B	3384	LYS
1	B	3394	VAL
1	B	3419	ASN
1	B	3426	GLU
1	B	3449	HIS
1	B	3451	PHE
1	B	3452	LYS
1	B	3498	ARG
1	B	3499	ARG
1	B	3501	ASP
1	B	3502	ARG
1	B	3511	VAL
1	B	3515	LYS
1	B	3535	LEU
1	B	3544	ASP
1	B	3582	ARG
1	B	3585	ASP
1	B	3587	ASP
1	B	3607	GLU
1	B	3622	LYS
1	B	3623	LEU
1	B	3628	ARG
1	B	3629	ARG
1	B	3637	ARG
1	B	3638	MET
1	B	3652	MET
1	B	3658	LYS
1	B	3715	LYS

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Mol	Chain	Res	Type
1	B	3720	TYR
1	B	3734	HIS
1	B	3757	GLU
1	B	3766	GLN
1	B	3793	MET
1	B	3825	GLU
1	B	3849	ARG
1	B	3868	ARG
1	B	3874	VAL
1	B	3899	PHE
1	B	3931	SER
1	B	3933	PHE
1	B	3940	LYS
1	B	3944	GLU
1	B	3945	GLU
1	B	3970	GLN
1	B	3987	ASP
1	B	3999	MET
1	B	4039	MET
1	B	4070	ASP
1	B	4103	PHE
1	B	4125	PHE
1	B	4131	ARG
1	B	4153	HIS
1	B	4188	ARG
1	B	4540	PHE
1	B	4541	TRP
1	B	4580	TYR
1	B	4583	SER
1	B	4584	ASP
1	B	4585	SER
1	B	4665	LYS
1	B	4676	GLU
1	B	4694	ASP
1	B	4711	PHE
1	B	4718	LYS
1	B	4732	PHE
1	B	4735	GLU
1	B	4743	MET
1	B	4753	HIS
1	B	4756	ARG
1	B	4769	MET

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Mol	Chain	Res	Type
1	B	4816	ILE
1	B	4871	GLU
1	B	4876	CYS
1	B	4880	MET
1	B	4951	LYS
1	B	4985	LEU
1	B	5013	MET
1	D	23	GLN
1	D	24	CYS
1	D	30	LYS
1	D	69	LEU
1	D	99	ARG
1	D	113	HIS
1	D	125	ARG
1	D	127	MET
1	D	154	SER
1	D	155	LYS
1	D	158	SER
1	D	162	LYS
1	D	194	SER
1	D	222	LEU
1	D	227	MET
1	D	257	ARG
1	D	265	LEU
1	D	295	GLU
1	D	306	LYS
1	D	328	LYS
1	D	365	LYS
1	D	373	LYS
1	D	384	MET
1	D	389	PHE
1	D	392	ARG
1	D	393	CYS
1	D	402	ARG
1	D	421	PHE
1	D	424	LYS
1	D	439	GLU
1	D	469	ARG
1	D	545	ASP
1	D	550	LYS
1	D	592	LYS
1	D	645	ARG

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Mol	Chain	Res	Type
1	D	667	MET
1	D	772	ASN
1	D	790	ARG
1	D	791	PHE
1	D	820	ARG
1	D	827	LYS
1	D	830	ARG
1	D	835	ARG
1	D	850	ASP
1	D	869	ARG
1	D	877	ASN
1	D	897	ARG
1	D	902	ARG
1	D	921	ASN
1	D	945	LYS
1	D	950	LEU
1	D	955	LEU
1	D	959	TYR
1	D	960	MET
1	D	961	MET
1	D	965	TYR
1	D	976	ARG
1	D	984	LEU
1	D	1025	ARG
1	D	1028	ASP
1	D	1044	ARG
1	D	1068	ARG
1	D	1128	ARG
1	D	1143	TRP
1	D	1144	GLN
1	D	1155	LEU
1	D	1172	ASP
1	D	1209	SER
1	D	1231[A]	GLN
1	D	1231[B]	GLN
1	D	1421	ARG
1	D	1425	GLU
1	D	1435	TYR
1	D	1460	HIS
1	D	1462	MET
1	D	1468	LYS
1	D	1492	CYS

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Mol	Chain	Res	Type
1	D	1511	HIS
1	D	1534	LYS
1	D	1538	THR
1	D	1560	ASN
1	D	1576	SER
1	D	1636	MET
1	D	1661	ARG
1	D	1691	GLN
1	D	1753	LYS
1	D	1810	LYS
1	D	1835	GLU
1	D	1923	GLU
1	D	1930	LYS
1	D	1931	LEU
1	D	1994	ARG
1	D	1996	ARG
1	D	2000	SER
1	D	2011	HIS
1	D	2022	PRO
1	D	2093	SER
1	D	2140	ARG
1	D	2169	GLN
1	D	2186	MET
1	D	2189	LYS
1	D	2208	MET
1	D	2256	TYR
1	D	2267	MET
1	D	2268[A]	GLN
1	D	2268[B]	GLN
1	D	2292	GLU
1	D	2310	CYS
1	D	2312	MET
1	D	2314	LEU
1	D	2316	LYS
1	D	2336	ARG
1	D	2340	PHE
1	D	2344	GLU
1	D	2392	ARG
1	D	2414	ASN
1	D	2440	MET
1	D	2447	LYS
1	D	2482	ASP

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Mol	Chain	Res	Type
1	D	2553	TYR
1	D	2569	PHE
1	D	2578	MET
1	D	2582	MET
1	D	2596	THR
1	D	2612[A]	ARG
1	D	2612[B]	ARG
1	D	2624	ARG
1	D	2628	PHE
1	D	2639	MET
1	D	2661	TRP
1	D	2663	ASN
1	D	2676	ARG
1	D	2700	MET
1	D	2719	TYR
1	D	2722	LYS
1	D	2725	LYS
1	D	2738	ARG
1	D	2744	ASN
1	D	2754	PHE
1	D	2765	LYS
1	D	2776	SER
1	D	2779	GLU
1	D	2782	ASP
1	D	2784	GLU
1	D	2790	MET
1	D	2794	TYR
1	D	2797	PHE
1	D	2805	TYR
1	D	2806	ARG
1	D	2825	LYS
1	D	2827	ARG
1	D	2890	LYS
1	D	2891	LYS
1	D	2897	LYS
1	D	2905	LEU
1	D	2914	LYS
1	D	2931	GLN
1	D	2939	ARG
1	D	2985	ARG
1	D	3016	TYR
1	D	3023	LYS

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Mol	Chain	Res	Type
1	D	3060	ASP
1	D	3081	MET
1	D	3123	LYS
1	D	3128	ASN
1	D	3131	TYR
1	D	3137	LEU
1	D	3160	ASP
1	D	3162	GLN
1	D	3166	TYR
1	D	3182	TYR
1	D	3185	LYS
1	D	3192	GLU
1	D	3201	MET
1	D	3213	TYR
1	D	3222	LYS
1	D	3225	ARG
1	D	3263	TYR
1	D	3266	MET
1	D	3276	MET
1	D	3283	ARG
1	D	3331	GLU
1	D	3384	LYS
1	D	3394	VAL
1	D	3419	ASN
1	D	3426	GLU
1	D	3449	HIS
1	D	3451	PHE
1	D	3452	LYS
1	D	3498	ARG
1	D	3499	ARG
1	D	3501	ASP
1	D	3502	ARG
1	D	3511	VAL
1	D	3515	LYS
1	D	3535	LEU
1	D	3544	ASP
1	D	3582	ARG
1	D	3585	ASP
1	D	3587	ASP
1	D	3607	GLU
1	D	3622	LYS
1	D	3623	LEU

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Mol	Chain	Res	Type
1	D	3628	ARG
1	D	3629	ARG
1	D	3637	ARG
1	D	3638	MET
1	D	3652	MET
1	D	3658	LYS
1	D	3715	LYS
1	D	3720	TYR
1	D	3734	HIS
1	D	3757	GLU
1	D	3766	GLN
1	D	3793	MET
1	D	3825	GLU
1	D	3849	ARG
1	D	3868	ARG
1	D	3874	VAL
1	D	3899	PHE
1	D	3931	SER
1	D	3933	PHE
1	D	3940	LYS
1	D	3944	GLU
1	D	3945	GLU
1	D	3970	GLN
1	D	3987	ASP
1	D	3999	MET
1	D	4039	MET
1	D	4070	ASP
1	D	4103	PHE
1	D	4125	PHE
1	D	4131	ARG
1	D	4153	HIS
1	D	4188	ARG
1	D	4540	PHE
1	D	4541	TRP
1	D	4580	TYR
1	D	4583	SER
1	D	4584	ASP
1	D	4585	SER
1	D	4665	LYS
1	D	4676	GLU
1	D	4694	ASP
1	D	4711	PHE

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Mol	Chain	Res	Type
1	D	4718	LYS
1	D	4732	PHE
1	D	4735	GLU
1	D	4743	MET
1	D	4753	HIS
1	D	4756	ARG
1	D	4769	MET
1	D	4816	ILE
1	D	4871	GLU
1	D	4876	CYS
1	D	4880	MET
1	D	4951	LYS
1	D	4985	LEU
1	D	5013	MET
1	C	23	GLN
1	C	24	CYS
1	C	30	LYS
1	C	69	LEU
1	C	99	ARG
1	C	113	HIS
1	C	125	ARG
1	C	127	MET
1	C	154	SER
1	C	155	LYS
1	C	158	SER
1	C	162	LYS
1	C	194	SER
1	C	222	LEU
1	C	227	MET
1	C	257	ARG
1	C	265	LEU
1	C	295	GLU
1	C	306	LYS
1	C	328	LYS
1	C	365	LYS
1	C	373	LYS
1	C	384	MET
1	C	389	PHE
1	C	392	ARG
1	C	393	CYS
1	C	402	ARG
1	C	421	PHE

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Mol	Chain	Res	Type
1	C	424	LYS
1	C	439	GLU
1	C	469	ARG
1	C	545	ASP
1	C	550	LYS
1	C	592	LYS
1	C	645	ARG
1	C	667	MET
1	C	772	ASN
1	C	790	ARG
1	C	791	PHE
1	C	820	ARG
1	C	827	LYS
1	C	830	ARG
1	C	835	ARG
1	C	850	ASP
1	C	869	ARG
1	C	877	ASN
1	C	897	ARG
1	C	902	ARG
1	C	921	ASN
1	C	945	LYS
1	C	950	LEU
1	C	955	LEU
1	C	959	TYR
1	C	960	MET
1	C	961	MET
1	C	965	TYR
1	C	976	ARG
1	C	984	LEU
1	C	1025	ARG
1	C	1028	ASP
1	C	1044	ARG
1	C	1068	ARG
1	C	1128	ARG
1	C	1143	TRP
1	C	1144	GLN
1	C	1155	LEU
1	C	1172	ASP
1	C	1209	SER
1	C	1231[A]	GLN
1	C	1231[B]	GLN

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Mol	Chain	Res	Type
1	C	1421	ARG
1	C	1425	GLU
1	C	1435	TYR
1	C	1460	HIS
1	C	1462	MET
1	C	1468	LYS
1	C	1492	CYS
1	C	1511	HIS
1	C	1534	LYS
1	C	1538	THR
1	C	1560	ASN
1	C	1576	SER
1	C	1636	MET
1	C	1661	ARG
1	C	1691	GLN
1	C	1753	LYS
1	C	1810	LYS
1	C	1835	GLU
1	C	1923	GLU
1	C	1930	LYS
1	C	1931	LEU
1	C	1994	ARG
1	C	1996	ARG
1	C	2000	SER
1	C	2011	HIS
1	C	2022	PRO
1	C	2093	SER
1	C	2140	ARG
1	C	2169	GLN
1	C	2186	MET
1	C	2189	LYS
1	C	2208	MET
1	C	2256	TYR
1	C	2267	MET
1	C	2268[A]	GLN
1	C	2268[B]	GLN
1	C	2292	GLU
1	C	2310	CYS
1	C	2312	MET
1	C	2314	LEU
1	C	2316	LYS
1	C	2336	ARG

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Mol	Chain	Res	Type
1	C	2340	PHE
1	C	2344	GLU
1	C	2392	ARG
1	C	2414	ASN
1	C	2440	MET
1	C	2447	LYS
1	C	2482	ASP
1	C	2553	TYR
1	C	2569	PHE
1	C	2578	MET
1	C	2582	MET
1	C	2596	THR
1	C	2612[A]	ARG
1	C	2612[B]	ARG
1	C	2624	ARG
1	C	2628	PHE
1	C	2639	MET
1	C	2661	TRP
1	C	2663	ASN
1	C	2676	ARG
1	C	2700	MET
1	C	2719	TYR
1	C	2722	LYS
1	C	2725	LYS
1	C	2738	ARG
1	C	2744	ASN
1	C	2754	PHE
1	C	2765	LYS
1	C	2776	SER
1	C	2779	GLU
1	C	2782	ASP
1	C	2784	GLU
1	C	2790	MET
1	C	2794	TYR
1	C	2797	PHE
1	C	2805	TYR
1	C	2806	ARG
1	C	2825	LYS
1	C	2827	ARG
1	C	2890	LYS
1	C	2891	LYS
1	C	2897	LYS

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Mol	Chain	Res	Type
1	C	2905	LEU
1	C	2914	LYS
1	C	2931	GLN
1	C	2939	ARG
1	C	2985	ARG
1	C	3016	TYR
1	C	3023	LYS
1	C	3060	ASP
1	C	3081	MET
1	C	3123	LYS
1	C	3128	ASN
1	C	3131	TYR
1	C	3137	LEU
1	C	3160	ASP
1	C	3162	GLN
1	C	3166	TYR
1	C	3182	TYR
1	C	3185	LYS
1	C	3192	GLU
1	C	3201	MET
1	C	3213	TYR
1	C	3222	LYS
1	C	3225	ARG
1	C	3263	TYR
1	C	3266	MET
1	C	3276	MET
1	C	3283	ARG
1	C	3331	GLU
1	C	3384	LYS
1	C	3394	VAL
1	C	3419	ASN
1	C	3426	GLU
1	C	3449	HIS
1	C	3451	PHE
1	C	3452	LYS
1	C	3498	ARG
1	C	3499	ARG
1	C	3501	ASP
1	C	3502	ARG
1	C	3511	VAL
1	C	3515	LYS
1	C	3535	LEU

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Mol	Chain	Res	Type
1	C	3544	ASP
1	C	3582	ARG
1	C	3585	ASP
1	C	3587	ASP
1	C	3607	GLU
1	C	3622	LYS
1	C	3623	LEU
1	C	3628	ARG
1	C	3629	ARG
1	C	3637	ARG
1	C	3638	MET
1	C	3652	MET
1	C	3658	LYS
1	C	3715	LYS
1	C	3720	TYR
1	C	3734	HIS
1	C	3757	GLU
1	C	3766	GLN
1	C	3793	MET
1	C	3825	GLU
1	C	3849	ARG
1	C	3868	ARG
1	C	3874	VAL
1	C	3899	PHE
1	C	3931	SER
1	C	3933	PHE
1	C	3940	LYS
1	C	3944	GLU
1	C	3945	GLU
1	C	3970	GLN
1	C	3987	ASP
1	C	3999	MET
1	C	4039	MET
1	C	4070	ASP
1	C	4103	PHE
1	C	4125	PHE
1	C	4131	ARG
1	C	4153	HIS
1	C	4188	ARG
1	C	4540	PHE
1	C	4541	TRP
1	C	4580	TYR

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Mol	Chain	Res	Type
1	C	4583	SER
1	C	4584	ASP
1	C	4585	SER
1	C	4665	LYS
1	C	4676	GLU
1	C	4694	ASP
1	C	4711	PHE
1	C	4718	LYS
1	C	4732	PHE
1	C	4735	GLU
1	C	4743	MET
1	C	4753	HIS
1	C	4756	ARG
1	C	4769	MET
1	C	4816	ILE
1	C	4871	GLU
1	C	4876	CYS
1	C	4880	MET
1	C	4951	LYS
1	C	4985	LEU
1	C	5013	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (35) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	138	GLN
1	A	2092	GLN
1	A	2260	ASN
1	A	2284	ASN
1	A	2342	ASN
1	A	3180	ASN
1	A	3325	ASN
1	A	4009	GLN
1	B	138	GLN
1	B	2092	GLN
1	B	2260	ASN
1	B	2284	ASN
1	B	2324	ASN
1	B	2342	ASN
1	B	3180	ASN
1	B	4009	GLN
1	D	138	GLN

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Mol	Chain	Res	Type
1	D	1035	ASN
1	D	2092	GLN
1	D	2260	ASN
1	D	2284	ASN
1	D	2342	ASN
1	D	3180	ASN
1	D	4009	GLN
1	C	138	GLN
1	C	1035	ASN
1	C	2092	GLN
1	C	2260	ASN
1	C	2284	ASN
1	C	2324	ASN
1	C	2342	ASN
1	C	3180	ASN
1	C	3325	ASN
1	C	3781	GLN
1	C	4009	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

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

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the

expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
6	A1BD5	C	5304	-	16,16,16	0.94	1 (6%)	21,23,23	0.76	0
3	ATP	D	5301	-	28,33,33	0.63	0	34,52,52	0.81	2 (5%)
6	A1BD5	A	5304	-	16,16,16	0.96	1 (6%)	21,23,23	0.77	0
3	ATP	A	5301	-	28,33,33	0.63	0	34,52,52	0.81	2 (5%)
6	A1BD5	D	5304	-	16,16,16	0.93	1 (6%)	21,23,23	0.76	0
3	ATP	C	5301	-	28,33,33	0.63	0	34,52,52	0.81	2 (5%)
3	ATP	B	5301	-	28,33,33	0.63	0	34,52,52	0.82	2 (5%)
6	A1BD5	B	5304	-	16,16,16	0.94	1 (6%)	21,23,23	0.77	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
6	A1BD5	C	5304	-	-	4/4/4/4	0/2/2/2
3	ATP	D	5301	-	-	2/18/38/38	0/3/3/3
6	A1BD5	A	5304	-	-	4/4/4/4	0/2/2/2
3	ATP	A	5301	-	-	2/18/38/38	0/3/3/3
6	A1BD5	D	5304	-	-	4/4/4/4	0/2/2/2
3	ATP	C	5301	-	-	2/18/38/38	0/3/3/3
3	ATP	B	5301	-	-	2/18/38/38	0/3/3/3
6	A1BD5	B	5304	-	-	4/4/4/4	0/2/2/2

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	5304	A1BD5	C1-C2	-2.21	1.36	1.39
6	B	5304	A1BD5	C1-C2	-2.18	1.36	1.39
6	D	5304	A1BD5	C1-C2	-2.14	1.36	1.39
6	C	5304	A1BD5	C1-C2	-2.14	1.36	1.39

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	B	5301	ATP	C4'-O4'-C1'	-3.22	106.97	109.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A	5301	ATP	C4'-O4'-C1'	-3.18	107.02	109.92
3	C	5301	ATP	C4'-O4'-C1'	-3.15	107.04	109.92
3	D	5301	ATP	C4'-O4'-C1'	-3.13	107.05	109.92
3	C	5301	ATP	C5-C6-N6	2.34	123.87	120.31
3	B	5301	ATP	C5-C6-N6	2.33	123.87	120.31
3	D	5301	ATP	C5-C6-N6	2.33	123.86	120.31
3	A	5301	ATP	C5-C6-N6	2.33	123.86	120.31

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	A	5304	A1BD5	C3-C2-C8-O3
6	A	5304	A1BD5	C3-C2-C8-O4
6	B	5304	A1BD5	C3-C2-C8-O3
6	B	5304	A1BD5	C3-C2-C8-O4
6	D	5304	A1BD5	C3-C2-C8-O3
6	D	5304	A1BD5	C3-C2-C8-O4
6	C	5304	A1BD5	C3-C2-C8-O3
6	C	5304	A1BD5	C3-C2-C8-O4
6	A	5304	A1BD5	C1-C2-C8-O3
6	B	5304	A1BD5	C1-C2-C8-O3
6	D	5304	A1BD5	C1-C2-C8-O3
6	C	5304	A1BD5	C1-C2-C8-O3
6	A	5304	A1BD5	C1-C2-C8-O4
6	B	5304	A1BD5	C1-C2-C8-O4
6	D	5304	A1BD5	C1-C2-C8-O4
6	C	5304	A1BD5	C1-C2-C8-O4
3	A	5301	ATP	O4'-C4'-C5'-O5'
3	B	5301	ATP	O4'-C4'-C5'-O5'
3	D	5301	ATP	O4'-C4'-C5'-O5'
3	C	5301	ATP	O4'-C4'-C5'-O5'
3	A	5301	ATP	C3'-C4'-C5'-O5'
3	B	5301	ATP	C3'-C4'-C5'-O5'
3	D	5301	ATP	C3'-C4'-C5'-O5'
3	C	5301	ATP	C3'-C4'-C5'-O5'

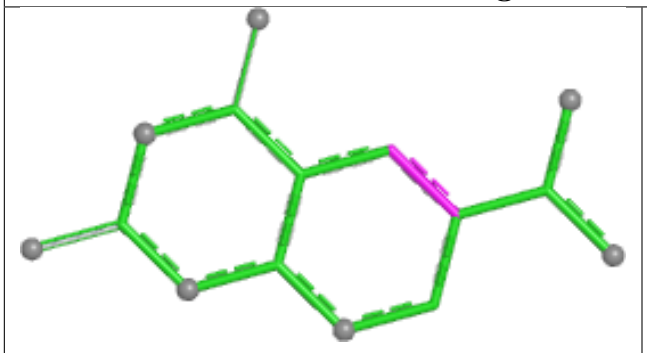
There are no ring outliers.

3 monomers are involved in 3 short contacts:

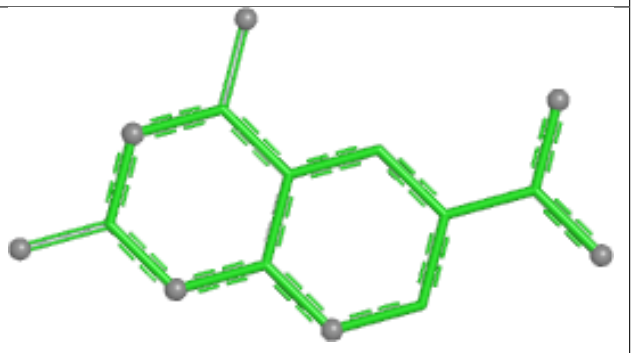
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	5301	ATP	1	0
3	C	5301	ATP	1	0
3	B	5301	ATP	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

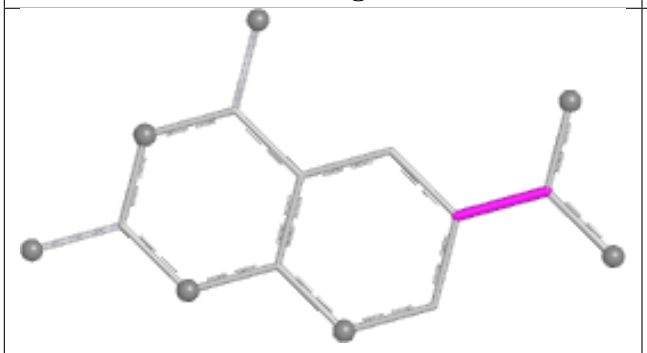
Ligand A1BD5 C 5304



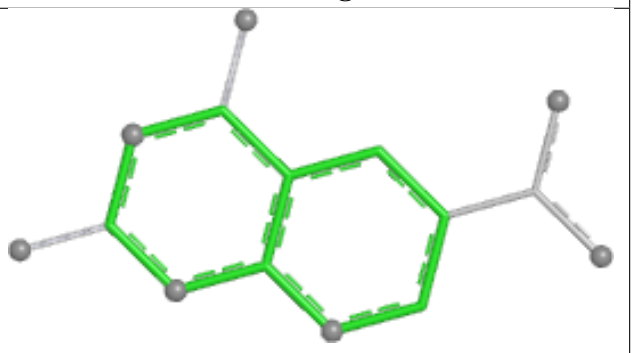
Bond lengths



Bond angles

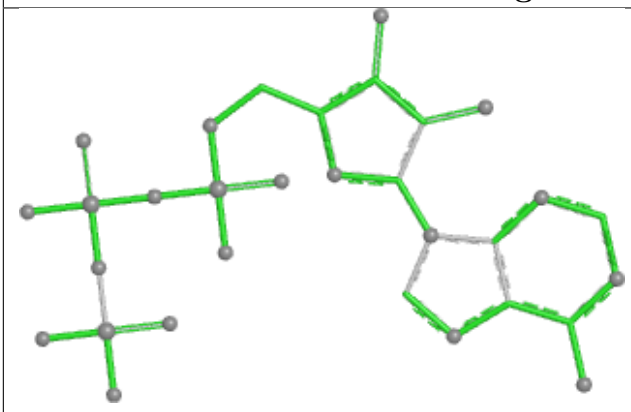


Torsions

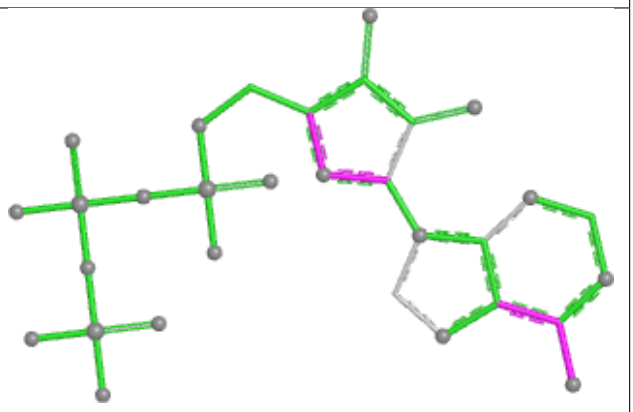


Rings

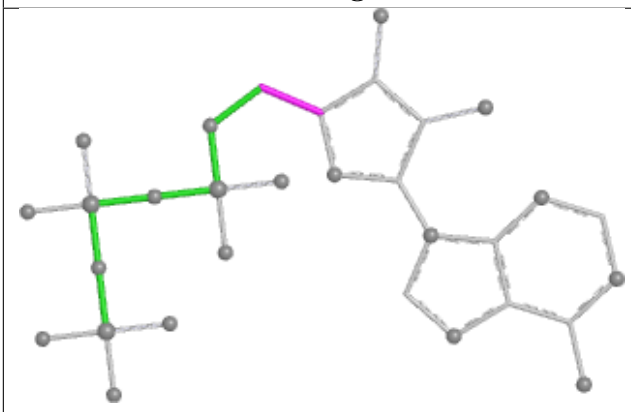
Ligand ATP D 5301



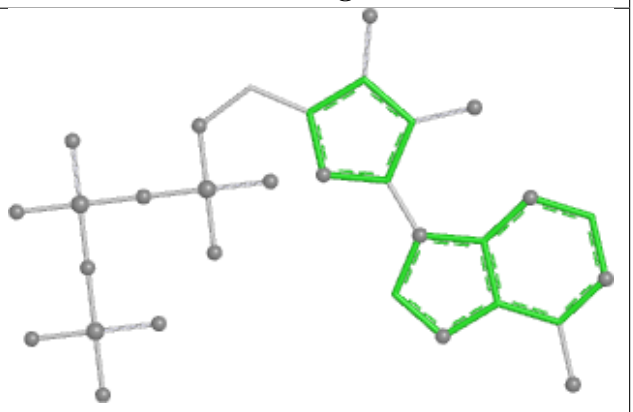
Bond lengths



Bond angles

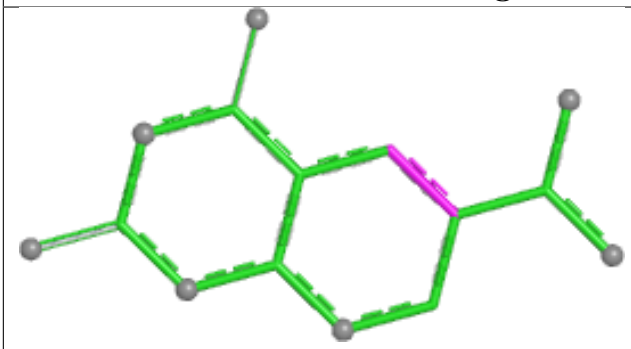


Torsions

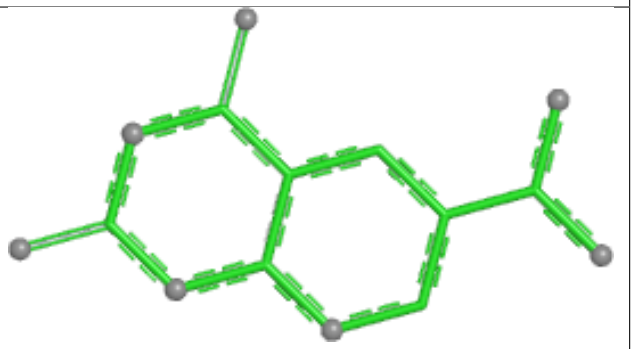


Rings

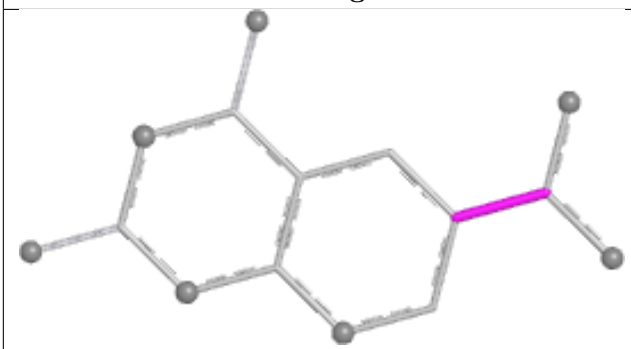
Ligand A1BD5 A 5304



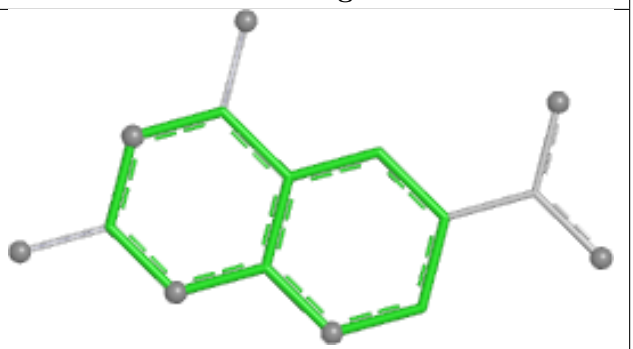
Bond lengths



Bond angles

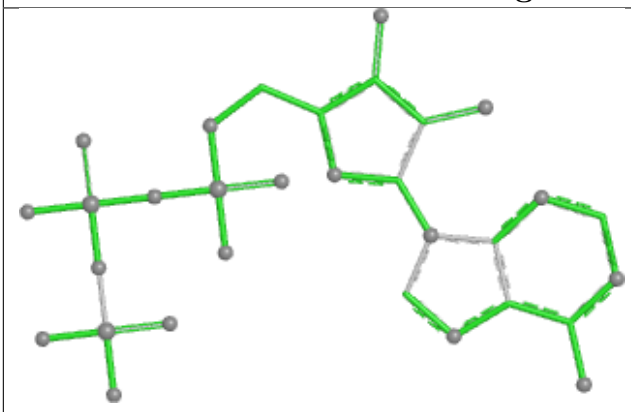


Torsions

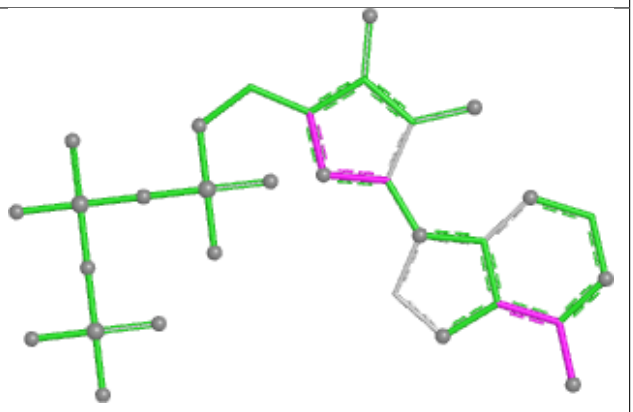


Rings

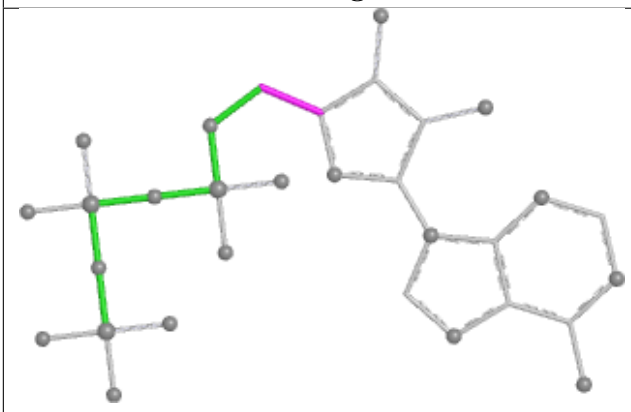
Ligand ATP A 5301



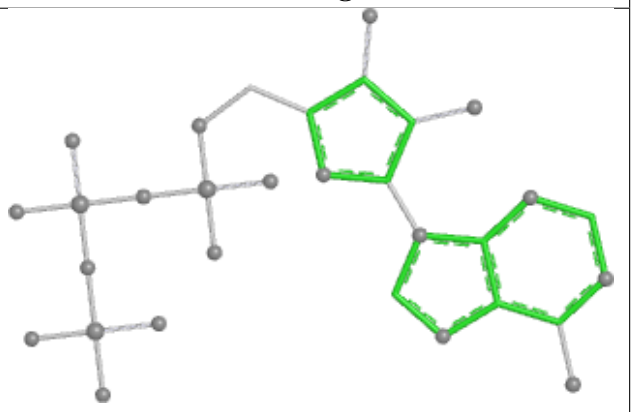
Bond lengths



Bond angles

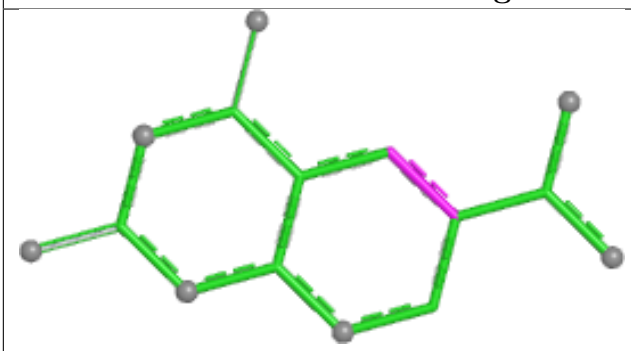


Torsions

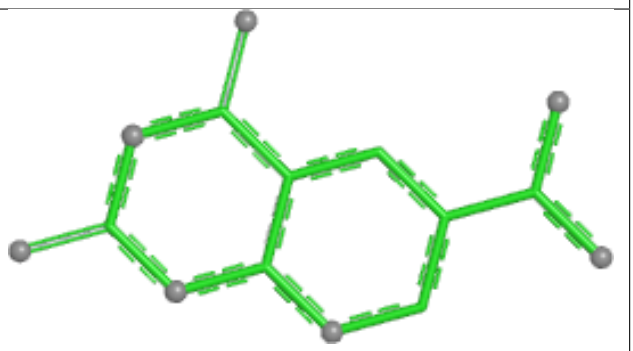


Rings

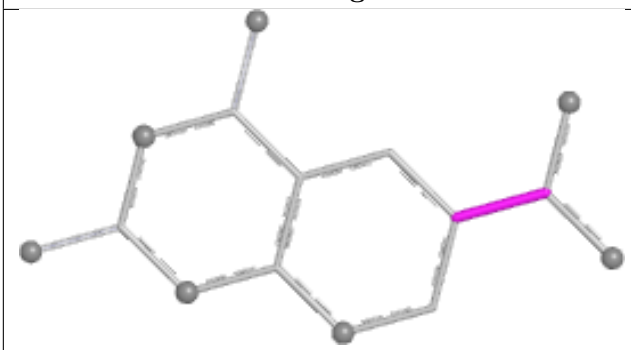
Ligand A1BD5 D 5304



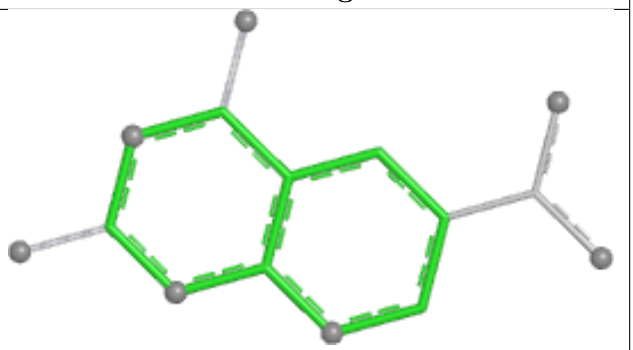
Bond lengths



Bond angles

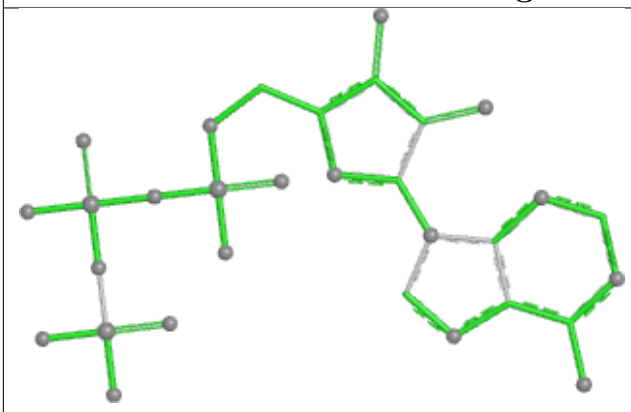


Torsions

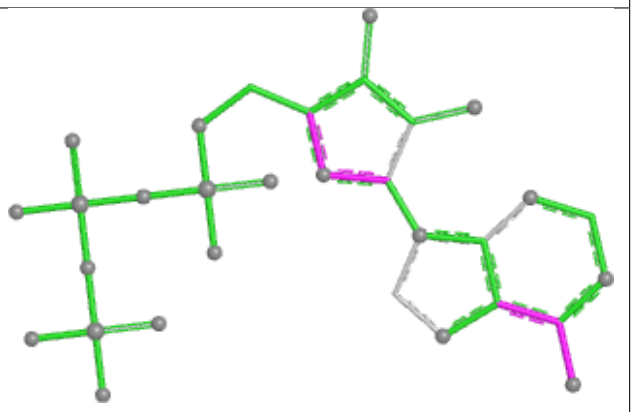


Rings

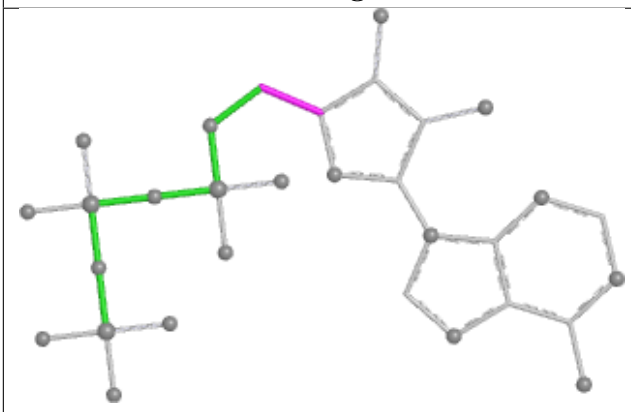
Ligand ATP C 5301



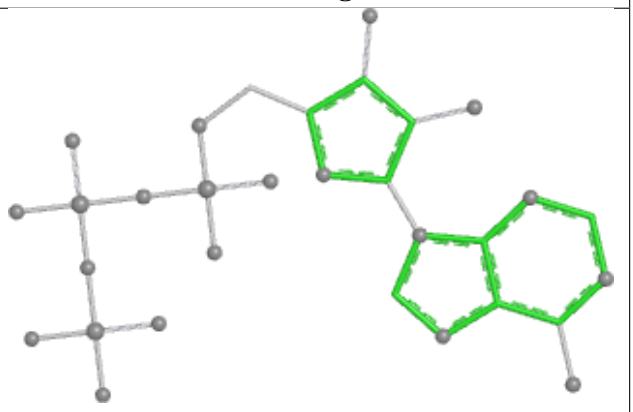
Bond lengths



Bond angles

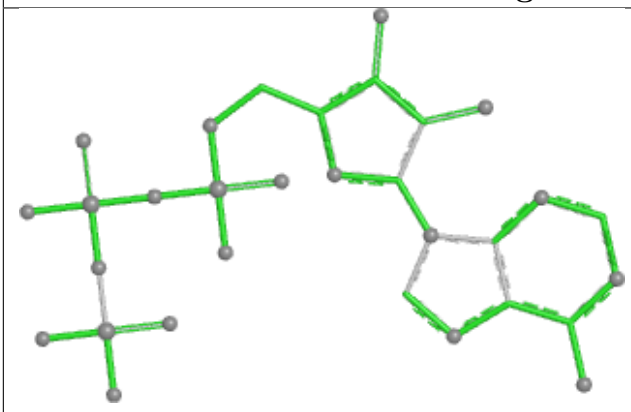


Torsions

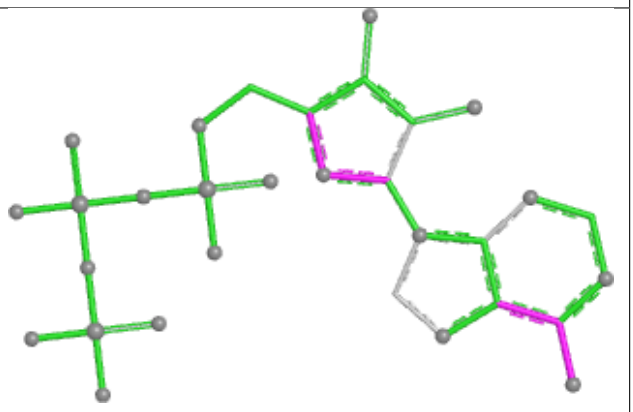


Rings

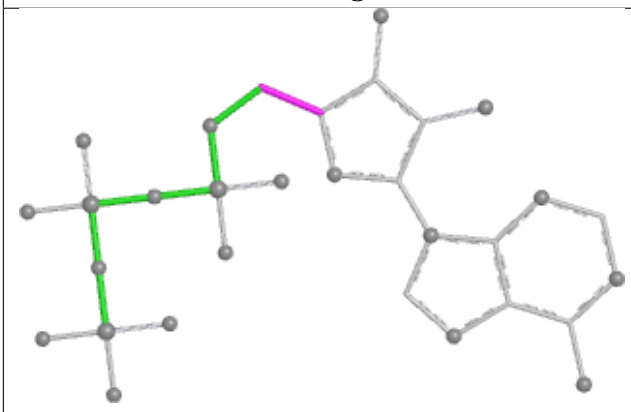
Ligand ATP B 5301



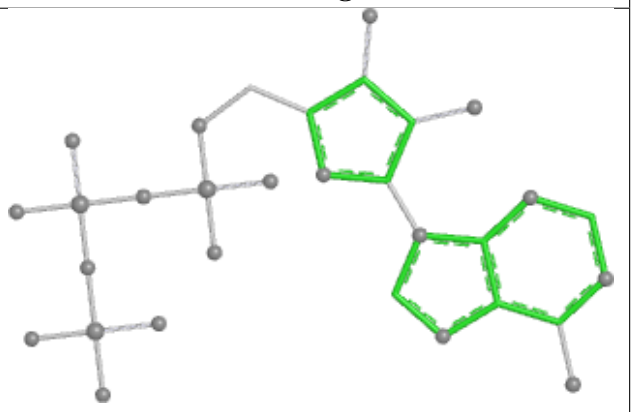
Bond lengths



Bond angles

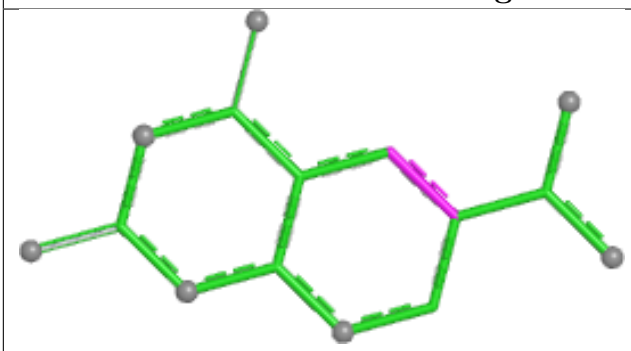


Torsions

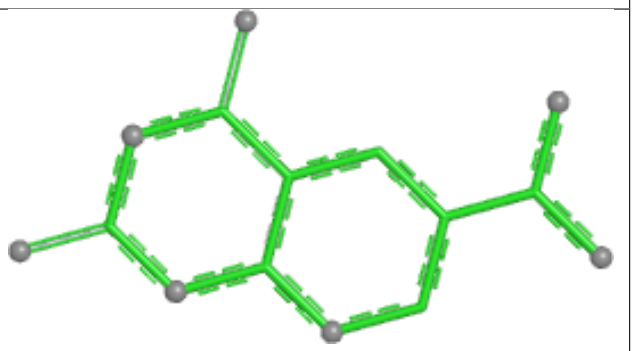


Rings

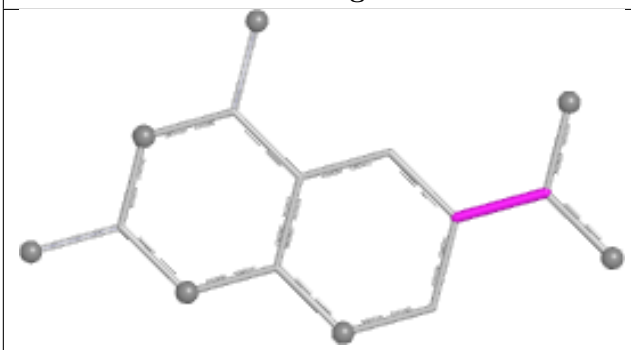
Ligand A1BD5 B 5304



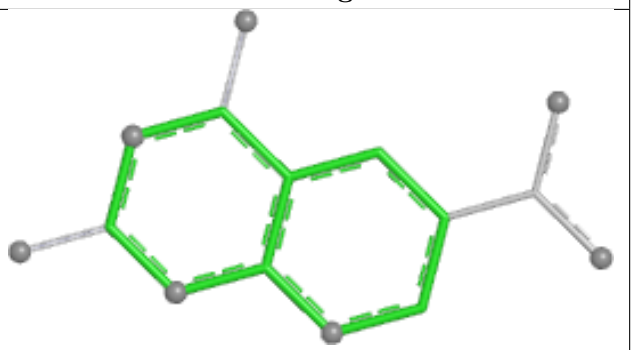
Bond lengths



Bond angles



Torsions



Rings

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.

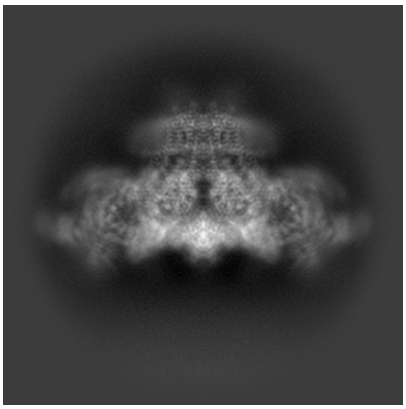
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-47395. These allow visual inspection of the internal detail of the map and identification of artifacts.

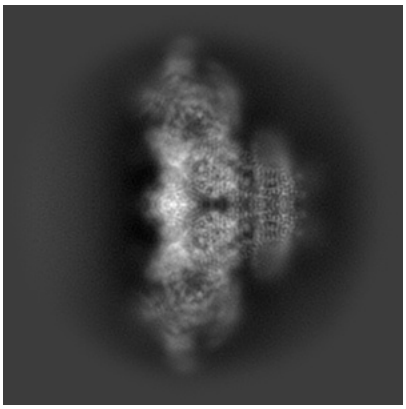
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

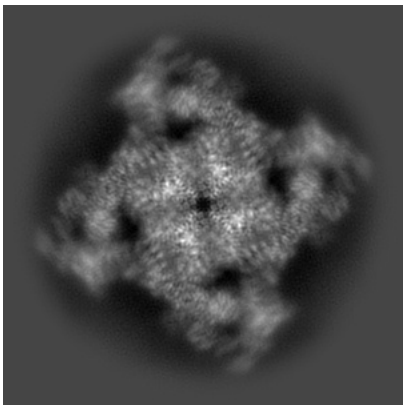
6.1.1 Primary map



X

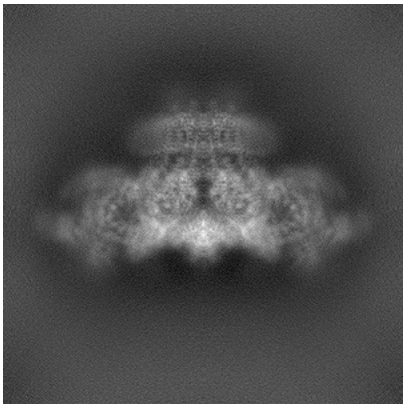


Y

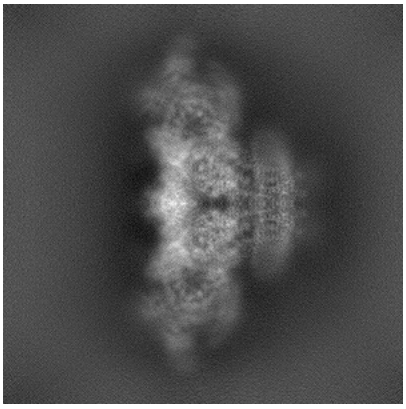


Z

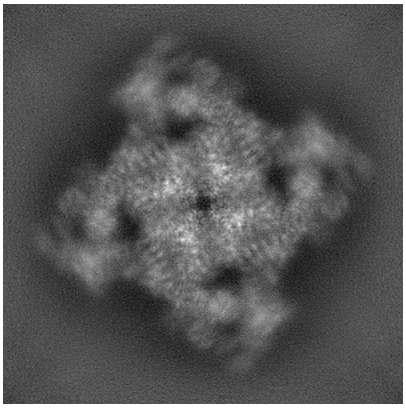
6.1.2 Raw map



X



Y

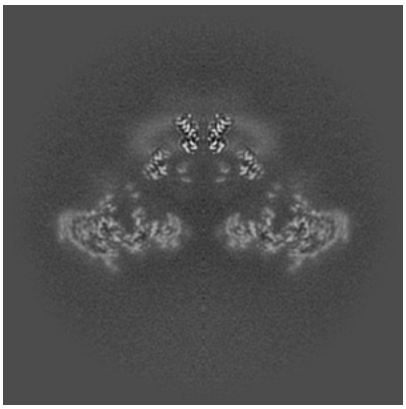


Z

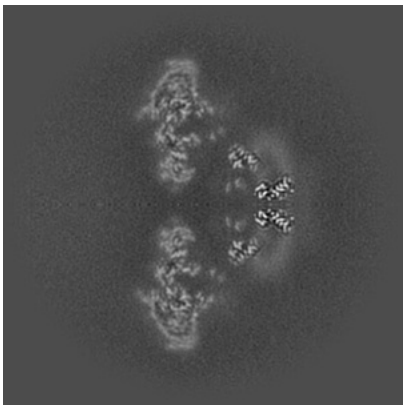
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

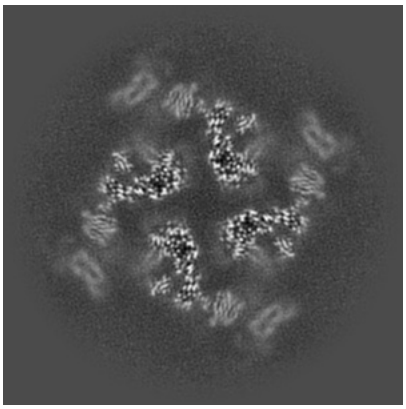
6.2.1 Primary map



X Index: 256

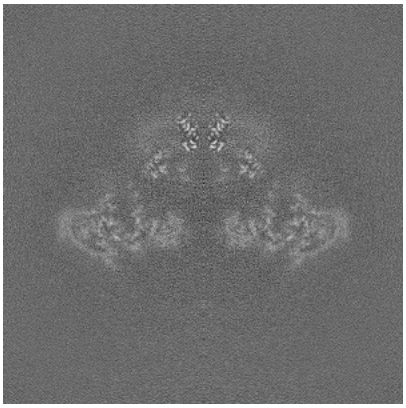


Y Index: 256

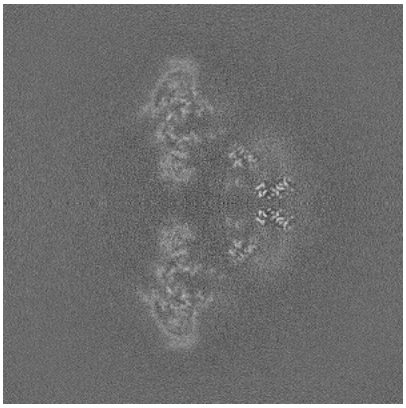


Z Index: 256

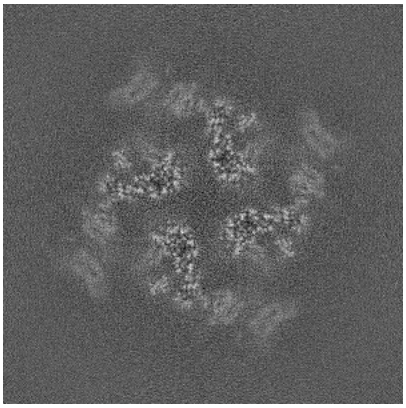
6.2.2 Raw map



X Index: 256



Y Index: 256

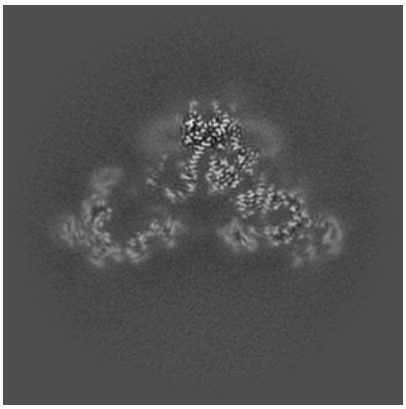


Z Index: 256

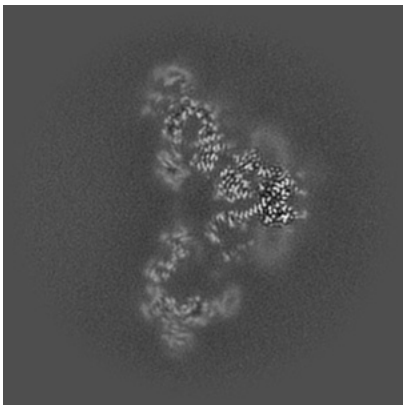
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

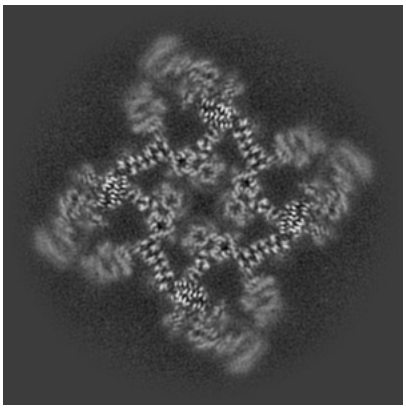
6.3.1 Primary map



X Index: 270

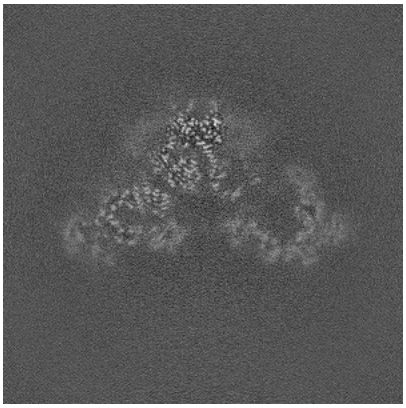


Y Index: 242

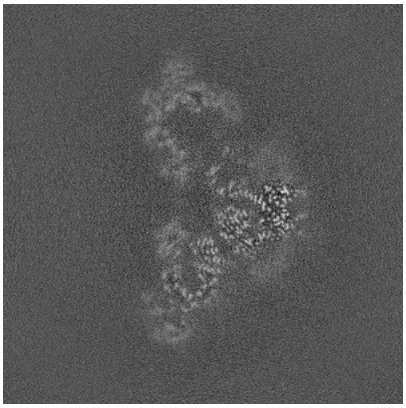


Z Index: 227

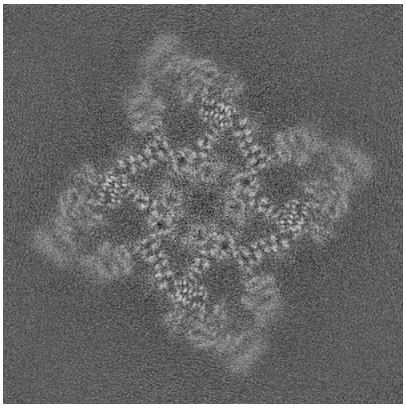
6.3.2 Raw map



X Index: 242



Y Index: 270

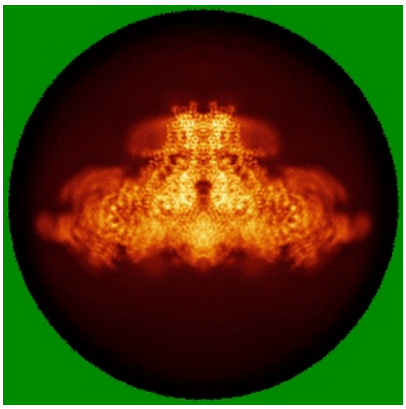


Z Index: 227

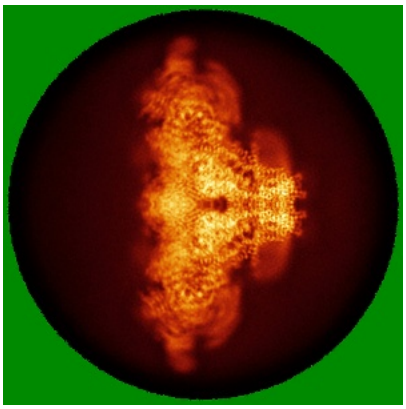
The images above show the largest variance slices of the map in three orthogonal directions.

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

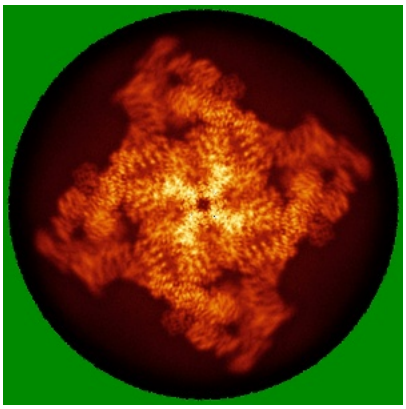
6.4.1 Primary map



X

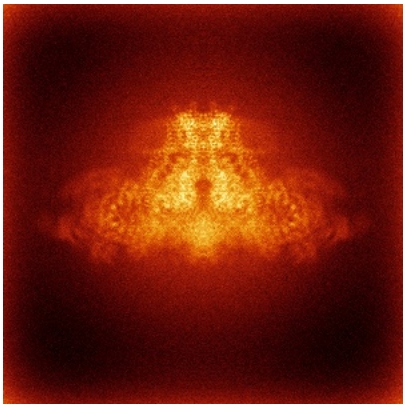


Y

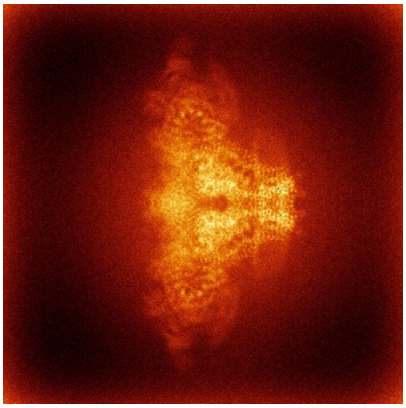


Z

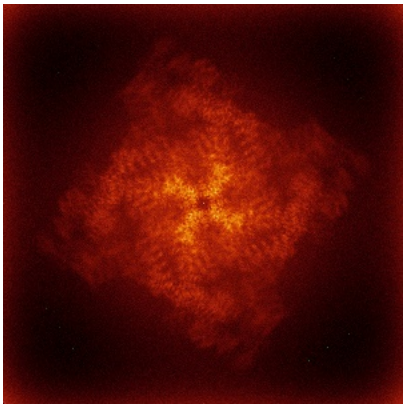
6.4.2 Raw map



X



Y

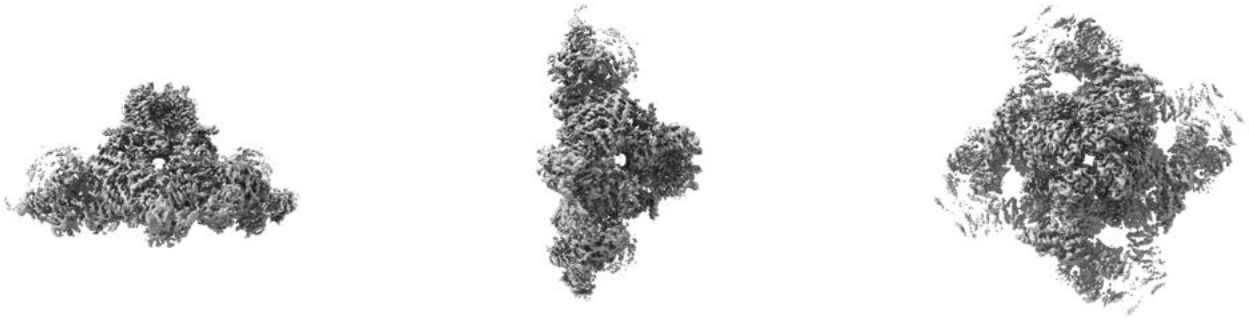


Z

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)

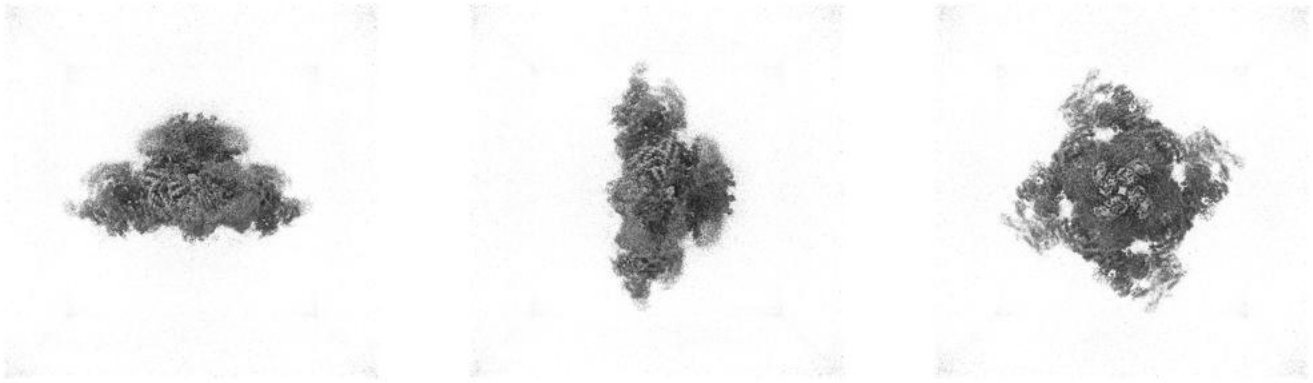
6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X Y Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

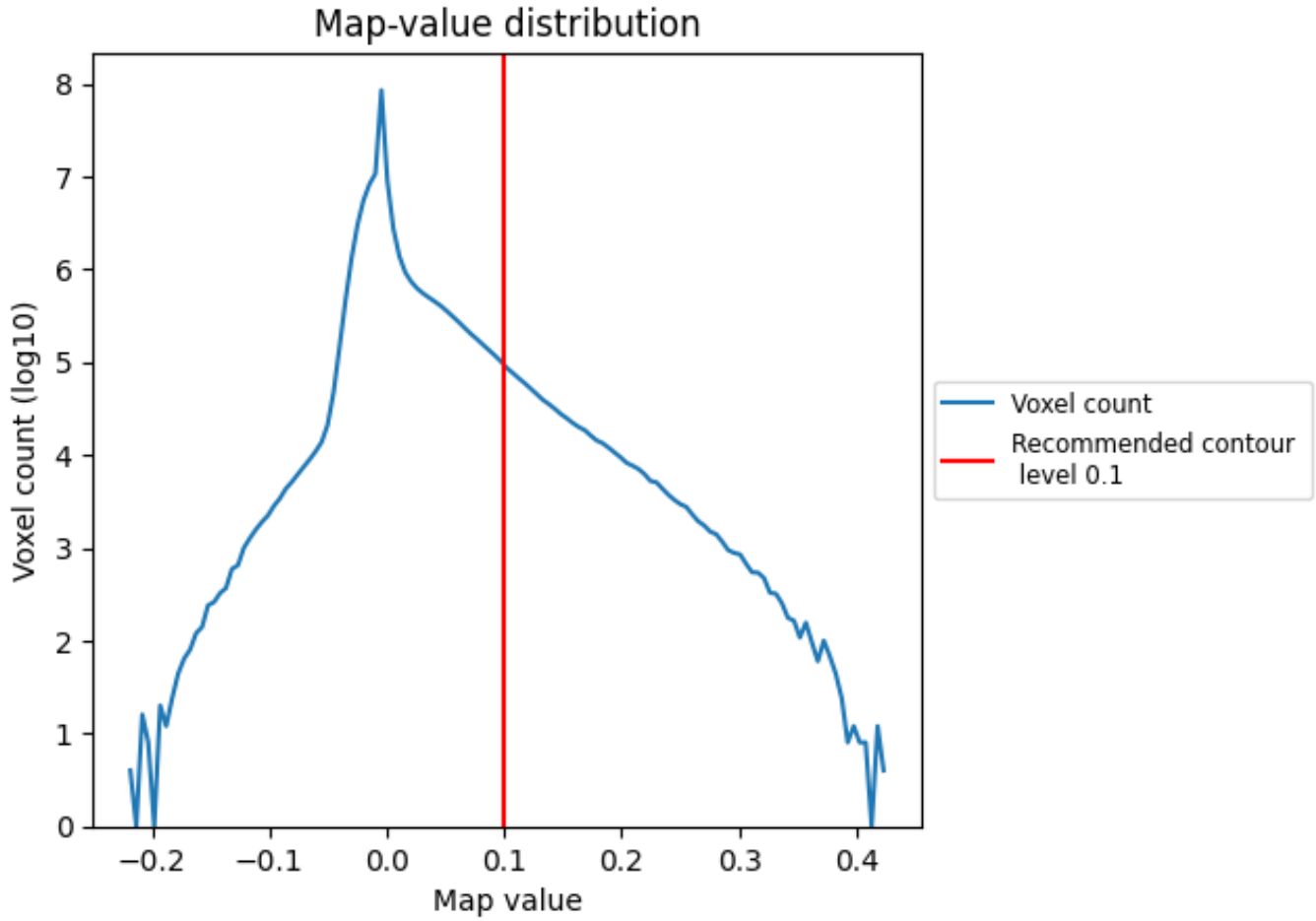
6.6 Mask visualisation (i)

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

7 Map analysis

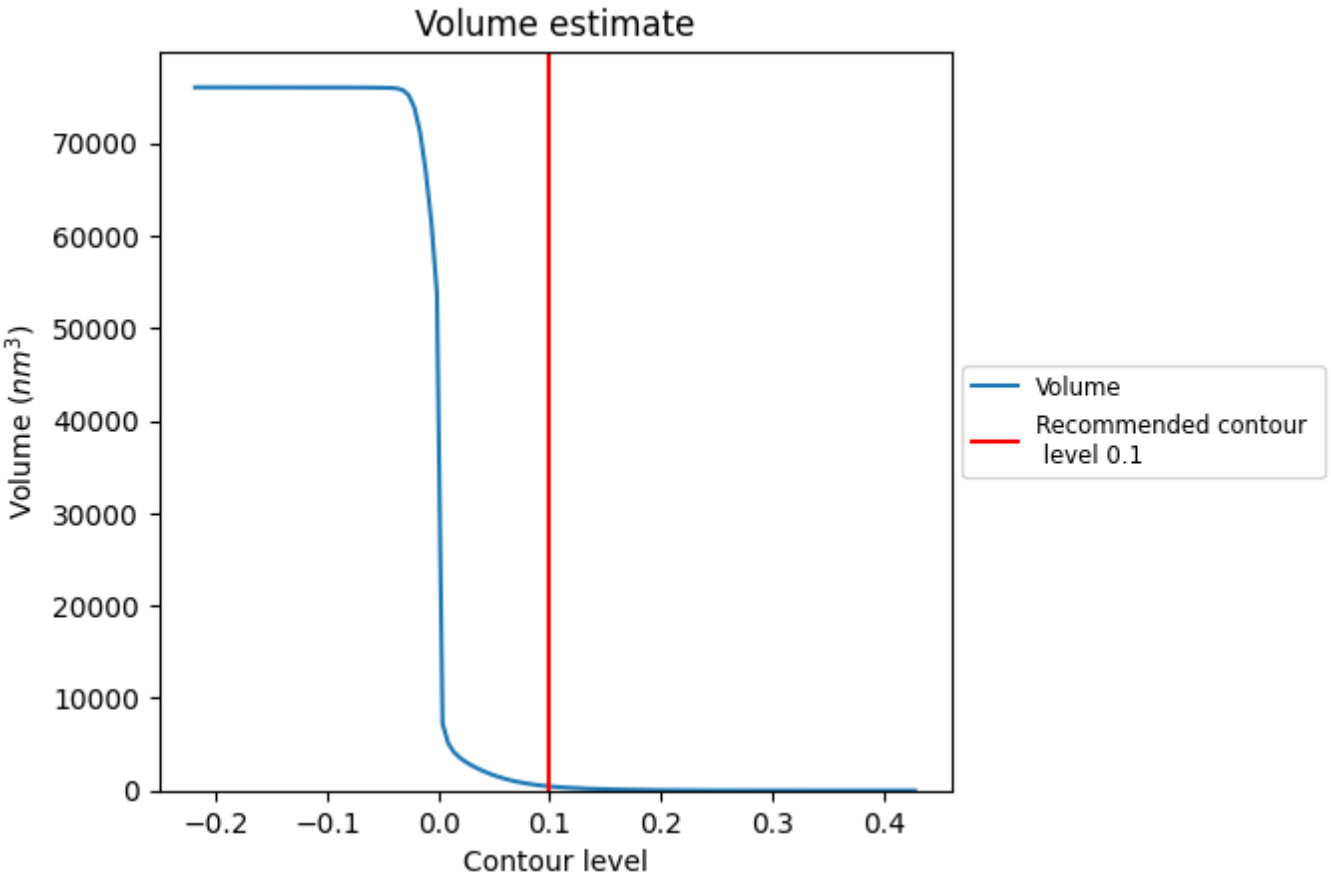
This section contains the results of statistical analysis of the map.

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.

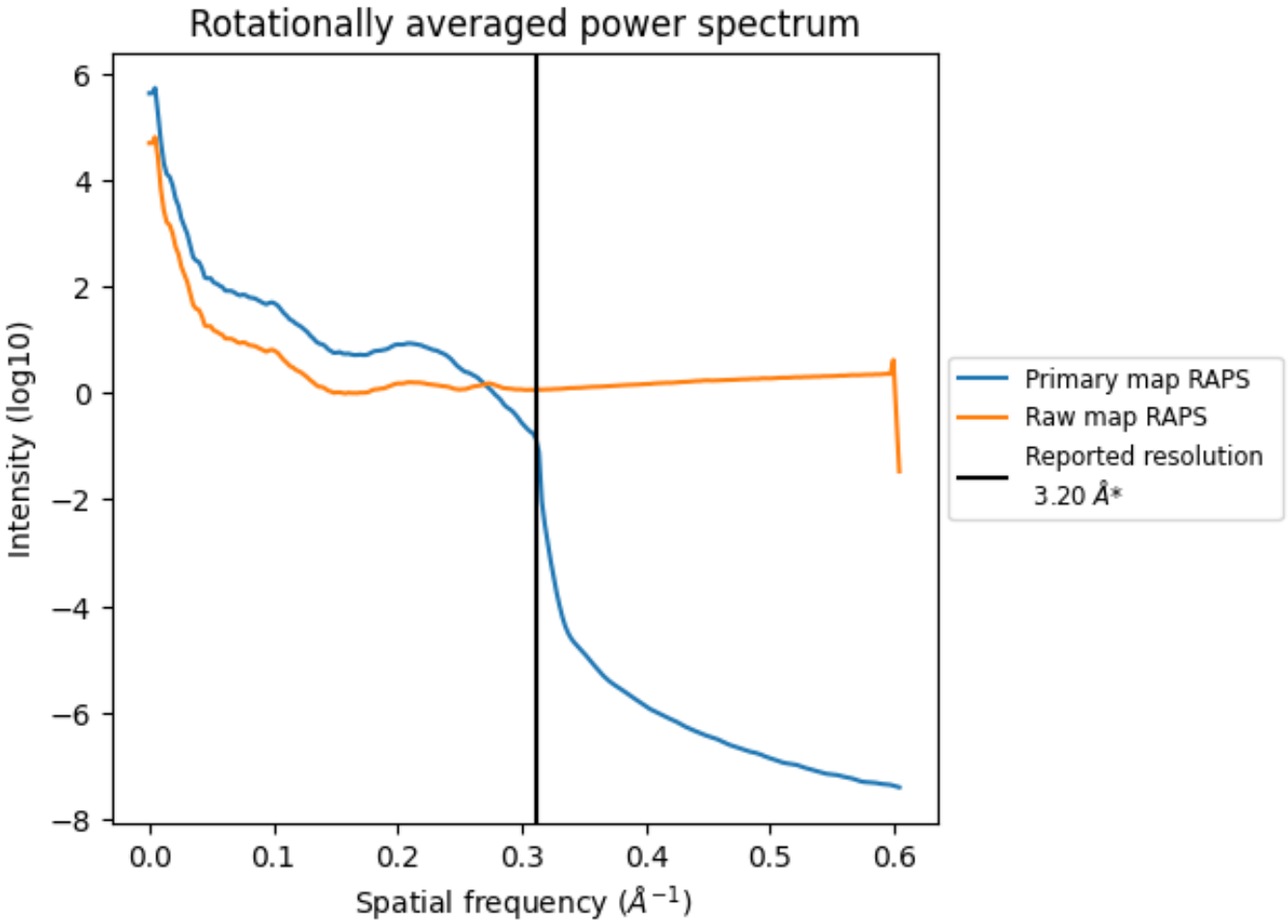
7.2 Volume estimate



The volume at the recommended contour level is 452 nm^3; this corresponds to an approximate mass of 409 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)

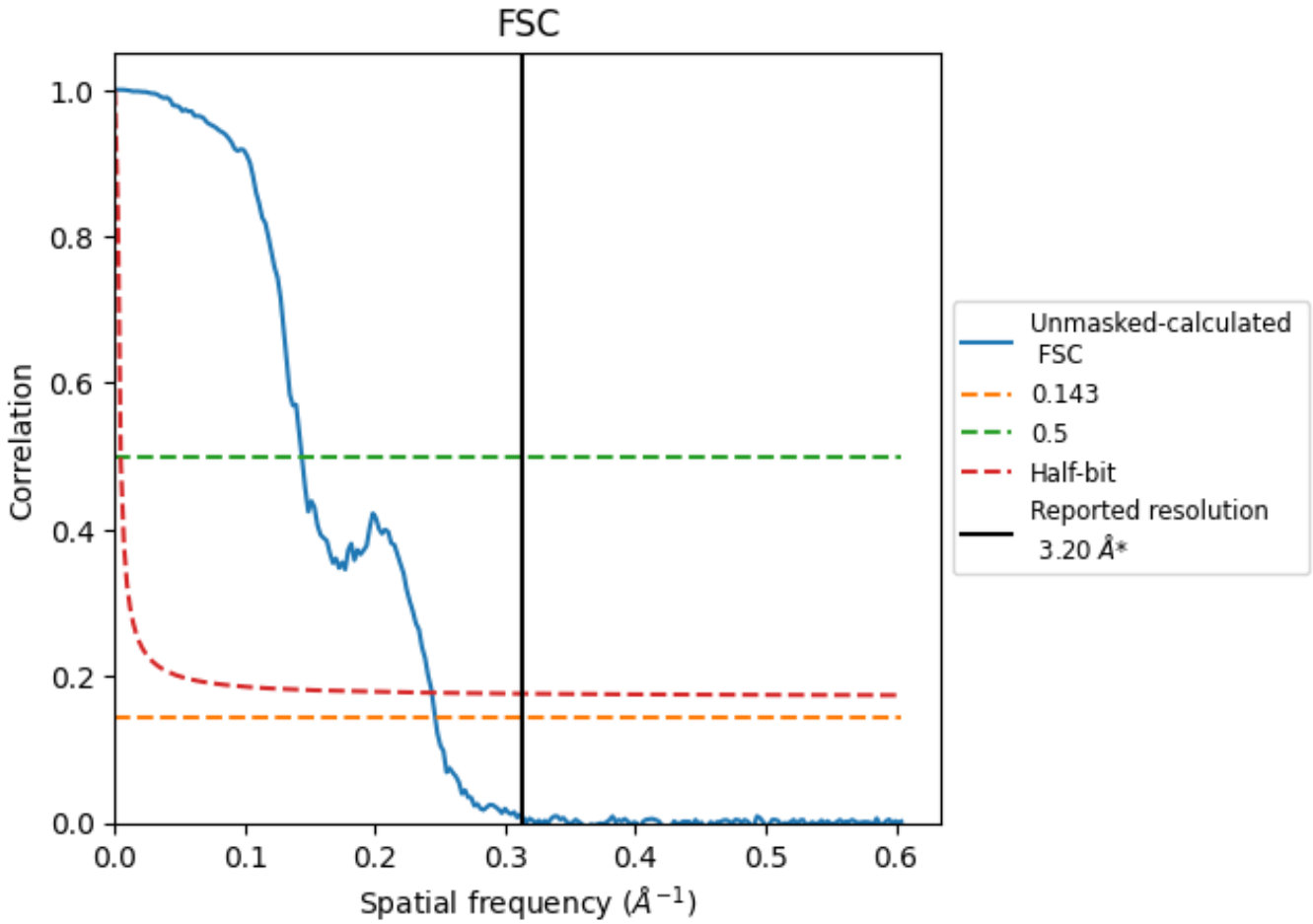


*Reported resolution corresponds to spatial frequency of 0.312 Å^{-1}

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.312 Å^{-1}

8.2 Resolution estimates (i)

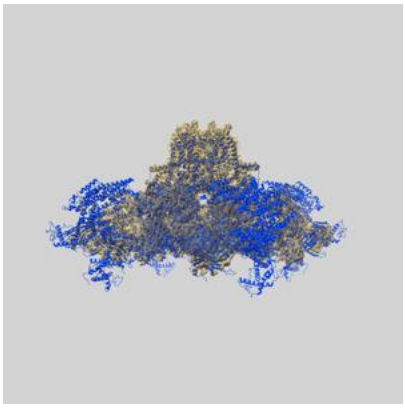
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.20	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.06	6.96	4.11

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.06 differs from the reported value 3.2 by more than 10 %

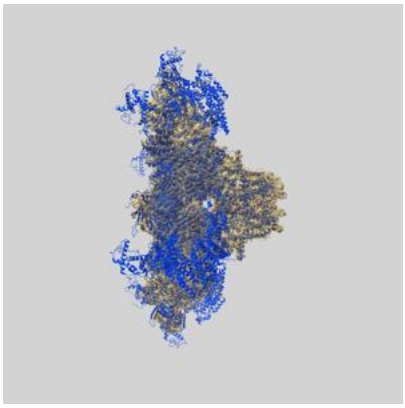
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-47395 and PDB model 9E1I. Per-residue inclusion information can be found in section 3 on page 7.

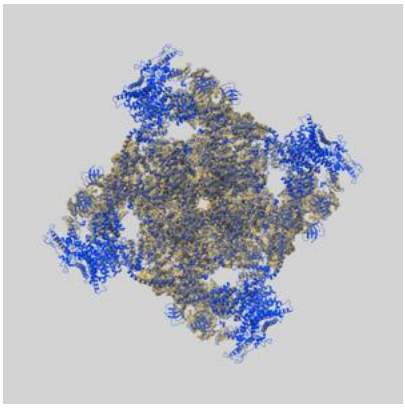
9.1 Map-model overlay



X



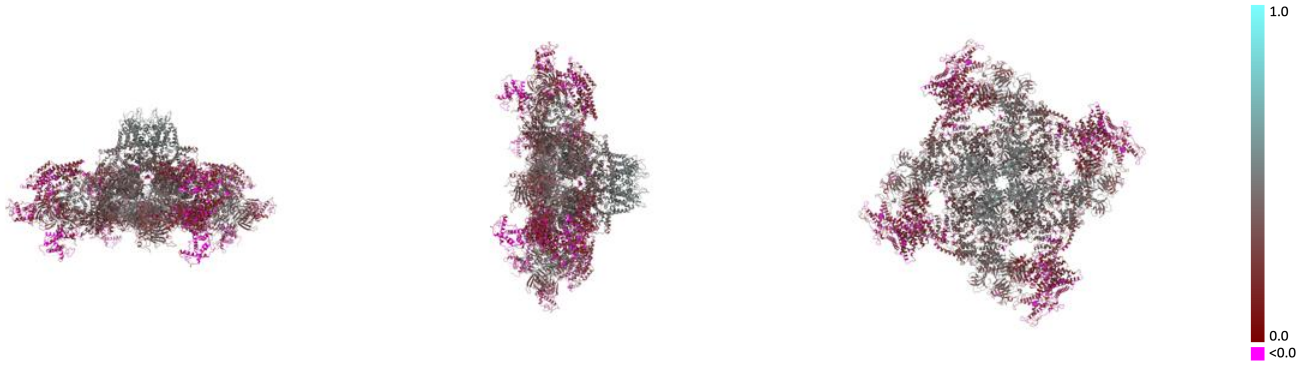
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.1 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.

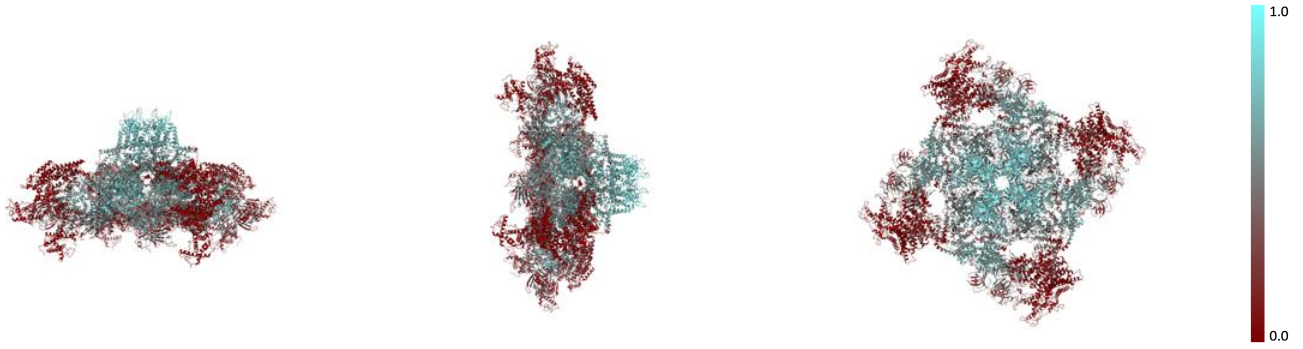
9.2 Q-score mapped to coordinate model



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.

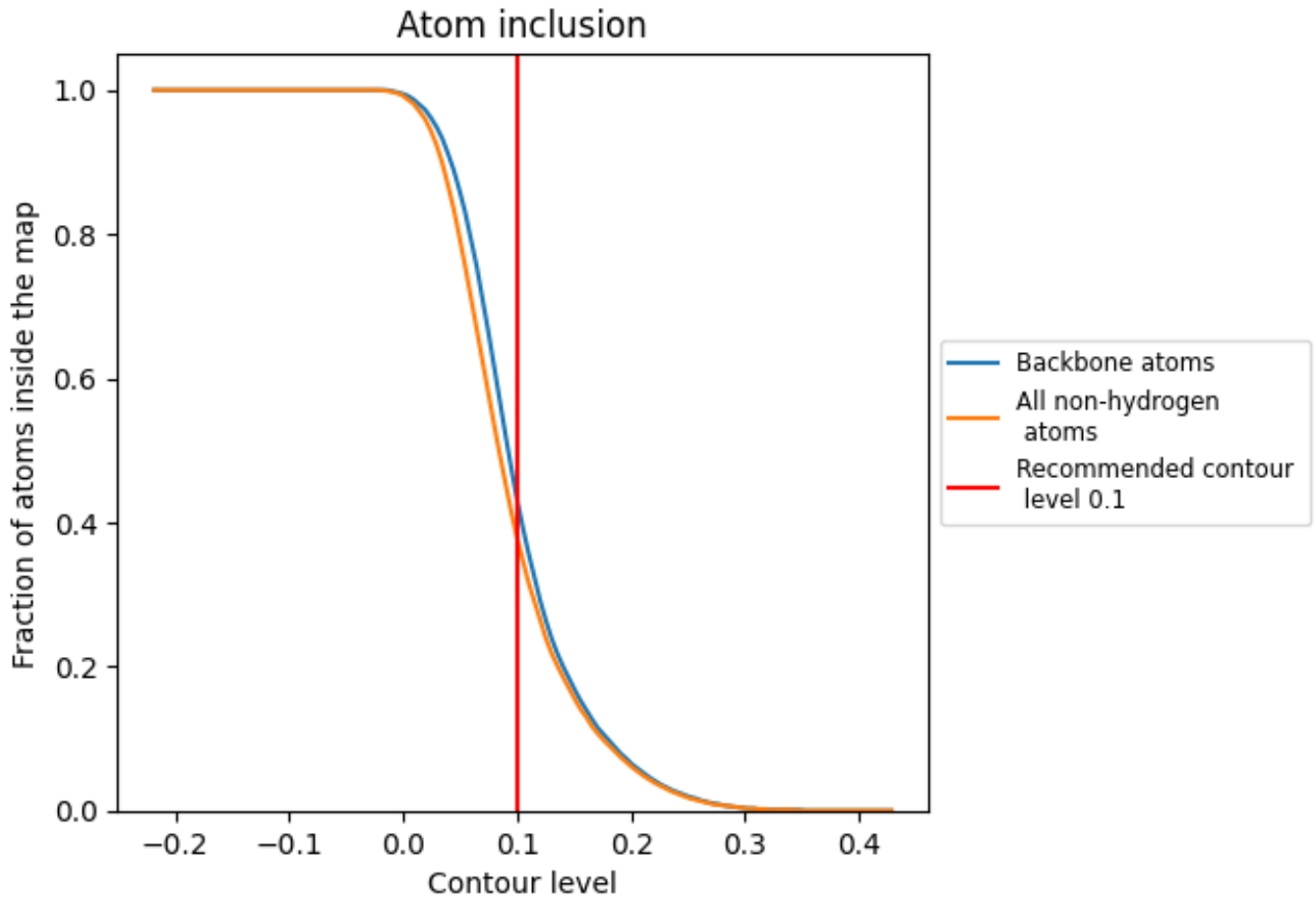
9.3 Atom inclusion mapped to coordinate model



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 (0.1).

9.4 Atom inclusion (i)



At the recommended contour level, 43% of all backbone atoms, 38% 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 (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.3780	0.3000
A	0.3910	0.2990
B	0.3900	0.2980
C	0.3890	0.2970
D	0.3890	0.2980
E	0.2210	0.3870
F	0.2250	0.3860
G	0.2250	0.3850
H	0.2250	0.3880