Full wwPDB EM Validation Report ⓘ

Oct 7, 2024 – 12:26 PM EDT

PDB ID	:	9C1F
EMDB ID	:	EMD-45117
Title	:	Mink RyR3 in open conformation bound to Ca2+/ATP/caffeine
Authors	:	Chen, Y.S.; Van Petegem, F.
Deposited on	:	2024-05-29
Resolution	:	3.22 Å(reported)
Based on initial model	:	9C1E

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:

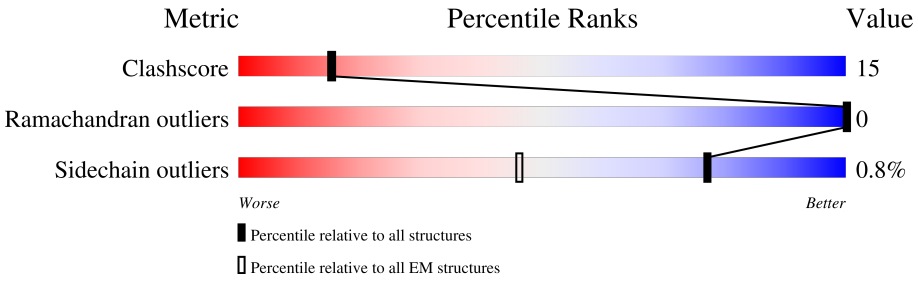
EMDB validation analysis	:	0.0.1.dev113
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA,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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.22 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	110	8% 72% 25%
1	C	110	8% 72% 25%
1	E	110	8% 73% 25%
1	G	110	8% 70% 27%
2	B	4859	8% 58% 25% 16%
2	D	4859	8% 58% 25% 16%
2	F	4859	8% 58% 25% 16%
2	H	4859	8% 58% 25% 16%

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 130508 atoms, of which 136 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 Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	108	Total	C	N	O	S	0	0
			815	515	145	151	4		
1	C	108	Total	C	N	O	S	0	0
			815	515	145	151	4		
1	E	108	Total	C	N	O	S	0	0
			815	515	145	151	4		
1	G	108	Total	C	N	O	S	0	0
			815	515	145	151	4		

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-1	SER	-	expression tag	UNP P68106
A	0	ASN	-	expression tag	UNP P68106
A	1	ALA	-	expression tag	UNP P68106
C	-1	SER	-	expression tag	UNP P68106
C	0	ASN	-	expression tag	UNP P68106
C	1	ALA	-	expression tag	UNP P68106
E	-1	SER	-	expression tag	UNP P68106
E	0	ASN	-	expression tag	UNP P68106
E	1	ALA	-	expression tag	UNP P68106
G	-1	SER	-	expression tag	UNP P68106
G	0	ASN	-	expression tag	UNP P68106
G	1	ALA	-	expression tag	UNP P68106

- Molecule 2 is a protein called Ryanodine receptor 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	4076	Total	C	N	O	S	0	0
			31699	20288	5416	5789	206		
2	D	4076	Total	C	N	O	S	0	0
			31699	20288	5416	5789	206		
2	F	4076	Total	C	N	O	S	0	0
			31699	20288	5416	5789	206		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	H	4076	Total	C	N	O	S	0	0
			31699	20288	5416	5789	206		

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	733	LEU	GLN	conflict	UNP A0A8C7B9Y8
B	1078	TRP	ARG	conflict	UNP A0A8C7B9Y8
B	2075	ASP	ASN	conflict	UNP A0A8C7B9Y8
D	733	LEU	GLN	conflict	UNP A0A8C7B9Y8
D	1078	TRP	ARG	conflict	UNP A0A8C7B9Y8
D	2075	ASP	ASN	conflict	UNP A0A8C7B9Y8
F	733	LEU	GLN	conflict	UNP A0A8C7B9Y8
F	1078	TRP	ARG	conflict	UNP A0A8C7B9Y8
F	2075	ASP	ASN	conflict	UNP A0A8C7B9Y8
H	733	LEU	GLN	conflict	UNP A0A8C7B9Y8
H	1078	TRP	ARG	conflict	UNP A0A8C7B9Y8
H	2075	ASP	ASN	conflict	UNP A0A8C7B9Y8

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

Mol	Chain	Residues	Atoms		AltConf
3	B	1	Total	Zn	0
			1	1	
3	D	1	Total	Zn	0
			1	1	
3	F	1	Total	Zn	0
			1	1	
3	H	1	Total	Zn	0
			1	1	

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

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

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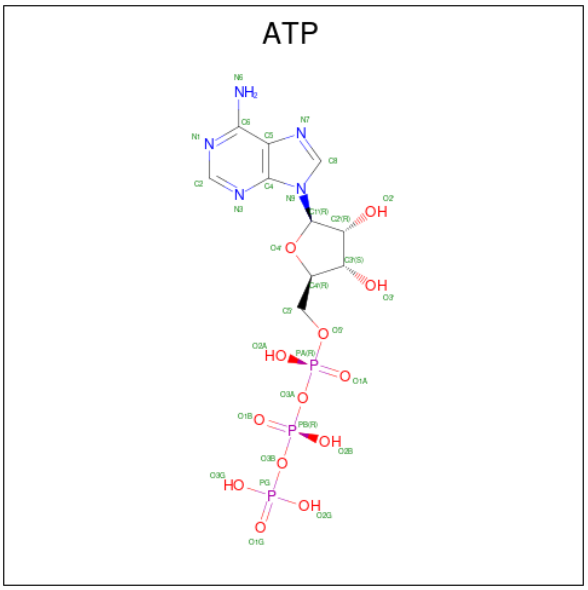
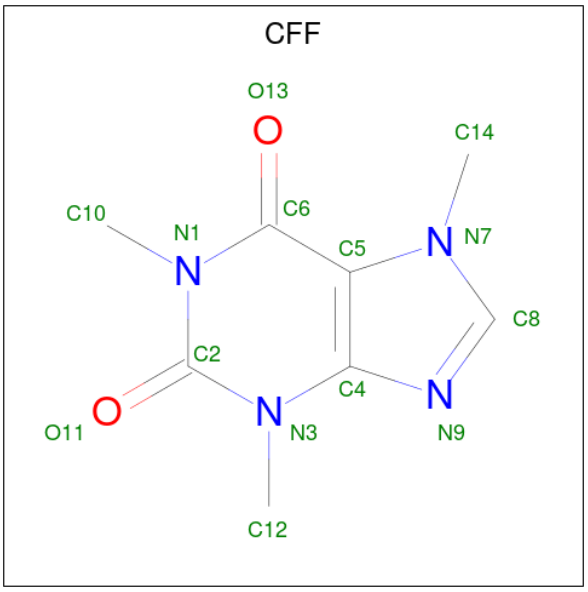
Mol	Chain	Residues	Atoms	AltConf
4	H	1	Total Ca 1 1	0

- Molecule 5 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: $C_{10}H_{16}N_5O_{13}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
5	B	1	Total C H N O P 43 10 12 5 13 3	0
5	B	1	Total C H N O P 43 10 12 5 13 3	0
5	D	1	Total C H N O P 43 10 12 5 13 3	0
5	D	1	Total C H N O P 43 10 12 5 13 3	0
5	F	1	Total C H N O P 43 10 12 5 13 3	0
5	F	1	Total C H N O P 43 10 12 5 13 3	0
5	H	1	Total C H N O P 43 10 12 5 13 3	0
5	H	1	Total C H N O P 43 10 12 5 13 3	0

- Molecule 6 is CAFFEINE (three-letter code: CFF) (formula: $C_8H_{10}N_4O_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
6	B	1	Total	C	H	N	O	0
			24	8	10	4	2	
6	D	1	Total	C	H	N	O	0
			24	8	10	4	2	
6	F	1	Total	C	H	N	O	0
			24	8	10	4	2	
6	H	1	Total	C	H	N	O	0
			24	8	10	4	2	

- Molecule 7 is CHLORIDE ION (three-letter code: CL) (formula: Cl) (labeled as "Ligand of Interest" by depositor).

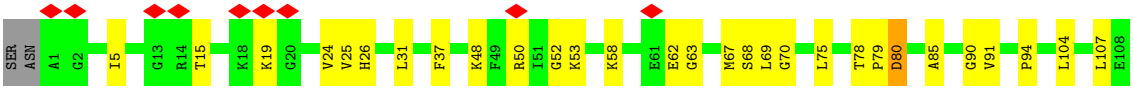
Mol	Chain	Residues	Atoms		AltConf
7	B	1	Total	Cl	0
			1	1	
7	D	1	Total	Cl	0
			1	1	
7	F	1	Total	Cl	0
			1	1	
7	H	1	Total	Cl	0
			1	1	

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.

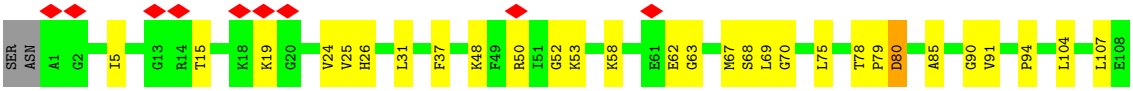
• Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain A:



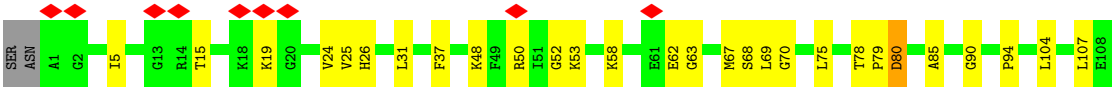
• Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain C:



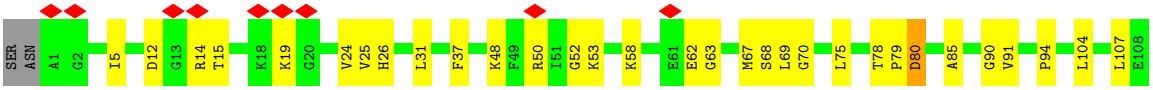
• Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain E:



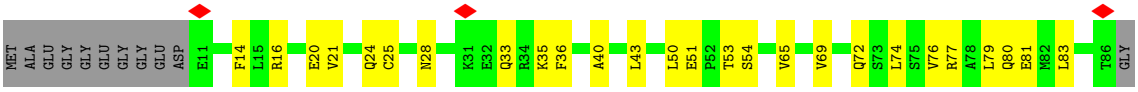
• Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B

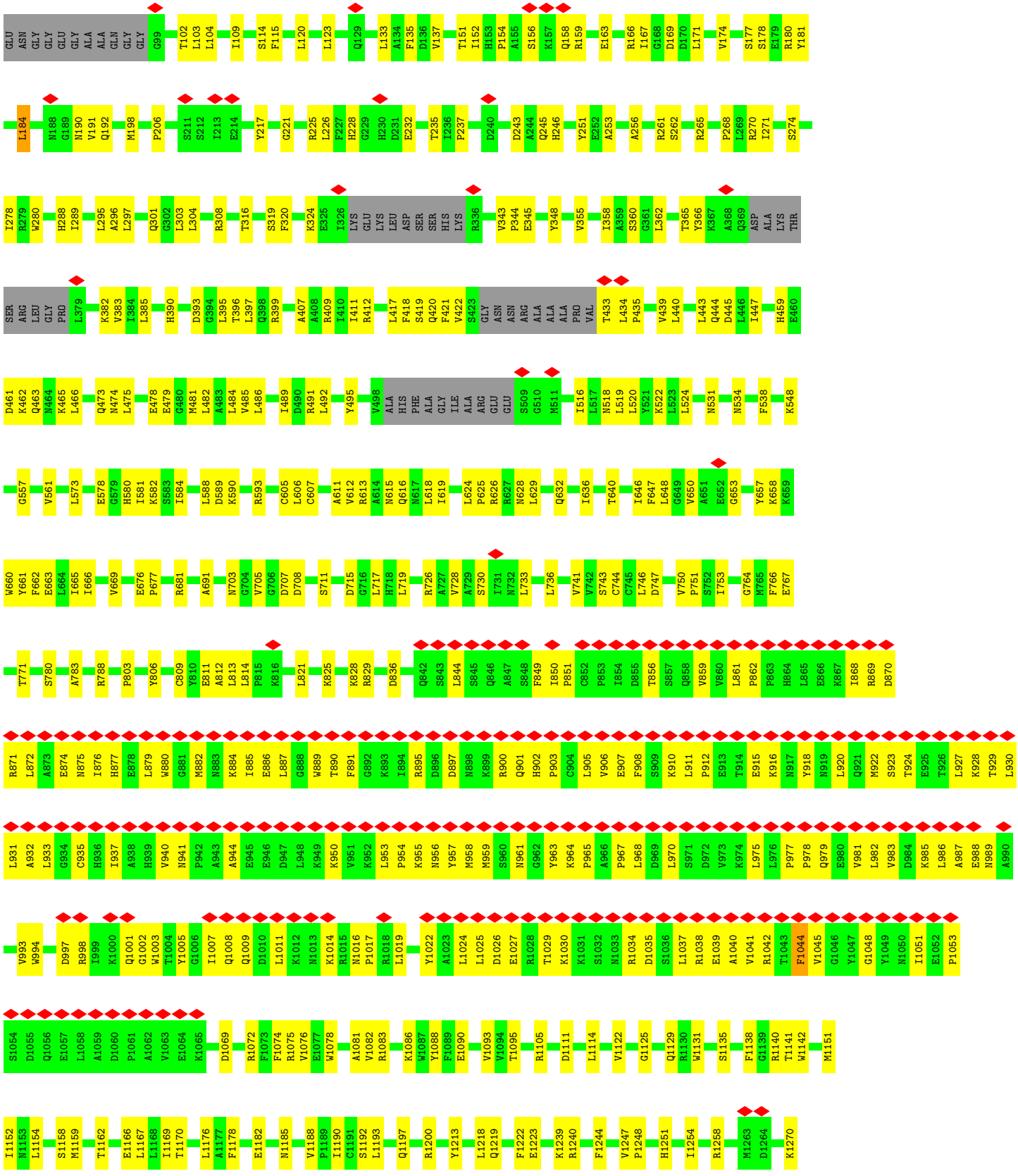
Chain G:



• Molecule 2: Ryanodine receptor 3

Chain B:

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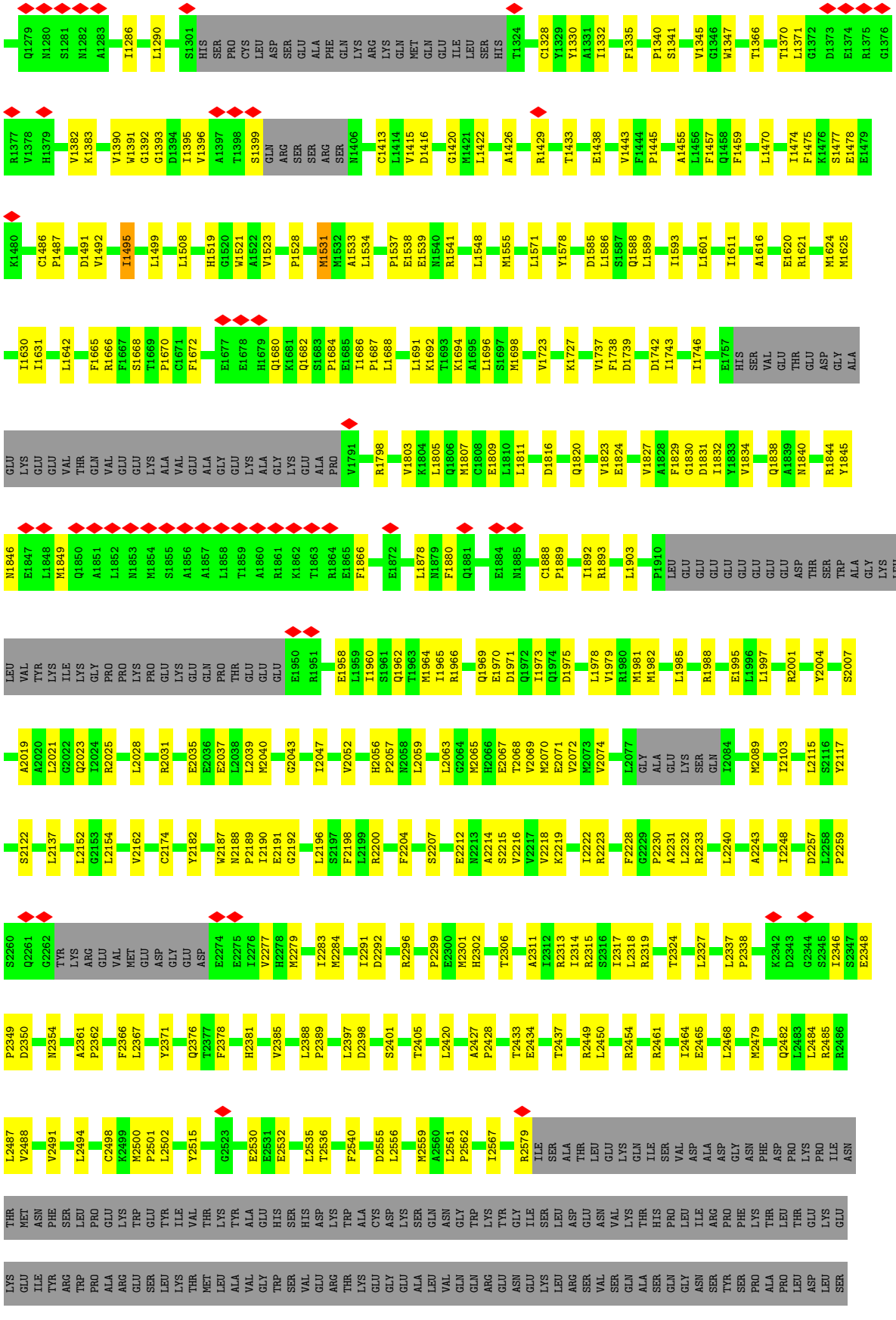
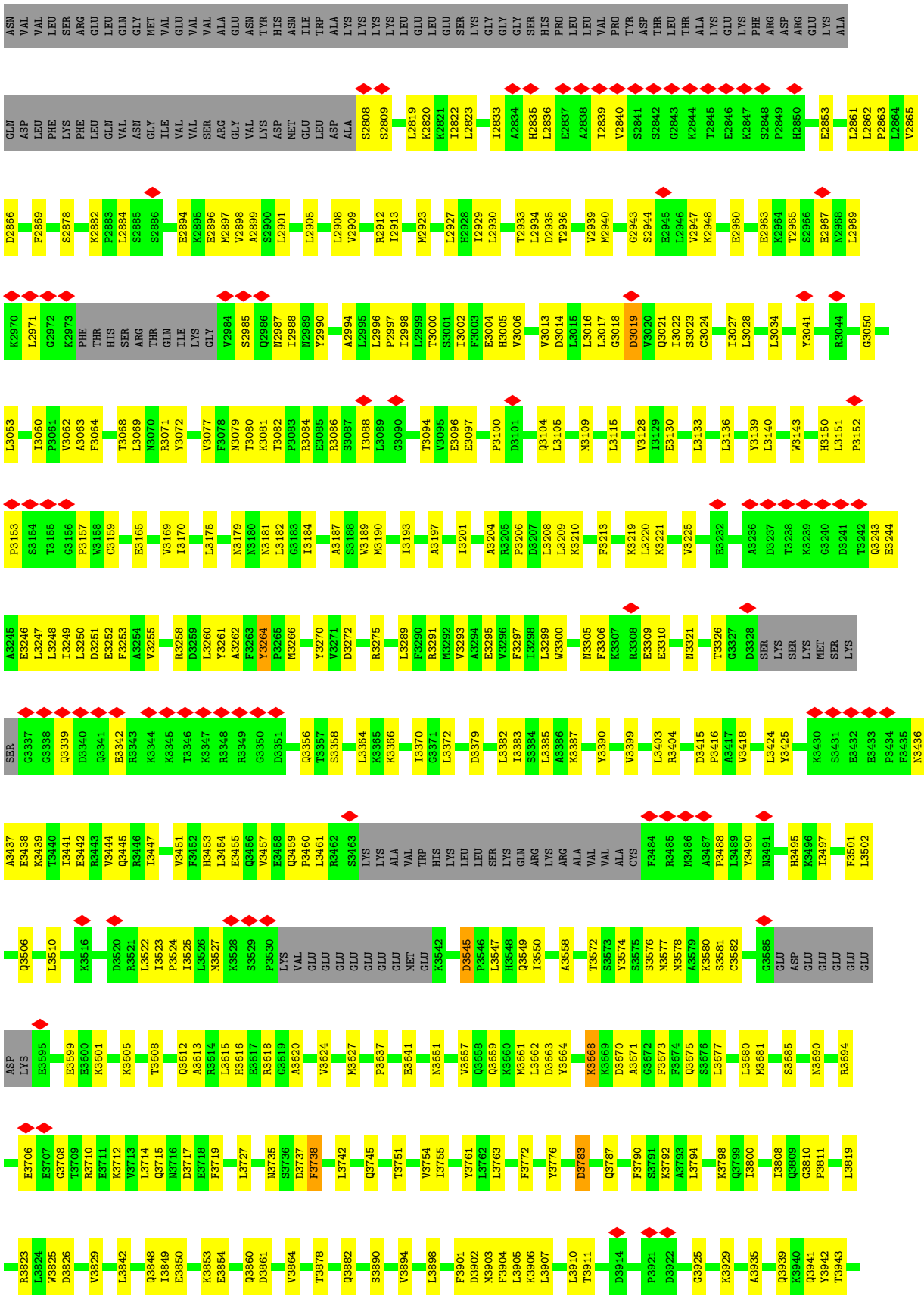
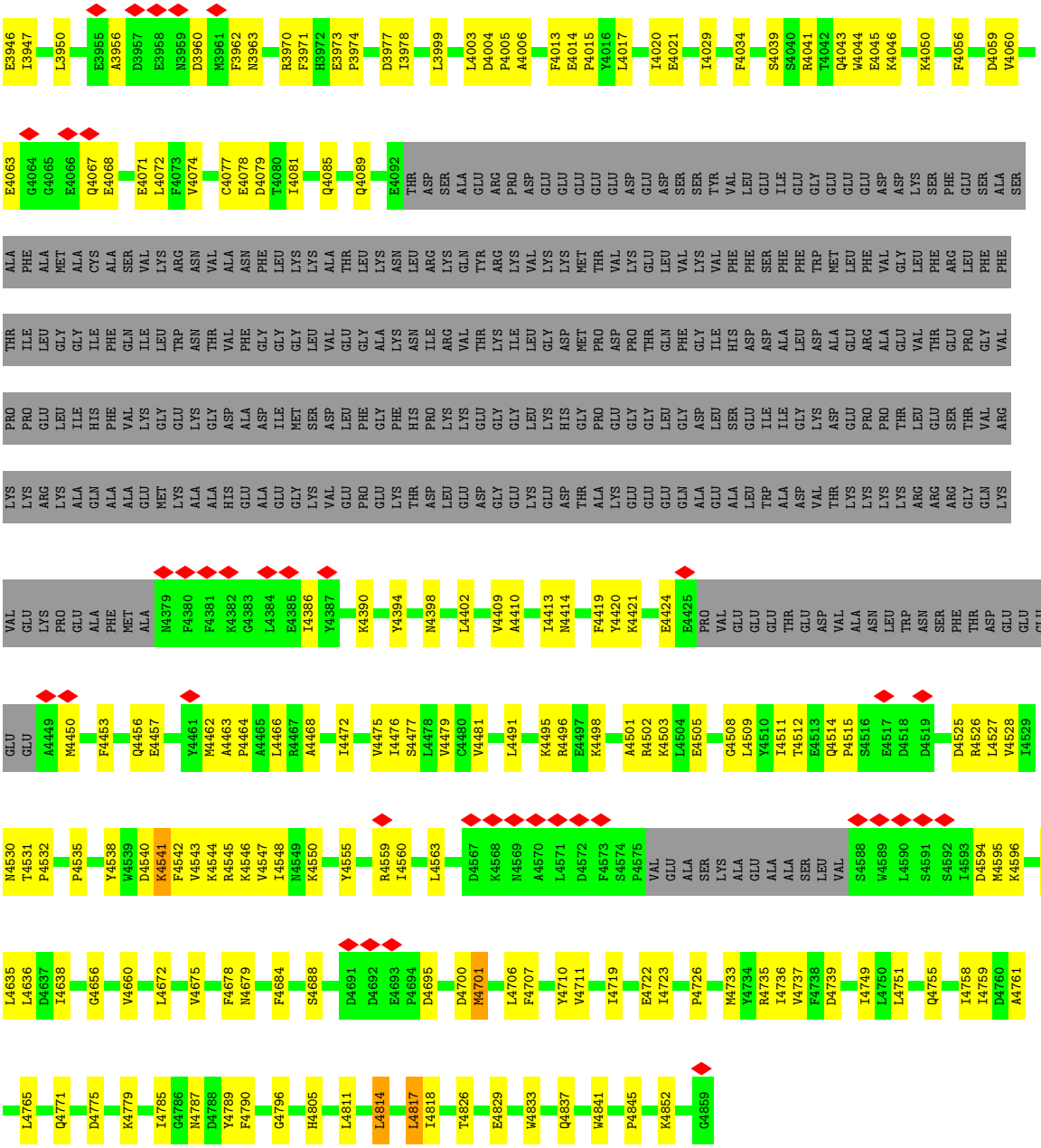
L184 N188 G189 N190 V191 Q192 M198 P206 S211 S212 I213 E214 Y217 G221 R225 L226 F227 H228 G229 H230 D231 E232 T235 I236 P237 D240 D243 A244 Q245 H246 Y251 E252 A253 A256 R261 S262 R265 P268 L269 R270 I271 S274
I278 R279 W280 H288 I289 L295 A296 L297 Q301 G302 L303 L304 R308 T316 S319 F320 K324 E325 I326 LYS GLU LYS LEU ASP SER SER HIS LYS R336 V343 P344 E345 Y348 V355 I358 A359 S360 G361 L362 T365 Y366 K367 A368 Q369 ASP ALA LYS THR
SER ARG LEU GLY PRO L379 K382 V383 I384 L385 H390 D393 G394 L395 T396 L397 Q398 R399 A407 A408 R409 I410 I411 R412 L417 F418 S419 Q420 F421 V422 S423 GLY ASN ASN ARG ALA ALA ALA PRO VAL T433 L434 P435 V439 L440 L443 Q444 D445 L446 I447 H459 E460
D461 K462 Q463 N464 K465 L466 Q473 N474 L475 E478 E479 G480 M481 L482 A483 L484 V485 L486 I489 D490 R491 L492 Y495 V498 ALA HIS PHE ALA GLY ILE ALA ARG GLU GLU S509 G510 M511 I516 L517 N518 L519 L520 Y521 K522 L523 L524 N531 N534 F538 K548
G557 V561 L573 E578 G579 H580 I581 K582 S583 I584 L588 D589 K590 R593 C605 L606 C607 A611 V612 R613 A614 N615 Q616 N617 L618 I619 L624 P625 R626 R627 N628 L629 Q632 I636 T640 I646 F647 L648 G649 V650 A651 E652 G653 Y657 K658 K659
W660 Y661 F662 E663 L664 I665 I666 V669 E676 P677 R681 A691 N703 G704 V705 G706 D707 D708 S711 D715 G716 L717 H718 L719 R726 A727 V728 A729 S730 I731 N732 L733 L736 V741 V742 S743 C744 C745 L746 D747 V750 P751 S752 I753 G764 M765 F766 E767
T771 S780 A783 R788 P803 Y806 C809 Y810 E811 A812 L813 L814 P815 K816 L821 K825 K828 R829 D836 Q842 S843 L844 S845 Q846 A847 S848 F849 I850 P851 C852 P853 I854 D855 T856 S857 Q858 V859 V860 L861 P862 P863 H864 L865 E866 K867 I868 R869 D870
R871 L872 A873 E874 N875 I876 H877 E878 L879 W880 G881 M882 N883 K884 I885 E886 L887 G888 W889 T890 F891 G892 K893 I894 R895 D896 D897 N898 K899 R900 Q901 H902 P903 C904 L905 V906 E907 F908 S909 K910 L911 P912 E913 T914 E915 K916 N917 Y918 N919 L920 Q921 M922 S923 T924 E925 T926 L927 K928 T929 L930
L931 A932 L933 G934 C935 H936 I937 A938 H939 V940 N941 P942 A943 A944 E945 E946 D947 L948 K949 K950 V951 K952 L953 P954 K955 N956 Y957 M958 M959 S960 N961 G962 Y963 K964 P965 A966 P967 L968 D969 L970 S971 D972 V973 K974 L975 L976 P977 P978 Q979 E980 V981 L982 V983 D984 K985 L986 A987 E988 N989 A990
V993 W994 D997 R998 I999 K1000 Q1001 G1002 W1003 T1004 Y1005 G1006 I1007 Q1008 Q1009 D1010 L1011 K1012 N1013 K1014 R1015 N1016 P1017 R1018 L1019 Y1022 A1023 L1024 L1025 D1026 E1027 R1028 T1029 K1030 K1031 S1032 N1033 R1034 D1035 S1036 L1037 R1038 E1039 A1040 V1041 R1042 T1043 F1044 V1045 G1046 Y1047 G1048 Y1049 N1050 I1051 E1052 P1053
S1054 D1055 Q1056 E1057 L1058 A1059 D1060 P1061 A1062 V1063 E1064 K1065 D1069 R1072 F1073 F1074 R1075 V1076 E1077 W1078 A1081 V1082 R1083 K1086 W1087 Y1088 F1089 E1090 V1093 V1094 T1095 R1105 D1111 L1114 V1122 G1125 Q1129 R1130 W1131 S1135 F1138 G1139 R1140 T1141 W1142 M1151
I1152 N1153 L1154 S1158 M1159 T1162 E1166 L1167 L1168 I1169 T1170 L1176 A1177 F1178 E1182 N1185 V1188 P1189 I1190 G1191 S1192 L1193 Q1197 R1200 Y1213 L1218 Q1219 F1222 E1223 K1239 R1240 F1244 V1247 P1248 H1251 I1254 R1258 M1263 D1264 K1270

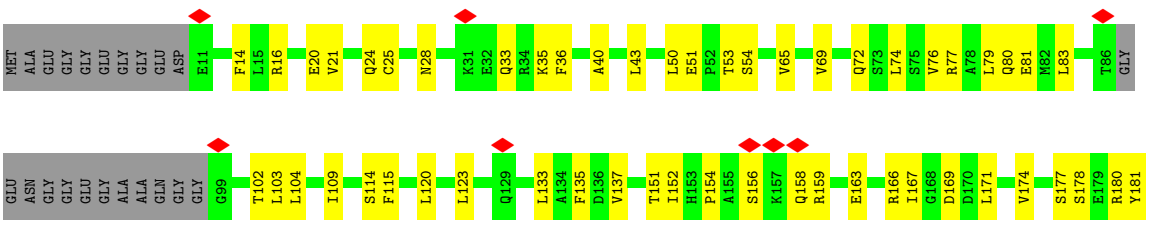


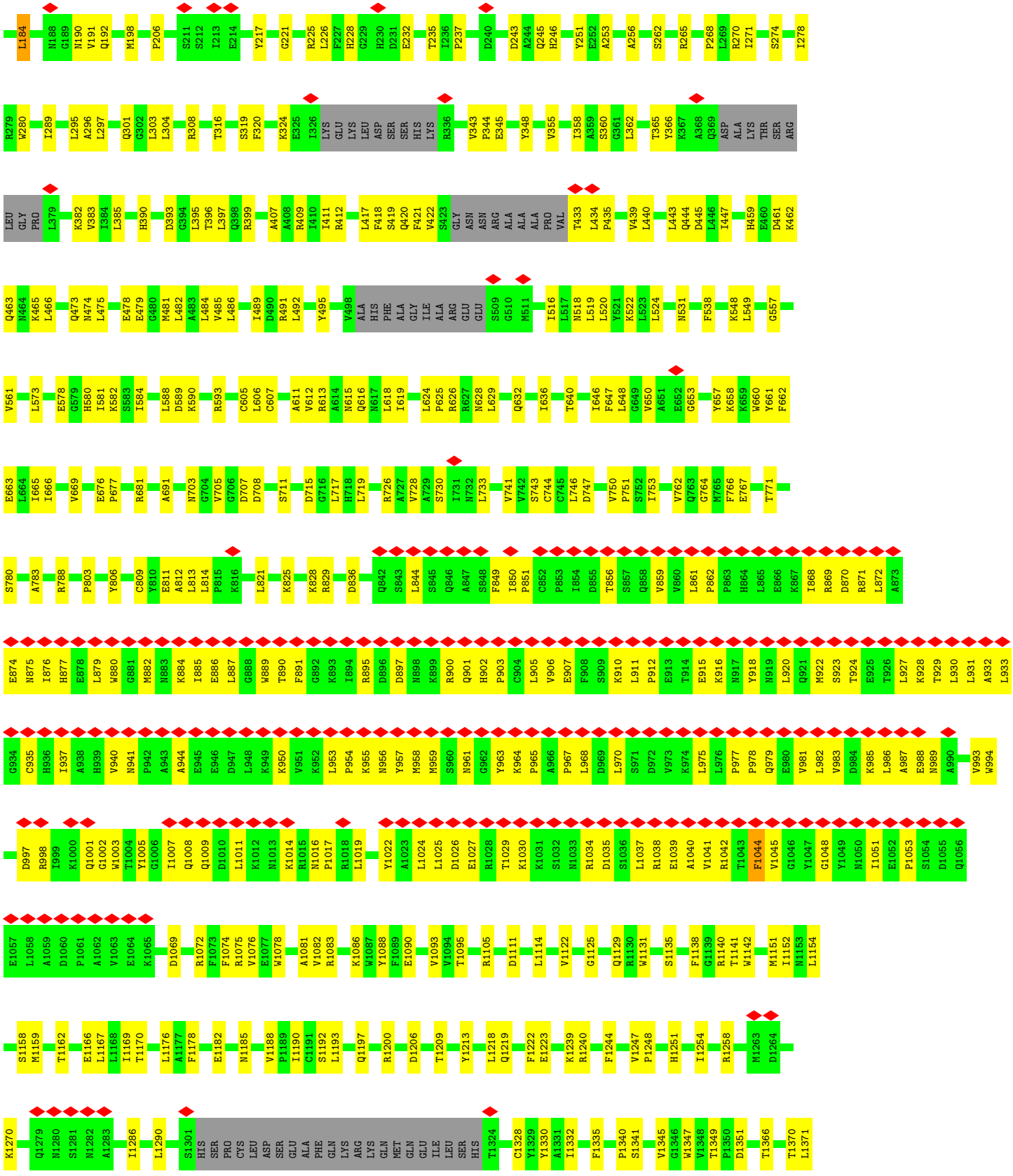




• Molecule 2: Ryanodine receptor 3

Chain D:

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R279 W280 I289 L295 A296 L297 Q301 G302 L303 L304 R308 T316 S319 F320 K324 E325 I326 LYS GLU LYS LEU ASP SER SER HIS LYS R336 V343 P344 E345 Y348 V355 I358 A359 S360 G361 L362 T365 Y366 K367 A368 Q369 ASP ALA LYS THR SER ARG
LEU GLY PRO L379 K382 V383 I384 L385 H390 D393 G394 L395 T396 L397 Q398 R399 A407 A408 R409 I410 I411 R412 L417 F418 S419 Q420 F421 V422 S423 GLY ASN ASN ARG ALA ALA ALA PRO VAL T433 L434 P435 V439 L440 L443 Q444 D445 L446 I447 H459 E460 D461 K462
Q463 N464 K465 L466 Q473 N474 L475 E478 E479 G480 M481 L482 A483 L484 V485 L486 I489 D490 R491 L492 Y495 V498 ALA HIS PHE ALA GLY ILE ALA ARG GLU GLU S509 G510 M511 I516 L517 N518 L519 L520 Y521 K522 L523 L524 N531 F538 K548 L549 G557
V561 L573 E578 G579 H580 I581 K582 S583 I584 L588 D589 K590 R593 C605 L606 C607 A611 V612 R613 A614 N615 Q616 N617 L618 I619 L624 P625 R626 R627 N628 L629 Q632 I636 T640 I646 F647 L648 G649 V650 A651 E652 G653 Y657 K658 K659 W660 Y661 F662
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G934 C935 H936 I937 A938 H939 V940 N941 P942 A943 A944 E945 E946 D947 L948 K949 K950 V951 K952 L953 P954 K955 N956 Y957 M958 M959 S960 N961 G962 Y963 K964 P965 A966 P967 L968 D969 L970 S971 D972 V973 K974 L975 L976 P977 P978 Q979 E980 V981 L982 V983 D984 K985 L986 A987 E988 N989 A990 V993 W994
D997 R998 I999 K1000 Q1001 G1002 W1003 T1004 Y1005 G1006 I1007 Q1008 Q1009 D1010 L1011 K1012 N1013 K1014 R1015 N1016 P1017 R1018 L1019 Y1022 A1023 L1024 L1025 D1026 E1027 R1028 T1029 K1030 K1031 S1032 N1033 R1034 D1035 S1036 L1037 R1038 E1039 A1040 V1041 R1042 T1043 F1044 V1045 G1046 Y1047 G1048 Y1049 N1050 I1051 E1052 P1053 S1054 D1055 Q1056
E1057 L1058 A1059 D1060 P1061 A1062 V1063 E1064 K1065 D1069 R1072 F1073 F1074 R1075 V1076 E1077 W1078 A1081 V1082 R1083 K1086 W1087 Y1088 F1089 E1090 V1093 V1094 T1095 R1105 D1111 L1114 V1122 G1125 Q1129 R1130 W1131 S1135 F1138 G1139 R1140 T1141 W1142 M1151 I1152 N1153 L1154
S1158 M1159 T1162 E1166 L1167 L1168 I1169 T1170 L1176 A1177 F1178 E1182 N1185 V1188 P1189 I1190 C1191 S1192 L1193 Q1197 R1200 D1206 T1209 Y1213 L1218 Q1219 F1222 E1223 K1239 R1240 F1244 V1247 P1248 H1251 I1254 R1258 M1263 D1264
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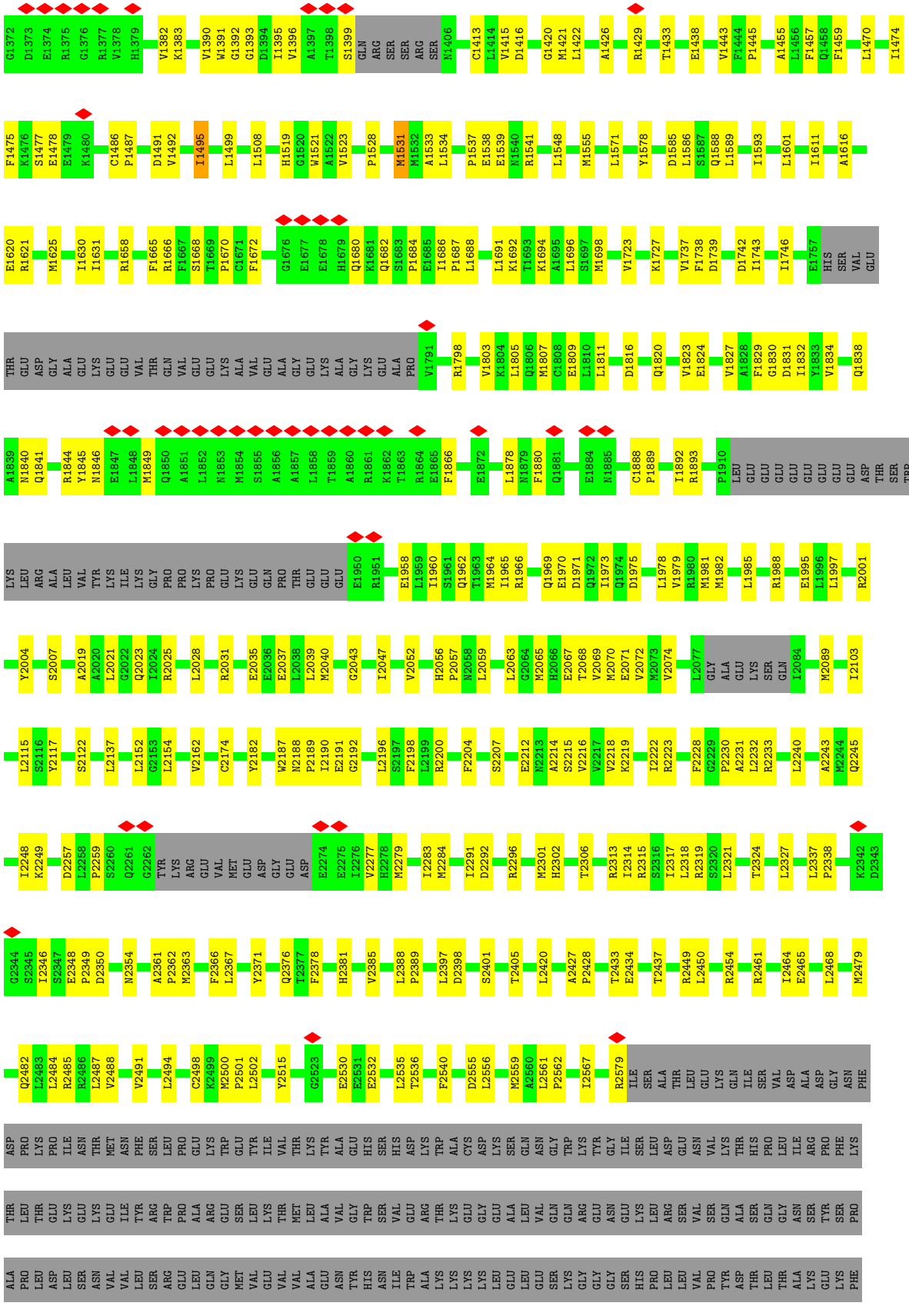
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F1475 K1476 S1477 E1478 E1479 K1480 C1486 P1487 D1491 V1492 I1495 L1499 L1508 H1519 G1520 W1521 A1522 V1523 P1528 M1531 M1532 A1533 L1534 P1537 E1538 E1539 N1540 R1541 L1548 M1555 L1571 Y1578 D1585 L1586 S1587 Q1588 L1589 I1593 L1601 I1611 A1616
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THR GLU ASP GLY ALA GLU LYS GLU GLU VAL THR GLN VAL GLU GLU LYS ALA VAL GLU ALA GLY GLU LYS ALA GLY LYS GLU VAL ALA PRO V1791 R1798 V1803 K1804 L1805 Q1806 M1807 C1808 E1809 L1810 L1811 D1816 Q1820 V1823 E1824 V1827 A1828 F1829 G1830 D1831 I1832 Y1833 V1834 Q1838
A1839 N1840 Q1841 R1844 Y1845 N1846 E1847 L1848 M1849 Q1850 A1851 L1852 N1853 M1854 S1855 A1856 A1857 L1858 T1859 A1860 R1861 K1862 T1863 R1864 E1865 F1866 E1872 L1878 N1879 F1880 Q1881 E1884 N1885 C1888 P1889 I1892 R1893 P1910 LEU GLU GLU GLU GLU GLU GLU GLU GLU ASP THR SER TRP ALA GLY
LYS LEU ARG ALA LEU VAL TYR LYS ILE LYS GLY PRO PRO LYS PRO GLU LYS GLU GLN PRO THR GLU GLU GLU E1950 R1951 E1958 L1959 I1960 S1961 Q1962 T1963 M1964 I1965 R1966 Q1969 E1970 D1971 Q1972 I1973 Q1974 D1975 L1978 V1979 R1980 M1981 M1982 L1985 R1988 E1995 L1996 L1997 R2001
Y2004 S2007 A2019 A2020 L2021 Q2022 Q2023 I2024 R2025 L2028 R2031 E2035 E2036 E2037 L2038 L2039 M2040 G2043 I2047 V2052 H2056 P2057 W2058 L2059 L2063 G2064 M2065 H2066 E2067 T2068 V2069 M2070 E2071 V2072 M2073 V2074 L2077 GLY ALA GLU LYS SER GLN I2084 M2089 I2103
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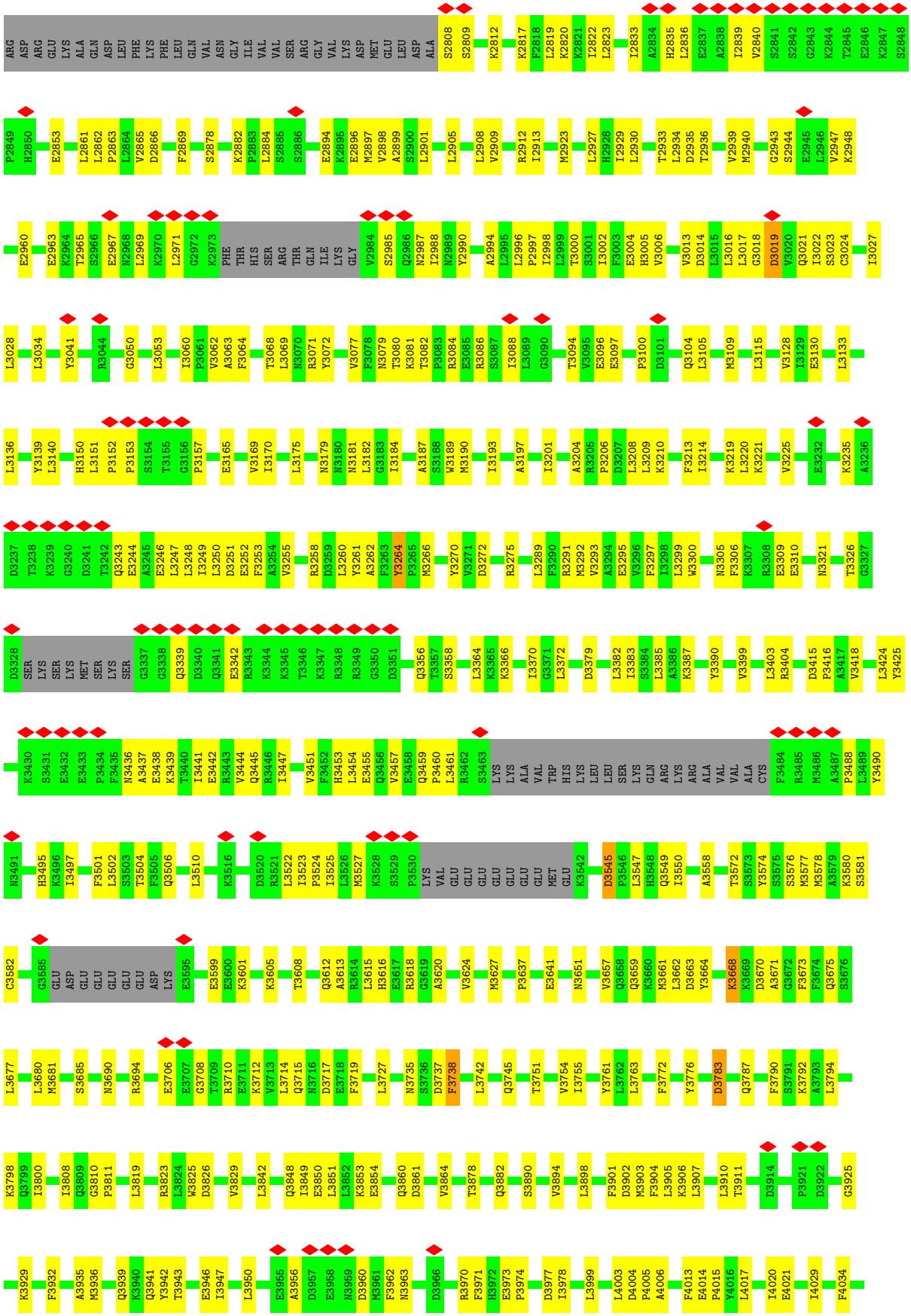
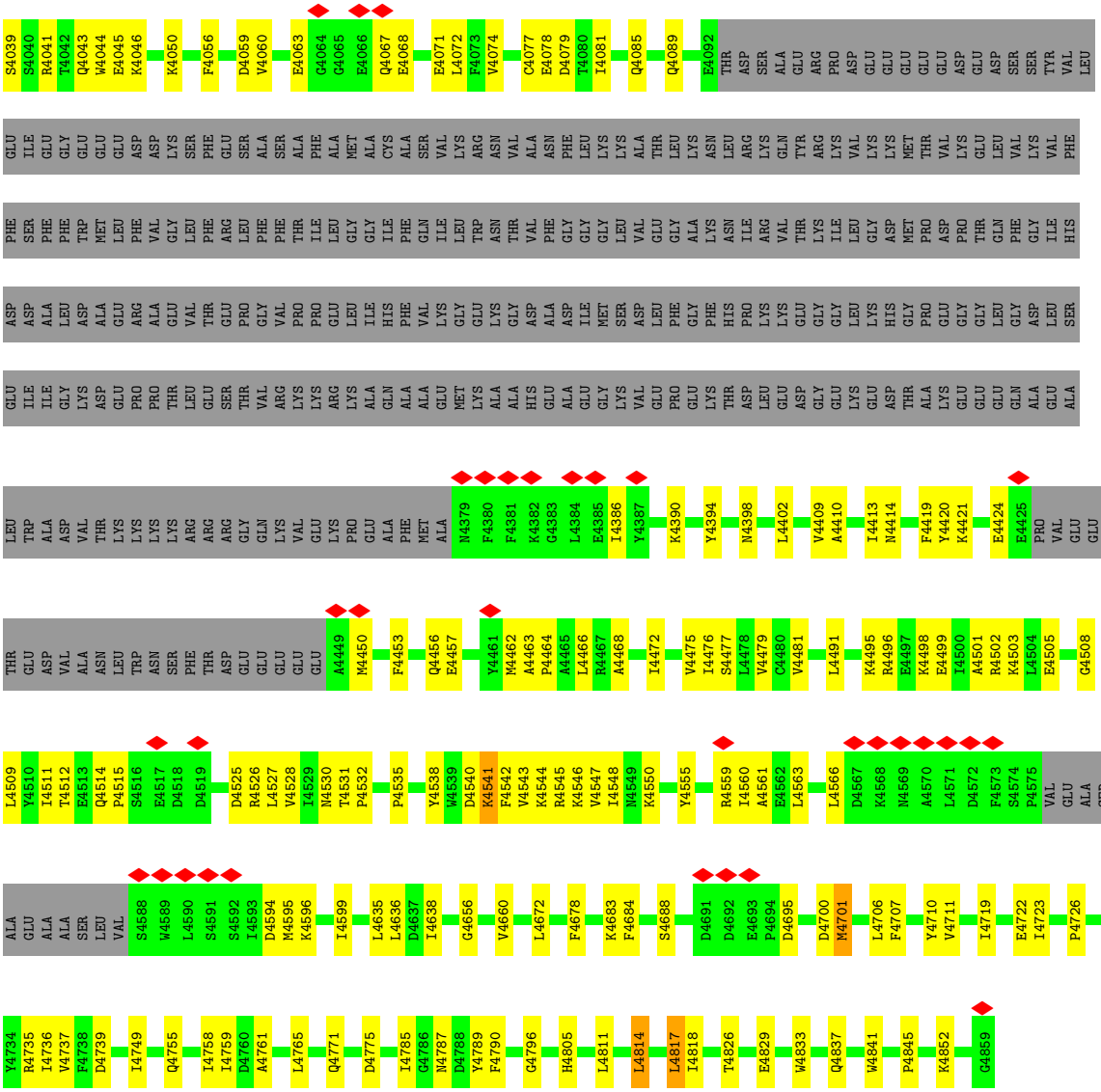
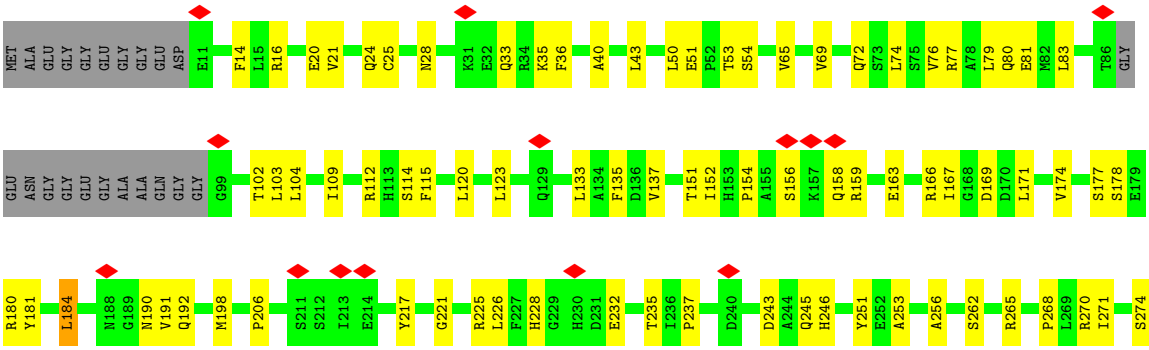
G2344 S2345 I2346 S2347 E2348 P2349 D2350 N2354 A2361 P2362 M2363 F2366 L2367 Y2371 Q2376 T2377 F2378 H2381 V2385 L2388 P2389 L2397 D2398 S2401 T2405 L2420 A2427 P2428 T2433 E2434 T2437 R2449 L2450 R2454 R2461 I2464 E2465 L2468 M2479
Q2482 I2483 L2484 R2485 R2486 L2487 V2488 V2491 L2494 C2498 K2499 M2500 P2501 L2502 Y2515 G2523 E2530 E2531 E2532 L2535 T2536 F2540 D2555 L2556 M2559 A2560 L2561 P2562 I2567 R2579 ILE SER ALA THR LEU GLU LYS GLN ILE SER VAL ASP ALA ASP GLY ASN PHE
ASP PRO LYS PRO ILE ASN THR MET ASN PHE SER LEU PRO GLU LYS TRP GLU TYR ILE VAL THR LYS TYR ALA GLU HIS SER HIS ASP LYS TRP ALA CYS ASP LYS SER GLN ASN GLY TRP LYS TYR GLY ILE SER LEU ASP GLU ASN VAL LYS THR HIS PRO LEU ILE ARG PRO PHE LYS
THR LEU THR GLU LYS GLU LYS GLU ILE TYR ARG TRP PRO ALA ARG GLU SER LEU LYS THR MET LEU ALA VAL GLY TRP SER VAL GLU ARG THR LYS GLU GLY GLU ALA LEU VAL GLN GLN ARG GLU ASN GLU LYS LEU ARG SER VAL SER GLN ALA SER GLN GLY ASN SER TYR SER PRO
ALA PRO LEU ASP LEU SER ASN VAL VAL LEU SER ARG GLU LEU GLN GLY MET VAL GLU VAL VAL ALA GLU ASN TYR HIS ASN ILE TRP ALA LYS LYS LYS LEU GLU LEU GLU SER LYS GLY GLY GLY SER HIS PRO LEU LEU VAL PRO TYR ASP THR LEU THR ALA LYS GLU LYS PHE

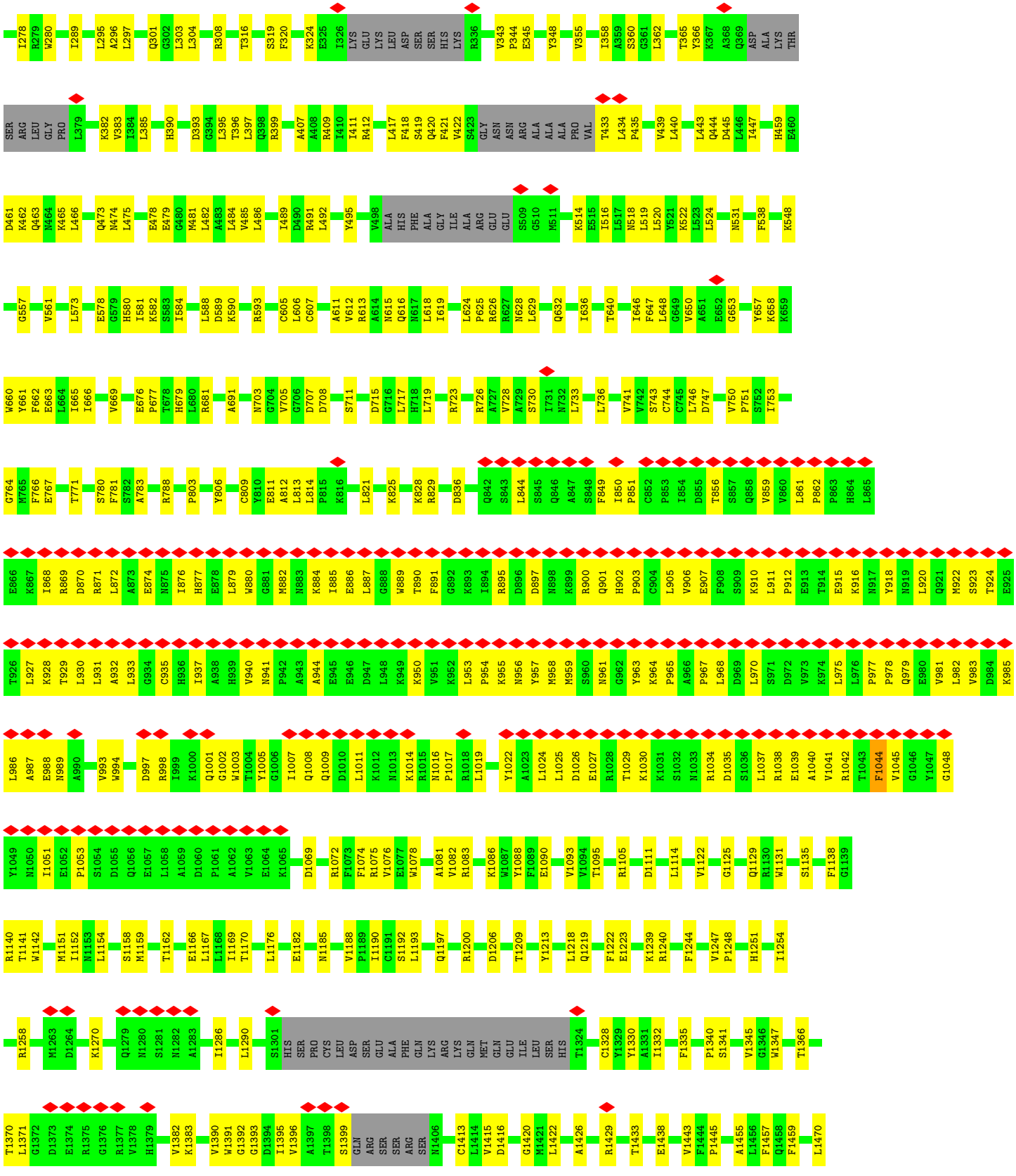




• Molecule 2: Ryanodine receptor 3

Chain F:

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SER ARG LEU GLY PRO L379 K382 V383 I384 L385 H390 D393 G394 L395 T396 L397 G398 R399 A407 A408 R409 I410 I411 R412 L417 F418 S419 Q420 F421 V422 S423 GLY ASN ASN ARG ALA ALA ALA PRO VAL T433 L434 P435 V439 L440 L443 Q444 D445 L446 I447 H459 E460
D461 K462 Q463 N464 K465 L466 Q473 N474 L475 E478 E479 G480 M481 L482 A483 L484 V485 L486 I489 D490 R491 L492 Y495 V498 ALA HIS PHE ALA GLY ILE ALA ARG GLU GLU S509 G510 M511 K514 E515 I516 L517 N518 L519 L520 Y521 K522 L523 L524 N531 F538 K548
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W660 Y661 F662 E663 L664 I665 I666 V669 E676 P677 T678 H679 L680 R681 A691 N703 G704 V705 G706 D707 D708 S711 D715 G716 L717 H718 L719 R723 R726 A727 V728 A729 S730 I731 N732 L733 L736 V741 V742 S743 C744 C745 L746 D747 V750 P751 S752 I753
G764 W765 F766 E767 T771 S780 F781 S782 A783 R788 P803 Y806 C809 Y810 E811 A812 L813 L814 P815 K816 L821 K825 K828 R829 D836 Q842 S843 L844 S845 Q846 A847 S848 F849 I850 P851 C852 P853 I854 D855 T856 S857 Q858 V859 V860 L861 P862 P863 H864 L865
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T926 L927 K928 T929 L930 L931 A932 L933 G934 C935 H936 I937 A938 H939 V940 N941 P942 A943 A944 E945 E946 D947 L948 K949 K950 V951 K952 L953 P954 K955 N956 Y957 M958 M959 S960 N961 G962 Y963 K964 P965 A966 P967 L968 D969 L970 S971 D972 V973 K974 L975 L976 P977 P978 Q979 E980 V981 L982 V983 D984 K985
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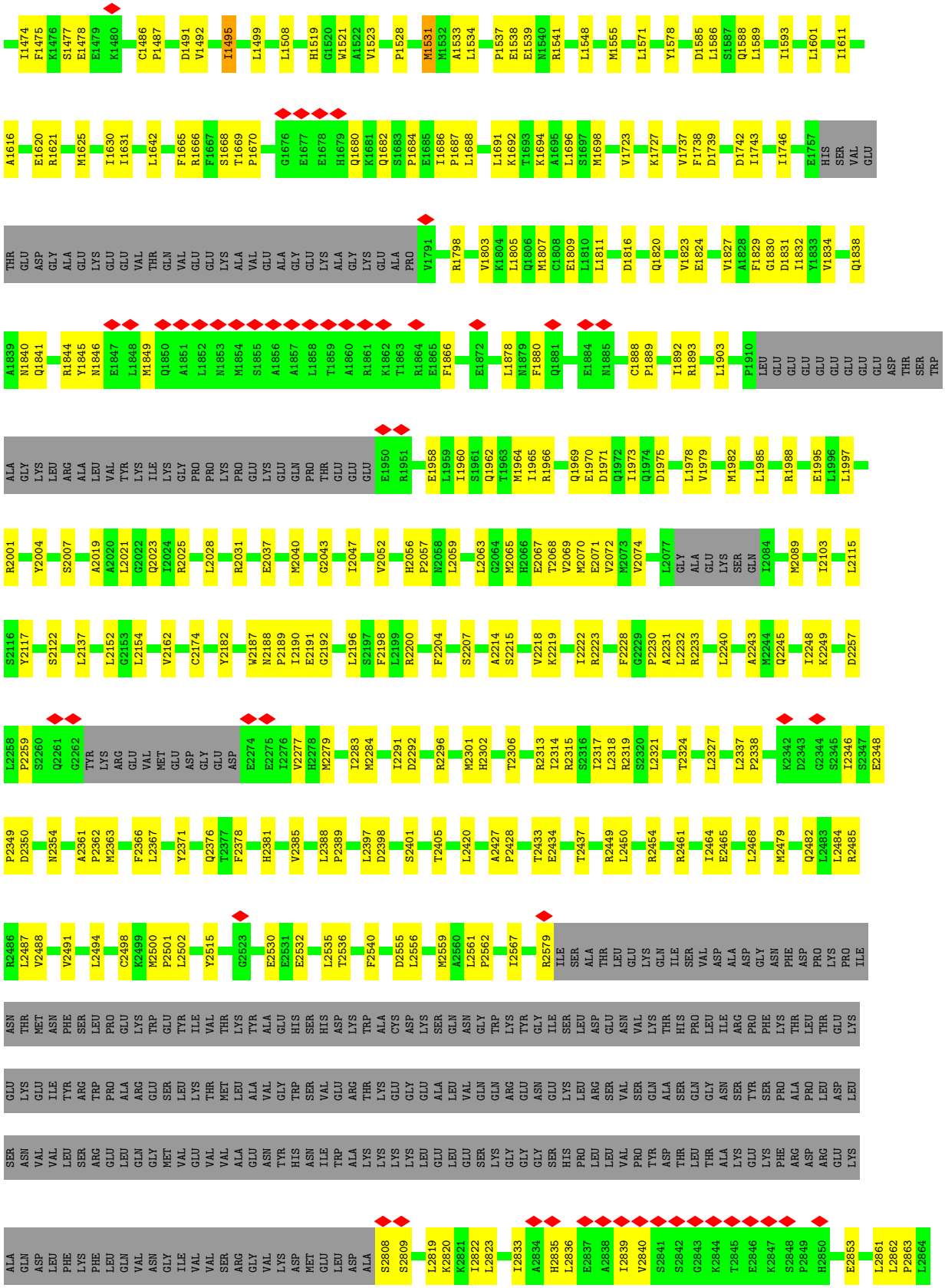
Y1049 N1050 I1051 E1052 P1053 S1054 D1055 Q1056 E1057 L1058 A1059 D1060 P1061 A1062 V1063 E1064 K1065 D1069 R1072 F1073 F1074 R1075 V1076 E1077 W1078 A1081 V1082 R1083 K1086 W1087 Y1088 F1089 E1090 V1093 V1094 T1095 R1105 D1111 L1114 V1122 G1125 Q1129 R1130 W1131 S1135 F1138 G1139
R1140 T1141 W1142 M1151 I1152 N1153 L1154 S1158 M1159 T1162 E1166 L1167 L1168 I1169 T1170 L1176 E1182 N1185 V1188 P1189 I1190 C1191 S1192 L1193 Q1197 R1200 D1206 T1209 Y1213 L1218 Q1219 F1222 E1223 K1239 R1240 F1244 V1247 P1248 H1251 I1254
R1258 M1263 D1264 K1270 Q1279 N1280 S1281 N1282 A1283 I1286 L1290 S1301 HIS SER PRO CYS LEU ASP SER GLU ALA PHE GLN LYS ARG LYS GLN MET GLN GLU ILE LEU SER HIS T1324 C1328 Y1329 Y1330 A1331 I1332 F1335 P1340 S1341 V1345 G1346 W1347 T1366
T1370 L1371 G1372 D1373 E1374 R1375 G1376 R1377 V1378 H1379 V1382 K1383 V1390 W1391 G1392 G1393 D1394 I1395 V1396 A1397 T1398 S1399 GLN ARG SER SER ARG SER N1406 C1413 L1414 V1415 D1416 G1420 M1421 L1422 A1426 R1429 T1433 E1438 V1443 F1444 P1445 A1455 L1456 F1457 Q1458 F1459 L1470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THR GLU ASP GLY ALA GLU LYS GLU GLU VAL THR GLN VAL GLU GLU LYS ALA VAL GLU ALA ALA GLY GLU LYS ALA GLY LYS GLU ALA PRO V1791 R1798 V1803 K1804 L1805 Q1806 M1807 C1808 E1809 L1810 L1811 D1816 Q1820 V1823 E1824 V1827 A1828 F1829 G1830 D1831 I1832 Y1833 V1834 Q1838
A1839 N1840 Q1841 R1844 Y1845 N1846 E1847 L1848 M1849 Q1850 A1851 L1852 N1853 M1854 S1855 A1856 A1857 L1858 T1859 A1860 R1861 K1862 T1863 R1864 E1865 F1866 E1872 L1878 N1879 F1880 Q1881 E1884 N1885 C1888 P1889 I1892 R1893 L1903 P1910 LEU GLU GLU GLU GLU GLU GLU GLU ASP THR SER TRP
ALA GLY LYS LEU ARG ALA LEU VAL TYR LYS ILE LYS GLY PRO PRO LYS PRO GLU LYS GLU GLN PRO THR GLU GLU GLU E1950 R1951 E1958 L1959 I1960 S1961 Q1962 T1963 M1964 I1965 R1966 Q1969 E1970 D1971 Q1972 I1973 Q1974 D1975 L1978 V1979 M1982 L1985 R1988 E1995 L1996 L1997
R2001 Y2004 S2007 A2019 A2020 L2021 G2022 Q2023 I2024 R2025 L2028 R2031 E2037 M2040 G2043 I2047 V2052 H2056 P2057 N2058 L2059 L2063 G2064 M2065 H2066 E2067 T2068 V2069 M2070 E2071 V2072 M2073 V2074 L2077 GLY ALA GLU LYS SER GLN I2084 M2089 I2103 L2115
S2116 Y2117 S2122 L2137 L2152 G2153 L2154 V2162 C2174 Y2182 W2187 N2188 P2189 I2190 E2191 G2192 L2196 S2197 F2198 L2199 R2200 F2204 S2207 A2214 S2215 V2218 K2219 I2222 R2223 F2228 G2229 P2230 A2231 L2232 R2233 L2240 A2243 M2244 Q2245 I2248 K2249 D2257
L2258 P2259 S2260 Q2261 Q2262 TYR LYS ARG GLU VAL MET GLU ASP GLY GLU ASP E2274 E2275 I2276 V2277 H2278 M2279 I2283 M2284 I2291 D2292 R2296 M2301 H2302 T2306 R2313 I2314 R2315 S2316 I2317 I2318 R2319 S2320 L2321 T2324 L2327 L2337 P2338 K2342 D2343 G2344 S2345 I2346 S2347 E2348
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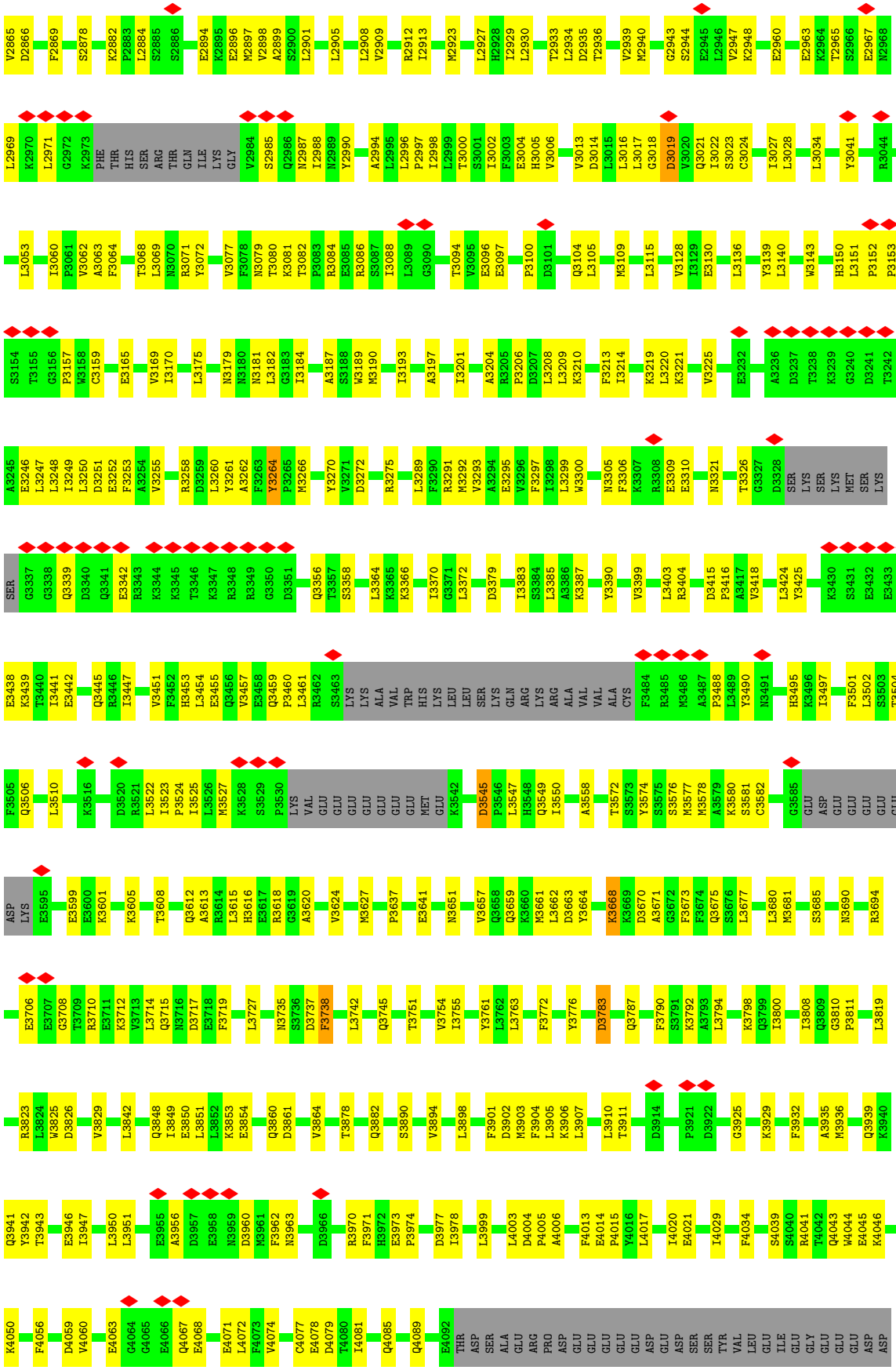
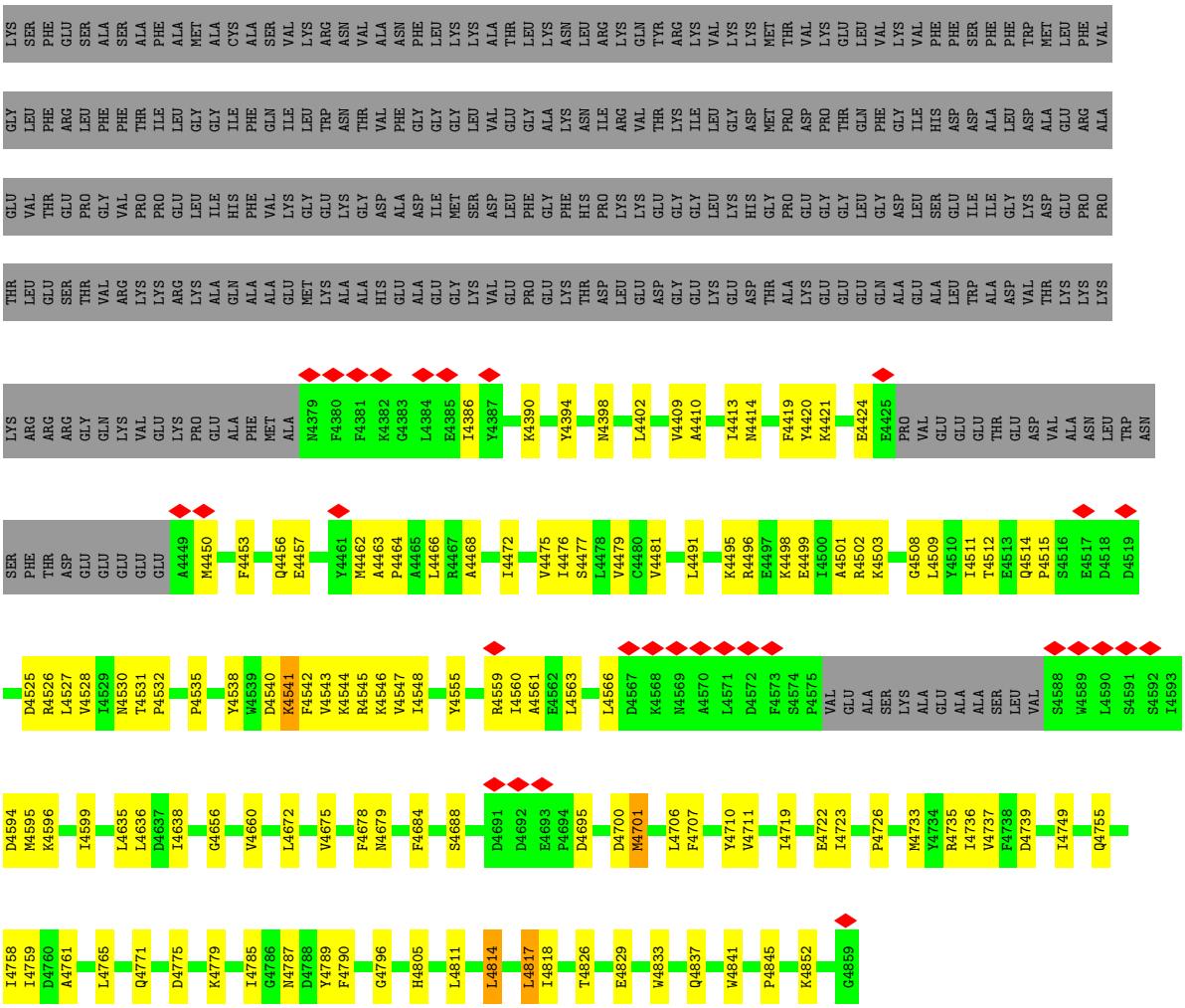
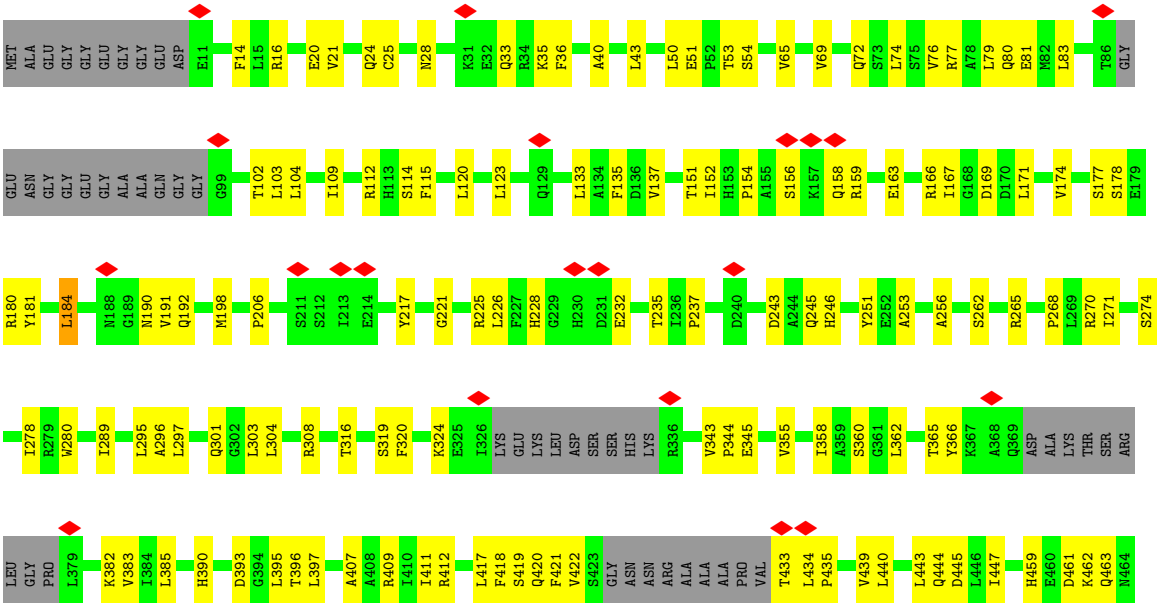
R2486 L2487 V2488 V2491 L2494 C2498 K2499 M2500 P2501 L2502 Y2515 G2523 E2530 E2531 E2532 L2535 T2536 F2540 D2555 L2556 M2559 A2560 L2561 P2562 I2567 R2579 ILE SER ALA THR LEU GLU LYS GLN ILE THR HIS PRO LEU ILE SER VAL ASP ALA ASP GLY ASN PHE ASP PRO LYS PRO ILE
ASN THR MET ASN PHE SER LEU PRO GLU LYS TRP GLU TYR ILE VAL THR LYS TYR ALA GLU HIS SER HIS ASP LYS TRP ALA CYS ASP LYS SER GLN ASN GLY TRP LYS TYR GLY ILE SER LEU ASP GLU ASN VAL LYS THR HIS PRO LEU ILE ARG PRO PHE LYS THR LEU THR GLU LYS
GLU LYS GLU ILE TYR ARG TRP PRO ALA ARG GLU SER LEU LYS THR MET LEU ALA VAL GLY TRP SER VAL GLU ARG THR LYS GLU GLY GLU ALA GLU VAL GLN GLN ARG GLU ASN GLU LYS LEU ARG SER VAL SER GLN ALA SER GLN LEU GLY ASN SER PRO PRO LYS THR LEU ASP
SER ASN VAL LEU GLN GLY MET VAL GLU VAL VAL ALA GLU ASN TYR HIS ASN VAL ILE TRP ALA LYS LYS LYS LEU GLU LEU GLU SER LYS GLY GLY SER HIS PRO LEU LEU VAL PRO TYR ASP THR LEU THR ALA LYS GLU LYS PHE ARG ASP ARG GLU LYS
ALA GLN ASP LEU PHE LYS PHE LEU GLN VAL ASN GLY ILE VAL VAL SER ARG GLY VAL LYS ASP MET GLU LEU ASP ALA S2808 S2809 L2819 K2820 K2821 I2822 L2823 I2833 A2834 H2835 L2836 E2837 A2838 I2839 V2840 S2841 S2842 G2843 K2844 T2845 E2846 K2847 S2848 P2849 H2850 E2853 L2861 L2862 P2863 L2864

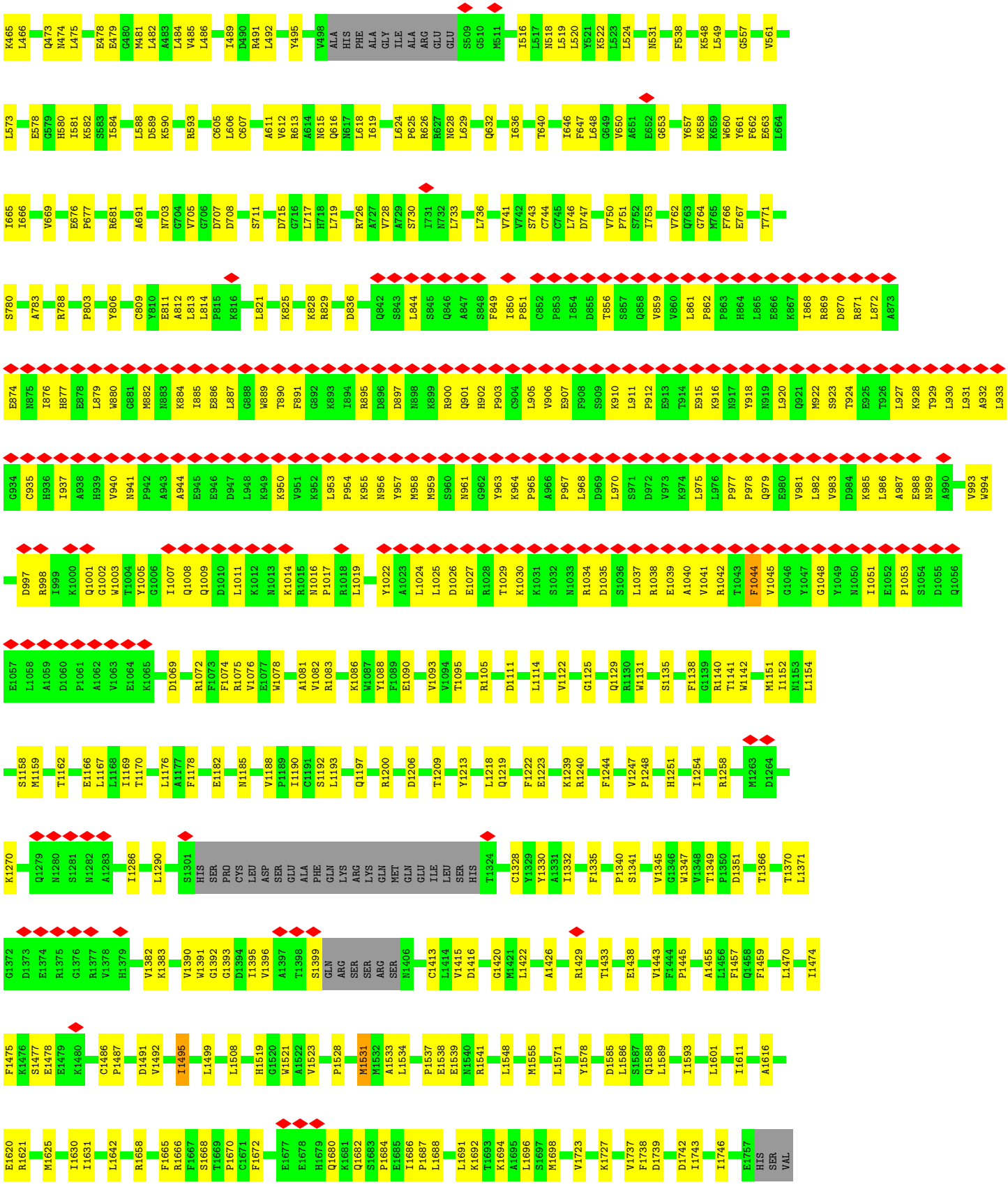




• Molecule 2: Ryanodine receptor 3

Chain H:

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L573 E578 G579 H580 I581 K582 S583 I584 L588 D589 K590 R593 C605 L606 C607 A611 V612 R613 A614 N615 Q616 N617 L618 I619 L624 P625 R626 R627 N628 L629 Q632 I636 T640 I646 F647 L648 G649 V650 A651 E652 G653 Y657 K658 K659 W660 Y661 F662 E663 L664
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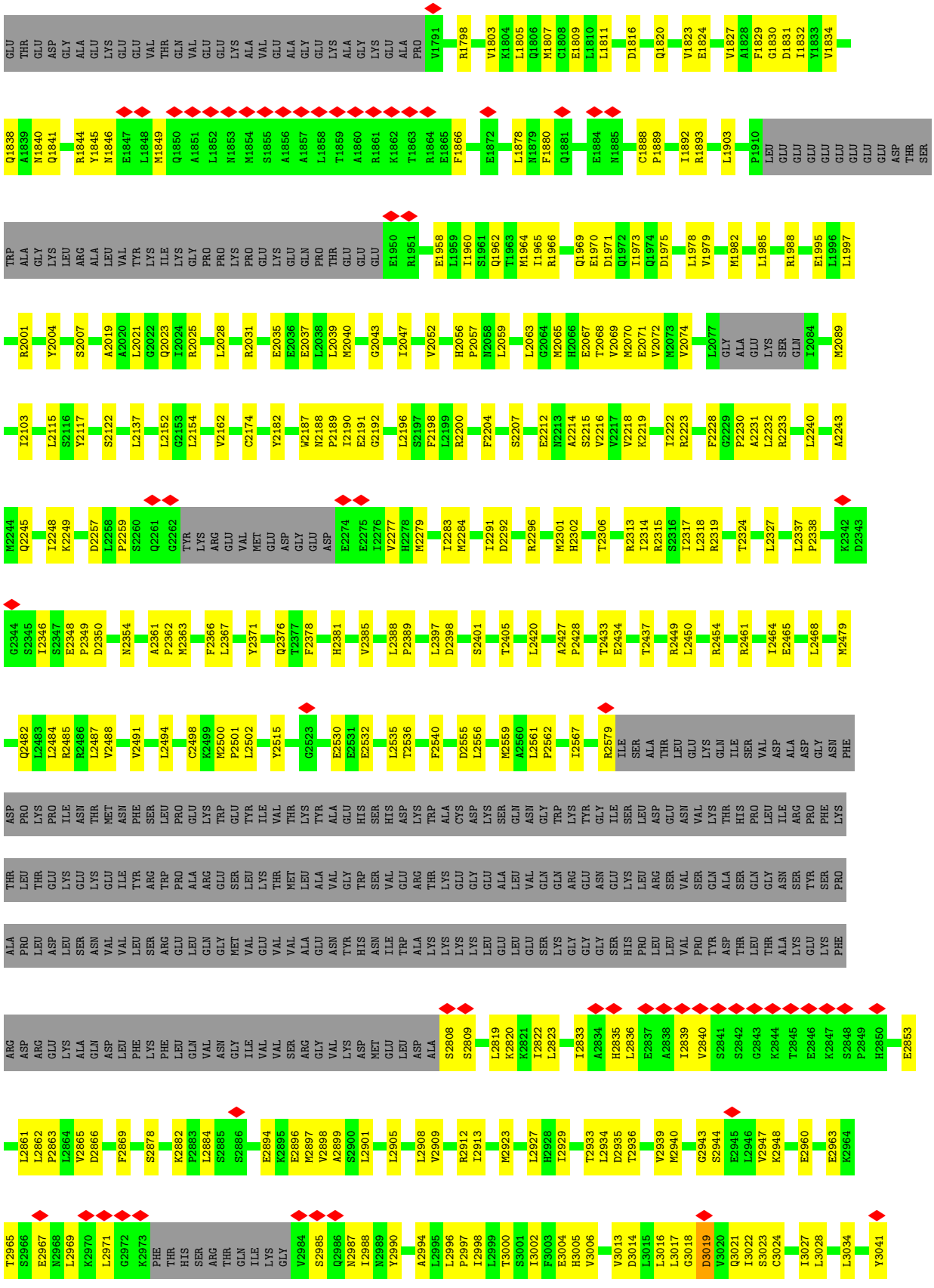
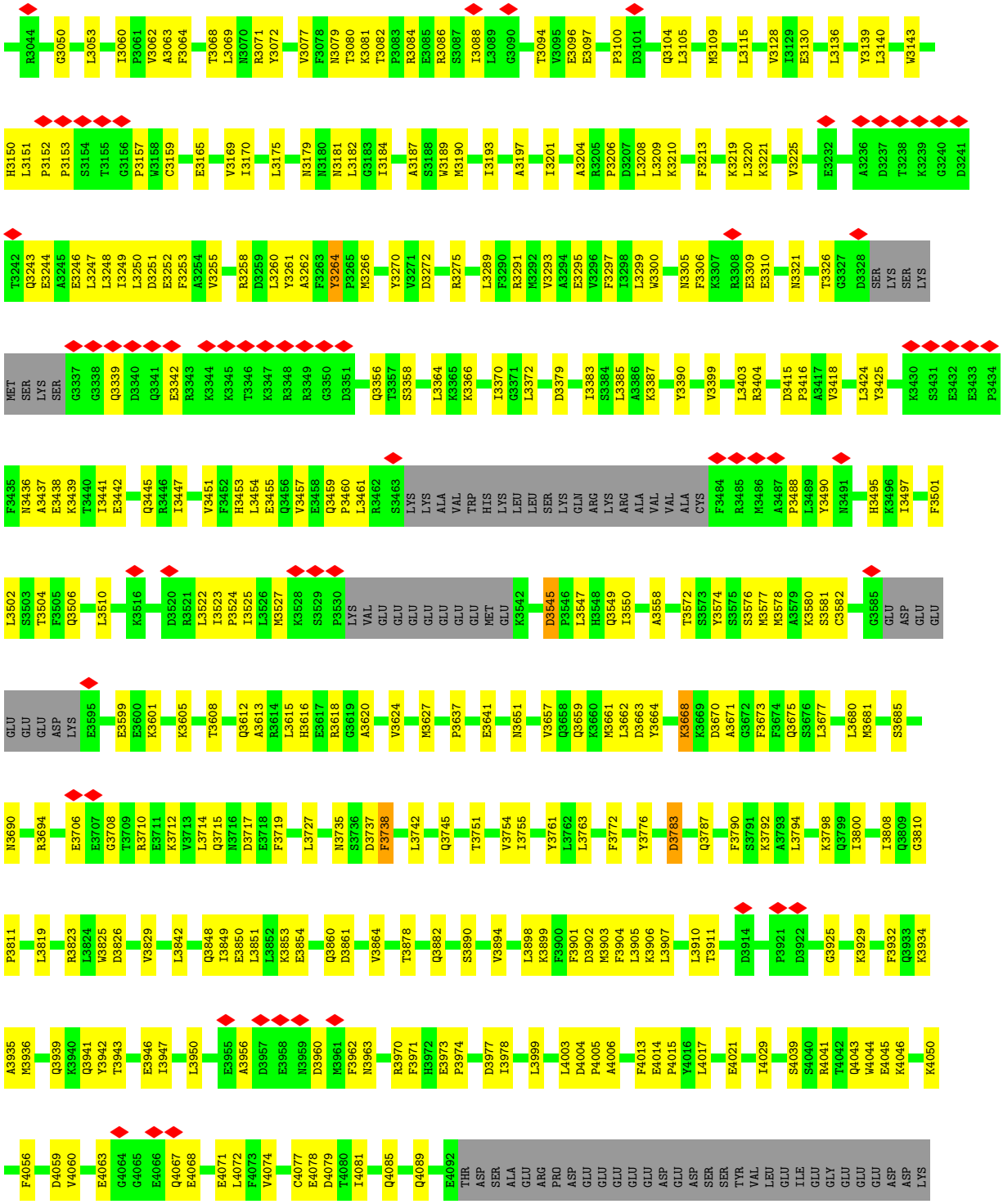
S1158 M1159 T1162 E1166 L1167 L1168 I1169 T1170 L1176 A1177 F1178 E1182 N1185 V1188 P1189 I1190 C1191 S1192 L1193 Q1197 R1200 D1206 T1209 Y1213 L1218 Q1219 F1222 E1223 K1239 R1240 F1244 V1247 P1248 H1251 I1254 R1258 M1263 D1264
K1270 Q1279 N1280 S1281 N1282 A1283 I1286 L1290 S1301 HIS SER PRO CYS LEU ASP SER GLU ALA PHE GLN LYS ARG LYS GLN MET GLN GLU ILE LEU SER HIS T1324 C1328 Y1329 Y1330 A1331 I1332 F1335 P1340 S1341 V1345 G1346 W1347 V1348 T1349 P1350 D1351 T1366 T1370 L1371
G1372 D1373 E1374 R1375 G1376 R1377 V1378 H1379 V1382 K1383 V1390 W1391 G1392 G1393 D1394 I1395 V1396 A1397 T1398 S1399 GLN ARG SER SER ARG SER N1406 C1413 L1414 V1415 D1416 G1420 M1421 L1422 A1426 R1429 T1433 E1438 V1443 F1444 P1445 A1455 L1456 F1457 Q1458 F1459 L1470 I1474
F1475 K1476 S1477 E1478 E1479 K1480 C1486 P1487 D1491 V1492 I1495 L1499 L1508 H1519 G1520 W1521 A1522 V1523 P1528 M1531 M1532 A1533 L1534 P1537 E1538 E1539 N1540 R1541 L1548 M1555 L1571 Y1578 D1585 L1586 S1587 Q1588 L1589 I1593 L1601 I1611 A1616
E1620 R1621 M1625 I1630 I1631 L1642 R1658 F1665 R1666 F1667 S1668 T1669 P1670 C1671 F1672 E1677 E1678 H1679 Q1680 K1681 Q1682 S1683 P1684 E1685 I1686 P1687 L1688 L1691 K1692 T1693 K1694 A1695 L1696 S1697 M1698 V1723 K1727 V1737 F1738 D1739 D1742 I1743 I1746 E1757 HIS SER VAL

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H3150 L3151 P3152 P3153 S3154 T3155 G3156 P3157 W3158 C3159 E3165 V3169 I3170 L3175 N3179 N3180 N3181 L3182 G3183 I3184 A3187 S3188 W3189 M3190 I3193 A3197 I3201 A3204 R3205 P3206 D3207 L3208 L3209 K3210 F3213 K3219 L3220 K3221 V3225 E3232 A3236 D3237 T3238 K3239 G3240 D3241
T3242 Q3243 E3244 A3245 E3246 L3247 L3248 I3249 L3250 D3251 E3252 F3253 A3254 V3255 R3258 D3259 L3260 Y3261 A3262 F3263 Y3264 P3265 M3266 Y3270 V3271 D3272 R3275 L3289 F3290 R3291 K3292 V3293 A3294 E3295 V3296 F3297 I3298 L3299 W3300 N3305 F3306 K3307 R3308 E3309 E3310 N3321 T3326 G3327 D3328 SER LYS SER LYS
MET SER LYS SER G3337 G3338 Q3339 D3340 Q3341 E3342 R3343 K3344 K3345 T3346 K3347 R3348 R3349 G3350 D3351 Q3356 T3357 S3358 L3364 K3365 K3366 I3370 G3371 L3372 D3379 I3383 S3384 L3385 A3386 K3387 Y3390 V3399 L3403 R3404 D3415 P3416 A3417 V3418 L3424 Y3425 K3430 S3431 E3432 E3433 P3434
F3435 N3436 A3437 E3438 K3439 T3440 I3441 E3442 Q3445 R3446 I3447 V3451 F3452 H3453 L3454 E3455 Q3456 V3457 E3458 Q3459 P3460 L3461 R3462 S3463 LYS LYS ALA VAL TRP HIS LYS LEU LEU SER LYS GLN ARG LYS ARG ALA VAL VAL ALA CYS F3484 R3485 M3486 A3487 P3488 L3489 Y3490 N3491 H3495 K3496 I3497 F3501
L3502 S3503 T3504 P3505 Q3506 L3510 K3516 D3520 R3521 L3522 I3523 P3524 I3525 L3526 M3527 K3528 S3529 P3530 LYS VAL GLU GLU GLU GLU GLU GLU GLU MET GLU K3542 D3545 P3546 L3547 H3548 Q3549 I3550 A3558 T3572 S3573 Y3574 S3575 S3576 M3577 M3578 A3579 K3580 S3581 C3582 G3585 GLU ASP GLU GLU
GLU GLU GLU ASP LYS E3595 E3599 E3600 K3601 K3605 T3608 Q3612 A3613 R3614 L3615 H3616 E3617 R3618 G3619 A3620 V3624 M3627 P3637 E3641 N3651 V3657 Q3658 Q3659 K3660 M3661 L3662 D3663 Y3664 K3668 K3669 D3670 A3671 G3672 F3673 F3674 Q3675 S3676 L3677 L3680 M3681 S3685
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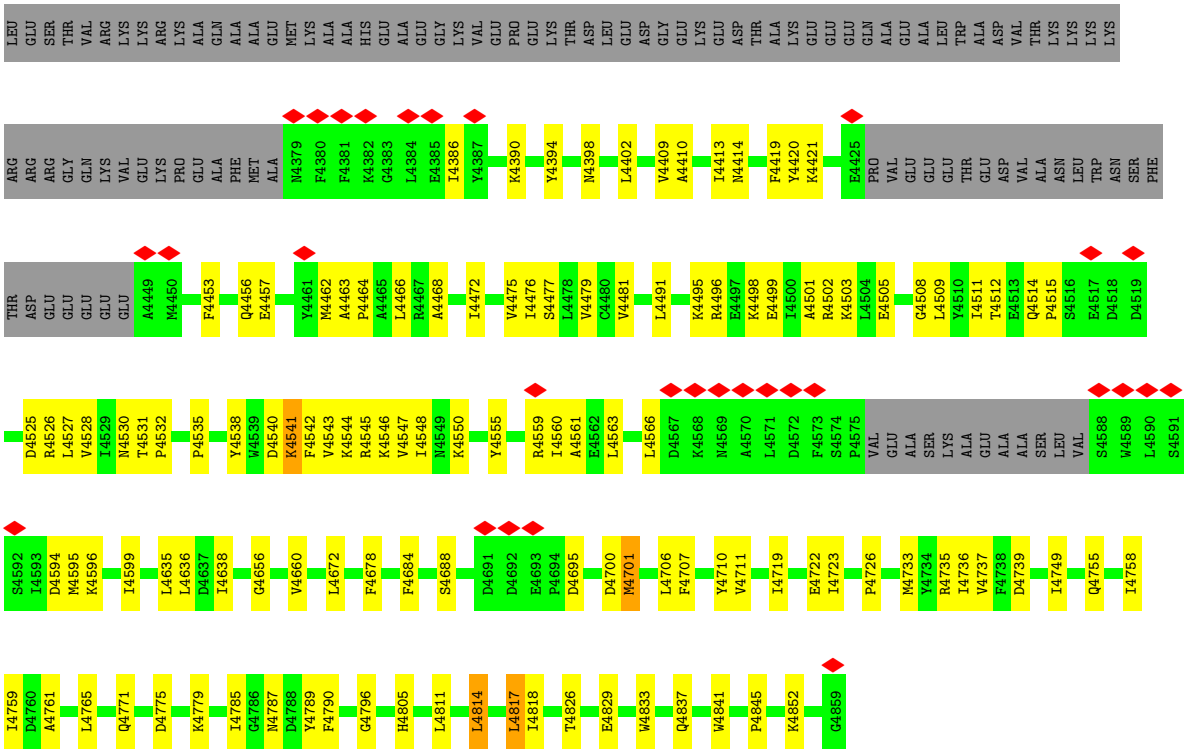
P3811 L3819 R3823 L3824 W3825 D3826 V3829 L3842 Q3848 I3849 E3850 L3851 L3852 K3853 E3854 Q3860 D3861 V3864 T3878 Q3882 S3890 V3894 L3898 K3899 F3900 F3901 D3902 M3903 F3904 L3905 K3906 L3907 L3910 T3911 D3914 P3921 D3922 G3925 K3929 F3932 Q3933 K3934
A3935 M3936 Q3939 K3940 Q3941 Y3942 T3943 E3946 I3947 L3950 E3955 A3956 D3957 E3958 N3959 D3960 M3961 F3962 N3963 R3970 F3971 H3972 E3973 P3974 D3977 I3978 L3999 L4003 D4004 P4005 A4006 F4013 E4014 P4015 Y4016 L4017 E4021 I4029 S4039 S4040 R4041 T4042 Q4043 W4044 E4045 K4046 K4050
F4056 D4059 V4060 E4063 G4064 G4065 E4066 Q4067 E4068 E4071 L4072 F4073 V4074 C4077 E4078 D4079 T4080 I4081 Q4085 Q4089 E4092 THR ASP SER ALA GLU ARG PRO ASP GLU GLU GLU GLU GLU ASP GLU ASP SER SER TYR VAL LEU GLU ILE GLU GLY GLU GLU GLU ASP ASP LYS
SER PHE GLU SER ALA SER ALA PHE ALA MET ALA CYS ALA SER VAL LYS ARG ASN VAL ALA ASN PHE LEU LYS LYS ALA THR LEU LYS ASN LEU ARG LYS GLN TYR ARG LYS VAL LYS LYS MET THR VAL LYS GLU LEU VAL LYS VAL PHE PHE SER PHE PHE TRP MET LEU PHE VAL GLY
LEU PHE ARG LEU PHE PHE THR ILE LEU GLY GLY ILE PHE GLN ILE LEU TRP ASN THR VAL ASP PHE GLY GLY GLY LEU VAL GLU GLY ALA LYS ASN ILE ARG VAL THR LYS ILE LEU GLY ASP MET PRO ASP PRO THR GLN PHE GLY ILE HIS ASP ASP ALA LEU ASP ALA GLU ARG ALA GLU
VAL THR GLU PRO GLY VAL PRO PRO GLU LEU ILE HIS PHE VAL LYS GLY GLU LYS GLY ASP ALA ASP ILE MET SER ASP LEU PHE GLY PHE HIS PRO LYS LYS GLU GLY GLY LEU LYS HIS GLY PRO GLU GLY GLY LEU GLY ASP LEU SER GLU ILE ILE GLY LYS ASP GLU PRO PRO THR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ARG ARG ARG GLY GLN LYS VAL GLU LYS PRO GLU ALA PHE MET ALA N4379 F4380 F4381 K4382 G4383 L4384 E4385 I4386 Y4387 K4390 Y4394 M4398 L4402 V4409 A4410 I4413 N4414 F4419 Y4420 K4421 E4425 PRO VAL GLU GLU GLU THR GLU ASP VAL ALA ASN LEU TRP ASN SER PHE
THR ASP GLU GLU GLU GLU GLU A4449 M4450 F4453 Q4456 E4457 Y4461 M4462 A4463 P4464 A4465 L4466 R4467 A4468 I4472 V4475 I4476 S4477 L4478 V4479 C4480 V4481 L4491 K4495 R4496 E4497 K4498 E4499 I4500 A4501 R4502 K4503 L4504 E4505 G4508 L4509 Y4510 I4511 T4512 E4513 Q4514 P4515 S4516 E4517 D4518 D4519
D4525 R4526 L4527 V4528 I4529 N4530 T4531 P4532 P4535 Y4538 W4539 D4540 K4541 F4542 V4543 K4544 R4545 K4546 V4547 I4548 N4549 K4550 Y4555 R4559 I4560 A4561 E4562 L4563 L4566 D4567 K4568 N4569 A4570 L4571 D4572 F4573 S4574 P4575 VAL GLU ALA SER LYS ALA GLU ALA ALA SER LEU VAL S4588 W4589 L4590 S4591
S4592 I4593 D4594 M4595 K4596 I4599 L4635 L4636 D4637 I4638 G4656 V4660 L4672 F4678 F4684 S4688 D4691 D4692 E4693 P4694 D4695 D4700 M4701 L4706 F4707 Y4710 V4711 I4719 E4722 I4723 P4726 M4733 Y4734 R4735 I4736 V4737 F4738 D4739 I4749 Q4755 I4758
I4759 D4760 A4761 L4765 Q4771 D4775 K4779 I4785 G4786 N4787 D4788 Y4789 F4790 G4796 H4805 L4811 L4814 L4817 I4818 T4826 E4829 W4833 Q4837 W4841 P4845 K4852 G4859

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	84690	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	50	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	0.693	Depositor
Minimum map value	0.000	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.015	Depositor
Recommended contour level	0.068	Depositor
Map size (Å)	478.72, 478.72, 478.72	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.935, 0.935, 0.935	Depositor

5 Model quality

5.1 Standard geometry

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

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	0.29	0/831	0.48	0/1120
1	C	0.29	0/831	0.48	0/1120
1	E	0.29	0/831	0.48	0/1120
1	G	0.29	0/831	0.48	0/1120
2	B	0.33	0/32381	0.46	0/43893
2	D	0.33	0/32381	0.46	0/43893
2	F	0.33	0/32381	0.46	0/43893
2	H	0.33	0/32381	0.46	0/43893
All	All	0.33	0/132848	0.46	0/180052

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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	815	0	821	22	0
1	C	815	0	821	22	0
1	E	815	0	821	20	0
1	G	815	0	821	22	0
2	B	31699	0	31082	932	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	D	31699	0	31082	942	0
2	F	31699	0	31082	929	0
2	H	31699	0	31082	929	0
3	B	1	0	0	0	0
3	D	1	0	0	0	0
3	F	1	0	0	0	0
3	H	1	0	0	0	0
4	B	1	0	0	0	0
4	D	1	0	0	0	0
4	F	1	0	0	0	0
4	H	1	0	0	0	0
5	B	62	24	24	2	0
5	D	62	24	24	2	0
5	F	62	24	24	2	0
5	H	62	24	24	2	0
6	B	14	10	10	0	0
6	D	14	10	10	0	0
6	F	14	10	10	0	0
6	H	14	10	10	0	0
7	B	1	0	0	1	0
7	D	1	0	0	1	0
7	F	1	0	0	1	0
7	H	1	0	0	1	0
All	All	130372	136	127748	3762	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 (3762) 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)
2:B:983:VAL:HG22	2:B:1041:VAL:HG21	1.45	0.98
2:H:885:ILE:HG21	2:H:957:TYR:HA	1.45	0.98
2:H:983:VAL:HG22	2:H:1041:VAL:HG21	1.45	0.98
2:B:885:ILE:HG21	2:B:957:TYR:HA	1.45	0.98
2:F:983:VAL:HG22	2:F:1041:VAL:HG21	1.45	0.98
2:D:983:VAL:HG22	2:D:1041:VAL:HG21	1.45	0.97
2:F:889:TRP:HA	2:F:900:ARG:HB3	1.46	0.97
2:F:885:ILE:HG21	2:F:957:TYR:HA	1.45	0.97
2:B:889:TRP:HA	2:B:900:ARG:HB3	1.46	0.95
2:D:885:ILE:HG21	2:D:957:TYR:HA	1.45	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:889:TRP:HA	2:D:900:ARG:HB3	1.46	0.95
2:H:889:TRP:HA	2:H:900:ARG:HB3	1.46	0.93
2:D:3929:LYS:HE3	2:D:3956:ALA:HB2	1.52	0.92
2:F:1670:PRO:HG3	2:F:1684:PRO:HB3	1.53	0.91
2:H:232:GLU:HG2	2:H:253:ALA:HB2	1.52	0.91
2:H:1670:PRO:HG3	2:H:1684:PRO:HB3	1.53	0.91
2:H:3929:LYS:HE3	2:H:3956:ALA:HB2	1.52	0.91
2:B:1670:PRO:HG3	2:B:1684:PRO:HB3	1.53	0.91
2:B:3929:LYS:HE3	2:B:3956:ALA:HB2	1.52	0.90
2:F:3929:LYS:HE3	2:F:3956:ALA:HB2	1.52	0.90
2:F:232:GLU:HG2	2:F:253:ALA:HB2	1.52	0.90
2:D:1670:PRO:HG3	2:D:1684:PRO:HB3	1.53	0.89
2:B:232:GLU:HG2	2:B:253:ALA:HB2	1.52	0.89
2:D:232:GLU:HG2	2:D:253:ALA:HB2	1.52	0.89
2:D:235:THR:HG22	2:D:262:SER:HB3	1.54	0.89
2:B:691:ALA:HB1	2:B:825:LYS:HD2	1.55	0.88
2:D:691:ALA:HB1	2:D:825:LYS:HD2	1.55	0.88
2:F:235:THR:HG22	2:F:262:SER:HB3	1.54	0.88
2:B:235:THR:HG22	2:B:262:SER:HB3	1.54	0.87
2:B:2822:ILE:HD13	2:B:2865:VAL:HG22	1.58	0.86
2:D:611:ALA:HB2	2:D:1571:LEU:HD12	1.57	0.86
2:H:235:THR:HG22	2:H:262:SER:HB3	1.54	0.86
2:D:2822:ILE:HD13	2:D:2865:VAL:HG22	1.58	0.85
2:F:650:VAL:HG23	2:F:658:LYS:HE2	1.57	0.85
2:B:3763:LEU:HD11	2:B:3823:ARG:HB2	1.59	0.85
2:F:691:ALA:HB1	2:F:825:LYS:HD2	1.55	0.85
2:H:611:ALA:HB2	2:H:1571:LEU:HD12	1.57	0.85
2:H:2822:ILE:HD13	2:H:2865:VAL:HG22	1.58	0.85
2:B:573:LEU:HD22	2:B:607:CYS:HB2	1.59	0.85
2:H:691:ALA:HB1	2:H:825:LYS:HD2	1.55	0.85
2:F:2346:ILE:HD11	2:F:2401:SER:HB2	1.59	0.85
2:H:650:VAL:HG23	2:H:658:LYS:HE2	1.57	0.84
2:D:3763:LEU:HD11	2:D:3823:ARG:HB2	1.59	0.84
2:D:2346:ILE:HD11	2:D:2401:SER:HB2	1.59	0.84
2:F:611:ALA:HB2	2:F:1571:LEU:HD12	1.57	0.84
2:F:2822:ILE:HD13	2:F:2865:VAL:HG22	1.58	0.84
2:F:3527:MET:HG3	2:F:3618:ARG:HH12	1.43	0.84
2:D:3220:LEU:HD13	2:D:3260:LEU:HD23	1.60	0.83
2:B:650:VAL:HG23	2:B:658:LYS:HE2	1.57	0.83
2:H:2346:ILE:HD11	2:H:2401:SER:HB2	1.59	0.83
2:D:650:VAL:HG23	2:D:658:LYS:HE2	1.57	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:3763:LEU:HD11	2:H:3823:ARG:HB2	1.59	0.83
2:B:1162:THR:HG22	2:B:1167:LEU:HD23	1.61	0.83
2:B:611:ALA:HB2	2:B:1571:LEU:HD12	1.57	0.83
2:F:3763:LEU:HD11	2:F:3823:ARG:HB2	1.59	0.83
2:H:573:LEU:HD22	2:H:607:CYS:HB2	1.59	0.83
2:D:1162:THR:HG22	2:D:1167:LEU:HD23	1.61	0.83
2:F:573:LEU:HD22	2:F:607:CYS:HB2	1.59	0.83
2:H:3527:MET:HG3	2:H:3618:ARG:HH12	1.43	0.82
2:H:3220:LEU:HD13	2:H:3260:LEU:HD23	1.60	0.82
2:B:2346:ILE:HD11	2:B:2401:SER:HB2	1.59	0.82
2:D:573:LEU:HD22	2:D:607:CYS:HB2	1.59	0.82
2:F:3220:LEU:HD13	2:F:3260:LEU:HD23	1.60	0.82
2:D:3527:MET:HG3	2:D:3618:ARG:HH12	1.43	0.82
2:H:1162:THR:HG22	2:H:1167:LEU:HD23	1.61	0.81
2:F:1162:THR:HG22	2:F:1167:LEU:HD23	1.61	0.81
2:B:3220:LEU:HD13	2:B:3260:LEU:HD23	1.60	0.81
2:B:3077:VAL:HA	2:B:3080:THR:HG22	1.63	0.81
2:D:3077:VAL:HA	2:D:3080:THR:HG22	1.63	0.81
2:F:3077:VAL:HA	2:F:3080:THR:HG22	1.63	0.81
2:F:3425:TYR:OH	2:H:1219:GLN:NE2	2.15	0.81
2:B:3527:MET:HG3	2:B:3618:ARG:HH12	1.43	0.80
2:H:3077:VAL:HA	2:H:3080:THR:HG22	1.63	0.80
2:B:3425:TYR:OH	2:D:1219:GLN:NE2	2.15	0.80
2:D:50:LEU:HD12	2:D:191:VAL:HG12	1.65	0.79
2:D:4555:TYR:HB3	2:D:4559:ARG:HH21	1.48	0.79
2:D:3425:TYR:OH	2:F:1219:GLN:NE2	2.15	0.79
2:B:4555:TYR:HB3	2:B:4559:ARG:HH21	1.48	0.79
2:F:50:LEU:HD12	2:F:191:VAL:HG12	1.65	0.79
2:F:911:LEU:HD12	2:F:912:PRO:HD2	1.65	0.79
2:B:1219:GLN:NE2	2:H:3425:TYR:OH	2.15	0.78
2:F:4555:TYR:HB3	2:F:4559:ARG:HH21	1.48	0.78
2:B:50:LEU:HD12	2:B:191:VAL:HG12	1.65	0.78
2:F:811:GLU:HA	2:F:1007:ILE:HD12	1.66	0.78
2:H:50:LEU:HD12	2:H:191:VAL:HG12	1.65	0.78
2:D:1009:GLN:HE21	2:D:1011:LEU:HB2	1.49	0.78
2:F:1009:GLN:HE21	2:F:1011:LEU:HB2	1.49	0.78
2:H:911:LEU:HD12	2:H:912:PRO:HD2	1.65	0.78
2:H:937:ILE:HG12	2:H:1051:ILE:HD12	1.66	0.78
2:D:3898:LEU:HD13	2:D:4006:ALA:HB2	1.66	0.77
2:F:3898:LEU:HD13	2:F:4006:ALA:HB2	1.66	0.77
2:H:2047:ILE:HG21	2:H:2065:MET:HE1	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1009:GLN:HE21	2:B:1011:LEU:HB2	1.49	0.77
2:D:811:GLU:HA	2:D:1007:ILE:HD12	1.66	0.77
2:H:4555:TYR:HB3	2:H:4559:ARG:HH21	1.48	0.77
2:B:937:ILE:HG12	2:B:1051:ILE:HD12	1.66	0.77
2:D:911:LEU:HD12	2:D:912:PRO:HD2	1.65	0.77
2:D:937:ILE:HG12	2:D:1051:ILE:HD12	1.66	0.77
2:F:937:ILE:HG12	2:F:1051:ILE:HD12	1.66	0.77
2:H:3898:LEU:HD13	2:H:4006:ALA:HB2	1.66	0.77
2:H:1009:GLN:HE21	2:H:1011:LEU:HB2	1.49	0.77
2:D:422:VAL:HG23	2:D:491:ARG:HG3	1.67	0.77
2:B:3898:LEU:HD13	2:B:4006:ALA:HB2	1.66	0.77
2:F:422:VAL:HG23	2:F:491:ARG:HG3	1.67	0.77
2:F:1129:GLN:OE1	2:F:1135:SER:OG	2.03	0.77
2:F:2047:ILE:HG21	2:F:2065:MET:HE1	1.66	0.77
2:B:1114:LEU:HD11	2:B:1190:ILE:HD13	1.67	0.77
2:B:1129:GLN:OE1	2:B:1135:SER:OG	2.03	0.77
2:D:1129:GLN:OE1	2:D:1135:SER:OG	2.03	0.77
2:H:869:ARG:HB2	2:H:927:LEU:HD11	1.67	0.77
2:H:811:GLU:HA	2:H:1007:ILE:HD12	1.66	0.76
2:B:911:LEU:HD12	2:B:912:PRO:HD2	1.65	0.76
2:D:2047:ILE:HG21	2:D:2065:MET:HE1	1.67	0.76
2:B:869:ARG:HB2	2:B:927:LEU:HD11	1.67	0.76
2:D:4496:ARG:NH1	2:D:4525:ASP:OD1	2.19	0.76
2:F:869:ARG:HB2	2:F:927:LEU:HD11	1.67	0.76
2:H:1114:LEU:HD11	2:H:1190:ILE:HD13	1.67	0.76
2:H:4496:ARG:NH1	2:H:4525:ASP:OD1	2.19	0.76
2:D:1114:LEU:HD11	2:D:1190:ILE:HD13	1.67	0.76
2:F:109:ILE:HG21	2:F:152:ILE:HD11	1.68	0.76
2:H:109:ILE:HG21	2:H:152:ILE:HD11	1.68	0.76
2:H:1129:GLN:OE1	2:H:1135:SER:OG	2.03	0.75
2:D:869:ARG:HB2	2:D:927:LEU:HD11	1.67	0.75
2:B:811:GLU:HA	2:B:1007:ILE:HD12	1.66	0.75
2:B:3385:LEU:HD22	2:B:3403:LEU:HD23	1.68	0.75
2:B:422:VAL:HG23	2:B:491:ARG:HG3	1.67	0.75
2:B:2047:ILE:HG21	2:B:2065:MET:HE1	1.69	0.75
2:H:422:VAL:HG23	2:H:491:ARG:HG3	1.67	0.75
2:H:924:THR:HG22	2:H:928:LYS:HE3	1.69	0.75
2:B:4496:ARG:NH1	2:B:4525:ASP:OD1	2.19	0.75
2:F:924:THR:HG22	2:F:928:LYS:HE3	1.69	0.75
2:F:1114:LEU:HD11	2:F:1190:ILE:HD13	1.67	0.75
2:D:109:ILE:HG21	2:D:152:ILE:HD11	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:3385:LEU:HD22	2:F:3403:LEU:HD23	1.68	0.74
2:F:411:ILE:HD13	2:F:479:GLU:HG3	1.69	0.74
2:H:3019:ASP:OD1	2:H:3019:ASP:N	2.20	0.74
2:D:411:ILE:HD13	2:D:479:GLU:HG3	1.69	0.74
2:B:109:ILE:HG21	2:B:152:ILE:HD11	1.68	0.74
2:B:296:ALA:HB2	2:B:316:THR:HG22	1.70	0.74
2:D:296:ALA:HB2	2:D:316:THR:HG22	1.70	0.74
2:D:1022:TYR:O	2:D:1030:LYS:NZ	2.20	0.74
2:F:4496:ARG:NH1	2:F:4525:ASP:OD1	2.19	0.73
2:D:3300:TRP:NE1	2:D:3310:GLU:OE1	2.20	0.73
2:F:178:SER:HB2	2:F:180:ARG:HH11	1.53	0.73
2:H:3385:LEU:HD22	2:H:3403:LEU:HD23	1.68	0.73
2:B:411:ILE:HD13	2:B:479:GLU:HG3	1.69	0.73
2:F:3300:TRP:NE1	2:F:3310:GLU:OE1	2.20	0.73
2:D:924:THR:HG22	2:D:928:LYS:HE3	1.69	0.73
2:B:924:THR:HG22	2:B:928:LYS:HE3	1.69	0.73
2:B:3300:TRP:NE1	2:B:3310:GLU:OE1	2.20	0.73
2:H:411:ILE:HD13	2:H:479:GLU:HG3	1.69	0.73
2:H:3204:ALA:HB1	2:H:3208:LEU:HD12	1.71	0.73
2:B:1022:TYR:O	2:B:1030:LYS:NZ	2.20	0.73
2:H:1022:TYR:O	2:H:1030:LYS:NZ	2.20	0.73
2:D:1105:ARG:NH2	2:D:1182:GLU:O	2.22	0.73
2:H:178:SER:HB2	2:H:180:ARG:HH11	1.53	0.73
2:H:4457:GLU:HG2	2:H:4462:MET:HG3	1.70	0.73
2:D:3523:ILE:HG22	2:D:3524:PRO:HD3	1.71	0.73
2:D:4457:GLU:HG2	2:D:4462:MET:HG3	1.70	0.73
2:D:3385:LEU:HD22	2:D:3403:LEU:HD23	1.68	0.72
2:F:296:ALA:HB2	2:F:316:THR:HG22	1.70	0.72
2:H:3300:TRP:NE1	2:H:3310:GLU:OE1	2.20	0.72
2:B:1105:ARG:NH2	2:B:1182:GLU:O	2.22	0.72
2:B:4739:ASP:OD2	2:H:4710:TYR:OH	2.07	0.72
2:H:1816:ASP:OD1	2:H:1988:ARG:NH2	2.20	0.72
2:B:3204:ALA:HB1	2:B:3208:LEU:HD12	1.71	0.72
2:H:296:ALA:HB2	2:H:316:THR:HG22	1.70	0.72
2:B:297:LEU:HD12	2:B:385:LEU:HD13	1.72	0.72
2:F:289:ILE:O	2:F:412:ARG:NH1	2.23	0.72
2:F:3019:ASP:N	2:F:3019:ASP:OD1	2.20	0.72
2:F:4457:GLU:HG2	2:F:4462:MET:HG3	1.70	0.72
2:B:3523:ILE:HG22	2:B:3524:PRO:HD3	1.71	0.72
2:B:4710:TYR:OH	2:D:4739:ASP:OD2	2.07	0.72
2:D:178:SER:HB2	2:D:180:ARG:HH11	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1105:ARG:NH2	2:F:1182:GLU:O	2.22	0.72
2:D:297:LEU:HD12	2:D:385:LEU:HD13	1.72	0.72
2:H:4530:ASN:ND2	2:H:4563:LEU:O	2.23	0.72
2:B:4457:GLU:HG2	2:B:4462:MET:HG3	1.70	0.72
2:F:3523:ILE:HG22	2:F:3524:PRO:HD3	1.71	0.72
2:H:133:LEU:O	2:H:180:ARG:NE	2.23	0.72
2:B:133:LEU:O	2:B:180:ARG:NE	2.23	0.71
2:F:1022:TYR:O	2:F:1030:LYS:NZ	2.20	0.71
2:F:3204:ALA:HB1	2:F:3208:LEU:HD12	1.71	0.71
2:D:4530:ASN:ND2	2:D:4563:LEU:O	2.23	0.71
2:F:297:LEU:HD12	2:F:385:LEU:HD13	1.72	0.71
2:B:178:SER:HB2	2:B:180:ARG:HH11	1.53	0.71
2:H:1105:ARG:NH2	2:H:1182:GLU:O	2.22	0.71
2:B:681:ARG:NH1	2:B:707:ASP:OD1	2.23	0.71
2:D:3204:ALA:HB1	2:D:3208:LEU:HD12	1.71	0.71
2:F:646:ILE:HD13	2:F:809:CYS:HB3	1.73	0.71
2:D:4710:TYR:OH	2:F:4739:ASP:OD2	2.07	0.71
1:A:50:ARG:HD3	1:A:53:LYS:HE3	1.73	0.71
2:H:646:ILE:HD13	2:H:809:CYS:HB3	1.73	0.71
2:F:4530:ASN:ND2	2:F:4563:LEU:O	2.23	0.71
2:H:3523:ILE:HG22	2:H:3524:PRO:HD3	1.71	0.71
2:B:289:ILE:O	2:B:412:ARG:NH1	2.23	0.70
2:F:4710:TYR:OH	2:H:4739:ASP:OD2	2.07	0.70
2:H:650:VAL:HG11	2:H:771:THR:HB	1.73	0.70
2:D:646:ILE:HD13	2:D:809:CYS:HB3	1.73	0.70
2:F:681:ARG:NH1	2:F:707:ASP:OD1	2.23	0.70
2:B:4394:TYR:O	2:B:4398:ASN:ND2	2.24	0.70
2:H:859:VAL:HG21	2:H:932:ALA:HB2	1.73	0.70
2:H:4394:TYR:O	2:H:4398:ASN:ND2	2.24	0.70
2:B:4530:ASN:ND2	2:B:4563:LEU:O	2.23	0.70
2:H:297:LEU:HD12	2:H:385:LEU:HD13	1.72	0.70
2:F:930:LEU:HD21	2:F:986:LEU:HD11	1.73	0.70
2:H:2350:ASP:O	2:H:2354:ASN:ND2	2.24	0.70
2:B:859:VAL:HG21	2:B:932:ALA:HB2	1.73	0.70
2:D:3019:ASP:N	2:D:3019:ASP:OD1	2.20	0.70
2:F:2350:ASP:O	2:F:2354:ASN:ND2	2.24	0.70
2:B:1798:ARG:NH2	2:B:1971:ASP:OD2	2.24	0.70
2:F:133:LEU:O	2:F:180:ARG:NE	2.23	0.70
2:D:4394:TYR:O	2:D:4398:ASN:ND2	2.24	0.70
1:E:50:ARG:HD3	1:E:53:LYS:HE3	1.73	0.70
2:F:4394:TYR:O	2:F:4398:ASN:ND2	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3019:ASP:OD1	2:B:3019:ASP:N	2.20	0.69
2:D:133:LEU:O	2:D:180:ARG:NE	2.23	0.69
2:B:646:ILE:HD13	2:B:809:CYS:HB3	1.73	0.69
2:B:650:VAL:HG11	2:B:771:THR:HB	1.73	0.69
2:D:1816:ASP:OD1	2:D:1988:ARG:NH2	2.20	0.69
2:F:859:VAL:HG21	2:F:932:ALA:HB2	1.73	0.69
2:F:2530:GLU:OE1	2:F:2579:ARG:NH2	2.25	0.69
1:G:50:ARG:HD3	1:G:53:LYS:HE3	1.73	0.69
2:D:2350:ASP:O	2:D:2354:ASN:ND2	2.24	0.69
2:D:3094:THR:HG22	2:D:3096:GLU:H	1.57	0.69
2:F:650:VAL:HG11	2:F:771:THR:HB	1.73	0.69
2:F:3094:THR:HG22	2:F:3096:GLU:H	1.57	0.69
2:B:3253:PHE:HB3	2:B:3309:GLU:HG3	1.74	0.69
1:C:50:ARG:HD3	1:C:53:LYS:HE3	1.73	0.69
2:D:650:VAL:HG11	2:D:771:THR:HB	1.73	0.69
2:D:2530:GLU:OE1	2:D:2579:ARG:NH2	2.25	0.69
2:D:3253:PHE:HB3	2:D:3309:GLU:HG3	1.74	0.69
2:F:1816:ASP:OD1	2:F:1988:ARG:NH2	2.20	0.69
2:B:1816:ASP:OD1	2:B:1988:ARG:NH2	2.20	0.69
2:H:2530:GLU:OE1	2:H:2579:ARG:NH2	2.25	0.69
2:H:681:ARG:NH1	2:H:707:ASP:OD1	2.23	0.69
2:H:930:LEU:HD21	2:H:986:LEU:HD11	1.73	0.69
2:B:767:GLU:OE2	2:B:1370:THR:OG1	2.10	0.69
2:B:2530:GLU:OE1	2:B:2579:ARG:NH2	2.25	0.69
2:H:289:ILE:O	2:H:412:ARG:NH1	2.23	0.69
2:H:3253:PHE:HB3	2:H:3309:GLU:HG3	1.74	0.69
2:B:2350:ASP:O	2:B:2354:ASN:ND2	2.24	0.69
2:D:930:LEU:HD21	2:D:986:LEU:HD11	1.73	0.69
2:F:613:ARG:NH2	2:F:1571:LEU:O	2.26	0.69
2:B:20:GLU:OE2	2:B:114:SER:OG	2.08	0.68
2:D:859:VAL:HG21	2:D:932:ALA:HB2	1.73	0.68
2:D:289:ILE:O	2:D:412:ARG:NH1	2.23	0.68
2:F:3253:PHE:HB3	2:F:3309:GLU:HG3	1.74	0.68
2:H:958:MET:HB3	2:H:964:LYS:HB2	1.76	0.68
2:F:2465:GLU:HB3	2:F:2500:MET:HG3	1.75	0.68
2:F:958:MET:HB3	2:F:964:LYS:HB2	1.76	0.68
2:H:3094:THR:HG22	2:H:3096:GLU:H	1.57	0.68
2:D:958:MET:HB3	2:D:964:LYS:HB2	1.76	0.68
2:H:856:THR:HB	2:H:928:LYS:HB3	1.76	0.68
2:B:3094:THR:HG22	2:B:3096:GLU:H	1.57	0.68
2:B:4790:PHE:O	2:B:4796:GLY:HA3	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:681:ARG:NH1	2:D:707:ASP:OD1	2.23	0.68
2:B:856:THR:HB	2:B:928:LYS:HB3	1.76	0.68
2:B:930:LEU:HD21	2:B:986:LEU:HD11	1.73	0.68
2:B:958:MET:HB3	2:B:964:LYS:HB2	1.76	0.68
2:D:2465:GLU:HB3	2:D:2500:MET:HG3	1.75	0.68
2:F:265:ARG:HB2	2:F:289:ILE:HD11	1.75	0.68
2:F:3572:THR:HG23	2:F:3641:GLU:HG3	1.75	0.68
2:D:20:GLU:OE2	2:D:114:SER:OG	2.08	0.67
2:H:2465:GLU:HB3	2:H:2500:MET:HG3	1.75	0.67
2:D:3547:LEU:HD23	2:D:3618:ARG:HH11	1.60	0.67
2:B:21:VAL:HG12	2:B:206:PRO:HA	1.77	0.67
2:B:2482:GLN:OE1	2:B:2485:ARG:NH1	2.28	0.67
2:D:2482:GLN:OE1	2:D:2485:ARG:NH1	2.28	0.67
2:F:626:ARG:HH11	2:F:629:LEU:HD11	1.60	0.67
2:F:2540:PHE:HB2	2:F:2567:ILE:HG21	1.77	0.67
2:F:4402:LEU:HD13	2:F:4479:VAL:HG23	1.77	0.67
2:H:21:VAL:HG12	2:H:206:PRO:HA	1.77	0.67
2:H:265:ARG:HB2	2:H:289:ILE:HD11	1.75	0.67
2:H:4790:PHE:O	2:H:4796:GLY:HA3	1.94	0.67
2:B:626:ARG:HH11	2:B:629:LEU:HD11	1.60	0.67
2:D:814:LEU:HD13	2:D:1024:LEU:HD21	1.76	0.67
2:D:856:THR:HB	2:D:928:LYS:HB3	1.76	0.67
2:D:1399:SER:HB2	2:D:1429:ARG:HH21	1.60	0.67
2:F:4790:PHE:O	2:F:4796:GLY:HA3	1.94	0.67
2:H:3572:THR:HG23	2:H:3641:GLU:HG3	1.75	0.67
2:H:418:PHE:HB2	2:H:484:LEU:HD21	1.77	0.67
2:H:2540:PHE:HB2	2:H:2567:ILE:HG21	1.77	0.67
2:B:1399:SER:HB2	2:B:1429:ARG:HH21	1.60	0.67
2:D:4402:LEU:HD13	2:D:4479:VAL:HG23	1.77	0.67
2:F:814:LEU:HD13	2:F:1024:LEU:HD21	1.76	0.67
2:B:4402:LEU:HD13	2:B:4479:VAL:HG23	1.77	0.67
2:D:3572:THR:HG23	2:D:3641:GLU:HG3	1.75	0.67
1:G:58:LYS:O	1:G:62:GLU:HG2	1.95	0.67
2:B:418:PHE:HB2	2:B:484:LEU:HD21	1.77	0.67
2:D:4790:PHE:O	2:D:4796:GLY:HA3	1.94	0.67
2:F:1798:ARG:NH2	2:F:1971:ASP:OD2	2.24	0.67
2:B:152:ILE:HG23	2:B:171:LEU:HD23	1.77	0.67
2:B:613:ARG:NH2	2:B:1571:LEU:O	2.26	0.67
2:B:2465:GLU:HB3	2:B:2500:MET:HG3	1.75	0.67
2:B:3547:LEU:HD23	2:B:3618:ARG:HH11	1.60	0.67
2:B:3572:THR:HG23	2:B:3641:GLU:HG3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:626:ARG:HH11	2:D:629:LEU:HD11	1.60	0.67
2:F:856:THR:HB	2:F:928:LYS:HB3	1.76	0.67
2:F:3547:LEU:HD23	2:F:3618:ARG:HH11	1.60	0.67
2:H:876:ILE:HD13	2:H:879:LEU:HD12	1.77	0.67
1:A:58:LYS:O	1:A:62:GLU:HG2	1.95	0.66
2:D:665:ILE:HD12	2:D:741:VAL:HG22	1.77	0.66
2:F:21:VAL:HG12	2:F:206:PRO:HA	1.77	0.66
2:H:20:GLU:OE2	2:H:114:SER:OG	2.08	0.66
2:D:21:VAL:HG12	2:D:206:PRO:HA	1.77	0.66
2:D:2540:PHE:HB2	2:D:2567:ILE:HG21	1.77	0.66
2:F:876:ILE:HD13	2:F:879:LEU:HD12	1.77	0.66
2:F:1399:SER:HB2	2:F:1429:ARG:HH21	1.60	0.66
2:H:767:GLU:OE2	2:H:1370:THR:OG1	2.10	0.66
2:H:2482:GLN:OE1	2:H:2485:ARG:NH1	2.28	0.66
2:B:814:LEU:HD13	2:B:1024:LEU:HD21	1.76	0.66
1:C:58:LYS:O	1:C:62:GLU:HG2	1.95	0.66
2:F:2482:GLN:OE1	2:F:2485:ARG:NH1	2.28	0.66
2:H:626:ARG:HH11	2:H:629:LEU:HD11	1.60	0.66
2:H:1399:SER:HB2	2:H:1429:ARG:HH21	1.60	0.66
2:H:1798:ARG:NH2	2:H:1971:ASP:OD2	2.24	0.66
2:B:876:ILE:HD13	2:B:879:LEU:HD12	1.77	0.66
2:D:265:ARG:HB2	2:D:289:ILE:HD11	1.75	0.66
2:D:1798:ARG:NH2	2:D:1971:ASP:OD2	2.24	0.66
2:H:152:ILE:HG23	2:H:171:LEU:HD23	1.77	0.66
2:B:665:ILE:HD12	2:B:741:VAL:HG22	1.77	0.66
2:F:767:GLU:OE2	2:F:1370:THR:OG1	2.10	0.66
2:H:665:ILE:HD12	2:H:741:VAL:HG22	1.77	0.66
2:H:613:ARG:NH2	2:H:1571:LEU:O	2.26	0.66
2:H:814:LEU:HD13	2:H:1024:LEU:HD21	1.76	0.66
2:H:3547:LEU:HD23	2:H:3618:ARG:HH11	1.60	0.66
2:B:265:ARG:HB2	2:B:289:ILE:HD11	1.75	0.66
2:D:876:ILE:HD13	2:D:879:LEU:HD12	1.77	0.66
2:B:997:ASP:OD2	2:B:998:ARG:NH2	2.29	0.66
2:F:665:ILE:HD12	2:F:741:VAL:HG22	1.77	0.66
2:H:4402:LEU:HD13	2:H:4479:VAL:HG23	1.77	0.66
2:F:1846:ASN:HA	2:F:1849:MET:HE2	1.78	0.66
2:D:418:PHE:HB2	2:D:484:LEU:HD21	1.77	0.65
2:F:418:PHE:HB2	2:F:484:LEU:HD21	1.77	0.65
2:F:1114:LEU:HG	2:F:1122:VAL:HG11	1.78	0.65
2:F:2215:SER:O	2:F:2219:LYS:HG2	1.97	0.65
2:B:2540:PHE:HB2	2:B:2567:ILE:HG21	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:767:GLU:OE2	2:D:1370:THR:OG1	2.10	0.65
1:E:58:LYS:O	1:E:62:GLU:HG2	1.95	0.65
2:F:2899:ALA:HA	2:F:2934:LEU:HD21	1.78	0.65
2:D:1114:LEU:HG	2:D:1122:VAL:HG11	1.78	0.65
2:H:2190:ILE:HD11	2:H:2277:VAL:HG11	1.79	0.65
2:H:2556:LEU:HA	2:H:2559:MET:HE2	1.78	0.65
2:B:221:GLY:O	2:B:265:ARG:NH1	2.30	0.65
2:H:2899:ALA:HA	2:H:2934:LEU:HD21	1.78	0.65
2:D:2899:ALA:HA	2:D:2934:LEU:HD21	1.78	0.65
2:F:2190:ILE:HD11	2:F:2277:VAL:HG11	1.79	0.65
2:H:1114:LEU:HG	2:H:1122:VAL:HG11	1.78	0.65
2:D:421:PHE:HZ	2:D:492:LEU:HD21	1.62	0.65
2:F:152:ILE:HG23	2:F:171:LEU:HD23	1.77	0.65
2:F:997:ASP:OD2	2:F:998:ARG:NH2	2.29	0.65
2:H:2215:SER:O	2:H:2219:LYS:HG2	1.97	0.65
2:B:421:PHE:HZ	2:B:492:LEU:HD21	1.62	0.65
2:D:152:ILE:HG23	2:D:171:LEU:HD23	1.77	0.65
2:D:4684:PHE:HB2	2:D:4735:ARG:HH21	1.62	0.65
2:H:221:GLY:O	2:H:265:ARG:NH1	2.30	0.65
2:F:324:LYS:NZ	2:F:390:HIS:O	2.30	0.65
2:B:2899:ALA:HA	2:B:2934:LEU:HD21	1.78	0.64
2:D:2215:SER:O	2:D:2219:LYS:HG2	1.97	0.64
2:B:268:PRO:HG3	2:B:278:ILE:HD11	1.80	0.64
2:B:2215:SER:O	2:B:2219:LYS:HG2	1.97	0.64
2:F:20:GLU:OE2	2:F:114:SER:OG	2.08	0.64
2:B:1114:LEU:HG	2:B:1122:VAL:HG11	1.78	0.64
2:B:2028:LEU:HD21	2:B:2072:VAL:HG22	1.80	0.64
2:F:4410:ALA:O	2:F:4414:ASN:ND2	2.30	0.64
2:H:324:LYS:NZ	2:H:390:HIS:O	2.30	0.64
2:H:2028:LEU:HD21	2:H:2072:VAL:HG22	1.80	0.64
2:B:2190:ILE:HD11	2:B:2277:VAL:HG11	1.79	0.64
2:D:705:VAL:HG23	2:D:780:SER:HB3	1.79	0.64
2:D:4021:GLU:OE1	2:D:4805:HIS:NE2	2.30	0.64
2:F:2556:LEU:HA	2:F:2559:MET:HE2	1.78	0.64
2:F:221:GLY:O	2:F:265:ARG:NH1	2.30	0.64
2:F:3390:TYR:OH	2:F:3445:GLN:NE2	2.26	0.64
2:B:2853:GLU:OE1	2:B:2853:GLU:N	2.30	0.64
2:D:1069:ASP:HB3	2:D:1240:ARG:HG3	1.80	0.64
2:H:268:PRO:HG3	2:H:278:ILE:HD11	1.80	0.64
2:B:2556:LEU:HA	2:B:2559:MET:HE2	1.80	0.64
2:D:221:GLY:O	2:D:265:ARG:NH1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:997:ASP:OD2	2:D:998:ARG:NH2	2.29	0.64
2:D:2190:ILE:HD11	2:D:2277:VAL:HG11	1.79	0.64
2:H:1069:ASP:HB3	2:H:1240:ARG:HG3	1.80	0.64
2:H:1088:TYR:OH	2:H:1090:GLU:OE2	2.16	0.64
2:H:2853:GLU:OE1	2:H:2853:GLU:N	2.30	0.64
2:D:16:ARG:NH1	2:D:102:THR:OG1	2.31	0.64
2:D:2853:GLU:N	2:D:2853:GLU:OE1	2.30	0.64
2:D:3390:TYR:OH	2:D:3445:GLN:NE2	2.26	0.64
2:F:4684:PHE:HB2	2:F:4735:ARG:HH21	1.62	0.64
2:F:4723:ILE:HD12	2:F:4735:ARG:NH2	2.13	0.64
2:H:421:PHE:HZ	2:H:492:LEU:HD21	1.62	0.64
2:H:705:VAL:HG23	2:H:780:SER:HB3	1.79	0.64
2:H:955:LYS:O	2:H:958:MET:HG2	1.98	0.64
2:B:4410:ALA:O	2:B:4414:ASN:ND2	2.30	0.64
2:D:1589:LEU:O	2:D:1593:ILE:HG23	1.98	0.64
2:F:1069:ASP:HB3	2:F:1240:ARG:HG3	1.80	0.64
2:F:2040:MET:HB2	2:F:2089:MET:HE1	1.79	0.64
2:D:324:LYS:NZ	2:D:390:HIS:O	2.30	0.63
2:D:2028:LEU:HD21	2:D:2072:VAL:HG22	1.80	0.63
2:D:2556:LEU:HA	2:D:2559:MET:HE2	1.79	0.63
2:D:4723:ILE:HD12	2:D:4735:ARG:NH2	2.13	0.63
2:F:2820:LYS:HD3	2:F:2897:MET:HE1	1.78	0.63
2:F:4021:GLU:OE1	2:F:4805:HIS:NE2	2.30	0.63
2:H:1589:LEU:O	2:H:1593:ILE:HG23	1.98	0.63
2:H:4410:ALA:O	2:H:4414:ASN:ND2	2.30	0.63
2:B:650:VAL:CG1	2:B:771:THR:HB	2.28	0.63
2:B:4723:ILE:HD12	2:B:4735:ARG:NH2	2.13	0.63
2:D:268:PRO:HG3	2:D:278:ILE:HD11	1.80	0.63
2:D:3763:LEU:HD11	2:D:3823:ARG:CB	2.29	0.63
2:F:861:LEU:HD12	2:F:862:PRO:HD2	1.80	0.63
2:B:1069:ASP:HB3	2:B:1240:ARG:HG3	1.80	0.63
2:D:1088:TYR:OH	2:D:1090:GLU:OE2	2.16	0.63
2:F:421:PHE:HZ	2:F:492:LEU:HD21	1.62	0.63
2:F:2028:LEU:HD21	2:F:2072:VAL:HG22	1.80	0.63
2:F:2853:GLU:OE1	2:F:2853:GLU:N	2.30	0.63
2:F:2896:GLU:CG	2:F:2947:VAL:HG21	2.29	0.63
2:H:4723:ILE:HD12	2:H:4735:ARG:NH2	2.13	0.63
2:B:4684:PHE:HB2	2:B:4735:ARG:HH21	1.62	0.63
2:D:650:VAL:CG1	2:D:771:THR:HB	2.28	0.63
2:D:4039:SER:O	2:D:4043:GLN:HG2	1.99	0.63
2:F:955:LYS:O	2:F:958:MET:HG2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:16:ARG:NH1	2:H:102:THR:OG1	2.31	0.63
2:H:4021:GLU:OE1	2:H:4805:HIS:NE2	2.30	0.63
2:H:4039:SER:O	2:H:4043:GLN:HG2	1.99	0.63
2:D:955:LYS:O	2:D:958:MET:HG2	1.98	0.63
2:F:1088:TYR:OH	2:F:1090:GLU:OE2	2.16	0.63
2:D:4410:ALA:O	2:D:4414:ASN:ND2	2.30	0.63
2:F:268:PRO:HG3	2:F:278:ILE:HD11	1.80	0.63
2:F:1589:LEU:O	2:F:1593:ILE:HG23	1.98	0.63
2:H:861:LEU:HD12	2:H:862:PRO:HD2	1.80	0.63
2:H:997:ASP:OD2	2:H:998:ARG:NH2	2.29	0.63
2:B:324:LYS:NZ	2:B:390:HIS:O	2.30	0.63
2:B:2025:ARG:NH2	2:B:2063:LEU:O	2.32	0.63
2:F:650:VAL:CG1	2:F:771:THR:HB	2.28	0.63
2:B:891:PHE:CE2	2:B:961:ASN:HB2	2.34	0.63
2:B:1589:LEU:O	2:B:1593:ILE:HG23	1.98	0.63
1:C:50:ARG:HB2	1:C:53:LYS:HD2	1.81	0.63
2:F:705:VAL:HG23	2:F:780:SER:HB3	1.79	0.63
2:F:891:PHE:CE2	2:F:961:ASN:HB2	2.34	0.63
2:H:640:THR:OG1	2:H:1508:LEU:HD12	1.99	0.63
2:H:2896:GLU:CG	2:H:2947:VAL:HG21	2.29	0.63
2:B:640:THR:OG1	2:B:1508:LEU:HD12	1.99	0.63
2:B:955:LYS:O	2:B:958:MET:HG2	1.98	0.63
2:H:650:VAL:CG1	2:H:771:THR:HB	2.28	0.63
2:H:891:PHE:CE2	2:H:961:ASN:HB2	2.34	0.63
1:A:24:VAL:HG22	1:A:48:LYS:HG2	1.81	0.62
2:B:653:GLY:O	2:B:850:ILE:HA	1.99	0.62
2:B:1088:TYR:OH	2:B:1090:GLU:OE2	2.16	0.62
2:B:4711:VAL:HG12	2:B:4722:GLU:HG3	1.81	0.62
2:D:1846:ASN:HA	2:D:1849:MET:HE2	1.81	0.62
1:E:50:ARG:HB2	1:E:53:LYS:HD2	1.81	0.62
2:H:3783:ASP:N	2:H:3783:ASP:OD1	2.32	0.62
2:D:911:LEU:CD1	2:D:912:PRO:HD2	2.29	0.62
1:E:24:VAL:HG22	1:E:48:LYS:HG2	1.81	0.62
2:F:16:ARG:NH1	2:F:102:THR:OG1	2.31	0.62
1:A:50:ARG:HB2	1:A:53:LYS:HD2	1.81	0.62
2:B:4039:SER:O	2:B:4043:GLN:HG2	1.99	0.62
2:D:640:THR:OG1	2:D:1508:LEU:HD12	1.99	0.62
2:D:891:PHE:CE2	2:D:961:ASN:HB2	2.34	0.62
2:B:861:LEU:HD12	2:B:862:PRO:HD2	1.80	0.62
2:B:911:LEU:CD1	2:B:912:PRO:HD2	2.29	0.62
1:C:24:VAL:HG22	1:C:48:LYS:HG2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:590:LYS:HE3	2:D:1477:SER:HB2	1.82	0.62
2:D:2896:GLU:CG	2:D:2947:VAL:HG21	2.29	0.62
2:D:3790:PHE:O	2:D:3794:LEU:HG	1.99	0.62
2:F:4039:SER:O	2:F:4043:GLN:HG2	1.99	0.62
2:F:4711:VAL:HG12	2:F:4722:GLU:HG3	1.81	0.62
2:H:653:GLY:O	2:H:850:ILE:HA	1.99	0.62
2:B:705:VAL:HG23	2:B:780:SER:HB3	1.79	0.62
2:B:1578:TYR:OH	2:B:1668:SER:HB3	1.99	0.62
2:D:4711:VAL:HG12	2:D:4722:GLU:HG3	1.81	0.62
2:D:4817:LEU:HD11	2:D:4829:GLU:HB3	1.81	0.62
2:F:640:THR:OG1	2:F:1508:LEU:HD12	1.99	0.62
2:F:1025:LEU:HD11	2:F:1029:THR:HG21	1.81	0.62
2:H:590:LYS:HE3	2:H:1477:SER:HB2	1.82	0.62
2:H:1578:TYR:OH	2:H:1668:SER:HB3	1.99	0.62
2:H:3790:PHE:O	2:H:3794:LEU:HG	1.99	0.62
2:B:50:LEU:CD1	2:B:184:LEU:HD12	2.30	0.62
2:B:4021:GLU:OE1	2:B:4805:HIS:NE2	2.30	0.62
2:D:861:LEU:HD12	2:D:862:PRO:HD2	1.80	0.62
2:F:4817:LEU:HD11	2:F:4829:GLU:HB3	1.81	0.62
2:H:4684:PHE:HB2	2:H:4735:ARG:HH21	1.62	0.62
2:B:3790:PHE:O	2:B:3794:LEU:HG	1.99	0.62
2:D:50:LEU:CD1	2:D:184:LEU:HD12	2.30	0.62
2:D:1578:TYR:OH	2:D:1668:SER:HB3	1.99	0.62
2:F:2025:ARG:NH2	2:F:2063:LEU:O	2.32	0.62
2:F:3790:PHE:O	2:F:3794:LEU:HG	1.99	0.62
1:G:24:VAL:HG22	1:G:48:LYS:HG2	1.81	0.62
1:G:50:ARG:HB2	1:G:53:LYS:HD2	1.81	0.62
2:B:2896:GLU:CG	2:B:2947:VAL:HG21	2.29	0.62
2:D:613:ARG:NH2	2:D:1571:LEU:O	2.26	0.62
2:F:2819:LEU:HD21	2:F:2869:PHE:HZ	1.64	0.62
2:F:3523:ILE:HG13	2:F:3527:MET:SD	2.40	0.62
2:F:3763:LEU:HD11	2:F:3823:ARG:CB	2.29	0.62
2:H:1025:LEU:HD11	2:H:1029:THR:HG21	1.81	0.62
2:H:2040:MET:HB2	2:H:2089:MET:HE1	1.82	0.62
2:B:16:ARG:NH1	2:B:102:THR:OG1	2.31	0.62
2:D:2025:ARG:NH2	2:D:2063:LEU:O	2.32	0.62
2:D:2820:LYS:HD3	2:D:2897:MET:HE1	1.81	0.62
2:F:1075:ARG:HD2	2:F:1078:TRP:CH2	2.35	0.62
2:H:2025:ARG:NH2	2:H:2063:LEU:O	2.32	0.62
2:H:3523:ILE:HG13	2:H:3527:MET:SD	2.40	0.62
2:B:489:ILE:HG22	2:B:548:LYS:HZ3	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:590:LYS:HE3	2:B:1477:SER:HB2	1.82	0.61
2:D:653:GLY:O	2:D:850:ILE:HA	1.99	0.61
2:D:891:PHE:HB3	2:D:959:MET:HB3	1.82	0.61
2:D:2819:LEU:HD21	2:D:2869:PHE:HZ	1.64	0.61
2:D:3310:GLU:OE2	2:D:3358:SER:OG	2.13	0.61
2:F:590:LYS:HE3	2:F:1477:SER:HB2	1.82	0.61
2:F:891:PHE:HB3	2:F:959:MET:HB3	1.82	0.61
2:H:1340:PRO:HB2	2:H:1396:VAL:HG11	1.82	0.61
2:D:3523:ILE:HG13	2:D:3527:MET:SD	2.40	0.61
2:F:489:ILE:HG22	2:F:548:LYS:HZ3	1.64	0.61
2:F:653:GLY:O	2:F:850:ILE:HA	1.99	0.61
2:H:4711:VAL:HG12	2:H:4722:GLU:HG3	1.81	0.61
2:B:1025:LEU:HD11	2:B:1029:THR:HG21	1.81	0.61
2:B:2819:LEU:HD21	2:B:2869:PHE:HZ	1.64	0.61
2:D:489:ILE:HG22	2:D:548:LYS:HZ3	1.65	0.61
2:D:1247:VAL:HG21	2:D:1254:ILE:HD11	1.83	0.61
2:F:1340:PRO:HB2	2:F:1396:VAL:HG11	1.82	0.61
2:H:50:LEU:CD1	2:H:184:LEU:HD12	2.30	0.61
2:H:4817:LEU:HD11	2:H:4829:GLU:HB3	1.81	0.61
2:D:1025:LEU:HD11	2:D:1029:THR:HG21	1.81	0.61
2:F:911:LEU:CD1	2:F:912:PRO:HD2	2.29	0.61
2:H:1075:ARG:HD2	2:H:1078:TRP:CH2	2.35	0.61
2:F:1247:VAL:HG21	2:F:1254:ILE:HD11	1.83	0.61
2:F:1578:TYR:OH	2:F:1668:SER:HB3	1.99	0.61
2:F:2934:LEU:O	2:F:3005:HIS:NE2	2.26	0.61
2:B:3910:LEU:HD21	2:B:3941:GLN:OE1	2.01	0.61
2:B:4758:ILE:HD12	2:D:4749:ILE:HD11	1.83	0.61
2:B:4817:LEU:HD11	2:B:4829:GLU:HB3	1.81	0.61
2:D:890:THR:O	2:D:901:GLN:HA	2.01	0.61
2:H:1247:VAL:HG21	2:H:1254:ILE:HD11	1.83	0.61
2:D:1075:ARG:HD2	2:D:1078:TRP:CH2	2.35	0.61
2:D:3973:GLU:HB2	2:D:3974:PRO:HD3	1.83	0.61
2:F:50:LEU:CD1	2:F:184:LEU:HD12	2.30	0.61
2:H:3910:LEU:HD21	2:H:3941:GLN:OE1	2.01	0.61
2:B:647:PHE:CE1	2:B:844:LEU:HD13	2.36	0.61
2:B:1075:ARG:HD2	2:B:1078:TRP:CH2	2.35	0.61
2:B:1247:VAL:HG21	2:B:1254:ILE:HD11	1.83	0.60
2:B:4749:ILE:HD11	2:H:4758:ILE:HD12	1.83	0.60
2:F:890:THR:O	2:F:901:GLN:HA	2.01	0.60
2:B:890:THR:O	2:B:901:GLN:HA	2.01	0.60
2:B:3523:ILE:HG13	2:B:3527:MET:SD	2.40	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:954:PRO:HG2	2:D:956:ASN:OD1	2.01	0.60
2:H:911:LEU:CD1	2:H:912:PRO:HD2	2.29	0.60
2:H:2835:HIS:O	2:H:2839:ILE:HG23	2.01	0.60
2:H:3763:LEU:HD11	2:H:3823:ARG:CB	2.29	0.60
2:B:3356:GLN:NE2	2:B:3461:LEU:HD23	2.17	0.60
2:D:647:PHE:CE1	2:D:844:LEU:HD13	2.36	0.60
2:D:836:ASP:OD1	2:D:1200:ARG:NE	2.31	0.60
2:H:3613:ALA:HA	2:H:3616:HIS:CD2	2.37	0.60
2:B:1340:PRO:HB2	2:B:1396:VAL:HG11	1.82	0.60
2:D:235:THR:HG22	2:D:262:SER:CB	2.31	0.60
2:D:2835:HIS:O	2:D:2839:ILE:HG23	2.01	0.60
2:F:3902:ASP:OD1	2:F:3906:LYS:HE3	2.02	0.60
2:H:890:THR:O	2:H:901:GLN:HA	2.01	0.60
2:H:2819:LEU:HD21	2:H:2869:PHE:HZ	1.64	0.60
2:H:3356:GLN:NE2	2:H:3461:LEU:HD23	2.17	0.60
2:B:1534:LEU:HD22	2:B:1548:LEU:HD11	1.83	0.60
2:B:3681:MET:HE1	2:B:3754:VAL:HG13	1.84	0.60
2:B:3902:ASP:OD1	2:B:3906:LYS:HE3	2.02	0.60
2:D:319:SER:HB3	2:D:358:ILE:HD11	1.84	0.60
2:D:3613:ALA:HA	2:D:3616:HIS:CD2	2.37	0.60
2:D:3910:LEU:HD21	2:D:3941:GLN:OE1	2.01	0.60
2:F:3613:ALA:HA	2:F:3616:HIS:CD2	2.37	0.60
2:H:489:ILE:HG22	2:H:548:LYS:HZ3	1.65	0.60
2:B:319:SER:HB3	2:B:358:ILE:HD11	1.84	0.60
2:B:1003:TRP:CE3	2:B:1016:ASN:HB2	2.37	0.60
2:B:2162:VAL:HG21	2:B:2198:PHE:CE2	2.37	0.60
2:B:2820:LYS:HD3	2:B:2897:MET:HE1	1.82	0.60
2:B:3973:GLU:HB2	2:B:3974:PRO:HD3	1.83	0.60
2:D:2381:HIS:O	2:D:2385:VAL:HG22	2.01	0.60
2:D:3356:GLN:NE2	2:D:3461:LEU:HD23	2.17	0.60
2:D:3681:MET:HE1	2:D:3754:VAL:HG13	1.84	0.60
2:D:3902:ASP:OD1	2:D:3906:LYS:HE3	2.02	0.60
2:F:647:PHE:CE1	2:F:844:LEU:HD13	2.36	0.60
2:F:954:PRO:HG2	2:F:956:ASN:OD1	2.01	0.60
2:F:3910:LEU:HD21	2:F:3941:GLN:OE1	2.01	0.60
2:B:2381:HIS:O	2:B:2385:VAL:HG22	2.01	0.60
2:D:1340:PRO:HB2	2:D:1396:VAL:HG11	1.82	0.60
2:H:1534:LEU:HD22	2:H:1548:LEU:HD11	1.83	0.60
2:H:3545:ASP:O	2:H:3549:GLN:HG3	2.02	0.60
2:H:4514:GLN:OE1	2:H:4526:ARG:NH2	2.35	0.60
2:B:954:PRO:HG2	2:B:956:ASN:OD1	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2823:LEU:HD21	2:B:2901:LEU:HB2	1.84	0.60
2:B:3613:ALA:HA	2:B:3616:HIS:CD2	2.37	0.60
2:D:1003:TRP:CE3	2:D:1016:ASN:HB2	2.37	0.60
2:D:2004:TYR:CD2	2:D:2059:LEU:HD13	2.37	0.60
2:F:1213:TYR:OH	2:F:1222:PHE:O	2.12	0.60
2:F:2162:VAL:HG21	2:F:2198:PHE:CE2	2.37	0.60
2:F:2896:GLU:HG3	2:F:2947:VAL:HG21	1.84	0.60
2:H:821:LEU:HD11	2:H:1521:TRP:HB3	1.84	0.60
2:B:280:TRP:N	2:B:345:GLU:OE1	2.26	0.60
2:B:2896:GLU:HG3	2:B:2947:VAL:HG21	1.84	0.60
2:D:3808:ILE:HG21	2:D:3819:LEU:HD12	1.84	0.60
2:F:4758:ILE:HD12	2:H:4749:ILE:HD11	1.83	0.60
2:H:1415:VAL:HG22	2:H:1422:LEU:HG	1.83	0.60
2:B:891:PHE:HB3	2:B:959:MET:HB3	1.82	0.59
2:B:1846:ASN:HA	2:B:1849:MET:HE2	1.82	0.59
2:D:1534:LEU:HD22	2:D:1548:LEU:HD11	1.83	0.59
2:F:1415:VAL:HG22	2:F:1422:LEU:HG	1.83	0.59
2:F:1534:LEU:HD22	2:F:1548:LEU:HD11	1.83	0.59
2:F:2835:HIS:O	2:F:2839:ILE:HG23	2.01	0.59
2:F:3356:GLN:NE2	2:F:3461:LEU:HD23	2.17	0.59
2:B:3545:ASP:O	2:B:3549:GLN:HG3	2.02	0.59
2:B:3808:ILE:HG21	2:B:3819:LEU:HD12	1.84	0.59
2:D:3576:SER:O	2:D:3580:LYS:HG2	2.03	0.59
2:F:3576:SER:O	2:F:3580:LYS:HG2	2.03	0.59
2:H:891:PHE:HB3	2:H:959:MET:HB3	1.82	0.59
2:D:895:ARG:HB3	2:D:903:PRO:HD3	1.85	0.59
2:D:4077:CYS:O	2:D:4081:ILE:HG13	2.02	0.59
2:D:4514:GLN:OE1	2:D:4526:ARG:NH2	2.35	0.59
2:F:2381:HIS:O	2:F:2385:VAL:HG22	2.01	0.59
2:F:3973:GLU:HB2	2:F:3974:PRO:HD3	1.83	0.59
2:F:4514:GLN:OE1	2:F:4526:ARG:NH2	2.35	0.59
2:H:2896:GLU:HG3	2:H:2947:VAL:HG21	1.84	0.59
2:H:3808:ILE:HG21	2:H:3819:LEU:HD12	1.84	0.59
2:H:3973:GLU:HB2	2:H:3974:PRO:HD3	1.83	0.59
2:B:3763:LEU:HD11	2:B:3823:ARG:CB	2.29	0.59
2:B:4514:GLN:OE1	2:B:4526:ARG:NH2	2.35	0.59
2:D:2162:VAL:HG21	2:D:2198:PHE:CE2	2.37	0.59
2:D:2896:GLU:HG3	2:D:2947:VAL:HG21	1.84	0.59
2:H:647:PHE:CE1	2:H:844:LEU:HD13	2.36	0.59
2:H:2162:VAL:HG21	2:H:2198:PHE:CE2	2.37	0.59
2:H:2381:HIS:O	2:H:2385:VAL:HG22	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:981:VAL:O	2:B:985:LYS:HG2	2.02	0.59
2:B:2905:LEU:HB3	2:B:2923:MET:HE3	1.85	0.59
2:F:869:ARG:NH1	2:F:870:ASP:OD1	2.36	0.59
2:F:3808:ILE:HG21	2:F:3819:LEU:HD12	1.84	0.59
2:H:1003:TRP:CE3	2:H:1016:ASN:HB2	2.37	0.59
2:H:3576:SER:O	2:H:3580:LYS:HG2	2.03	0.59
2:B:869:ARG:NH1	2:B:870:ASP:OD1	2.36	0.59
2:B:1213:TYR:OH	2:B:1222:PHE:O	2.12	0.59
2:B:2934:LEU:O	2:B:3005:HIS:NE2	2.26	0.59
2:F:821:LEU:HD11	2:F:1521:TRP:HB3	1.84	0.59
2:F:2905:LEU:HB3	2:F:2923:MET:HE3	1.85	0.59
2:H:954:PRO:HG2	2:H:956:ASN:OD1	2.01	0.59
2:H:981:VAL:O	2:H:985:LYS:HG2	2.02	0.59
2:B:895:ARG:HB3	2:B:903:PRO:HD3	1.85	0.59
2:B:3383:ILE:O	2:B:3387:LYS:HG3	2.03	0.59
2:D:1415:VAL:HG22	2:D:1422:LEU:HG	1.83	0.59
2:D:2823:LEU:HD21	2:D:2901:LEU:HB2	1.84	0.59
2:D:4511:ILE:HD13	2:D:4560:ILE:HD12	1.85	0.59
2:F:319:SER:HB3	2:F:358:ILE:HD11	1.84	0.59
2:F:2004:TYR:CD2	2:F:2059:LEU:HD13	2.37	0.59
2:H:2905:LEU:HB3	2:H:2923:MET:HE3	1.85	0.59
2:B:2004:TYR:CD2	2:B:2059:LEU:HD13	2.37	0.59
2:B:2835:HIS:O	2:B:2839:ILE:HG23	2.01	0.59
2:D:4758:ILE:HD12	2:F:4749:ILE:HD11	1.83	0.59
2:F:895:ARG:HB3	2:F:903:PRO:HD3	1.85	0.59
2:F:4077:CYS:O	2:F:4081:ILE:HG13	2.02	0.59
2:H:1694:LYS:O	2:H:1698:MET:HG3	2.03	0.59
2:H:2823:LEU:HD21	2:H:2901:LEU:HB2	1.84	0.59
2:H:3383:ILE:O	2:H:3387:LYS:HG3	2.03	0.59
2:B:1415:VAL:HG22	2:B:1422:LEU:HG	1.83	0.59
2:B:4077:CYS:O	2:B:4081:ILE:HG13	2.02	0.59
2:F:1003:TRP:CE3	2:F:1016:ASN:HB2	2.37	0.59
2:H:319:SER:HB3	2:H:358:ILE:HD11	1.84	0.59
2:H:2004:TYR:CD2	2:H:2059:LEU:HD13	2.37	0.59
2:H:2820:LYS:HD3	2:H:2897:MET:HE1	1.84	0.59
2:H:4077:CYS:O	2:H:4081:ILE:HG13	2.02	0.59
2:B:167:ILE:HD13	2:B:206:PRO:HG3	1.85	0.59
2:B:821:LEU:HD11	2:B:1521:TRP:HB3	1.84	0.59
2:B:1694:LYS:O	2:B:1698:MET:HG3	2.03	0.59
2:B:3390:TYR:OH	2:B:3445:GLN:NE2	2.26	0.59
2:D:1213:TYR:OH	2:D:1222:PHE:O	2.12	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:869:ARG:NH1	2:H:870:ASP:OD1	2.36	0.59
2:H:1803:VAL:O	2:H:1807:MET:HG2	2.03	0.59
2:H:3225:VAL:HG12	2:H:3299:LEU:HD11	1.85	0.59
2:H:3902:ASP:OD1	2:H:3906:LYS:HE3	2.02	0.59
2:H:4041:ARG:O	2:H:4045:GLU:HG2	2.03	0.59
2:B:3275:ARG:HG3	2:B:3370:ILE:HD11	1.85	0.58
2:D:981:VAL:O	2:D:985:LYS:HG2	2.02	0.58
2:D:2068:THR:O	2:D:2072:VAL:HG23	2.03	0.58
2:F:2488:VAL:HG21	2:F:2535:LEU:HD11	1.84	0.58
2:F:3023:SER:O	2:F:3027:ILE:HG13	2.03	0.58
2:H:895:ARG:HB3	2:H:903:PRO:HD3	1.85	0.58
2:H:4511:ILE:HD13	2:H:4560:ILE:HD12	1.85	0.58
2:B:1341:SER:O	2:B:1391:TRP:NE1	2.35	0.58
2:D:1694:LYS:O	2:D:1698:MET:HG3	2.03	0.58
2:D:3221:LYS:HD2	2:D:3295:GLU:OE1	2.03	0.58
2:D:3637:PRO:O	2:D:3641:GLU:HG2	2.03	0.58
2:D:4041:ARG:O	2:D:4045:GLU:HG2	2.03	0.58
2:B:3018:GLY:O	2:B:3022:ILE:HG13	2.03	0.58
2:B:4041:ARG:O	2:B:4045:GLU:HG2	2.03	0.58
2:D:869:ARG:NH1	2:D:870:ASP:OD1	2.36	0.58
2:D:2905:LEU:HB3	2:D:2923:MET:HE3	1.85	0.58
2:D:3253:PHE:CB	2:D:3309:GLU:HG3	2.34	0.58
2:D:3383:ILE:O	2:D:3387:LYS:HG3	2.03	0.58
2:F:3545:ASP:O	2:F:3549:GLN:HG3	2.02	0.58
2:F:3637:PRO:O	2:F:3641:GLU:HG2	2.03	0.58
2:H:2068:THR:O	2:H:2072:VAL:HG23	2.03	0.58
2:H:3677:LEU:O	2:H:3681:MET:HG3	2.03	0.58
2:D:646:ILE:HG23	2:D:812:ALA:HB3	1.84	0.58
2:D:2488:VAL:HG21	2:D:2535:LEU:HD11	1.84	0.58
2:D:3225:VAL:HG12	2:D:3299:LEU:HD11	1.85	0.58
2:D:3545:ASP:O	2:D:3549:GLN:HG3	2.02	0.58
2:F:3221:LYS:HD2	2:F:3295:GLU:OE1	2.03	0.58
2:F:3225:VAL:HG12	2:F:3299:LEU:HD11	1.85	0.58
2:H:3390:TYR:OH	2:H:3445:GLN:NE2	2.26	0.58
2:D:1803:VAL:O	2:D:1807:MET:HG2	2.03	0.58
2:F:167:ILE:HD13	2:F:206:PRO:HG3	1.85	0.58
2:F:280:TRP:N	2:F:345:GLU:OE1	2.26	0.58
2:F:981:VAL:O	2:F:985:LYS:HG2	2.02	0.58
2:F:1694:LYS:O	2:F:1698:MET:HG3	2.03	0.58
2:F:2068:THR:O	2:F:2072:VAL:HG23	2.03	0.58
2:F:3662:LEU:HD21	2:F:3737:ASP:HB3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:3023:SER:O	2:H:3027:ILE:HG13	2.03	0.58
2:B:2068:THR:O	2:B:2072:VAL:HG23	2.03	0.58
2:B:2488:VAL:HG21	2:B:2535:LEU:HD11	1.84	0.58
2:B:3016:LEU:O	2:B:3017:LEU:HD23	2.04	0.58
2:B:3023:SER:O	2:B:3027:ILE:HG13	2.03	0.58
2:B:3576:SER:O	2:B:3580:LYS:HG2	2.03	0.58
2:D:859:VAL:CG1	2:D:931:LEU:HB2	2.33	0.58
2:D:2398:ASP:O	2:D:2454:ARG:NH1	2.37	0.58
2:D:3023:SER:O	2:D:3027:ILE:HG13	2.03	0.58
2:F:3016:LEU:O	2:F:3017:LEU:HD23	2.04	0.58
2:F:3253:PHE:CB	2:F:3309:GLU:HG3	2.34	0.58
2:H:646:ILE:HG23	2:H:812:ALA:HB3	1.84	0.58
2:H:3297:PHE:CD2	2:H:3364:LEU:HD22	2.39	0.58
2:B:1803:VAL:O	2:B:1807:MET:HG2	2.03	0.58
2:B:2398:ASP:O	2:B:2454:ARG:NH1	2.37	0.58
2:D:1975:ASP:O	2:D:1979:VAL:HG23	2.04	0.58
2:F:836:ASP:OD1	2:F:1200:ARG:NE	2.31	0.58
2:F:859:VAL:CG1	2:F:931:LEU:HB2	2.33	0.58
2:H:836:ASP:OD1	2:H:1200:ARG:NE	2.31	0.58
2:B:3225:VAL:HG12	2:B:3299:LEU:HD11	1.85	0.58
2:B:3637:PRO:O	2:B:3641:GLU:HG2	2.03	0.58
2:B:3677:LEU:O	2:B:3681:MET:HG3	2.03	0.58
2:B:4511:ILE:HD13	2:B:4560:ILE:HD12	1.85	0.58
2:F:235:THR:HG22	2:F:262:SER:CB	2.31	0.58
2:F:646:ILE:HG23	2:F:812:ALA:HB3	1.84	0.58
2:F:2823:LEU:HD21	2:F:2901:LEU:HB2	1.84	0.58
2:F:3677:LEU:O	2:F:3681:MET:HG3	2.03	0.58
2:F:4041:ARG:O	2:F:4045:GLU:HG2	2.03	0.58
2:H:2934:LEU:O	2:H:3005:HIS:NE2	2.26	0.58
2:H:3016:LEU:O	2:H:3017:LEU:HD23	2.04	0.58
2:H:3662:LEU:HD21	2:H:3737:ASP:HB3	1.86	0.58
2:B:3221:LYS:HD2	2:B:3295:GLU:OE1	2.03	0.58
2:D:821:LEU:HD11	2:D:1521:TRP:HB3	1.84	0.58
2:D:885:ILE:HD13	2:D:957:TYR:HB3	1.86	0.58
2:D:4532:PRO:HD2	2:D:4594:ASP:OD2	2.04	0.58
2:F:885:ILE:HD13	2:F:957:TYR:HB3	1.86	0.58
2:F:1803:VAL:O	2:F:1807:MET:HG2	2.03	0.58
2:F:3197:ALA:O	2:F:3201:ILE:HG13	2.04	0.58
2:F:4532:PRO:HD2	2:F:4594:ASP:OD2	2.04	0.58
2:H:3637:PRO:O	2:H:3641:GLU:HG2	2.03	0.58
2:B:3272:ASP:OD1	2:B:3366:LYS:HD3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3016:LEU:O	2:D:3017:LEU:HD23	2.04	0.58
2:D:3929:LYS:HE3	2:D:3956:ALA:CB	2.31	0.58
2:F:243:ASP:O	2:F:246:HIS:ND1	2.37	0.58
2:F:1975:ASP:O	2:F:1979:VAL:HG23	2.04	0.58
2:F:3002:ILE:O	2:F:3006:VAL:HG13	2.04	0.58
2:F:3018:GLY:O	2:F:3022:ILE:HG13	2.03	0.58
2:F:3383:ILE:O	2:F:3387:LYS:HG3	2.03	0.58
2:H:167:ILE:HD13	2:H:206:PRO:HG3	1.85	0.58
2:H:243:ASP:O	2:H:246:HIS:ND1	2.37	0.58
2:H:859:VAL:CG1	2:H:931:LEU:HB2	2.33	0.58
2:H:1254:ILE:HG21	2:H:1286:ILE:HD13	1.86	0.58
2:H:2398:ASP:O	2:H:2454:ARG:NH1	2.37	0.58
2:H:2561:LEU:HB3	2:H:2562:PRO:HD3	1.86	0.58
2:H:3002:ILE:O	2:H:3006:VAL:HG13	2.04	0.58
2:H:3109:MET:HE2	2:H:3170:ILE:HD11	1.84	0.58
2:H:3182:LEU:HD11	2:H:3220:LEU:HD21	1.86	0.58
2:H:3221:LYS:HD2	2:H:3295:GLU:OE1	2.03	0.58
2:H:3708:GLY:O	2:H:3712:LYS:HG2	2.04	0.58
2:B:859:VAL:CG1	2:B:931:LEU:HB2	2.33	0.57
2:B:3297:PHE:CD2	2:B:3364:LEU:HD22	2.39	0.57
2:D:3018:GLY:O	2:D:3022:ILE:HG13	2.03	0.57
2:D:3297:PHE:CD2	2:D:3364:LEU:HD22	2.39	0.57
2:D:3708:GLY:O	2:D:3712:LYS:HG2	2.04	0.57
2:F:1270:LYS:HE3	2:F:1335:PHE:HE2	1.69	0.57
2:F:1341:SER:O	2:F:1391:TRP:NE1	2.35	0.57
2:F:3297:PHE:CD2	2:F:3364:LEU:HD22	2.39	0.57
2:H:243:ASP:OD1	2:H:243:ASP:N	2.37	0.57
2:H:2488:VAL:HG21	2:H:2535:LEU:HD11	1.84	0.57
2:B:243:ASP:N	2:B:243:ASP:OD1	2.37	0.57
2:B:662:PHE:HB3	2:B:809:CYS:SG	2.44	0.57
2:B:3253:PHE:CB	2:B:3309:GLU:HG3	2.34	0.57
2:B:3708:GLY:O	2:B:3712:LYS:HG2	2.04	0.57
2:B:3929:LYS:HE3	2:B:3956:ALA:CB	2.31	0.57
2:D:3190:MET:HB3	2:D:3262:ALA:CB	2.34	0.57
2:F:235:THR:HG21	2:F:256:ALA:HB1	1.87	0.57
2:F:889:TRP:HA	2:F:900:ARG:CB	2.30	0.57
2:F:1586:LEU:HD21	2:F:1686:ILE:HG13	1.86	0.57
2:F:3182:LEU:HD11	2:F:3220:LEU:HD21	1.86	0.57
2:F:4511:ILE:HD13	2:F:4560:ILE:HD12	1.85	0.57
2:F:4755:GLN:O	2:F:4759:ILE:HG12	2.05	0.57
2:H:3018:GLY:O	2:H:3022:ILE:HG13	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4532:PRO:HD2	2:B:4594:ASP:OD2	2.04	0.57
2:D:662:PHE:HB3	2:D:809:CYS:SG	2.44	0.57
2:D:1270:LYS:HE3	2:D:1335:PHE:HE2	1.69	0.57
2:D:3197:ALA:O	2:D:3201:ILE:HG13	2.04	0.57
2:F:2337:LEU:HB3	2:F:2397:LEU:HD11	1.86	0.57
2:F:2561:LEU:HB3	2:F:2562:PRO:HD3	1.86	0.57
2:F:2896:GLU:OE2	2:F:2944:SER:OG	2.18	0.57
2:F:3502:LEU:O	2:F:3506:GLN:HG3	2.05	0.57
2:B:1026:ASP:O	2:B:1030:LYS:HG3	2.05	0.57
2:B:3190:MET:HB3	2:B:3262:ALA:CB	2.34	0.57
2:B:3197:ALA:O	2:B:3201:ILE:HG13	2.04	0.57
2:B:3662:LEU:HD21	2:B:3737:ASP:HB3	1.86	0.57
2:D:167:ILE:HD13	2:D:206:PRO:HG3	1.85	0.57
2:D:243:ASP:O	2:D:246:HIS:ND1	2.37	0.57
2:D:1555:MET:CE	2:D:1601:LEU:HD12	2.35	0.57
2:D:2561:LEU:HB3	2:D:2562:PRO:HD3	1.86	0.57
2:D:3275:ARG:HG3	2:D:3370:ILE:HD11	1.85	0.57
2:F:243:ASP:OD1	2:F:243:ASP:N	2.37	0.57
2:F:885:ILE:HG12	2:F:959:MET:HE2	1.86	0.57
2:F:1416:ASP:O	2:F:1420:GLY:N	2.38	0.57
2:H:662:PHE:HB3	2:H:809:CYS:SG	2.44	0.57
2:D:1026:ASP:O	2:D:1030:LYS:HG3	2.05	0.57
2:D:3002:ILE:O	2:D:3006:VAL:HG13	2.04	0.57
2:D:3677:LEU:O	2:D:3681:MET:HG3	2.03	0.57
2:D:4525:ASP:O	2:D:4528:VAL:HG12	2.05	0.57
2:D:4755:GLN:O	2:D:4759:ILE:HG12	2.05	0.57
2:F:3190:MET:HB3	2:F:3262:ALA:CB	2.34	0.57
2:H:235:THR:HG21	2:H:256:ALA:HB1	1.87	0.57
2:H:280:TRP:N	2:H:345:GLU:OE1	2.26	0.57
2:H:1026:ASP:O	2:H:1030:LYS:HG3	2.05	0.57
2:H:1349:THR:OG1	2:H:1351:ASP:OD1	2.17	0.57
2:H:3253:PHE:CB	2:H:3309:GLU:HG3	2.34	0.57
2:B:235:THR:HG22	2:B:262:SER:CB	2.31	0.57
2:B:243:ASP:O	2:B:246:HIS:ND1	2.37	0.57
2:B:646:ILE:HG23	2:B:812:ALA:HB3	1.84	0.57
2:B:1270:LYS:HE3	2:B:1335:PHE:HE2	1.69	0.57
2:B:1555:MET:HE1	2:B:1601:LEU:HD12	1.86	0.57
2:B:2337:LEU:HB3	2:B:2397:LEU:HD11	1.86	0.57
2:D:79:LEU:O	2:D:83:LEU:HG	2.05	0.57
2:D:1416:ASP:O	2:D:1420:GLY:N	2.38	0.57
2:D:3662:LEU:HD21	2:D:3737:ASP:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3783:ASP:OD1	2:D:3783:ASP:N	2.32	0.57
2:F:2398:ASP:O	2:F:2454:ARG:NH1	2.37	0.57
2:H:930:LEU:HD23	2:H:986:LEU:HD21	1.87	0.57
2:H:1270:LYS:HE3	2:H:1335:PHE:HE2	1.69	0.57
2:H:1975:ASP:O	2:H:1979:VAL:HG23	2.04	0.57
2:H:2337:LEU:HB3	2:H:2397:LEU:HD11	1.86	0.57
2:H:3275:ARG:HG3	2:H:3370:ILE:HD11	1.85	0.57
2:H:4532:PRO:HD2	2:H:4594:ASP:OD2	2.04	0.57
2:B:590:LYS:NZ	2:B:1478:GLU:OE2	2.38	0.57
2:B:1254:ILE:HG21	2:B:1286:ILE:HD13	1.86	0.57
2:B:1975:ASP:O	2:B:1979:VAL:HG23	2.04	0.57
2:B:3002:ILE:O	2:B:3006:VAL:HG13	2.04	0.57
2:D:1341:SER:O	2:D:1391:TRP:NE1	2.35	0.57
2:D:2965:THR:OG1	2:D:2987:ASN:ND2	2.38	0.57
2:D:3182:LEU:HD11	2:D:3220:LEU:HD21	1.86	0.57
2:F:1254:ILE:HG21	2:F:1286:ILE:HD13	1.86	0.57
2:F:1555:MET:CE	2:F:1601:LEU:HD12	2.35	0.57
2:F:3708:GLY:O	2:F:3712:LYS:HG2	2.04	0.57
2:H:747:ASP:O	2:H:751:PRO:HA	2.05	0.57
2:H:2965:THR:OG1	2:H:2987:ASN:ND2	2.38	0.57
2:H:3502:LEU:O	2:H:3506:GLN:HG3	2.05	0.57
2:B:1038:ARG:O	2:B:1042:ARG:HG3	2.05	0.57
2:B:2965:THR:OG1	2:B:2987:ASN:ND2	2.38	0.57
2:B:3182:LEU:HD11	2:B:3220:LEU:HD21	1.86	0.57
2:D:747:ASP:O	2:D:751:PRO:HA	2.05	0.57
2:D:930:LEU:HD23	2:D:986:LEU:HD21	1.87	0.57
2:F:1026:ASP:O	2:F:1030:LYS:HG3	2.05	0.57
2:H:1038:ARG:O	2:H:1042:ARG:HG3	2.05	0.57
2:H:3190:MET:HB3	2:H:3262:ALA:CB	2.34	0.57
2:H:3272:ASP:OD1	2:H:3366:LYS:HD3	2.04	0.57
2:H:4755:GLN:O	2:H:4759:ILE:HG12	2.05	0.57
2:B:747:ASP:O	2:B:751:PRO:HA	2.05	0.57
2:D:1038:ARG:O	2:D:1042:ARG:HG3	2.05	0.57
2:F:662:PHE:HB3	2:F:809:CYS:SG	2.44	0.57
2:F:930:LEU:HD23	2:F:986:LEU:HD21	1.87	0.57
2:H:79:LEU:O	2:H:83:LEU:HG	2.05	0.57
2:H:1213:TYR:OH	2:H:1222:PHE:O	2.12	0.57
2:H:3016:LEU:HD22	2:H:3024:CYS:SG	2.45	0.57
2:H:3197:ALA:O	2:H:3201:ILE:HG13	2.04	0.57
2:B:612:VAL:O	2:B:616:GLN:HG3	2.05	0.57
2:B:1416:ASP:O	2:B:1420:GLY:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1625:MET:SD	2:B:2025:ARG:NH1	2.78	0.57
2:B:3399:VAL:O	2:B:3403:LEU:HG	2.05	0.57
2:B:4525:ASP:O	2:B:4528:VAL:HG12	2.05	0.57
2:D:1586:LEU:HD21	2:D:1686:ILE:HG13	1.86	0.57
2:D:2337:LEU:HB3	2:D:2397:LEU:HD11	1.86	0.57
2:F:612:VAL:O	2:F:616:GLN:HG3	2.05	0.57
2:F:1666:ARG:H	2:F:1682:GLN:HE22	1.52	0.57
2:F:3275:ARG:HG3	2:F:3370:ILE:HD11	1.85	0.57
2:H:4525:ASP:O	2:H:4528:VAL:HG12	2.05	0.57
2:B:885:ILE:HD13	2:B:957:TYR:HB3	1.86	0.56
2:B:930:LEU:HD23	2:B:986:LEU:HD21	1.87	0.56
2:B:3289:LEU:O	2:B:3293:VAL:HG23	2.05	0.56
2:D:1625:MET:SD	2:D:2025:ARG:NH1	2.78	0.56
2:F:636:ILE:HD11	2:F:1531:MET:HE3	1.87	0.56
2:H:1666:ARG:H	2:H:1682:GLN:HE22	1.52	0.56
2:B:3016:LEU:HD22	2:B:3024:CYS:SG	2.45	0.56
2:D:636:ILE:HD11	2:D:1531:MET:HE3	1.87	0.56
2:D:1829:PHE:O	2:D:1832:ILE:HG13	2.06	0.56
2:D:3289:LEU:O	2:D:3293:VAL:HG23	2.05	0.56
2:D:4453:PHE:HE2	2:F:4678:PHE:CE2	2.23	0.56
2:F:79:LEU:O	2:F:83:LEU:HG	2.05	0.56
2:F:1152:ILE:HG13	2:F:1159:MET:HG2	1.87	0.56
2:F:4525:ASP:O	2:F:4528:VAL:HG12	2.05	0.56
2:H:1416:ASP:O	2:H:1420:GLY:N	2.38	0.56
2:B:235:THR:HG21	2:B:256:ALA:HB1	1.87	0.56
2:B:1829:PHE:O	2:B:1832:ILE:HG13	2.06	0.56
2:B:2313:ARG:O	2:B:2317:ILE:HG13	2.05	0.56
2:B:4453:PHE:HE2	2:D:4678:PHE:CE2	2.23	0.56
1:C:78:THR:HB	1:C:79:PRO:HD2	1.88	0.56
2:D:24:GLN:NE2	2:D:35:LYS:HD3	2.20	0.56
2:D:235:THR:HG21	2:D:256:ALA:HB1	1.87	0.56
2:D:590:LYS:NZ	2:D:1478:GLU:OE2	2.38	0.56
2:D:3272:ASP:OD1	2:D:3366:LYS:HD3	2.04	0.56
2:D:3399:VAL:O	2:D:3403:LEU:HG	2.05	0.56
2:F:24:GLN:NE2	2:F:35:LYS:HD3	2.20	0.56
2:F:1038:ARG:O	2:F:1042:ARG:HG3	2.05	0.56
2:F:1290:LEU:HD12	2:F:1445:PRO:HG2	1.87	0.56
2:F:1625:MET:SD	2:F:2025:ARG:NH1	2.78	0.56
2:F:1829:PHE:O	2:F:1832:ILE:HG13	2.06	0.56
2:F:2965:THR:OG1	2:F:2987:ASN:ND2	2.38	0.56
2:F:3016:LEU:HD22	2:F:3024:CYS:SG	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:24:GLN:NE2	2:H:35:LYS:HD3	2.20	0.56
2:H:590:LYS:NZ	2:H:1478:GLU:OE2	2.38	0.56
2:H:612:VAL:O	2:H:616:GLN:HG3	2.05	0.56
2:H:885:ILE:HD13	2:H:957:TYR:HB3	1.86	0.56
2:H:1290:LEU:HD12	2:H:1445:PRO:HG2	1.87	0.56
2:H:1829:PHE:O	2:H:1832:ILE:HG13	2.06	0.56
2:H:2908:LEU:O	2:H:2912:ARG:HD2	2.06	0.56
2:B:482:LEU:O	2:B:486:LEU:HG	2.05	0.56
2:B:1988:ARG:HG3	2:B:1995:GLU:OE2	2.06	0.56
2:B:2561:LEU:HB3	2:B:2562:PRO:HD3	1.86	0.56
2:D:612:VAL:O	2:D:616:GLN:HG3	2.05	0.56
2:D:1152:ILE:HG13	2:D:1159:MET:HG2	1.87	0.56
2:D:1988:ARG:HG3	2:D:1995:GLU:OE2	2.06	0.56
2:F:482:LEU:O	2:F:486:LEU:HG	2.05	0.56
2:F:3783:ASP:OD1	2:F:3783:ASP:N	2.32	0.56
2:F:4386:ILE:O	2:F:4390:LYS:HG3	2.06	0.56
1:G:68:SER:O	1:G:104:LEU:HD23	2.06	0.56
2:H:482:LEU:O	2:H:486:LEU:HG	2.05	0.56
2:H:1586:LEU:HD21	2:H:1686:ILE:HG13	1.86	0.56
2:H:1988:ARG:HG3	2:H:1995:GLU:OE2	2.06	0.56
2:H:3681:MET:HE1	2:H:3754:VAL:HG13	1.87	0.56
1:A:78:THR:HB	1:A:79:PRO:HD2	1.88	0.56
2:B:24:GLN:NE2	2:B:35:LYS:HD3	2.20	0.56
2:D:580:HIS:O	2:D:584:ILE:HG13	2.06	0.56
2:D:989:ASN:O	2:D:993:VAL:HG23	2.05	0.56
2:D:3016:LEU:HD22	2:D:3024:CYS:SG	2.45	0.56
2:F:3681:MET:HE1	2:F:3754:VAL:HG13	1.87	0.56
2:H:3399:VAL:O	2:H:3403:LEU:HG	2.05	0.56
2:B:2315:ARG:O	2:B:2319:ARG:HG3	2.05	0.56
2:B:3502:LEU:O	2:B:3506:GLN:HG3	2.05	0.56
2:D:3060:ILE:HG12	2:D:3062:VAL:HG22	1.88	0.56
2:F:3289:LEU:O	2:F:3293:VAL:HG23	2.05	0.56
1:G:78:THR:HB	1:G:79:PRO:HD2	1.88	0.56
2:H:1555:MET:CE	2:H:1601:LEU:HD12	2.35	0.56
2:B:79:LEU:O	2:B:83:LEU:HG	2.05	0.56
2:B:4755:GLN:O	2:B:4759:ILE:HG12	2.05	0.56
2:D:1254:ILE:HG21	2:D:1286:ILE:HD13	1.86	0.56
1:E:78:THR:HB	1:E:79:PRO:HD2	1.88	0.56
2:F:2313:ARG:O	2:F:2317:ILE:HG13	2.05	0.56
2:F:4453:PHE:HE2	2:H:4678:PHE:CE2	2.23	0.56
2:H:989:ASN:O	2:H:993:VAL:HG23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1341:SER:O	2:H:1391:TRP:NE1	2.35	0.56
2:H:3289:LEU:O	2:H:3293:VAL:HG23	2.05	0.56
2:B:1555:MET:CE	2:B:1601:LEU:HD12	2.35	0.56
2:D:482:LEU:O	2:D:486:LEU:HG	2.05	0.56
2:D:3502:LEU:O	2:D:3506:GLN:HG3	2.05	0.56
1:E:68:SER:O	1:E:104:LEU:HD23	2.06	0.56
2:F:2908:LEU:O	2:F:2912:ARG:HD2	2.06	0.56
2:F:3060:ILE:HG12	2:F:3062:VAL:HG22	1.88	0.56
2:F:3399:VAL:O	2:F:3403:LEU:HG	2.05	0.56
2:H:1625:MET:SD	2:H:2025:ARG:NH1	2.78	0.56
2:H:1846:ASN:HA	2:H:1849:MET:HE2	1.87	0.56
2:H:2313:ARG:O	2:H:2317:ILE:HG13	2.05	0.56
2:H:4386:ILE:O	2:H:4390:LYS:HG3	2.06	0.56
2:B:849:PHE:CE2	2:B:851:PRO:HB3	2.41	0.56
2:B:3310:GLU:OE2	2:B:3358:SER:OG	2.13	0.56
2:B:3523:ILE:HG13	2:B:3527:MET:CE	2.36	0.56
2:D:979:GLN:O	2:D:983:VAL:HG23	2.06	0.56
2:D:2315:ARG:O	2:D:2319:ARG:HG3	2.05	0.56
2:H:1152:ILE:HG13	2:H:1159:MET:HG2	1.87	0.56
2:B:2047:ILE:HG21	2:B:2065:MET:CE	2.36	0.56
2:D:3243:GLN:O	2:D:3247:LEU:HG	2.06	0.56
2:F:580:HIS:O	2:F:584:ILE:HG13	2.06	0.56
2:F:590:LYS:NZ	2:F:1478:GLU:OE2	2.38	0.56
2:F:747:ASP:O	2:F:751:PRO:HA	2.05	0.56
2:F:4071:GLU:OE1	2:F:4841:TRP:NE1	2.39	0.56
2:H:889:TRP:HA	2:H:900:ARG:CB	2.30	0.56
2:H:979:GLN:O	2:H:983:VAL:HG23	2.06	0.56
2:B:989:ASN:O	2:B:993:VAL:HG23	2.05	0.55
2:B:2174:CYS:HB2	2:B:2188:ASN:OD1	2.06	0.55
2:D:648:LEU:HD13	2:D:660:TRP:CD1	2.41	0.55
2:D:1666:ARG:H	2:D:1682:GLN:HE22	1.52	0.55
2:F:2231:ALA:HB2	2:F:2243:ALA:HB2	1.89	0.55
2:F:2240:LEU:HD21	2:F:2291:ILE:HG13	1.88	0.55
2:F:3272:ASP:OD1	2:F:3366:LYS:HD3	2.04	0.55
2:F:3523:ILE:HG13	2:F:3527:MET:CE	2.36	0.55
2:H:580:HIS:O	2:H:584:ILE:HG13	2.06	0.55
2:H:2913:ILE:HD12	2:H:2990:TYR:HA	1.88	0.55
2:H:3060:ILE:HG12	2:H:3062:VAL:HG22	1.88	0.55
2:H:3243:GLN:O	2:H:3247:LEU:HG	2.06	0.55
2:B:1666:ARG:H	2:B:1682:GLN:HE22	1.52	0.55
2:B:2908:LEU:O	2:B:2912:ARG:HD2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2913:ILE:HD12	2:B:2990:TYR:HA	1.88	0.55
2:B:3527:MET:HG3	2:B:3618:ARG:NH1	2.19	0.55
2:D:280:TRP:N	2:D:345:GLU:OE1	2.26	0.55
2:D:2174:CYS:HB2	2:D:2188:ASN:OD1	2.06	0.55
2:D:2190:ILE:CD1	2:D:2277:VAL:HG11	2.36	0.55
2:D:2908:LEU:O	2:D:2912:ARG:HD2	2.06	0.55
2:F:524:LEU:HD11	2:F:538:PHE:CE2	2.41	0.55
2:H:2315:ARG:O	2:H:2319:ARG:HG3	2.05	0.55
2:B:580:HIS:O	2:B:584:ILE:HG13	2.06	0.55
2:B:4678:PHE:CE2	2:H:4453:PHE:HE2	2.23	0.55
2:D:849:PHE:CE2	2:D:851:PRO:HB3	2.41	0.55
2:D:4771:GLN:NE2	2:D:4775:ASP:OD1	2.40	0.55
2:F:3261:TYR:HE2	2:F:3321:ASN:HD21	1.54	0.55
2:H:726:ARG:HG3	2:H:1371:LEU:HD11	1.89	0.55
2:B:1152:ILE:HG13	2:B:1159:MET:HG2	1.87	0.55
2:B:1586:LEU:HD21	2:B:1686:ILE:HG13	1.86	0.55
2:B:1692:LYS:HB2	2:B:1738:PHE:CE1	2.42	0.55
2:B:3060:ILE:HG12	2:B:3062:VAL:HG22	1.88	0.55
2:D:924:THR:CG2	2:D:928:LYS:HE3	2.36	0.55
2:D:2040:MET:HB2	2:D:2089:MET:HE1	1.87	0.55
2:D:3291:ARG:O	2:D:3295:GLU:HG3	2.07	0.55
2:F:989:ASN:O	2:F:993:VAL:HG23	2.05	0.55
2:F:2315:ARG:O	2:F:2319:ARG:HG3	2.05	0.55
2:H:856:THR:HB	2:H:928:LYS:CB	2.37	0.55
2:B:979:GLN:O	2:B:983:VAL:HG23	2.06	0.55
2:D:524:LEU:HD11	2:D:538:PHE:CE2	2.41	0.55
2:D:929:THR:O	2:D:933:LEU:HG	2.07	0.55
2:D:2913:ILE:HD12	2:D:2990:TYR:HA	1.88	0.55
2:D:4386:ILE:O	2:D:4390:LYS:HG3	2.06	0.55
2:F:2174:CYS:HB2	2:F:2188:ASN:OD1	2.06	0.55
2:H:235:THR:HG22	2:H:262:SER:CB	2.31	0.55
1:A:68:SER:O	1:A:104:LEU:HD23	2.06	0.55
2:B:1025:LEU:HD11	2:B:1029:THR:CG2	2.37	0.55
2:B:1805:LEU:O	2:B:1809:GLU:HG3	2.07	0.55
2:D:1290:LEU:HD12	2:D:1445:PRO:HG2	1.87	0.55
2:D:3150:HIS:O	2:D:3151:LEU:HD23	2.07	0.55
2:D:4067:GLN:O	2:D:4068:GLU:HG2	2.07	0.55
2:F:726:ARG:HG3	2:F:1371:LEU:HD11	1.89	0.55
2:F:1988:ARG:HG3	2:F:1995:GLU:OE2	2.06	0.55
2:F:2302:HIS:O	2:F:2306:THR:HG23	2.07	0.55
1:G:5:ILE:HG12	1:G:75:LEU:CD2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2231:ALA:HB2	2:H:2243:ALA:HB2	1.89	0.55
2:B:2190:ILE:CD1	2:B:2277:VAL:HG11	2.36	0.55
2:B:3243:GLN:O	2:B:3247:LEU:HG	2.06	0.55
2:B:4067:GLN:O	2:B:4068:GLU:HG2	2.07	0.55
2:B:4771:GLN:NE2	2:B:4775:ASP:OD1	2.40	0.55
1:C:68:SER:O	1:C:104:LEU:HD23	2.06	0.55
2:D:1025:LEU:HD11	2:D:1029:THR:CG2	2.37	0.55
2:D:2231:ALA:HB2	2:D:2243:ALA:HB2	1.89	0.55
2:D:3261:TYR:HE2	2:D:3321:ASN:HD21	1.54	0.55
2:F:605:CYS:SG	2:F:619:ILE:HD12	2.47	0.55
2:F:3150:HIS:O	2:F:3151:LEU:HD23	2.07	0.55
2:F:3291:ARG:O	2:F:3295:GLU:HG3	2.07	0.55
2:H:849:PHE:CE2	2:H:851:PRO:HB3	2.41	0.55
2:H:929:THR:O	2:H:933:LEU:HG	2.07	0.55
2:H:1630:ILE:HD12	2:H:2059:LEU:HD11	1.88	0.55
2:H:4733:MET:O	2:H:4737:VAL:HG23	2.06	0.55
2:H:4771:GLN:NE2	2:H:4775:ASP:OD1	2.40	0.55
2:B:524:LEU:HD11	2:B:538:PHE:CE2	2.41	0.55
2:B:605:CYS:SG	2:B:619:ILE:HD12	2.47	0.55
2:B:648:LEU:HD13	2:B:660:TRP:CD1	2.41	0.55
2:B:813:LEU:O	2:B:1007:ILE:HD11	2.07	0.55
2:B:924:THR:CG2	2:B:928:LYS:HE3	2.36	0.55
2:B:3929:LYS:HB2	2:B:3960:ASP:OD2	2.07	0.55
2:B:4386:ILE:O	2:B:4390:LYS:HG3	2.06	0.55
1:C:5:ILE:HG12	1:C:75:LEU:CD2	2.37	0.55
2:D:2313:ARG:O	2:D:2317:ILE:HG13	2.05	0.55
2:D:3523:ILE:HG13	2:D:3527:MET:CE	2.36	0.55
1:E:5:ILE:HG12	1:E:75:LEU:CD2	2.37	0.55
2:F:1692:LYS:HB2	2:F:1738:PHE:CE1	2.42	0.55
2:F:1805:LEU:O	2:F:1809:GLU:HG3	2.07	0.55
2:F:4771:GLN:NE2	2:F:4775:ASP:OD1	2.40	0.55
2:H:648:LEU:HD13	2:H:660:TRP:CD1	2.41	0.55
2:H:1035:ASP:O	2:H:1039:GLU:HG2	2.07	0.55
2:H:1805:LEU:O	2:H:1809:GLU:HG3	2.07	0.55
2:B:2230:PRO:O	2:B:2233:ARG:HG2	2.07	0.55
2:B:3291:ARG:O	2:B:3295:GLU:HG3	2.07	0.55
2:D:1692:LYS:HB2	2:D:1738:PHE:CE1	2.42	0.55
2:D:2230:PRO:O	2:D:2233:ARG:HG2	2.07	0.55
2:D:4531:THR:HB	2:D:4594:ASP:OD2	2.07	0.55
2:F:979:GLN:O	2:F:983:VAL:HG23	2.06	0.55
2:F:2913:ILE:HD12	2:F:2990:TYR:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:3929:LYS:HE3	2:F:3956:ALA:CB	2.31	0.55
2:H:2302:HIS:O	2:H:2306:THR:HG23	2.07	0.55
2:H:3249:ILE:HD12	2:H:3250:LEU:HD23	1.89	0.55
2:H:3523:ILE:HG13	2:H:3527:MET:CE	2.36	0.55
2:H:3929:LYS:HB2	2:H:3960:ASP:OD2	2.07	0.55
1:A:5:ILE:HG12	1:A:75:LEU:CD2	2.37	0.55
2:B:929:THR:O	2:B:933:LEU:HG	2.07	0.55
2:B:1290:LEU:HD12	2:B:1445:PRO:HG2	1.87	0.55
2:D:1805:LEU:O	2:D:1809:GLU:HG3	2.07	0.55
2:D:3453:HIS:O	2:D:3457:VAL:HG13	2.07	0.55
2:H:524:LEU:HD11	2:H:538:PHE:CE2	2.41	0.55
2:H:1270:LYS:HE3	2:H:1335:PHE:CE2	2.42	0.55
2:H:2182:TYR:CE1	2:H:2259:PRO:HD3	2.42	0.55
2:B:856:THR:HB	2:B:928:LYS:CB	2.37	0.54
2:B:2240:LEU:HD21	2:B:2291:ILE:HG13	1.88	0.54
2:B:2833:ILE:HD12	2:B:2908:LEU:HD22	1.89	0.54
2:B:4531:THR:HB	2:B:4594:ASP:OD2	2.07	0.54
2:F:929:THR:O	2:F:933:LEU:HG	2.07	0.54
2:F:1025:LEU:HD11	2:F:1029:THR:CG2	2.37	0.54
2:F:1382:VAL:HG11	2:F:1438:GLU:OE2	2.07	0.54
2:F:2182:TYR:CE1	2:F:2259:PRO:HD3	2.42	0.54
2:H:605:CYS:SG	2:H:619:ILE:HD12	2.47	0.54
2:H:924:THR:CG2	2:H:928:LYS:HE3	2.36	0.54
2:H:4067:GLN:O	2:H:4068:GLU:HG2	2.07	0.54
2:B:994:TRP:O	2:B:998:ARG:HG2	2.07	0.54
2:B:1630:ILE:HD12	2:B:2059:LEU:HD11	1.88	0.54
2:B:3680:LEU:HD22	2:B:3719:PHE:HZ	1.72	0.54
2:D:3929:LYS:HB2	2:D:3960:ASP:OD2	2.07	0.54
2:F:994:TRP:O	2:F:998:ARG:HG2	2.07	0.54
2:F:1035:ASP:O	2:F:1039:GLU:HG2	2.07	0.54
2:F:3929:LYS:HB2	2:F:3960:ASP:OD2	2.07	0.54
2:H:1692:LYS:HB2	2:H:1738:PHE:CE1	2.42	0.54
2:H:2174:CYS:HB2	2:H:2188:ASN:OD1	2.06	0.54
2:H:2190:ILE:CD1	2:H:2277:VAL:HG11	2.36	0.54
2:H:3929:LYS:HE3	2:H:3956:ALA:CB	2.31	0.54
2:B:726:ARG:HG3	2:B:1371:LEU:HD11	1.89	0.54
2:B:3150:HIS:O	2:B:3151:LEU:HD23	2.07	0.54
2:B:4071:GLU:OE1	2:B:4841:TRP:NE1	2.39	0.54
2:D:605:CYS:SG	2:D:619:ILE:HD12	2.47	0.54
2:D:3680:LEU:HD22	2:D:3719:PHE:HZ	1.72	0.54
2:F:422:VAL:CG2	2:F:491:ARG:HG3	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:2449:ARG:O	2:F:2449:ARG:NH1	2.32	0.54
2:F:3243:GLN:O	2:F:3247:LEU:HG	2.06	0.54
2:F:3901:PHE:O	2:F:3905:LEU:HG	2.08	0.54
2:H:303:LEU:HD23	2:H:383:VAL:HG12	1.90	0.54
2:H:320:PHE:CE1	2:H:355:VAL:HG22	2.42	0.54
2:H:676:GLU:HG3	2:H:677:PRO:HD2	1.90	0.54
2:H:2047:ILE:HG21	2:H:2065:MET:CE	2.36	0.54
2:H:2240:LEU:HD21	2:H:2291:ILE:HG13	1.88	0.54
2:H:2822:ILE:HD13	2:H:2865:VAL:CG2	2.33	0.54
2:B:859:VAL:HG11	2:B:931:LEU:HB2	1.89	0.54
2:B:2182:TYR:CE1	2:B:2259:PRO:HD3	2.42	0.54
2:D:1382:VAL:HG11	2:D:1438:GLU:OE2	2.07	0.54
2:D:2240:LEU:HD21	2:D:2291:ILE:HG13	1.88	0.54
2:D:2302:HIS:O	2:D:2306:THR:HG23	2.07	0.54
2:D:3901:PHE:O	2:D:3905:LEU:HG	2.08	0.54
2:F:648:LEU:HD13	2:F:660:TRP:CD1	2.41	0.54
2:F:1270:LYS:HE3	2:F:1335:PHE:CE2	2.42	0.54
2:F:4067:GLN:O	2:F:4068:GLU:HG2	2.07	0.54
2:H:1390:VAL:HG12	2:H:1433:THR:HG21	1.90	0.54
2:B:636:ILE:HD11	2:B:1531:MET:HE3	1.90	0.54
2:D:417:LEU:O	2:D:420:GLN:HG2	2.08	0.54
2:D:880:TRP:CZ3	2:D:905:LEU:HD23	2.42	0.54
2:D:1630:ILE:HD12	2:D:2059:LEU:HD11	1.88	0.54
2:D:3249:ILE:HD12	2:D:3250:LEU:HD23	1.89	0.54
2:F:320:PHE:CE1	2:F:355:VAL:HG22	2.42	0.54
2:F:676:GLU:HG3	2:F:677:PRO:HD2	1.90	0.54
2:F:856:THR:HB	2:F:928:LYS:CB	2.37	0.54
2:F:4535:PRO:O	2:F:4541:LYS:HE2	2.08	0.54
2:F:4733:MET:O	2:F:4737:VAL:HG23	2.06	0.54
2:H:2833:ILE:HD12	2:H:2908:LEU:HD22	1.89	0.54
2:H:3021:GLN:OE1	2:H:3062:VAL:HG11	2.08	0.54
2:H:3291:ARG:O	2:H:3295:GLU:HG3	2.07	0.54
2:H:4531:THR:HB	2:H:4594:ASP:OD2	2.07	0.54
2:H:4726:PRO:HB3	2:H:4735:ARG:HG2	1.89	0.54
2:B:303:LEU:HD23	2:B:383:VAL:HG12	1.90	0.54
2:B:885:ILE:HG12	2:B:959:MET:CE	2.38	0.54
2:B:1035:ASP:O	2:B:1039:GLU:HG2	2.07	0.54
2:B:2152:LEU:O	2:B:3694:ARG:NH1	2.40	0.54
2:B:3021:GLN:OE1	2:B:3062:VAL:HG11	2.08	0.54
2:B:4733:MET:O	2:B:4737:VAL:HG23	2.06	0.54
2:D:320:PHE:CE1	2:D:355:VAL:HG22	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1122:VAL:CG2	2:D:1131:TRP:HB2	2.37	0.54
2:D:4733:MET:O	2:D:4737:VAL:HG23	2.06	0.54
2:F:1390:VAL:HG12	2:F:1433:THR:HG21	1.90	0.54
2:H:3310:GLU:OE2	2:H:3358:SER:OG	2.13	0.54
2:B:2302:HIS:O	2:B:2306:THR:HG23	2.07	0.54
2:B:3244:GLU:O	2:B:3248:LEU:HD13	2.08	0.54
2:B:3910:LEU:HD12	2:B:3942:TYR:CE2	2.43	0.54
2:D:303:LEU:HD23	2:D:383:VAL:HG12	1.90	0.54
2:D:2934:LEU:O	2:D:3005:HIS:NE2	2.26	0.54
2:D:4726:PRO:HB3	2:D:4735:ARG:HG2	1.89	0.54
2:F:880:TRP:CZ3	2:F:905:LEU:HD23	2.42	0.54
2:F:2200:ARG:NH1	2:F:2292:ASP:OD2	2.39	0.54
2:F:2230:PRO:O	2:F:2233:ARG:HG2	2.07	0.54
2:H:417:LEU:O	2:H:420:GLN:HG2	2.08	0.54
2:H:813:LEU:O	2:H:1007:ILE:HD11	2.07	0.54
2:H:1025:LEU:HD11	2:H:1029:THR:CG2	2.37	0.54
2:H:2230:PRO:O	2:H:2233:ARG:HG2	2.07	0.54
2:H:3143:TRP:HZ3	2:H:3159:CYS:HG	1.55	0.54
2:H:3527:MET:HG3	2:H:3618:ARG:NH1	2.19	0.54
2:B:1332:ILE:HD12	2:B:1459:PHE:HA	1.90	0.54
2:B:1539:GLU:OE1	2:B:1541:ARG:NE	2.41	0.54
2:B:2231:ALA:HB2	2:B:2243:ALA:HB2	1.89	0.54
2:B:3249:ILE:HD12	2:B:3250:LEU:HD23	1.89	0.54
2:B:3761:TYR:CE2	2:B:3800:ILE:HD11	2.43	0.54
2:B:4074:VAL:O	2:B:4078:GLU:HG3	2.08	0.54
2:D:492:LEU:HD11	2:D:516:ILE:HG22	1.90	0.54
2:D:813:LEU:O	2:D:1007:ILE:HD11	2.07	0.54
2:D:1889:PRO:O	2:D:1893:ARG:HG3	2.08	0.54
2:D:3787:GLN:NE2	2:D:3848:GLN:HG2	2.23	0.54
2:F:492:LEU:HD11	2:F:516:ILE:HG22	1.90	0.54
2:F:1122:VAL:CG2	2:F:1131:TRP:HB2	2.37	0.54
2:F:1539:GLU:OE1	2:F:1541:ARG:NE	2.41	0.54
2:H:859:VAL:HG11	2:H:931:LEU:HB2	1.89	0.54
2:H:1539:GLU:OE1	2:H:1541:ARG:NE	2.41	0.54
2:H:3787:GLN:NE2	2:H:3848:GLN:HG2	2.23	0.54
2:B:982:LEU:O	2:B:986:LEU:HG	2.08	0.54
2:B:3453:HIS:O	2:B:3457:VAL:HG13	2.07	0.54
2:B:3787:GLN:NE2	2:B:3848:GLN:HG2	2.23	0.54
2:D:676:GLU:HG3	2:D:677:PRO:HD2	1.90	0.54
2:D:982:LEU:O	2:D:986:LEU:HG	2.08	0.54
2:F:417:LEU:O	2:F:420:GLN:HG2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:849:PHE:CE2	2:F:851:PRO:HB3	2.41	0.54
2:F:2152:LEU:O	2:F:3694:ARG:NH1	2.40	0.54
2:F:3453:HIS:O	2:F:3457:VAL:HG13	2.07	0.54
2:F:4726:PRO:HB3	2:F:4735:ARG:HG2	1.89	0.54
2:H:1382:VAL:HG11	2:H:1438:GLU:OE2	2.07	0.54
2:H:1807:MET:O	2:H:1811:LEU:HG	2.08	0.54
2:H:2152:LEU:O	2:H:3694:ARG:NH1	2.40	0.54
2:H:3150:HIS:O	2:H:3151:LEU:HD23	2.07	0.54
2:B:407:ALA:O	2:B:411:ILE:HG13	2.08	0.54
2:B:417:LEU:O	2:B:420:GLN:HG2	2.08	0.54
2:B:422:VAL:CG2	2:B:491:ARG:HG3	2.38	0.54
2:B:880:TRP:CZ3	2:B:905:LEU:HD23	2.42	0.54
2:B:1382:VAL:HG11	2:B:1438:GLU:OE2	2.07	0.54
2:B:1840:ASN:OD1	2:B:1892:ILE:HD11	2.08	0.54
2:B:3261:TYR:HE2	2:B:3321:ASN:HD21	1.54	0.54
2:D:407:ALA:O	2:D:411:ILE:HG13	2.08	0.54
2:D:726:ARG:HG3	2:D:1371:LEU:HD11	1.89	0.54
2:D:856:THR:HB	2:D:928:LYS:CB	2.37	0.54
2:D:885:ILE:HG12	2:D:959:MET:CE	2.38	0.54
2:D:994:TRP:O	2:D:998:ARG:HG2	2.07	0.54
2:D:3244:GLU:O	2:D:3248:LEU:HD13	2.08	0.54
2:D:3910:LEU:HD12	2:D:3942:TYR:CE2	2.43	0.54
2:F:1138:PHE:HD1	2:F:1170:THR:HG22	1.73	0.54
2:F:1807:MET:O	2:F:1811:LEU:HG	2.08	0.54
2:H:557:GLY:O	2:H:561:VAL:HG23	2.08	0.54
2:H:1742:ASP:O	2:H:1746:ILE:HG13	2.08	0.54
2:H:3558:ALA:HB2	2:H:3627:MET:SD	2.48	0.54
2:H:3910:LEU:HD12	2:H:3942:TYR:CE2	2.43	0.54
2:B:2200:ARG:NH1	2:B:2292:ASP:OD2	2.39	0.53
2:B:3558:ALA:HB2	2:B:3627:MET:SD	2.48	0.53
2:D:419:SER:HA	2:D:422:VAL:HG12	1.91	0.53
2:D:1027:GLU:HA	2:D:1030:LYS:HD2	1.89	0.53
2:D:1035:ASP:O	2:D:1039:GLU:HG2	2.07	0.53
2:D:1270:LYS:HE3	2:D:1335:PHE:CE2	2.42	0.53
2:D:3761:TYR:CE2	2:D:3800:ILE:HD11	2.43	0.53
2:D:4074:VAL:O	2:D:4078:GLU:HG3	2.08	0.53
2:F:1332:ILE:HD12	2:F:1459:PHE:HA	1.90	0.53
2:H:492:LEU:HD11	2:H:516:ILE:HG22	1.90	0.53
2:H:632:GLN:O	2:H:1534:LEU:HD12	2.08	0.53
2:H:880:TRP:CZ3	2:H:905:LEU:HD23	2.42	0.53
2:H:1122:VAL:CG2	2:H:1131:TRP:HB2	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1138:PHE:HD1	2:H:1170:THR:HG22	1.73	0.53
2:H:1332:ILE:HD12	2:H:1459:PHE:HA	1.90	0.53
2:H:1889:PRO:O	2:H:1893:ARG:HG3	2.08	0.53
2:H:2200:ARG:NH1	2:H:2292:ASP:OD2	2.39	0.53
2:H:3901:PHE:O	2:H:3905:LEU:HG	2.08	0.53
2:B:492:LEU:HD11	2:B:516:ILE:HG22	1.90	0.53
2:B:884:LYS:CB	2:B:905:LEU:HD21	2.38	0.53
2:B:1027:GLU:HA	2:B:1030:LYS:HD2	1.89	0.53
2:B:3901:PHE:O	2:B:3905:LEU:HG	2.08	0.53
2:B:4535:PRO:O	2:B:4541:LYS:HE2	2.08	0.53
2:B:4736:ILE:CD1	2:H:4706:LEU:HD21	2.39	0.53
2:D:422:VAL:CG2	2:D:491:ARG:HG3	2.38	0.53
2:D:814:LEU:HD13	2:D:1024:LEU:CD2	2.38	0.53
2:D:2182:TYR:CE1	2:D:2259:PRO:HD3	2.42	0.53
2:F:813:LEU:O	2:F:1007:ILE:HD11	2.07	0.53
2:F:924:THR:CG2	2:F:928:LYS:HE3	2.36	0.53
2:F:1742:ASP:O	2:F:1746:ILE:HG13	2.08	0.53
2:F:1889:PRO:O	2:F:1893:ARG:HG3	2.08	0.53
2:F:2820:LYS:HD3	2:F:2897:MET:CE	2.38	0.53
2:F:3105:LEU:O	2:F:3109:MET:HG3	2.08	0.53
2:F:3459:GLN:HB2	2:F:3460:PRO:HD3	1.91	0.53
2:H:407:ALA:O	2:H:411:ILE:HG13	2.08	0.53
2:H:885:ILE:HG12	2:H:959:MET:CE	2.38	0.53
2:H:891:PHE:HA	2:H:905:LEU:HD12	1.91	0.53
2:H:1027:GLU:HA	2:H:1030:LYS:HD2	1.89	0.53
2:H:1798:ARG:NH1	2:H:1970:GLU:OE1	2.41	0.53
2:H:2820:LYS:HD3	2:H:2897:MET:CE	2.38	0.53
2:B:676:GLU:HG3	2:B:677:PRO:HD2	1.90	0.53
2:B:803:PRO:HB2	2:B:806:TYR:CD1	2.43	0.53
2:B:1122:VAL:CG2	2:B:1131:TRP:HB2	2.37	0.53
2:B:1270:LYS:HE3	2:B:1335:PHE:CE2	2.42	0.53
2:B:4706:LEU:HD21	2:D:4736:ILE:CD1	2.39	0.53
2:D:2152:LEU:O	2:D:3694:ARG:NH1	2.40	0.53
2:F:303:LEU:HD23	2:F:383:VAL:HG12	1.90	0.53
2:F:1027:GLU:HA	2:F:1030:LYS:HD2	1.89	0.53
2:F:2822:ILE:HD13	2:F:2865:VAL:CG2	2.33	0.53
2:F:3787:GLN:NE2	2:F:3848:GLN:HG2	2.23	0.53
2:F:3910:LEU:HD12	2:F:3942:TYR:CE2	2.43	0.53
2:F:4635:LEU:O	2:F:4638:ILE:HG23	2.09	0.53
2:H:3261:TYR:HE2	2:H:3321:ASN:HD21	1.54	0.53
2:H:4074:VAL:O	2:H:4078:GLU:HG3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:217:TYR:CD2	2:B:344:PRO:HB2	2.44	0.53
2:B:237:PRO:HG2	2:B:245:GLN:O	2.09	0.53
2:B:3459:GLN:HB2	2:B:3460:PRO:HD3	1.91	0.53
2:D:557:GLY:O	2:D:561:VAL:HG23	2.08	0.53
2:D:889:TRP:HA	2:D:900:ARG:CB	2.30	0.53
2:D:1390:VAL:HG12	2:D:1433:THR:HG21	1.90	0.53
2:D:2200:ARG:NH1	2:D:2292:ASP:OD2	2.39	0.53
2:D:2822:ILE:HD13	2:D:2865:VAL:CG2	2.33	0.53
2:D:4635:LEU:O	2:D:4638:ILE:HG23	2.09	0.53
2:F:237:PRO:HG2	2:F:245:GLN:O	2.09	0.53
2:F:703:ASN:HA	2:F:707:ASP:OD2	2.09	0.53
2:F:891:PHE:HA	2:F:905:LEU:HD12	1.91	0.53
2:F:4531:THR:HB	2:F:4594:ASP:OD2	2.07	0.53
2:H:43:LEU:HG	2:H:445:ASP:HB3	1.90	0.53
2:H:1840:ASN:OD1	2:H:1892:ILE:HD11	2.08	0.53
2:H:3438:GLU:O	2:H:3442:GLU:HG3	2.08	0.53
2:H:3680:LEU:HD22	2:H:3719:PHE:HZ	1.72	0.53
2:B:419:SER:HA	2:B:422:VAL:HG12	1.91	0.53
2:B:632:GLN:O	2:B:1534:LEU:HD12	2.08	0.53
2:B:703:ASN:HA	2:B:707:ASP:OD2	2.09	0.53
2:B:2820:LYS:HD3	2:B:2897:MET:CE	2.38	0.53
2:B:4726:PRO:HB3	2:B:4735:ARG:HG2	1.89	0.53
2:D:1840:ASN:OD1	2:D:1892:ILE:HD11	2.08	0.53
2:D:3021:GLN:OE1	2:D:3062:VAL:HG11	2.08	0.53
2:F:557:GLY:O	2:F:561:VAL:HG23	2.08	0.53
2:F:803:PRO:HB2	2:F:806:TYR:CD1	2.43	0.53
2:F:1025:LEU:O	2:F:1030:LYS:HE2	2.08	0.53
2:F:1630:ILE:HD12	2:F:2059:LEU:HD11	1.88	0.53
2:F:3021:GLN:OE1	2:F:3062:VAL:HG11	2.08	0.53
2:F:3310:GLU:OE2	2:F:3358:SER:OG	2.13	0.53
2:H:982:LEU:O	2:H:986:LEU:HG	2.08	0.53
2:H:3453:HIS:O	2:H:3457:VAL:HG13	2.07	0.53
2:H:3459:GLN:HB2	2:H:3460:PRO:HD3	1.91	0.53
2:H:4535:PRO:O	2:H:4541:LYS:HE2	2.08	0.53
2:B:814:LEU:HD13	2:B:1024:LEU:CD2	2.38	0.53
2:B:1138:PHE:HD1	2:B:1170:THR:HG22	1.73	0.53
2:B:1798:ARG:NH1	2:B:1970:GLU:OE1	2.41	0.53
2:B:1889:PRO:O	2:B:1893:ARG:HG3	2.08	0.53
2:D:884:LYS:CB	2:D:905:LEU:HD21	2.38	0.53
2:D:1138:PHE:HD1	2:D:1170:THR:HG22	1.73	0.53
2:D:1742:ASP:O	2:D:1746:ILE:HG13	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1830:GLY:O	2:D:1834:VAL:HG13	2.09	0.53
2:D:3558:ALA:HB2	2:D:3627:MET:SD	2.48	0.53
2:D:4706:LEU:HD21	2:F:4736:ILE:CD1	2.39	0.53
2:F:632:GLN:O	2:F:1534:LEU:HD12	2.08	0.53
2:F:3244:GLU:O	2:F:3248:LEU:HD13	2.08	0.53
2:F:4706:LEU:HD21	2:H:4736:ILE:CD1	2.39	0.53
2:H:217:TYR:CD2	2:H:344:PRO:HB2	2.44	0.53
2:H:524:LEU:HD21	2:H:538:PHE:CZ	2.44	0.53
2:H:3105:LEU:O	2:H:3109:MET:HG3	2.08	0.53
2:D:524:LEU:HD21	2:D:538:PHE:CZ	2.44	0.53
2:D:703:ASN:HA	2:D:707:ASP:OD2	2.09	0.53
2:D:2434:GLU:O	2:D:2437:THR:HG23	2.09	0.53
2:D:4071:GLU:OE1	2:D:4841:TRP:NE1	2.39	0.53
2:F:2190:ILE:CD1	2:F:2277:VAL:HG11	2.36	0.53
2:F:4074:VAL:O	2:F:4078:GLU:HG3	2.08	0.53
2:H:237:PRO:HG2	2:H:245:GLN:O	2.09	0.53
2:H:803:PRO:HB2	2:H:806:TYR:CD1	2.43	0.53
2:H:994:TRP:O	2:H:998:ARG:HG2	2.07	0.53
2:H:3244:GLU:O	2:H:3248:LEU:HD13	2.08	0.53
2:H:3404:ARG:HG3	2:H:3441:ILE:HD13	1.90	0.53
2:H:3582:CYS:SG	2:H:3615:LEU:HD12	2.49	0.53
2:B:320:PHE:CE1	2:B:355:VAL:HG22	2.42	0.53
2:B:474:ASN:O	2:B:478:GLU:HG3	2.09	0.53
2:B:1807:MET:O	2:B:1811:LEU:HG	2.08	0.53
2:B:3404:ARG:HG3	2:B:3441:ILE:HD13	1.90	0.53
2:B:3582:CYS:SG	2:B:3615:LEU:HD12	2.49	0.53
2:D:1332:ILE:HD12	2:D:1459:PHE:HA	1.90	0.53
2:D:2833:ILE:HD12	2:D:2908:LEU:HD22	1.89	0.53
2:D:2935:ASP:O	2:D:2939:VAL:HG23	2.09	0.53
2:D:3860:GLN:O	2:D:3864:VAL:HG23	2.09	0.53
2:F:524:LEU:HD21	2:F:538:PHE:CZ	2.44	0.53
2:F:2833:ILE:HD12	2:F:2908:LEU:HD22	1.89	0.53
2:F:3558:ALA:HB2	2:F:3627:MET:SD	2.48	0.53
2:F:3582:CYS:SG	2:F:3615:LEU:HD12	2.49	0.53
2:F:3680:LEU:HD22	2:F:3719:PHE:HZ	1.72	0.53
2:F:3761:TYR:CE2	2:F:3800:ILE:HD11	2.43	0.53
2:F:4419:PHE:O	2:F:4456:GLN:HG2	2.09	0.53
2:H:2935:ASP:O	2:H:2939:VAL:HG23	2.09	0.53
2:B:1390:VAL:HG12	2:B:1433:THR:HG21	1.90	0.53
2:B:2040:MET:HB2	2:B:2089:MET:HE1	1.91	0.53
2:B:2324:THR:HG22	2:B:2371:TYR:CD2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2434:GLU:O	2:B:2437:THR:HG23	2.09	0.53
2:B:3105:LEU:O	2:B:3109:MET:HG3	2.08	0.53
2:D:803:PRO:HB2	2:D:806:TYR:CD1	2.43	0.53
2:D:2047:ILE:HG21	2:D:2065:MET:CE	2.36	0.53
2:D:3438:GLU:O	2:D:3442:GLU:HG3	2.08	0.53
2:D:4535:PRO:O	2:D:4541:LYS:HE2	2.08	0.53
2:F:814:LEU:HD13	2:F:1024:LEU:CD2	2.38	0.53
2:F:884:LYS:CB	2:F:905:LEU:HD21	2.38	0.53
2:F:2324:THR:HG22	2:F:2371:TYR:CD2	2.44	0.53
2:H:885:ILE:HG12	2:H:959:MET:HE2	1.90	0.53
2:H:1830:GLY:O	2:H:1834:VAL:HG13	2.09	0.53
2:H:3761:TYR:CE2	2:H:3800:ILE:HD11	2.43	0.53
2:B:3438:GLU:O	2:B:3442:GLU:HG3	2.08	0.53
2:B:4419:PHE:O	2:B:4456:GLN:HG2	2.09	0.53
2:B:4463:ALA:HB3	2:B:4464:PRO:HD3	1.91	0.53
2:D:43:LEU:HG	2:D:445:ASP:HB3	1.90	0.53
2:D:217:TYR:CD2	2:D:344:PRO:HB2	2.44	0.53
2:D:632:GLN:O	2:D:1534:LEU:HD12	2.08	0.53
2:D:1807:MET:O	2:D:1811:LEU:HG	2.08	0.53
2:D:2074:VAL:HG22	2:D:2117:TYR:CZ	2.44	0.53
2:D:3152:PRO:HD2	2:D:3153:PRO:HD2	1.91	0.53
2:F:419:SER:HA	2:F:422:VAL:HG12	1.91	0.53
2:F:1830:GLY:O	2:F:1834:VAL:HG13	2.09	0.53
2:H:4635:LEU:O	2:H:4638:ILE:HG23	2.09	0.53
2:B:1830:GLY:O	2:B:1834:VAL:HG13	2.09	0.52
2:B:4635:LEU:O	2:B:4638:ILE:HG23	2.09	0.52
2:D:891:PHE:HA	2:D:905:LEU:HD12	1.91	0.52
2:D:1025:LEU:O	2:D:1030:LYS:HE2	2.08	0.52
2:D:1798:ARG:NH1	2:D:1970:GLU:OE1	2.41	0.52
2:D:2192:GLY:O	2:D:2196:LEU:HG	2.09	0.52
2:F:396:THR:O	2:F:397:LEU:HD23	2.10	0.52
2:F:1009:GLN:O	2:F:1017:PRO:HD3	2.10	0.52
2:F:1798:ARG:NH1	2:F:1970:GLU:OE1	2.41	0.52
2:F:2192:GLY:O	2:F:2196:LEU:HG	2.09	0.52
1:G:25:VAL:HG12	1:G:104:LEU:HD12	1.92	0.52
2:B:1742:ASP:O	2:B:1746:ILE:HG13	2.08	0.52
2:B:3860:GLN:O	2:B:3864:VAL:HG23	2.09	0.52
2:D:1009:GLN:O	2:D:1017:PRO:HD3	2.10	0.52
1:E:25:VAL:HG12	1:E:104:LEU:HD12	1.92	0.52
2:F:648:LEU:HD13	2:F:660:TRP:CG	2.44	0.52
2:F:859:VAL:HG11	2:F:931:LEU:HB2	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:3152:PRO:HD2	2:F:3153:PRO:HD2	1.91	0.52
2:H:396:THR:O	2:H:397:LEU:HD23	2.10	0.52
2:H:474:ASN:O	2:H:478:GLU:HG3	2.09	0.52
2:H:648:LEU:HD13	2:H:660:TRP:CG	2.44	0.52
2:H:1025:LEU:O	2:H:1030:LYS:HE2	2.08	0.52
2:H:2115:LEU:HD21	2:H:2154:LEU:HD21	1.91	0.52
2:H:2192:GLY:O	2:H:2196:LEU:HG	2.09	0.52
2:B:557:GLY:O	2:B:561:VAL:HG23	2.08	0.52
2:B:648:LEU:HD13	2:B:660:TRP:CG	2.44	0.52
2:B:1475:PHE:CE2	2:B:1487:PRO:HG2	2.45	0.52
2:B:2115:LEU:HD21	2:B:2154:LEU:HD21	1.91	0.52
2:B:4477:SER:O	2:B:4481:VAL:HG23	2.09	0.52
2:D:396:THR:O	2:D:397:LEU:HD23	2.10	0.52
2:D:2820:LYS:HD3	2:D:2897:MET:CE	2.38	0.52
2:F:407:ALA:O	2:F:411:ILE:HG13	2.08	0.52
2:F:885:ILE:HG12	2:F:959:MET:CE	2.38	0.52
2:F:3438:GLU:O	2:F:3442:GLU:HG3	2.08	0.52
2:F:3860:GLN:O	2:F:3864:VAL:HG23	2.09	0.52
2:F:4463:ALA:HB3	2:F:4464:PRO:HD3	1.91	0.52
2:H:1585:ASP:OD1	2:H:1585:ASP:N	2.42	0.52
2:H:2074:VAL:HG22	2:H:2117:TYR:CZ	2.44	0.52
2:H:4419:PHE:O	2:H:4456:GLN:HG2	2.09	0.52
2:H:4477:SER:O	2:H:4481:VAL:HG23	2.09	0.52
2:B:2192:GLY:O	2:B:2196:LEU:HG	2.09	0.52
2:D:648:LEU:HD13	2:D:660:TRP:CG	2.44	0.52
2:D:3459:GLN:HB2	2:D:3460:PRO:HD3	1.91	0.52
2:D:4419:PHE:O	2:D:4456:GLN:HG2	2.09	0.52
2:F:2047:ILE:HG21	2:F:2065:MET:CE	2.36	0.52
2:F:3249:ILE:HD12	2:F:3250:LEU:HD23	1.89	0.52
2:F:3850:GLU:O	2:F:3854:GLU:HG3	2.10	0.52
2:F:4475:VAL:O	2:F:4479:VAL:HG13	2.10	0.52
2:H:1555:MET:HE1	2:H:1601:LEU:HD12	1.91	0.52
2:B:225:ARG:HG2	2:B:262:SER:O	2.10	0.52
2:B:889:TRP:HA	2:B:900:ARG:CB	2.30	0.52
2:B:2074:VAL:HG22	2:B:2117:TYR:CZ	2.44	0.52
1:C:25:VAL:HG12	1:C:104:LEU:HD12	1.92	0.52
2:D:474:ASN:O	2:D:478:GLU:HG3	2.09	0.52
2:D:859:VAL:HG11	2:D:931:LEU:HB2	1.89	0.52
2:D:2449:ARG:O	2:D:2449:ARG:NH1	2.32	0.52
2:D:3252:GLU:O	2:D:3255:VAL:HG22	2.10	0.52
2:D:4475:VAL:O	2:D:4479:VAL:HG13	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:43:LEU:HG	2:F:445:ASP:HB3	1.90	0.52
2:F:2935:ASP:O	2:F:2939:VAL:HG23	2.09	0.52
2:F:3404:ARG:HG3	2:F:3441:ILE:HD13	1.90	0.52
2:F:4684:PHE:HB2	2:F:4735:ARG:NH2	2.24	0.52
2:H:636:ILE:HD11	2:H:1531:MET:HE3	1.91	0.52
2:H:814:LEU:HD13	2:H:1024:LEU:CD2	2.38	0.52
2:H:884:LYS:CB	2:H:905:LEU:HD21	2.38	0.52
2:H:1158:SER:OG	2:H:1176:LEU:HG	2.10	0.52
2:B:1025:LEU:O	2:B:1030:LYS:HE2	2.08	0.52
2:B:4475:VAL:O	2:B:4479:VAL:HG13	2.10	0.52
2:D:1475:PHE:CE2	2:D:1487:PRO:HG2	2.45	0.52
2:D:1539:GLU:OE1	2:D:1541:ARG:NE	2.41	0.52
2:D:3105:LEU:O	2:D:3109:MET:HG3	2.08	0.52
2:D:3455:GLU:O	2:D:3459:GLN:HG3	2.10	0.52
2:D:3850:GLU:O	2:D:3854:GLU:HG3	2.10	0.52
2:F:872:LEU:HD11	2:F:1040:ALA:HA	1.91	0.52
2:F:982:LEU:O	2:F:986:LEU:HG	2.08	0.52
2:F:1840:ASN:OD1	2:F:1892:ILE:HD11	2.08	0.52
2:F:2074:VAL:HG22	2:F:2117:TYR:CZ	2.44	0.52
2:F:2434:GLU:O	2:F:2437:THR:HG23	2.09	0.52
2:F:3690:ASN:HD21	2:F:3694:ARG:HE	1.58	0.52
2:H:1531:MET:HE3	2:H:1533:ALA:HB2	1.91	0.52
2:H:4463:ALA:HB3	2:H:4464:PRO:HD3	1.91	0.52
2:B:524:LEU:HD21	2:B:538:PHE:CZ	2.44	0.52
2:B:4684:PHE:HB2	2:B:4735:ARG:NH2	2.24	0.52
2:F:3252:GLU:O	2:F:3255:VAL:HG22	2.10	0.52
2:H:419:SER:HA	2:H:422:VAL:HG12	1.91	0.52
2:H:997:ASP:O	2:H:1001:GLN:HG2	2.10	0.52
2:H:3690:ASN:HD21	2:H:3694:ARG:HE	1.58	0.52
2:B:43:LEU:HG	2:B:445:ASP:HB3	1.90	0.52
2:B:1158:SER:OG	2:B:1176:LEU:HG	2.10	0.52
2:B:2468:LEU:HD23	2:B:2500:MET:SD	2.50	0.52
2:D:237:PRO:HG2	2:D:245:GLN:O	2.09	0.52
2:D:3582:CYS:SG	2:D:3615:LEU:HD12	2.49	0.52
2:D:4477:SER:O	2:D:4481:VAL:HG23	2.09	0.52
2:F:217:TYR:CD2	2:F:344:PRO:HB2	2.44	0.52
2:F:3455:GLU:O	2:F:3459:GLN:HG3	2.10	0.52
2:F:4402:LEU:HD13	2:F:4479:VAL:CG2	2.40	0.52
2:H:1009:GLN:O	2:H:1017:PRO:HD3	2.10	0.52
2:H:2324:THR:HG22	2:H:2371:TYR:CD2	2.44	0.52
2:H:3455:GLU:O	2:H:3459:GLN:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:3860:GLN:O	2:H:3864:VAL:HG23	2.09	0.52
2:H:4684:PHE:HB2	2:H:4735:ARG:NH2	2.24	0.52
1:A:25:VAL:HG12	1:A:104:LEU:HD12	1.92	0.52
2:B:891:PHE:HA	2:B:905:LEU:HD12	1.91	0.52
2:B:1114:LEU:HD22	2:B:1192:SER:HB2	1.91	0.52
2:B:2935:ASP:O	2:B:2939:VAL:HG23	2.09	0.52
2:B:3776:TYR:OH	2:B:3783:ASP:OD1	2.19	0.52
2:B:4402:LEU:HD13	2:B:4479:VAL:CG2	2.40	0.52
2:D:3690:ASN:HD21	2:D:3694:ARG:HE	1.58	0.52
2:D:3776:TYR:OH	2:D:3783:ASP:OD1	2.19	0.52
2:F:225:ARG:HG2	2:F:262:SER:O	2.10	0.52
2:F:3776:TYR:OH	2:F:3783:ASP:OD1	2.19	0.52
2:H:703:ASN:HA	2:H:707:ASP:OD2	2.09	0.52
2:B:593:ARG:NH2	2:B:1537:PRO:HD2	2.25	0.52
2:B:1997:LEU:O	2:B:2001:ARG:HG3	2.10	0.52
2:B:2822:ILE:HD13	2:B:2865:VAL:CG2	2.33	0.52
2:D:518:ASN:O	2:D:522:LYS:HG3	2.10	0.52
2:D:2324:THR:HG22	2:D:2371:TYR:CD2	2.44	0.52
2:D:3404:ARG:HG3	2:D:3441:ILE:HD13	1.90	0.52
2:D:4453:PHE:CE2	2:F:4678:PHE:CE2	2.98	0.52
2:D:4463:ALA:HB3	2:D:4464:PRO:HD3	1.91	0.52
2:F:869:ARG:HG2	2:F:923:SER:OG	2.10	0.52
2:F:2862:LEU:HB2	2:F:2863:PRO:HD3	1.92	0.52
2:F:4398:ASN:O	2:F:4402:LEU:HG	2.10	0.52
2:F:4477:SER:O	2:F:4481:VAL:HG23	2.09	0.52
2:H:3252:GLU:O	2:H:3255:VAL:HG22	2.10	0.52
2:H:4398:ASN:O	2:H:4402:LEU:HG	2.10	0.52
2:B:518:ASN:O	2:B:522:LYS:HG3	2.10	0.51
2:B:869:ARG:HG2	2:B:923:SER:OG	2.10	0.51
2:B:997:ASP:O	2:B:1001:GLN:HG2	2.10	0.51
2:B:3143:TRP:HZ3	2:B:3159:CYS:HG	1.58	0.51
2:B:3455:GLU:O	2:B:3459:GLN:HG3	2.10	0.51
2:D:593:ARG:NH2	2:D:1537:PRO:HD2	2.25	0.51
2:D:1158:SER:OG	2:D:1176:LEU:HG	2.10	0.51
2:D:1997:LEU:O	2:D:2001:ARG:HG3	2.10	0.51
2:D:2985:SER:HA	2:D:2988:ILE:HG12	1.92	0.51
2:F:997:ASP:O	2:F:1001:GLN:HG2	2.10	0.51
2:H:225:ARG:HG2	2:H:262:SER:O	2.10	0.51
2:B:396:THR:O	2:B:397:LEU:HD23	2.10	0.51
2:B:462:LYS:O	2:B:466:LEU:HG	2.11	0.51
2:B:3084:ARG:O	2:B:3088:ILE:HG13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3252:GLU:O	2:B:3255:VAL:HG22	2.10	0.51
2:B:3305:ASN:O	2:B:3309:GLU:HG2	2.11	0.51
2:B:4678:PHE:CE2	2:H:4453:PHE:CE2	2.98	0.51
2:D:225:ARG:HG2	2:D:262:SER:O	2.10	0.51
2:D:872:LEU:HD11	2:D:1040:ALA:HA	1.91	0.51
2:D:1114:LEU:HD22	2:D:1192:SER:HB2	1.91	0.51
2:D:2468:LEU:HD23	2:D:2500:MET:SD	2.50	0.51
2:F:2115:LEU:HD21	2:F:2154:LEU:HD21	1.91	0.51
2:H:1475:PHE:CE2	2:H:1487:PRO:HG2	2.45	0.51
2:H:2468:LEU:HD23	2:H:2500:MET:SD	2.50	0.51
2:H:3084:ARG:O	2:H:3088:ILE:HG13	2.10	0.51
2:B:2449:ARG:O	2:B:2449:ARG:NH1	2.32	0.51
2:B:3339:GLN:HA	2:B:3342:GLU:OE2	2.11	0.51
2:D:243:ASP:OD1	2:D:243:ASP:N	2.37	0.51
2:D:462:LYS:O	2:D:466:LEU:HG	2.11	0.51
2:D:2862:LEU:HB2	2:D:2863:PRO:HD3	1.92	0.51
2:D:3305:ASN:O	2:D:3309:GLU:HG2	2.11	0.51
2:F:593:ARG:NH2	2:F:1537:PRO:HD2	2.25	0.51
2:F:1158:SER:OG	2:F:1176:LEU:HG	2.10	0.51
2:F:1491:ASP:OD1	2:F:1492:VAL:N	2.44	0.51
2:F:4046:LYS:O	2:F:4050:LYS:HG3	2.11	0.51
2:H:120:LEU:HD11	2:H:137:VAL:HG12	1.93	0.51
2:H:1997:LEU:O	2:H:2001:ARG:HG3	2.10	0.51
2:H:2315:ARG:HD2	2:H:2319:ARG:HH21	1.76	0.51
2:H:3522:LEU:HD23	2:H:3577:MET:HE1	1.92	0.51
2:B:3690:ASN:HD21	2:B:3694:ARG:HE	1.58	0.51
2:B:4046:LYS:O	2:B:4050:LYS:HG3	2.11	0.51
2:D:35:LYS:H	2:D:54:SER:HB3	1.76	0.51
2:D:420:GLN:HG3	2:D:434:LEU:HD12	1.93	0.51
2:D:997:ASP:O	2:D:1001:GLN:HG2	2.10	0.51
2:D:1347:TRP:CD1	2:D:1422:LEU:HD23	2.46	0.51
2:D:1349:THR:OG1	2:D:1351:ASP:OD1	2.17	0.51
2:F:459:HIS:O	2:F:463:GLN:HG2	2.10	0.51
2:F:1475:PHE:CE2	2:F:1487:PRO:HG2	2.45	0.51
2:F:4531:THR:O	2:F:4544:LYS:NZ	2.41	0.51
2:H:462:LYS:O	2:H:466:LEU:HG	2.11	0.51
2:H:869:ARG:HG2	2:H:923:SER:OG	2.10	0.51
2:H:887:LEU:O	2:H:900:ARG:NH1	2.44	0.51
2:H:2337:LEU:HD13	2:H:2397:LEU:HD11	1.92	0.51
2:H:3152:PRO:HD2	2:H:3153:PRO:HD2	1.91	0.51
2:H:4071:GLU:OE1	2:H:4841:TRP:NE1	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:320:PHE:HE1	2:B:355:VAL:HG22	1.76	0.51
2:B:887:LEU:O	2:B:900:ARG:NH1	2.44	0.51
2:B:4453:PHE:CE2	2:D:4678:PHE:CE2	2.98	0.51
2:B:4505:GLU:O	2:B:4550:LYS:NZ	2.34	0.51
2:D:977:PRO:HD2	2:D:978:PRO:HD2	1.92	0.51
2:D:3071:ARG:HA	2:D:3079:ASN:HD21	1.76	0.51
2:D:3084:ARG:O	2:D:3088:ILE:HG13	2.10	0.51
2:D:3527:MET:HG3	2:D:3618:ARG:NH1	2.19	0.51
2:D:4527:LEU:O	2:D:4596:LYS:HE2	2.11	0.51
2:F:474:ASN:O	2:F:478:GLU:HG3	2.09	0.51
2:F:1114:LEU:HD22	2:F:1192:SER:HB2	1.91	0.51
2:F:2468:LEU:HD23	2:F:2500:MET:SD	2.50	0.51
2:F:3339:GLN:HA	2:F:3342:GLU:OE2	2.11	0.51
2:H:636:ILE:HD11	2:H:1531:MET:CE	2.41	0.51
2:H:1820:GLN:O	2:H:1824:GLU:HG3	2.11	0.51
2:H:1958:GLU:O	2:H:1962:GLN:HG3	2.11	0.51
2:H:2862:LEU:HB2	2:H:2863:PRO:HD3	1.92	0.51
2:H:3850:GLU:O	2:H:3854:GLU:HG3	2.10	0.51
2:B:930:LEU:CD2	2:B:986:LEU:HD21	2.40	0.51
2:B:3152:PRO:HD2	2:B:3153:PRO:HD2	1.91	0.51
2:D:885:ILE:HG12	2:D:959:MET:HE2	1.91	0.51
2:D:1958:GLU:O	2:D:1962:GLN:HG3	2.11	0.51
2:F:3077:VAL:HA	2:F:3080:THR:CG2	2.40	0.51
2:F:3109:MET:HE2	2:F:3170:ILE:HD11	1.93	0.51
2:H:872:LEU:HD11	2:H:1040:ALA:HA	1.91	0.51
2:B:120:LEU:HD11	2:B:137:VAL:HG12	1.93	0.51
2:B:1958:GLU:O	2:B:1962:GLN:HG3	2.11	0.51
2:B:3077:VAL:HA	2:B:3080:THR:CG2	2.40	0.51
2:D:1491:ASP:OD1	2:D:1492:VAL:N	2.44	0.51
2:F:35:LYS:H	2:F:54:SER:HB3	1.76	0.51
2:F:120:LEU:HD11	2:F:137:VAL:HG12	1.93	0.51
2:F:1820:GLN:O	2:F:1824:GLU:HG3	2.11	0.51
2:H:950:LYS:HG2	2:H:968:LEU:HD23	1.93	0.51
2:H:2437:THR:HG22	2:H:2479:MET:HG2	1.93	0.51
2:H:4046:LYS:O	2:H:4050:LYS:HG3	2.11	0.51
2:B:271:ILE:HD12	5:B:5305:ATP:PG	2.50	0.51
2:B:1138:PHE:CD1	2:B:1170:THR:HG22	2.46	0.51
2:B:1491:ASP:OD1	2:B:1492:VAL:N	2.44	0.51
2:B:2376:GLN:OE1	2:B:2433:THR:HG22	2.11	0.51
2:D:869:ARG:HG2	2:D:923:SER:OG	2.10	0.51
2:D:2115:LEU:HD21	2:D:2154:LEU:HD21	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2488:VAL:HG21	2:D:2535:LEU:CD1	2.41	0.51
2:D:4535:PRO:HB2	2:D:4538:TYR:HB3	1.93	0.51
2:F:420:GLN:HG3	2:F:434:LEU:HD12	1.93	0.51
2:F:636:ILE:HD11	2:F:1531:MET:CE	2.41	0.51
2:F:869:ARG:CB	2:F:927:LEU:HD11	2.40	0.51
2:F:937:ILE:HG12	2:F:1051:ILE:CD1	2.40	0.51
2:F:1072:ARG:HD2	2:F:1074:PHE:CZ	2.46	0.51
2:F:1347:TRP:CD1	2:F:1422:LEU:HD23	2.46	0.51
2:F:3143:TRP:HZ3	2:F:3159:CYS:HG	1.57	0.51
2:H:977:PRO:HD2	2:H:978:PRO:HD2	1.92	0.51
2:H:3305:ASN:O	2:H:3309:GLU:HG2	2.11	0.51
2:H:4475:VAL:O	2:H:4479:VAL:HG13	2.10	0.51
2:D:615:ASN:O	2:D:619:ILE:HG13	2.11	0.51
2:D:1072:ARG:HD2	2:D:1074:PHE:CZ	2.46	0.51
2:D:1834:VAL:O	2:D:1838:GLN:HG3	2.11	0.51
2:D:4398:ASN:O	2:D:4402:LEU:HG	2.10	0.51
2:F:615:ASN:O	2:F:619:ILE:HG13	2.11	0.51
2:F:2376:GLN:OE1	2:F:2433:THR:HG22	2.11	0.51
2:F:3522:LEU:HD23	2:F:3577:MET:HE1	1.93	0.51
2:H:593:ARG:NH2	2:H:1537:PRO:HD2	2.25	0.51
2:H:882:MET:SD	2:H:967:PRO:HG3	2.51	0.51
2:H:1347:TRP:CD1	2:H:1422:LEU:HD23	2.46	0.51
2:B:51:GLU:OE2	2:B:308:ARG:NH2	2.43	0.51
2:B:420:GLN:HG3	2:B:434:LEU:HD12	1.93	0.51
2:B:475:LEU:O	2:B:479:GLU:HG2	2.11	0.51
2:B:1037:LEU:O	2:B:1041:VAL:HG23	2.11	0.51
2:B:1072:ARG:HD2	2:B:1074:PHE:CZ	2.46	0.51
2:B:1347:TRP:CD1	2:B:1422:LEU:HD23	2.46	0.51
2:B:1834:VAL:O	2:B:1838:GLN:HG3	2.11	0.51
2:B:4398:ASN:O	2:B:4402:LEU:HG	2.10	0.51
2:D:51:GLU:OE2	2:D:308:ARG:NH2	2.43	0.51
2:D:2337:LEU:HD13	2:D:2397:LEU:HD11	1.92	0.51
2:D:3339:GLN:HA	2:D:3342:GLU:OE2	2.11	0.51
2:D:4684:PHE:HB2	2:D:4735:ARG:NH2	2.24	0.51
2:F:1037:LEU:O	2:F:1041:VAL:HG23	2.11	0.51
2:F:2338:PRO:HB3	2:F:2348:GLU:HA	1.93	0.51
2:F:2437:THR:HG22	2:F:2479:MET:HG2	1.93	0.51
2:F:3084:ARG:O	2:F:3088:ILE:HG13	2.10	0.51
2:H:320:PHE:HE1	2:H:355:VAL:HG22	1.76	0.51
2:H:461:ASP:O	2:H:465:LYS:HG2	2.11	0.51
2:H:930:LEU:CD2	2:H:986:LEU:HD21	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1072:ARG:HD2	2:H:1074:PHE:CZ	2.46	0.51
2:H:3339:GLN:HA	2:H:3342:GLU:OE2	2.11	0.51
2:B:636:ILE:HD11	2:B:1531:MET:CE	2.41	0.50
2:B:4029:ILE:CD1	2:B:4845:PRO:HB3	2.42	0.50
2:D:120:LEU:HD11	2:D:137:VAL:HG12	1.93	0.50
2:D:459:HIS:O	2:D:463:GLN:HG2	2.10	0.50
2:D:1820:GLN:O	2:D:1824:GLU:HG3	2.11	0.50
2:D:4402:LEU:HD13	2:D:4479:VAL:CG2	2.40	0.50
2:F:51:GLU:OE2	2:F:308:ARG:NH2	2.43	0.50
2:F:950:LYS:HG2	2:F:968:LEU:HD23	1.93	0.50
2:F:977:PRO:HD2	2:F:978:PRO:HD2	1.92	0.50
2:F:1997:LEU:O	2:F:2001:ARG:HG3	2.10	0.50
2:F:4453:PHE:CE2	2:H:4678:PHE:CE2	2.98	0.50
2:F:4527:LEU:O	2:F:4596:LYS:HE2	2.11	0.50
2:H:35:LYS:H	2:H:54:SER:HB3	1.76	0.50
2:H:459:HIS:O	2:H:463:GLN:HG2	2.10	0.50
2:H:1114:LEU:HD22	2:H:1192:SER:HB2	1.91	0.50
2:B:872:LEU:HD11	2:B:1040:ALA:HA	1.91	0.50
2:B:977:PRO:HD2	2:B:978:PRO:HD2	1.92	0.50
2:B:2315:ARG:HD2	2:B:2319:ARG:HH21	1.76	0.50
2:B:3850:GLU:O	2:B:3854:GLU:HG3	2.10	0.50
2:B:4527:LEU:O	2:B:4596:LYS:HE2	2.11	0.50
2:D:271:ILE:HD12	5:D:5305:ATP:PG	2.50	0.50
2:D:320:PHE:HE1	2:D:355:VAL:HG22	1.76	0.50
2:D:475:LEU:O	2:D:479:GLU:HG2	2.11	0.50
2:D:1585:ASP:OD1	2:D:1585:ASP:N	2.42	0.50
2:D:3755:ILE:HG22	2:D:3819:LEU:HD21	1.93	0.50
2:F:461:ASP:O	2:F:465:LYS:HG2	2.11	0.50
2:F:2985:SER:HA	2:F:2988:ILE:HG12	1.92	0.50
2:F:3379:ASP:O	2:F:3383:ILE:HG13	2.12	0.50
2:H:271:ILE:HD12	5:H:5305:ATP:PG	2.50	0.50
2:H:708:ASP:OD1	2:H:711:SER:OG	2.29	0.50
2:H:1491:ASP:OD1	2:H:1492:VAL:N	2.44	0.50
2:H:2985:SER:HA	2:H:2988:ILE:HG12	1.92	0.50
2:B:35:LYS:H	2:B:54:SER:HB3	1.76	0.50
2:B:615:ASN:O	2:B:619:ILE:HG13	2.11	0.50
2:B:1820:GLN:O	2:B:1824:GLU:HG3	2.11	0.50
2:D:636:ILE:HD11	2:D:1531:MET:CE	2.41	0.50
2:D:882:MET:SD	2:D:967:PRO:HG3	2.51	0.50
2:D:1037:LEU:O	2:D:1041:VAL:HG23	2.11	0.50
2:D:1138:PHE:CD1	2:D:1170:THR:HG22	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2204:PHE:CZ	2:D:2207:SER:HA	2.47	0.50
2:D:2376:GLN:OE1	2:D:2433:THR:HG22	2.11	0.50
2:D:2836:LEU:O	2:D:2839:ILE:HG12	2.12	0.50
2:D:3379:ASP:O	2:D:3383:ILE:HG13	2.12	0.50
2:F:271:ILE:HD12	5:F:5305:ATP:PG	2.50	0.50
2:F:1973:ILE:H	2:F:1973:ILE:HD12	1.77	0.50
2:F:2204:PHE:CZ	2:F:2207:SER:HA	2.47	0.50
2:F:2337:LEU:HD13	2:F:2397:LEU:HD11	1.92	0.50
2:F:3527:MET:HG3	2:F:3618:ARG:NH1	2.19	0.50
2:H:475:LEU:O	2:H:479:GLU:HG2	2.11	0.50
2:H:1666:ARG:H	2:H:1682:GLN:NE2	2.10	0.50
2:H:1834:VAL:O	2:H:1838:GLN:HG3	2.11	0.50
2:H:2376:GLN:OE1	2:H:2433:THR:HG22	2.11	0.50
2:B:459:HIS:O	2:B:463:GLN:HG2	2.10	0.50
2:B:836:ASP:OD1	2:B:1200:ARG:NE	2.31	0.50
2:B:882:MET:SD	2:B:967:PRO:HG3	2.51	0.50
2:B:2204:PHE:CZ	2:B:2207:SER:HA	2.47	0.50
2:B:2985:SER:HA	2:B:2988:ILE:HG12	1.92	0.50
2:B:3109:MET:HE2	2:B:3170:ILE:HD11	1.93	0.50
2:B:4056:PHE:O	2:B:4060:VAL:HG12	2.12	0.50
2:D:887:LEU:O	2:D:900:ARG:NH1	2.44	0.50
2:F:462:LYS:O	2:F:466:LEU:HG	2.11	0.50
2:F:708:ASP:OD1	2:F:711:SER:OG	2.29	0.50
2:F:1138:PHE:CD1	2:F:1170:THR:HG22	2.46	0.50
2:F:3071:ARG:HA	2:F:3079:ASN:HD21	1.76	0.50
2:H:2434:GLU:O	2:H:2437:THR:HG23	2.09	0.50
2:H:2836:LEU:O	2:H:2839:ILE:HG12	2.12	0.50
2:H:3071:ARG:HA	2:H:3079:ASN:HD21	1.76	0.50
2:H:3379:ASP:O	2:H:3383:ILE:HG13	2.12	0.50
2:H:4531:THR:O	2:H:4544:LYS:NZ	2.41	0.50
2:B:28:ASN:OD1	2:B:33:GLN:HG2	2.11	0.50
2:B:2862:LEU:HB2	2:B:2863:PRO:HD3	1.92	0.50
1:C:15:THR:HG22	1:C:107:LEU:HD12	1.93	0.50
2:D:461:ASP:O	2:D:465:LYS:HG2	2.11	0.50
2:F:475:LEU:O	2:F:479:GLU:HG2	2.11	0.50
2:F:887:LEU:O	2:F:900:ARG:NH1	2.44	0.50
2:F:1666:ARG:H	2:F:1682:GLN:NE2	2.10	0.50
2:F:2967:GLU:O	2:F:2971:LEU:HD13	2.12	0.50
2:F:3755:ILE:HG22	2:F:3819:LEU:HD21	1.93	0.50
2:F:4029:ILE:CD1	2:F:4845:PRO:HB3	2.42	0.50
2:H:518:ASN:O	2:H:522:LYS:HG3	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:4402:LEU:HD13	2:H:4479:VAL:CG2	2.40	0.50
2:B:950:LYS:HG2	2:B:968:LEU:HD23	1.93	0.50
2:B:955:LYS:HG3	2:B:958:MET:SD	2.52	0.50
2:B:1009:GLN:O	2:B:1017:PRO:HD3	2.10	0.50
2:B:2905:LEU:HD22	2:B:2923:MET:CE	2.42	0.50
2:B:3071:ARG:HA	2:B:3079:ASN:HD21	1.76	0.50
2:D:955:LYS:HG3	2:D:958:MET:SD	2.52	0.50
2:D:2315:ARG:HD2	2:D:2319:ARG:HH21	1.76	0.50
2:D:4056:PHE:O	2:D:4060:VAL:HG12	2.12	0.50
2:D:4503:LYS:HD3	2:D:4509:LEU:HD22	1.94	0.50
2:D:4543:VAL:O	2:D:4547:VAL:HG23	2.12	0.50
2:F:320:PHE:HE1	2:F:355:VAL:HG22	1.76	0.50
2:F:882:MET:SD	2:F:967:PRO:HG3	2.51	0.50
2:F:930:LEU:CD2	2:F:986:LEU:HD21	2.40	0.50
2:F:1034:ARG:HG2	2:F:1038:ARG:HH12	1.77	0.50
2:F:2836:LEU:O	2:F:2839:ILE:HG12	2.12	0.50
2:F:3305:ASN:O	2:F:3309:GLU:HG2	2.11	0.50
2:H:420:GLN:HG3	2:H:434:LEU:HD12	1.93	0.50
2:H:2204:PHE:CZ	2:H:2207:SER:HA	2.47	0.50
2:H:2967:GLU:O	2:H:2971:LEU:HD13	2.12	0.50
2:B:3190:MET:HB3	2:B:3262:ALA:HB2	1.94	0.50
2:B:3925:GLY:O	2:B:3963:ASN:ND2	2.45	0.50
2:B:4059:ASP:O	2:B:4063:GLU:HG2	2.12	0.50
2:B:4535:PRO:HB2	2:B:4538:TYR:HB3	1.93	0.50
2:D:1034:ARG:HG2	2:D:1038:ARG:HH12	1.77	0.50
2:D:3925:GLY:O	2:D:3963:ASN:ND2	2.45	0.50
2:D:4046:LYS:O	2:D:4050:LYS:HG3	2.11	0.50
2:F:518:ASN:O	2:F:522:LYS:HG3	2.10	0.50
2:F:1041:VAL:O	2:F:1045:VAL:HG23	2.12	0.50
2:F:1834:VAL:O	2:F:1838:GLN:HG3	2.11	0.50
2:F:3925:GLY:O	2:F:3963:ASN:ND2	2.45	0.50
2:F:4056:PHE:O	2:F:4060:VAL:HG12	2.12	0.50
2:F:4059:ASP:O	2:F:4063:GLU:HG2	2.12	0.50
2:F:4543:VAL:O	2:F:4547:VAL:HG23	2.12	0.50
2:H:14:PHE:CE1	2:H:166:ARG:HG2	2.47	0.50
2:H:28:ASN:OD1	2:H:33:GLN:HG2	2.11	0.50
2:H:1973:ILE:HD12	2:H:1973:ILE:H	1.77	0.50
2:H:2905:LEU:HD22	2:H:2923:MET:CE	2.42	0.50
2:H:3681:MET:HE1	2:H:3727:LEU:HD11	1.94	0.50
2:B:1973:ILE:H	2:B:1973:ILE:HD12	1.77	0.50
2:B:2437:THR:HG22	2:B:2479:MET:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3253:PHE:CE2	2:B:3305:ASN:HB2	2.47	0.50
2:B:3783:ASP:OD1	2:B:3783:ASP:N	2.32	0.50
2:B:3935:ALA:O	2:B:3939:GLN:HG2	2.12	0.50
2:D:717:LEU:O	2:D:728:VAL:HG12	2.12	0.50
2:D:3190:MET:HB3	2:D:3262:ALA:HB2	1.94	0.50
1:E:67:MET:HE2	1:E:104:LEU:HB2	1.94	0.50
2:F:1082:VAL:HG23	2:F:1154:LEU:HD11	1.94	0.50
2:F:2315:ARG:HD2	2:F:2319:ARG:HH21	1.76	0.50
2:F:3253:PHE:CE2	2:F:3305:ASN:HB2	2.47	0.50
2:F:3956:ALA:HA	2:F:3962:PHE:HB3	1.94	0.50
2:H:3253:PHE:CE2	2:H:3305:ASN:HB2	2.47	0.50
2:H:3925:GLY:O	2:H:3963:ASN:ND2	2.45	0.50
2:H:3935:ALA:O	2:H:3939:GLN:HG2	2.12	0.50
2:B:1034:ARG:HG2	2:B:1038:ARG:HH12	1.77	0.50
2:B:1666:ARG:H	2:B:1682:GLN:NE2	2.10	0.50
2:B:2337:LEU:HD13	2:B:2397:LEU:HD11	1.92	0.50
2:B:2488:VAL:HG21	2:B:2535:LEU:CD1	2.41	0.50
2:B:3379:ASP:O	2:B:3383:ILE:HG13	2.12	0.50
2:B:3755:ILE:HG22	2:B:3819:LEU:HD21	1.93	0.50
2:D:1328:CYS:SG	2:D:1470:LEU:HD12	2.52	0.50
2:D:2437:THR:HG22	2:D:2479:MET:HG2	1.93	0.50
2:D:2967:GLU:O	2:D:2971:LEU:HD13	2.12	0.50
2:D:3077:VAL:HA	2:D:3080:THR:CG2	2.40	0.50
2:D:3201:ILE:HD13	2:D:3266:MET:HA	1.93	0.50
2:F:14:PHE:CE1	2:F:166:ARG:HG2	2.47	0.50
2:F:1838:GLN:NE2	2:F:3497:ILE:HG13	2.27	0.50
2:F:2488:VAL:HG21	2:F:2535:LEU:CD1	2.41	0.50
2:F:3681:MET:HE1	2:F:3727:LEU:HD11	1.94	0.50
2:F:4535:PRO:HB2	2:F:4538:TYR:HB3	1.93	0.50
2:H:1838:GLN:NE2	2:H:3497:ILE:HG13	2.27	0.50
2:H:4535:PRO:HB2	2:H:4538:TYR:HB3	1.93	0.50
2:B:859:VAL:HB	2:B:928:LYS:HB3	1.94	0.49
2:B:1395:ILE:HD13	2:B:1426:ALA:HB2	1.94	0.49
2:B:2498:CYS:O	2:B:2502:LEU:HG	2.12	0.49
2:B:2836:LEU:O	2:B:2839:ILE:HG12	2.12	0.49
2:D:950:LYS:HG2	2:D:968:LEU:HD23	1.93	0.49
2:D:1041:VAL:O	2:D:1045:VAL:HG23	2.12	0.49
2:D:1244:PHE:CE2	2:D:1495:ILE:HG13	2.47	0.49
2:D:1838:GLN:NE2	2:D:3497:ILE:HG13	2.27	0.49
2:D:2905:LEU:HD22	2:D:2923:MET:CE	2.42	0.49
2:F:481:MET:O	2:F:485:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:955:LYS:HG3	2:F:958:MET:SD	2.52	0.49
1:G:15:THR:HG22	1:G:107:LEU:HD12	1.93	0.49
2:H:1082:VAL:HG23	2:H:1154:LEU:HD11	1.94	0.49
2:H:1244:PHE:CE2	2:H:1495:ILE:HG13	2.47	0.49
2:H:2488:VAL:HG21	2:H:2535:LEU:CD1	2.41	0.49
2:H:2498:CYS:O	2:H:2502:LEU:HG	2.12	0.49
2:H:3798:LYS:HG3	2:H:3861:ASP:OD2	2.12	0.49
2:H:4029:ILE:CD1	2:H:4845:PRO:HB3	2.42	0.49
2:H:4543:VAL:O	2:H:4547:VAL:HG23	2.12	0.49
1:A:15:THR:HG22	1:A:107:LEU:HD12	1.93	0.49
2:B:1838:GLN:NE2	2:B:3497:ILE:HG13	2.27	0.49
2:B:3187:ALA:HB1	2:B:3189:TRP:NE1	2.27	0.49
2:D:28:ASN:OD1	2:D:33:GLN:HG2	2.11	0.49
2:D:930:LEU:CD2	2:D:986:LEU:HD21	2.40	0.49
2:D:2231:ALA:CB	2:D:2243:ALA:HB2	2.41	0.49
2:D:3109:MET:HE2	2:D:3170:ILE:HD11	1.94	0.49
2:D:3745:GLN:H	2:D:3751:THR:HG23	1.78	0.49
2:F:927:LEU:O	2:F:931:LEU:HG	2.13	0.49
2:F:2338:PRO:HA	2:F:2349:PRO:HD3	1.94	0.49
2:F:2905:LEU:HD22	2:F:2923:MET:CE	2.42	0.49
2:H:435:PRO:O	2:H:439:VAL:HG23	2.12	0.49
2:H:3246:GLU:O	2:H:3250:LEU:HG	2.12	0.49
2:H:4527:LEU:O	2:H:4596:LYS:HE2	2.11	0.49
2:B:481:MET:O	2:B:485:VAL:HG23	2.12	0.49
2:B:726:ARG:CG	2:B:1371:LEU:HD11	2.43	0.49
2:B:1041:VAL:O	2:B:1045:VAL:HG23	2.12	0.49
2:B:3181:ASN:HB3	2:B:3184:ILE:HD12	1.95	0.49
2:D:1888:CYS:HB3	2:D:1893:ARG:HE	1.78	0.49
2:D:3181:ASN:HB3	2:D:3184:ILE:HD12	1.95	0.49
2:F:3181:ASN:HB3	2:F:3184:ILE:HD12	1.95	0.49
2:H:1037:LEU:O	2:H:1041:VAL:HG23	2.11	0.49
2:H:2214:ALA:O	2:H:2218:VAL:HG23	2.13	0.49
2:H:3755:ILE:HG22	2:H:3819:LEU:HD21	1.93	0.49
2:B:461:ASP:O	2:B:465:LYS:HG2	2.11	0.49
2:B:1888:CYS:HB3	2:B:1893:ARG:HE	1.78	0.49
2:B:2338:PRO:HB3	2:B:2348:GLU:HA	1.93	0.49
2:B:2967:GLU:O	2:B:2971:LEU:HD13	2.12	0.49
1:C:67:MET:HE2	1:C:104:LEU:HB2	1.95	0.49
1:C:90:GLY:HA2	2:D:625:PRO:HG3	1.94	0.49
2:D:433:THR:OG1	2:D:434:LEU:HD22	2.13	0.49
2:D:1531:MET:HE3	2:D:1533:ALA:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1965:ILE:HD13	2:D:3525:ILE:HG22	1.95	0.49
2:D:2338:PRO:HB3	2:D:2348:GLU:HA	1.93	0.49
2:D:2461:ARG:O	2:D:2465:GLU:HG3	2.12	0.49
2:F:717:LEU:O	2:F:728:VAL:HG12	2.12	0.49
2:F:726:ARG:CG	2:F:1371:LEU:HD11	2.43	0.49
2:F:1395:ILE:HD13	2:F:1426:ALA:HB2	1.94	0.49
2:F:1888:CYS:HB3	2:F:1893:ARG:HE	1.78	0.49
2:F:1965:ILE:HD13	2:F:3525:ILE:HG22	1.95	0.49
2:F:2214:ALA:O	2:F:2218:VAL:HG23	2.13	0.49
2:F:2231:ALA:CB	2:F:2243:ALA:HB2	2.41	0.49
2:F:2461:ARG:O	2:F:2465:GLU:HG3	2.12	0.49
2:F:4785:ILE:HD13	2:F:4852:LYS:HD2	1.94	0.49
2:H:615:ASN:O	2:H:619:ILE:HG13	2.11	0.49
2:H:1138:PHE:CD1	2:H:1170:THR:HG22	2.46	0.49
2:H:1328:CYS:SG	2:H:1470:LEU:HD12	2.52	0.49
2:H:1395:ILE:HD13	2:H:1426:ALA:HB2	1.94	0.49
2:H:3187:ALA:HB1	2:H:3189:TRP:NE1	2.27	0.49
2:H:4059:ASP:O	2:H:4063:GLU:HG2	2.12	0.49
2:B:717:LEU:O	2:B:728:VAL:HG12	2.12	0.49
2:B:2214:ALA:O	2:B:2218:VAL:HG23	2.13	0.49
2:B:4531:THR:O	2:B:4544:LYS:NZ	2.41	0.49
2:D:859:VAL:HB	2:D:928:LYS:HB3	1.94	0.49
2:D:1082:VAL:HG23	2:D:1154:LEU:HD11	1.94	0.49
2:D:1239:LYS:HD3	2:D:1499:LEU:HD11	1.95	0.49
2:D:2214:ALA:O	2:D:2218:VAL:HG23	2.13	0.49
2:D:2338:PRO:HA	2:D:2349:PRO:HD3	1.94	0.49
2:D:4498:LYS:HG3	2:D:4538:TYR:CE1	2.47	0.49
2:F:433:THR:OG1	2:F:434:LEU:HD22	2.13	0.49
2:F:1958:GLU:O	2:F:1962:GLN:HG3	2.11	0.49
2:F:2498:CYS:O	2:F:2502:LEU:HG	2.12	0.49
2:F:3187:ALA:HB1	2:F:3189:TRP:NE1	2.27	0.49
2:H:51:GLU:OE2	2:H:308:ARG:NH2	2.43	0.49
2:H:481:MET:O	2:H:485:VAL:HG23	2.12	0.49
2:H:717:LEU:O	2:H:728:VAL:HG12	2.12	0.49
2:H:2231:ALA:CB	2:H:2243:ALA:HB2	2.41	0.49
2:H:2515:TYR:OH	2:H:2532:GLU:OE1	2.29	0.49
2:H:4056:PHE:O	2:H:4060:VAL:HG12	2.12	0.49
2:H:4814:LEU:HD22	2:H:4818:ILE:HD11	1.95	0.49
2:B:14:PHE:CE1	2:B:166:ARG:HG2	2.47	0.49
2:B:750:VAL:HB	2:B:751:PRO:C	2.33	0.49
2:B:1239:LYS:HD3	2:B:1499:LEU:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1531:MET:HE3	2:B:1533:ALA:HB2	1.92	0.49
2:B:2231:ALA:CB	2:B:2243:ALA:HB2	2.41	0.49
2:B:3251:ASP:O	2:B:3255:VAL:HG13	2.13	0.49
2:B:3798:LYS:HG3	2:B:3861:ASP:OD2	2.12	0.49
2:B:3925:GLY:O	2:B:3963:ASN:HA	2.12	0.49
2:B:4511:ILE:HG12	2:B:4563:LEU:CD2	2.43	0.49
2:D:435:PRO:O	2:D:439:VAL:HG23	2.12	0.49
2:D:708:ASP:OD1	2:D:711:SER:OG	2.29	0.49
2:D:2498:CYS:O	2:D:2502:LEU:HG	2.12	0.49
2:D:3251:ASP:O	2:D:3255:VAL:HG13	2.13	0.49
2:D:3620:ALA:O	2:D:3624:VAL:HG23	2.13	0.49
2:D:3935:ALA:O	2:D:3939:GLN:HG2	2.12	0.49
2:D:4029:ILE:CD1	2:D:4845:PRO:HB3	2.42	0.49
2:D:4511:ILE:HG12	2:D:4563:LEU:CD2	2.43	0.49
1:E:15:THR:HG22	1:E:107:LEU:HD12	1.93	0.49
2:F:28:ASN:OD1	2:F:33:GLN:HG2	2.11	0.49
2:F:77:ARG:O	2:F:81:GLU:HG2	2.13	0.49
2:F:750:VAL:HB	2:F:751:PRO:C	2.33	0.49
2:F:1239:LYS:HD3	2:F:1499:LEU:HD11	1.95	0.49
2:F:1328:CYS:SG	2:F:1470:LEU:HD12	2.52	0.49
2:F:2484:LEU:O	2:F:2488:VAL:HG23	2.13	0.49
2:F:3201:ILE:HD13	2:F:3266:MET:HA	1.93	0.49
2:F:4498:LYS:HG3	2:F:4538:TYR:CE1	2.47	0.49
2:F:4503:LYS:HD3	2:F:4509:LEU:HD22	1.94	0.49
2:H:955:LYS:HG3	2:H:958:MET:SD	2.52	0.49
2:H:2338:PRO:HB3	2:H:2348:GLU:HA	1.93	0.49
2:H:2927:LEU:HD13	2:H:2998:ILE:HD13	1.94	0.49
2:H:3925:GLY:O	2:H:3963:ASN:HA	2.12	0.49
2:H:3956:ALA:HA	2:H:3962:PHE:HB3	1.94	0.49
2:B:821:LEU:HD13	2:B:1523:VAL:CG2	2.43	0.49
2:B:3745:GLN:H	2:B:3751:THR:HG23	1.78	0.49
2:D:726:ARG:CG	2:D:1371:LEU:HD11	2.43	0.49
2:D:1395:ILE:HD13	2:D:1426:ALA:HB2	1.94	0.49
2:D:2218:VAL:O	2:D:2222:ILE:HG12	2.13	0.49
2:D:3925:GLY:O	2:D:3963:ASN:HA	2.12	0.49
2:D:4059:ASP:O	2:D:4063:GLU:HG2	2.12	0.49
2:F:3246:GLU:O	2:F:3250:LEU:HG	2.12	0.49
2:F:3745:GLN:H	2:F:3751:THR:HG23	1.78	0.49
2:F:4814:LEU:HD22	2:F:4818:ILE:HD11	1.95	0.49
2:H:1034:ARG:HG2	2:H:1038:ARG:HH12	1.77	0.49
2:H:1041:VAL:O	2:H:1045:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2219:LYS:O	2:H:2223:ARG:HG2	2.12	0.49
1:A:67:MET:HE2	1:A:104:LEU:HB2	1.93	0.49
1:A:90:GLY:HA2	2:B:625:PRO:HG3	1.94	0.49
2:B:2861:LEU:O	2:B:2865:VAL:HG23	2.13	0.49
2:B:4543:VAL:O	2:B:4547:VAL:HG23	2.12	0.49
2:D:40:ALA:O	2:D:65:VAL:HB	2.13	0.49
2:D:481:MET:O	2:D:485:VAL:HG23	2.12	0.49
2:D:1973:ILE:H	2:D:1973:ILE:HD12	1.77	0.49
2:D:3956:ALA:HA	2:D:3962:PHE:HB3	1.94	0.49
2:D:4505:GLU:O	2:D:4550:LYS:NZ	2.34	0.49
2:F:681:ARG:HG2	2:F:715:ASP:HB3	1.95	0.49
2:F:2219:LYS:O	2:F:2223:ARG:HG2	2.12	0.49
2:F:3798:LYS:HG3	2:F:3861:ASP:OD2	2.12	0.49
1:G:67:MET:HE2	1:G:104:LEU:HB2	1.95	0.49
2:H:750:VAL:HB	2:H:751:PRO:C	2.33	0.49
2:H:821:LEU:HD13	2:H:1523:VAL:CG2	2.43	0.49
2:H:1739:ASP:O	2:H:1743:ILE:HG13	2.13	0.49
2:H:3181:ASN:HB3	2:H:3184:ILE:HD12	1.95	0.49
2:H:3745:GLN:H	2:H:3751:THR:HG23	1.78	0.49
2:H:3878:THR:O	2:H:3882:GLN:HG3	2.13	0.49
2:B:40:ALA:O	2:B:65:VAL:HB	2.13	0.49
2:B:435:PRO:O	2:B:439:VAL:HG23	2.12	0.49
2:B:1723:VAL:O	2:B:1727:LYS:HG3	2.13	0.49
2:B:1964:MET:HE1	2:B:1985:LEU:HD23	1.95	0.49
2:B:4503:LYS:HD3	2:B:4509:LEU:HD22	1.94	0.49
2:D:14:PHE:HE1	2:D:166:ARG:HG2	1.77	0.49
2:D:681:ARG:HG2	2:D:715:ASP:HB3	1.95	0.49
2:D:821:LEU:HD13	2:D:1523:VAL:CG2	2.43	0.49
2:F:435:PRO:O	2:F:439:VAL:HG23	2.12	0.49
2:F:1244:PHE:CE2	2:F:1495:ILE:HG13	2.47	0.49
2:F:3013:VAL:HG23	2:F:3014:ASP:OD1	2.13	0.49
2:F:3925:GLY:O	2:F:3963:ASN:HA	2.12	0.49
2:H:1239:LYS:HD3	2:H:1499:LEU:HD11	1.95	0.49
2:H:2494:LEU:HD22	2:H:2556:LEU:HD11	1.95	0.49
2:H:2878:SER:OG	2:H:2884:LEU:HB2	2.13	0.49
2:H:3201:ILE:HD13	2:H:3266:MET:HA	1.93	0.49
1:A:69:LEU:HD13	1:A:70:GLY:N	2.28	0.49
2:B:77:ARG:O	2:B:81:GLU:HG2	2.13	0.49
2:B:1082:VAL:HG23	2:B:1154:LEU:HD11	1.94	0.49
2:B:1244:PHE:CE2	2:B:1495:ILE:HG13	2.47	0.49
2:B:1328:CYS:SG	2:B:1470:LEU:HD12	2.52	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1426:ALA:O	2:B:1429:ARG:HG2	2.13	0.49
2:B:1739:ASP:O	2:B:1743:ILE:HG13	2.13	0.49
2:B:2218:VAL:O	2:B:2222:ILE:HG12	2.13	0.49
2:B:3013:VAL:HG23	2:B:3014:ASP:OD1	2.13	0.49
2:B:3201:ILE:HD13	2:B:3266:MET:HA	1.93	0.49
2:D:1964:MET:CE	2:D:1985:LEU:HD23	2.43	0.49
2:D:3187:ALA:HB1	2:D:3189:TRP:NE1	2.27	0.49
2:D:3253:PHE:CE2	2:D:3305:ASN:HB2	2.47	0.49
2:D:3798:LYS:HG3	2:D:3861:ASP:OD2	2.12	0.49
1:E:80:ASP:OD1	1:E:80:ASP:N	2.46	0.49
2:F:1531:MET:HE3	2:F:1533:ALA:HB2	1.94	0.49
2:F:1739:ASP:O	2:F:1743:ILE:HG13	2.13	0.49
2:F:3935:ALA:O	2:F:3939:GLN:HG2	2.12	0.49
1:G:90:GLY:CA	2:H:625:PRO:HG3	2.43	0.49
2:H:14:PHE:HE1	2:H:166:ARG:HG2	1.77	0.49
2:H:77:ARG:O	2:H:81:GLU:HG2	2.13	0.49
2:H:422:VAL:CG2	2:H:491:ARG:HG3	2.38	0.49
2:H:681:ARG:HG2	2:H:715:ASP:HB3	1.95	0.49
2:H:2338:PRO:HA	2:H:2349:PRO:HD3	1.94	0.49
2:H:3190:MET:HB3	2:H:3262:ALA:HB2	1.94	0.49
2:H:3251:ASP:O	2:H:3255:VAL:HG13	2.13	0.49
1:A:90:GLY:CA	2:B:625:PRO:HG3	2.43	0.48
2:B:14:PHE:HE1	2:B:166:ARG:HG2	1.77	0.48
2:B:433:THR:OG1	2:B:434:LEU:HD22	2.13	0.48
2:B:2896:GLU:OE2	2:B:2944:SER:OG	2.18	0.48
2:B:3246:GLU:O	2:B:3250:LEU:HG	2.12	0.48
2:B:4498:LYS:HG3	2:B:4538:TYR:CE1	2.47	0.48
2:D:77:ARG:O	2:D:81:GLU:HG2	2.13	0.48
2:D:750:VAL:HB	2:D:751:PRO:C	2.33	0.48
2:D:2219:LYS:O	2:D:2223:ARG:HG2	2.12	0.48
2:D:3104:GLN:OE1	2:D:3104:GLN:N	2.47	0.48
2:F:4014:GLU:HB3	2:F:4015:PRO:HD3	1.95	0.48
1:G:69:LEU:HD13	1:G:70:GLY:N	2.28	0.48
2:H:726:ARG:CG	2:H:1371:LEU:HD11	2.43	0.48
2:H:1888:CYS:HB3	2:H:1893:ARG:HE	1.78	0.48
2:H:3013:VAL:HG23	2:H:3014:ASP:OD1	2.13	0.48
2:H:4503:LYS:HD3	2:H:4509:LEU:HD22	1.94	0.48
2:H:4511:ILE:HG12	2:H:4563:LEU:CD2	2.43	0.48
2:B:109:ILE:CG2	2:B:152:ILE:HD11	2.42	0.48
2:B:751:PRO:HG3	2:B:771:THR:HG23	1.96	0.48
2:B:2219:LYS:O	2:B:2223:ARG:HG2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2878:SER:OG	2:B:2884:LEU:HB2	2.13	0.48
2:B:4545:ARG:HA	2:B:4548:ILE:HG22	1.95	0.48
2:D:14:PHE:CE1	2:D:166:ARG:HG2	2.47	0.48
2:D:24:GLN:HE22	2:D:35:LYS:HD3	1.78	0.48
2:D:251:TYR:CD2	2:D:383:VAL:HG22	2.48	0.48
2:D:1723:VAL:O	2:D:1727:LYS:HG3	2.13	0.48
2:D:3246:GLU:O	2:D:3250:LEU:HG	2.12	0.48
2:F:3620:ALA:O	2:F:3624:VAL:HG23	2.13	0.48
2:F:3878:THR:O	2:F:3882:GLN:HG3	2.13	0.48
2:H:927:LEU:O	2:H:931:LEU:HG	2.13	0.48
2:H:2540:PHE:HB2	2:H:2567:ILE:CG2	2.43	0.48
2:H:3104:GLN:OE1	2:H:3104:GLN:N	2.47	0.48
2:H:3904:PHE:CD1	2:H:3971:PHE:HB3	2.49	0.48
2:H:4498:LYS:HG3	2:H:4538:TYR:CE1	2.47	0.48
2:B:226:LEU:HG	2:B:397:LEU:HD22	1.95	0.48
2:B:681:ARG:HG2	2:B:715:ASP:HB3	1.95	0.48
2:B:2337:LEU:HD13	2:B:2397:LEU:CD1	2.44	0.48
2:B:2927:LEU:HD13	2:B:2998:ILE:HD13	1.94	0.48
1:C:69:LEU:HD13	1:C:70:GLY:N	2.28	0.48
2:D:869:ARG:CB	2:D:927:LEU:HD11	2.40	0.48
2:D:927:LEU:O	2:D:931:LEU:HG	2.13	0.48
2:F:14:PHE:HE1	2:F:166:ARG:HG2	1.77	0.48
2:F:251:TYR:CD2	2:F:383:VAL:HG22	2.48	0.48
2:F:1964:MET:CE	2:F:1985:LEU:HD23	2.43	0.48
2:F:3179:ASN:OD1	2:F:3219:LYS:HD3	2.13	0.48
2:F:3671:ALA:O	2:F:3675:GLN:HG2	2.13	0.48
2:H:433:THR:OG1	2:H:434:LEU:HD22	2.13	0.48
2:H:751:PRO:HG3	2:H:771:THR:HG23	1.96	0.48
2:H:977:PRO:CD	2:H:978:PRO:HD2	2.44	0.48
2:B:181:TYR:HB2	2:B:198:MET:O	2.14	0.48
2:B:885:ILE:HG12	2:B:959:MET:HE2	1.94	0.48
2:B:916:LYS:O	2:B:920:LEU:HG	2.14	0.48
2:B:927:LEU:O	2:B:931:LEU:HG	2.13	0.48
2:B:1965:ILE:HD13	2:B:3525:ILE:HG22	1.95	0.48
2:B:2037:GLU:HG3	2:B:2089:MET:HE2	1.94	0.48
1:C:90:GLY:CA	2:D:625:PRO:HG3	2.43	0.48
2:D:1555:MET:HE1	2:D:1601:LEU:HD12	1.94	0.48
2:D:1666:ARG:H	2:D:1682:GLN:NE2	2.10	0.48
2:D:3761:TYR:HE2	2:D:3800:ILE:HD11	1.79	0.48
2:D:3878:THR:O	2:D:3882:GLN:HG3	2.13	0.48
2:D:3904:PHE:CD1	2:D:3971:PHE:HB3	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:90:GLY:HA2	2:F:625:PRO:HG3	1.94	0.48
2:F:36:PHE:HB3	2:F:50:LEU:HB3	1.96	0.48
2:F:2540:PHE:HB2	2:F:2567:ILE:CG2	2.43	0.48
2:F:3415:ASP:HB3	2:F:3418:VAL:HG22	1.95	0.48
1:G:80:ASP:N	1:G:80:ASP:OD1	2.46	0.48
2:H:859:VAL:HB	2:H:928:LYS:HB3	1.94	0.48
2:H:1723:VAL:O	2:H:1727:LYS:HG3	2.13	0.48
2:H:1965:ILE:HD13	2:H:3525:ILE:HG22	1.95	0.48
2:H:2337:LEU:HD13	2:H:2397:LEU:CD1	2.44	0.48
2:H:2461:ARG:O	2:H:2465:GLU:HG3	2.12	0.48
2:H:2861:LEU:O	2:H:2865:VAL:HG23	2.13	0.48
2:H:4785:ILE:HD13	2:H:4852:LYS:HD2	1.94	0.48
2:B:3179:ASN:OD1	2:B:3219:LYS:HD3	2.13	0.48
2:B:3620:ALA:O	2:B:3624:VAL:HG23	2.13	0.48
2:D:751:PRO:HG3	2:D:771:THR:HG23	1.96	0.48
2:D:1739:ASP:O	2:D:1743:ILE:HG13	2.13	0.48
2:D:3522:LEU:HD23	2:D:3577:MET:CE	2.43	0.48
1:E:90:GLY:CA	2:F:625:PRO:HG3	2.43	0.48
2:F:977:PRO:CD	2:F:978:PRO:HD2	2.44	0.48
2:F:2337:LEU:HD13	2:F:2397:LEU:CD1	2.44	0.48
2:F:3904:PHE:CD1	2:F:3971:PHE:HB3	2.49	0.48
2:F:4511:ILE:HG12	2:F:4563:LEU:CD2	2.43	0.48
2:H:2836:LEU:O	2:H:2840:VAL:HG23	2.14	0.48
2:B:36:PHE:HB3	2:B:50:LEU:HB3	1.96	0.48
2:B:708:ASP:OD1	2:B:711:SER:OG	2.29	0.48
2:B:918:TYR:O	2:B:922:MET:HG2	2.14	0.48
2:B:2484:LEU:O	2:B:2488:VAL:HG23	2.13	0.48
2:B:2494:LEU:HD22	2:B:2556:LEU:HD11	1.95	0.48
2:B:3904:PHE:CD1	2:B:3971:PHE:HB3	2.49	0.48
2:B:4814:LEU:HD22	2:B:4818:ILE:HD11	1.95	0.48
1:C:80:ASP:OD1	1:C:80:ASP:N	2.46	0.48
2:D:3013:VAL:HG23	2:D:3014:ASP:OD1	2.13	0.48
2:D:3179:ASN:OD1	2:D:3219:LYS:HD3	2.13	0.48
2:D:3415:ASP:HB3	2:D:3418:VAL:HG22	1.95	0.48
2:D:4785:ILE:HD13	2:D:4852:LYS:HD2	1.94	0.48
2:F:25:CYS:SG	2:F:184:LEU:HD13	2.54	0.48
2:F:1723:VAL:O	2:F:1727:LYS:HG3	2.13	0.48
2:F:2218:VAL:O	2:F:2222:ILE:HG12	2.13	0.48
2:F:2878:SER:OG	2:F:2884:LEU:HB2	2.13	0.48
2:F:3190:MET:HB3	2:F:3262:ALA:HB2	1.94	0.48
2:F:3659:GLN:NE2	2:F:3663:ASP:OD1	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:24:GLN:HE22	2:H:35:LYS:HD3	1.78	0.48
2:H:36:PHE:HB3	2:H:50:LEU:HB3	1.96	0.48
2:H:1075:ARG:HG2	2:H:1076:VAL:O	2.14	0.48
2:H:3659:GLN:NE2	2:H:3663:ASP:OD1	2.47	0.48
2:H:4545:ARG:HA	2:H:4548:ILE:HG22	1.95	0.48
2:B:1723:VAL:HG12	2:B:1727:LYS:HE3	1.96	0.48
2:B:2338:PRO:HA	2:B:2349:PRO:HD3	1.94	0.48
2:B:2461:ARG:O	2:B:2465:GLU:HG3	2.12	0.48
2:B:3878:THR:O	2:B:3882:GLN:HG3	2.13	0.48
2:D:1426:ALA:O	2:D:1429:ARG:HG2	2.13	0.48
2:D:2337:LEU:HD13	2:D:2397:LEU:CD1	2.44	0.48
2:D:2836:LEU:O	2:D:2840:VAL:HG23	2.14	0.48
2:D:2861:LEU:O	2:D:2865:VAL:HG23	2.13	0.48
2:D:2927:LEU:HD13	2:D:2998:ILE:HD13	1.94	0.48
2:D:3000:THR:O	2:D:3004:GLU:HG3	2.14	0.48
2:D:3671:ALA:O	2:D:3675:GLN:HG2	2.13	0.48
2:F:232:GLU:CG	2:F:253:ALA:HB2	2.36	0.48
2:F:821:LEU:HD13	2:F:1523:VAL:CG2	2.43	0.48
2:F:1426:ALA:O	2:F:1429:ARG:HG2	2.13	0.48
2:F:3522:LEU:HD23	2:F:3577:MET:CE	2.43	0.48
2:H:40:ALA:O	2:H:65:VAL:HB	2.13	0.48
2:H:1723:VAL:HG12	2:H:1727:LYS:HE3	1.96	0.48
2:H:3671:ALA:O	2:H:3675:GLN:HG2	2.13	0.48
2:B:1016:ASN:OD1	2:B:1017:PRO:HD2	2.14	0.48
2:B:2047:ILE:HD13	2:B:2065:MET:HE1	1.96	0.48
2:B:3956:ALA:HA	2:B:3962:PHE:HB3	1.94	0.48
2:D:25:CYS:SG	2:D:184:LEU:HD13	2.54	0.48
2:D:4531:THR:O	2:D:4544:LYS:NZ	2.41	0.48
2:F:918:TYR:O	2:F:922:MET:HG2	2.14	0.48
2:H:156:SER:OG	2:H:158:GLN:HG2	2.13	0.48
2:H:1978:LEU:O	2:H:1982:MET:HG3	2.14	0.48
2:H:2484:LEU:O	2:H:2488:VAL:HG23	2.13	0.48
2:H:3000:THR:O	2:H:3004:GLU:HG3	2.14	0.48
2:H:3179:ASN:OD1	2:H:3219:LYS:HD3	2.13	0.48
2:H:3415:ASP:HB3	2:H:3418:VAL:HG22	1.95	0.48
2:B:1075:ARG:HG2	2:B:1076:VAL:O	2.14	0.48
2:B:1335:PHE:HD2	2:B:1455:ALA:HB1	1.79	0.48
2:B:3104:GLN:OE1	2:B:3104:GLN:N	2.47	0.48
2:D:109:ILE:CG2	2:D:152:ILE:HD11	2.42	0.48
2:D:166:ARG:HB2	2:D:169:ASP:OD2	2.14	0.48
2:D:443:LEU:O	2:D:447:ILE:HG13	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2484:LEU:O	2:D:2488:VAL:HG23	2.13	0.48
2:D:4814:LEU:HD22	2:D:4818:ILE:HD11	1.95	0.48
2:F:751:PRO:HG3	2:F:771:THR:HG23	1.96	0.48
2:F:859:VAL:HB	2:F:928:LYS:HB3	1.94	0.48
2:F:2861:LEU:O	2:F:2865:VAL:HG23	2.13	0.48
2:F:3104:GLN:N	2:F:3104:GLN:OE1	2.47	0.48
1:G:50:ARG:HD3	1:G:53:LYS:CE	2.42	0.48
1:G:90:GLY:HA2	2:H:625:PRO:HG3	1.94	0.48
2:H:25:CYS:SG	2:H:184:LEU:HD13	2.54	0.48
2:H:916:LYS:O	2:H:920:LEU:HG	2.14	0.48
2:H:1335:PHE:HD2	2:H:1455:ALA:HB1	1.79	0.48
2:B:24:GLN:HE22	2:B:35:LYS:HD3	1.78	0.48
2:B:3671:ALA:O	2:B:3675:GLN:HG2	2.13	0.48
2:B:3761:TYR:HE2	2:B:3800:ILE:HD11	1.79	0.48
2:D:916:LYS:O	2:D:920:LEU:HG	2.14	0.48
2:F:181:TYR:HB2	2:F:198:MET:O	2.14	0.48
2:F:1016:ASN:OD1	2:F:1017:PRO:HD2	2.14	0.48
2:F:1332:ILE:HD11	2:F:1457:PHE:CD2	2.49	0.48
2:F:1555:MET:HE1	2:F:1601:LEU:HD12	1.94	0.48
2:F:2494:LEU:HD22	2:F:2556:LEU:HD11	1.95	0.48
2:H:181:TYR:HB2	2:H:198:MET:O	2.14	0.48
2:H:1964:MET:CE	2:H:1985:LEU:HD23	2.43	0.48
2:H:2218:VAL:O	2:H:2222:ILE:HG12	2.13	0.48
2:H:3522:LEU:HD23	2:H:3577:MET:CE	2.43	0.48
2:H:3761:TYR:HE2	2:H:3800:ILE:HD11	1.79	0.48
2:B:443:LEU:O	2:B:447:ILE:HG13	2.14	0.47
2:B:1086:LYS:HB3	2:B:1222:PHE:CD1	2.49	0.47
2:B:1880:PHE:CZ	2:B:1893:ARG:HG2	2.50	0.47
2:B:1964:MET:CE	2:B:1985:LEU:HD23	2.43	0.47
2:D:1538:GLU:HG2	2:D:1539:GLU:N	2.29	0.47
2:F:24:GLN:HE22	2:F:35:LYS:HD3	1.78	0.47
2:F:40:ALA:O	2:F:65:VAL:HB	2.13	0.47
2:F:1335:PHE:HD2	2:F:1455:ALA:HB1	1.79	0.47
2:F:3251:ASP:O	2:F:3255:VAL:HG13	2.13	0.47
2:F:3717:ASP:OD1	2:F:3717:ASP:N	2.46	0.47
2:H:2319:ARG:O	2:H:2371:TYR:OH	2.33	0.47
2:B:156:SER:OG	2:B:158:GLN:HG2	2.13	0.47
2:B:705:VAL:HG23	2:B:780:SER:CB	2.45	0.47
2:B:3659:GLN:NE2	2:B:3663:ASP:OD1	2.47	0.47
2:B:4014:GLU:HB3	2:B:4015:PRO:HD3	1.95	0.47
2:D:36:PHE:HB3	2:D:50:LEU:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:918:TYR:O	2:D:922:MET:HG2	2.14	0.47
2:D:1332:ILE:HD11	2:D:1457:PHE:CD2	2.49	0.47
2:D:2319:ARG:O	2:D:2371:TYR:OH	2.33	0.47
2:D:2878:SER:OG	2:D:2884:LEU:HB2	2.13	0.47
2:D:3717:ASP:OD1	2:D:3717:ASP:N	2.46	0.47
2:F:2836:LEU:O	2:F:2840:VAL:HG23	2.14	0.47
2:H:1016:ASN:OD1	2:H:1017:PRO:HD2	2.14	0.47
1:A:50:ARG:HD3	1:A:53:LYS:CE	2.42	0.47
2:B:2540:PHE:HB2	2:B:2567:ILE:CG2	2.43	0.47
2:B:3000:THR:O	2:B:3004:GLU:HG3	2.14	0.47
2:B:3385:LEU:HD22	2:B:3403:LEU:CD2	2.41	0.47
2:B:4542:PHE:O	2:B:4546:LYS:HG3	2.14	0.47
2:D:2494:LEU:HD22	2:D:2556:LEU:HD11	1.95	0.47
2:D:2540:PHE:HB2	2:D:2567:ILE:CG2	2.43	0.47
2:F:166:ARG:HB2	2:F:169:ASP:OD2	2.14	0.47
2:F:226:LEU:HG	2:F:397:LEU:HD22	1.95	0.47
2:F:297:LEU:HD12	2:F:385:LEU:CD1	2.44	0.47
2:F:1978:LEU:O	2:F:1982:MET:HG3	2.14	0.47
2:F:2927:LEU:HD13	2:F:2998:ILE:HD13	1.94	0.47
2:H:1332:ILE:HD11	2:H:1457:PHE:CD2	2.49	0.47
2:H:1426:ALA:O	2:H:1429:ARG:HG2	2.13	0.47
2:H:1621:ARG:HH12	2:H:2023:GLN:HG2	1.80	0.47
2:H:4542:PHE:O	2:H:4546:LYS:HG3	2.14	0.47
2:B:25:CYS:SG	2:B:184:LEU:HD13	2.54	0.47
2:B:2836:LEU:O	2:B:2840:VAL:HG23	2.14	0.47
2:B:3447:ILE:O	2:B:3451:VAL:HG23	2.14	0.47
2:B:3522:LEU:HD23	2:B:3577:MET:CE	2.43	0.47
2:B:3547:LEU:HD23	2:B:3618:ARG:NH1	2.29	0.47
2:B:3717:ASP:N	2:B:3717:ASP:OD1	2.46	0.47
2:D:3599:GLU:HG3	2:D:4542:PHE:CZ	2.49	0.47
2:D:3659:GLN:NE2	2:D:3663:ASP:OD1	2.47	0.47
2:F:156:SER:OG	2:F:158:GLN:HG2	2.13	0.47
2:F:988:GLU:HA	2:F:1022:TYR:CE2	2.50	0.47
2:F:1075:ARG:HG2	2:F:1076:VAL:O	2.14	0.47
2:F:3599:GLU:HG3	2:F:4542:PHE:CZ	2.49	0.47
2:F:3761:TYR:HE2	2:F:3800:ILE:HD11	1.79	0.47
2:F:4545:ARG:HA	2:F:4548:ILE:HG22	1.95	0.47
2:H:988:GLU:HA	2:H:1022:TYR:CE2	2.50	0.47
2:H:1880:PHE:CZ	2:H:1893:ARG:HG2	2.50	0.47
2:H:2037:GLU:HA	2:H:2089:MET:HE3	1.96	0.47
2:H:3620:ALA:O	2:H:3624:VAL:HG23	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:251:TYR:CD2	2:B:383:VAL:HG22	2.48	0.47
2:B:3415:ASP:HB3	2:B:3418:VAL:HG22	1.95	0.47
2:B:4785:ILE:HD13	2:B:4852:LYS:HD2	1.94	0.47
2:D:156:SER:OG	2:D:158:GLN:HG2	2.13	0.47
2:D:1075:ARG:HG2	2:D:1076:VAL:O	2.14	0.47
2:D:1086:LYS:HB3	2:D:1222:PHE:CD1	2.49	0.47
2:D:1686:ILE:HD13	2:D:1691:LEU:HD22	1.96	0.47
2:D:1978:LEU:O	2:D:1982:MET:HG3	2.14	0.47
2:D:3447:ILE:O	2:D:3451:VAL:HG23	2.14	0.47
2:F:859:VAL:HG11	2:F:928:LYS:HA	1.97	0.47
2:F:869:ARG:HG3	2:F:927:LEU:HD11	1.96	0.47
2:F:1723:VAL:HG12	2:F:1727:LYS:HE3	1.96	0.47
2:F:2037:GLU:HA	2:F:2089:MET:HE3	1.97	0.47
2:F:3424:LEU:HD13	2:H:1218:LEU:HD22	1.96	0.47
2:F:4514:GLN:OE1	2:F:4515:PRO:HD2	2.14	0.47
2:H:251:TYR:CD2	2:H:383:VAL:HG22	2.48	0.47
2:H:443:LEU:O	2:H:447:ILE:HG13	2.14	0.47
2:H:492:LEU:HD12	2:H:520:LEU:HD12	1.96	0.47
2:H:937:ILE:HG12	2:H:1051:ILE:CD1	2.40	0.47
2:H:3717:ASP:OD2	2:H:3792:LYS:HD2	2.15	0.47
2:H:4014:GLU:HB3	2:H:4015:PRO:HD3	1.95	0.47
1:A:80:ASP:N	1:A:80:ASP:OD1	2.46	0.47
2:B:977:PRO:CD	2:B:978:PRO:HD2	2.44	0.47
2:B:2808:SER:OG	2:B:2809:SER:N	2.47	0.47
2:B:3717:ASP:OD2	2:B:3792:LYS:HD2	2.15	0.47
2:D:181:TYR:HB2	2:D:198:MET:O	2.14	0.47
2:D:1335:PHE:HD2	2:D:1455:ALA:HB1	1.79	0.47
2:D:3574:TYR:O	2:D:3578:MET:HG3	2.15	0.47
2:F:2070:MET:O	2:F:2074:VAL:HG23	2.15	0.47
2:H:1086:LYS:HB3	2:H:1222:PHE:CD1	2.49	0.47
2:H:1206:ASP:O	2:H:1209:THR:OG1	2.29	0.47
2:B:657:TYR:O	2:B:660:TRP:NE1	2.47	0.47
2:B:665:ILE:CD1	2:B:741:VAL:HG13	2.45	0.47
2:B:859:VAL:HG11	2:B:928:LYS:HA	1.97	0.47
2:B:1399:SER:HB2	2:B:1429:ARG:NH2	2.29	0.47
2:B:1621:ARG:HH12	2:B:2023:GLN:HG2	1.80	0.47
2:B:2819:LEU:O	2:B:2823:LEU:HG	2.15	0.47
2:D:746:LEU:CD1	2:D:753:ILE:HG12	2.45	0.47
2:D:977:PRO:CD	2:D:978:PRO:HD2	2.44	0.47
2:D:1880:PHE:CZ	2:D:1893:ARG:HG2	2.50	0.47
2:D:3424:LEU:HD13	2:F:1218:LEU:HD22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:4542:PHE:O	2:D:4546:LYS:HG3	2.14	0.47
2:D:4545:ARG:HA	2:D:4548:ILE:HG22	1.95	0.47
1:E:69:LEU:HD13	1:E:70:GLY:N	2.28	0.47
2:F:657:TYR:O	2:F:660:TRP:NE1	2.47	0.47
2:F:705:VAL:HG23	2:F:780:SER:CB	2.45	0.47
2:F:1086:LYS:HB3	2:F:1222:PHE:CD1	2.49	0.47
2:F:2420:LEU:CD1	2:F:2464:ILE:HG12	2.45	0.47
2:F:3000:THR:O	2:F:3004:GLU:HG3	2.14	0.47
2:H:226:LEU:HG	2:H:397:LEU:HD22	1.95	0.47
2:H:661:TYR:OH	2:H:663:GLU:OE2	2.24	0.47
2:H:911:LEU:HG	2:H:915:GLU:HB2	1.97	0.47
2:H:918:TYR:O	2:H:922:MET:HG2	2.14	0.47
2:H:1122:VAL:HG23	2:H:1131:TRP:HB2	1.97	0.47
2:H:2819:LEU:O	2:H:2823:LEU:HG	2.15	0.47
2:H:3447:ILE:O	2:H:3451:VAL:HG23	2.14	0.47
2:B:661:TYR:OH	2:B:663:GLU:OE2	2.24	0.47
2:B:1332:ILE:HD11	2:B:1457:PHE:CD2	2.49	0.47
2:B:1687:PRO:O	2:B:1688:LEU:HB2	2.15	0.47
2:B:1978:LEU:O	2:B:1982:MET:HG3	2.14	0.47
2:B:3574:TYR:O	2:B:3578:MET:HG3	2.15	0.47
2:B:3907:LEU:O	2:B:3911:THR:HG23	2.15	0.47
2:B:3999:LEU:O	2:B:4003:LEU:HG	2.15	0.47
2:B:4079:ASP:OD1	2:B:4498:LYS:NZ	2.46	0.47
2:B:4514:GLN:OE1	2:B:4515:PRO:HD2	2.14	0.47
2:D:226:LEU:HG	2:D:397:LEU:HD22	1.95	0.47
2:D:988:GLU:HA	2:D:1022:TYR:CE2	2.50	0.47
2:D:1122:VAL:HG23	2:D:1131:TRP:HB2	1.97	0.47
2:D:3943:THR:O	2:D:3947:ILE:HG13	2.15	0.47
2:D:4014:GLU:HB3	2:D:4015:PRO:HD3	1.95	0.47
2:D:4514:GLN:OE1	2:D:4515:PRO:HD2	2.14	0.47
2:F:746:LEU:CD1	2:F:753:ILE:HG12	2.45	0.47
2:F:3523:ILE:CG2	2:F:3524:PRO:HD3	2.44	0.47
2:F:3943:THR:O	2:F:3947:ILE:HG13	2.15	0.47
2:F:3999:LEU:O	2:F:4003:LEU:HG	2.15	0.47
2:H:859:VAL:HG11	2:H:928:LYS:HA	1.97	0.47
2:H:2420:LEU:CD1	2:H:2464:ILE:HG12	2.45	0.47
2:B:365:THR:HB	2:B:393:ASP:OD2	2.15	0.47
2:B:885:ILE:CG2	2:B:957:TYR:HA	2.32	0.47
2:B:911:LEU:HG	2:B:915:GLU:HB2	1.97	0.47
2:B:2037:GLU:HA	2:B:2089:MET:HE3	1.96	0.47
2:B:3943:THR:O	2:B:3947:ILE:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:657:TYR:O	2:D:660:TRP:NE1	2.47	0.47
2:D:950:LYS:HA	2:D:968:LEU:HA	1.97	0.47
2:D:3685:SER:HB2	2:D:3715:GLN:O	2.14	0.47
2:F:443:LEU:O	2:F:447:ILE:HG13	2.14	0.47
2:F:968:LEU:O	2:F:970:LEU:HG	2.15	0.47
2:F:1538:GLU:HG2	2:F:1539:GLU:N	2.29	0.47
2:F:3574:TYR:O	2:F:3578:MET:HG3	2.15	0.47
2:H:968:LEU:O	2:H:970:LEU:HG	2.15	0.47
2:H:2067:GLU:O	2:H:2071:GLU:HG3	2.15	0.47
2:H:2070:MET:O	2:H:2074:VAL:HG23	2.15	0.47
2:H:3574:TYR:O	2:H:3578:MET:HG3	2.15	0.47
2:H:3842:LEU:HA	2:H:3848:GLN:NE2	2.30	0.47
2:H:3943:THR:O	2:H:3947:ILE:HG13	2.15	0.47
2:B:869:ARG:HG3	2:B:927:LEU:HD11	1.96	0.47
2:B:2043:GLY:O	2:B:2047:ILE:HG13	2.15	0.47
2:B:2960:GLU:O	2:B:2963:GLU:HG2	2.15	0.47
2:B:3685:SER:HB2	2:B:3715:GLN:O	2.14	0.47
2:D:968:LEU:O	2:D:970:LEU:HG	2.15	0.47
2:D:975:LEU:HA	2:D:979:GLN:OE1	2.15	0.47
2:D:1016:ASN:OD1	2:D:1017:PRO:HD2	2.14	0.47
2:D:1392:GLY:O	2:D:1396:VAL:HG13	2.15	0.47
2:D:2515:TYR:OH	2:D:2532:GLU:OE1	2.29	0.47
2:D:3523:ILE:CG2	2:D:3524:PRO:HD3	2.44	0.47
2:F:882:MET:O	2:F:886:GLU:HG3	2.15	0.47
2:F:1621:ARG:HH12	2:F:2023:GLN:HG2	1.80	0.47
2:F:2808:SER:OG	2:F:2809:SER:N	2.47	0.47
2:F:3209:LEU:HD11	2:F:3289:LEU:HD22	1.97	0.47
2:F:3685:SER:HB2	2:F:3715:GLN:O	2.14	0.47
2:H:975:LEU:HA	2:H:979:GLN:OE1	2.15	0.47
2:H:1538:GLU:HG2	2:H:1539:GLU:N	2.29	0.47
2:H:3999:LEU:O	2:H:4003:LEU:HG	2.15	0.47
2:H:4514:GLN:OE1	2:H:4515:PRO:HD2	2.14	0.47
2:B:492:LEU:HD12	2:B:520:LEU:HD12	1.96	0.46
2:B:730:SER:HB3	2:B:733:LEU:CD2	2.45	0.46
2:B:1538:GLU:HG2	2:B:1539:GLU:N	2.29	0.46
2:D:730:SER:HB3	2:D:733:LEU:CD2	2.45	0.46
2:D:890:THR:N	2:D:900:ARG:O	2.41	0.46
2:D:911:LEU:HG	2:D:915:GLU:HB2	1.97	0.46
2:D:1723:VAL:HG12	2:D:1727:LYS:HE3	1.96	0.46
2:D:2067:GLU:O	2:D:2071:GLU:HG3	2.15	0.46
2:F:578:GLU:OE2	2:F:582:LYS:HE3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:950:LYS:HA	2:F:968:LEU:HA	1.97	0.46
2:F:1122:VAL:HG23	2:F:1131:TRP:HB2	1.97	0.46
2:F:1392:GLY:O	2:F:1396:VAL:HG13	2.15	0.46
2:F:1611:ILE:O	2:F:1616:ALA:N	2.48	0.46
2:F:2067:GLU:O	2:F:2071:GLU:HG3	2.15	0.46
2:H:360:SER:OG	2:H:362:LEU:HG	2.15	0.46
2:H:624:LEU:HB2	2:H:625:PRO:HD3	1.97	0.46
2:H:869:ARG:HG3	2:H:927:LEU:HD11	1.96	0.46
2:H:1008:GLN:OE1	2:H:1008:GLN:N	2.49	0.46
2:H:1392:GLY:O	2:H:1396:VAL:HG13	2.15	0.46
2:H:3599:GLU:HG3	2:H:4542:PHE:CZ	2.49	0.46
2:B:166:ARG:HB2	2:B:169:ASP:OD2	2.14	0.46
2:B:869:ARG:CB	2:B:927:LEU:HD11	2.40	0.46
2:B:950:LYS:HA	2:B:968:LEU:HA	1.97	0.46
2:B:975:LEU:HA	2:B:979:GLN:OE1	2.15	0.46
2:B:988:GLU:HA	2:B:1022:TYR:CE2	2.50	0.46
2:D:159:ARG:HA	2:D:163:GLU:OE1	2.16	0.46
2:D:492:LEU:HD12	2:D:520:LEU:HD12	1.96	0.46
2:D:665:ILE:CD1	2:D:741:VAL:HG13	2.45	0.46
2:D:869:ARG:HG3	2:D:927:LEU:HD11	1.96	0.46
2:D:906:VAL:HG22	2:D:907:GLU:H	1.80	0.46
2:D:1399:SER:HB2	2:D:1429:ARG:NH2	2.29	0.46
2:D:1687:PRO:O	2:D:1688:LEU:HB2	2.15	0.46
2:D:2228:PHE:HB3	2:D:2232:LEU:HB2	1.97	0.46
2:D:2536:THR:CG2	2:D:2567:ILE:HG23	2.45	0.46
2:D:3717:ASP:OD2	2:D:3792:LYS:HD2	2.15	0.46
2:D:3999:LEU:O	2:D:4003:LEU:HG	2.15	0.46
2:F:365:THR:HB	2:F:393:ASP:OD2	2.15	0.46
2:F:911:LEU:HG	2:F:915:GLU:HB2	1.97	0.46
2:F:3447:ILE:O	2:F:3451:VAL:HG23	2.14	0.46
2:H:657:TYR:O	2:H:660:TRP:NE1	2.47	0.46
2:H:2536:THR:CG2	2:H:2567:ILE:HG23	2.45	0.46
2:B:486:LEU:HD21	2:B:538:PHE:HE2	1.80	0.46
2:B:578:GLU:OE2	2:B:582:LYS:HE3	2.15	0.46
2:B:941:ASN:HB3	2:B:944:ALA:HB2	1.97	0.46
2:B:2122:SER:HB2	2:B:2137:LEU:HD13	1.97	0.46
2:B:3133:LEU:HD12	2:B:3133:LEU:HA	1.79	0.46
2:B:3424:LEU:HD13	2:D:1218:LEU:HD22	1.96	0.46
2:D:859:VAL:HG11	2:D:928:LYS:HA	1.97	0.46
2:D:2960:GLU:O	2:D:2963:GLU:HG2	2.15	0.46
2:D:3209:LEU:HD11	2:D:3289:LEU:HD22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3385:LEU:HD22	2:D:3403:LEU:CD2	2.41	0.46
2:D:4684:PHE:CB	2:D:4735:ARG:HH21	2.29	0.46
2:F:486:LEU:HD21	2:F:538:PHE:HE2	1.80	0.46
2:F:624:LEU:HB2	2:F:625:PRO:HD3	1.97	0.46
2:F:916:LYS:O	2:F:920:LEU:HG	2.14	0.46
2:F:935:CYS:SG	2:F:1053:PRO:HB3	2.55	0.46
2:F:954:PRO:O	2:F:964:LYS:HD2	2.16	0.46
2:F:3717:ASP:OD2	2:F:3792:LYS:HD2	2.15	0.46
2:F:3842:LEU:HA	2:F:3848:GLN:NE2	2.30	0.46
2:H:788:ARG:HD2	2:H:1519:HIS:O	2.15	0.46
2:H:3685:SER:HB2	2:H:3715:GLN:O	2.14	0.46
2:H:3907:LEU:O	2:H:3911:THR:HG23	2.15	0.46
2:B:1218:LEU:HD22	2:H:3424:LEU:HD13	1.96	0.46
2:B:1723:VAL:CG1	2:B:1727:LYS:HE3	2.46	0.46
2:B:2327:LEU:HD11	2:B:2366:PHE:HD2	1.80	0.46
2:B:2420:LEU:CD1	2:B:2464:ILE:HG12	2.45	0.46
2:B:3599:GLU:HG3	2:B:4542:PHE:CZ	2.49	0.46
2:D:115:PHE:CZ	2:D:409:ARG:HD3	2.51	0.46
2:D:228:HIS:O	2:D:232:GLU:HB2	2.16	0.46
2:D:360:SER:OG	2:D:362:LEU:HG	2.15	0.46
2:D:868:ILE:HG13	2:D:1044:PHE:HE1	1.81	0.46
2:D:1611:ILE:O	2:D:1616:ALA:N	2.48	0.46
2:D:1621:ARG:HH12	2:D:2023:GLN:HG2	1.80	0.46
2:D:2028:LEU:CD2	2:D:2072:VAL:HG22	2.46	0.46
2:D:2070:MET:O	2:D:2074:VAL:HG23	2.15	0.46
2:D:2437:THR:HG22	2:D:2479:MET:CG	2.46	0.46
2:D:2819:LEU:O	2:D:2823:LEU:HG	2.15	0.46
2:D:3547:LEU:HD23	2:D:3618:ARG:NH1	2.29	0.46
2:D:3907:LEU:O	2:D:3911:THR:HG23	2.15	0.46
2:F:154:PRO:HB3	2:F:159:ARG:HB2	1.98	0.46
2:F:360:SER:OG	2:F:362:LEU:HG	2.15	0.46
2:F:1008:GLN:N	2:F:1008:GLN:OE1	2.49	0.46
2:F:1621:ARG:HD2	2:F:1665:PHE:CE1	2.50	0.46
2:F:1686:ILE:HD13	2:F:1691:LEU:HD22	1.96	0.46
2:F:2314:ILE:O	2:F:2318:LEU:HG	2.16	0.46
2:F:2536:THR:CG2	2:F:2567:ILE:HG23	2.45	0.46
2:F:4542:PHE:O	2:F:4546:LYS:HG3	2.14	0.46
2:H:665:ILE:CD1	2:H:741:VAL:HG13	2.45	0.46
2:H:935:CYS:SG	2:H:1053:PRO:HB3	2.55	0.46
2:H:2043:GLY:O	2:H:2047:ILE:HG13	2.15	0.46
2:B:937:ILE:HG12	2:B:1051:ILE:CD1	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1122:VAL:HG23	2:B:1131:TRP:HB2	1.97	0.46
2:B:3209:LEU:HD11	2:B:3289:LEU:HD22	1.97	0.46
2:B:3608:THR:O	2:B:3612:GLN:HG3	2.16	0.46
2:B:3842:LEU:HA	2:B:3848:GLN:NE2	2.30	0.46
2:D:935:CYS:SG	2:D:1053:PRO:HB3	2.55	0.46
2:D:937:ILE:HG12	2:D:1051:ILE:CD1	2.40	0.46
2:D:3826:ASP:N	2:D:3826:ASP:OD1	2.49	0.46
2:D:3977:ASP:HB3	2:D:3978:ILE:HD12	1.97	0.46
2:F:319:SER:CB	2:F:358:ILE:HD11	2.46	0.46
2:F:730:SER:HB3	2:F:733:LEU:CD2	2.45	0.46
2:F:788:ARG:HD2	2:F:1519:HIS:O	2.15	0.46
2:F:868:ILE:HG13	2:F:1044:PHE:HE1	1.81	0.46
2:F:906:VAL:HG22	2:F:907:GLU:H	1.80	0.46
2:F:975:LEU:HA	2:F:979:GLN:OE1	2.15	0.46
2:F:2028:LEU:CD2	2:F:2072:VAL:HG22	2.46	0.46
2:H:746:LEU:CD1	2:H:753:ILE:HG12	2.45	0.46
2:H:1686:ILE:HD13	2:H:1691:LEU:HD22	1.96	0.46
2:H:2327:LEU:HD11	2:H:2366:PHE:HD2	1.80	0.46
2:H:2808:SER:OG	2:H:2809:SER:N	2.47	0.46
2:H:2960:GLU:O	2:H:2963:GLU:HG2	2.15	0.46
2:B:20:GLU:HG2	2:B:69:VAL:HG22	1.98	0.46
2:B:115:PHE:CZ	2:B:409:ARG:HD3	2.51	0.46
2:B:788:ARG:HD2	2:B:1519:HIS:O	2.15	0.46
2:B:1578:TYR:CE1	2:B:1680:GLN:HG3	2.51	0.46
2:B:3946:GLU:O	2:B:3950:LEU:HG	2.16	0.46
2:B:4707:PHE:CE2	2:B:4719:ILE:HD11	2.51	0.46
2:B:4833:TRP:O	2:B:4837:GLN:HG2	2.16	0.46
2:D:486:LEU:HD21	2:D:538:PHE:HE2	1.80	0.46
2:D:1008:GLN:OE1	2:D:1008:GLN:N	2.49	0.46
2:D:2037:GLU:HA	2:D:2089:MET:HE3	1.96	0.46
2:F:115:PHE:CZ	2:F:409:ARG:HD3	2.51	0.46
2:F:1687:PRO:O	2:F:1688:LEU:HB2	2.15	0.46
2:F:2960:GLU:O	2:F:2963:GLU:HG2	2.15	0.46
2:H:166:ARG:HB2	2:H:169:ASP:OD2	2.14	0.46
2:H:365:THR:HB	2:H:393:ASP:OD2	2.15	0.46
2:H:730:SER:HB3	2:H:733:LEU:CD2	2.45	0.46
2:H:895:ARG:NH2	2:H:897:ASP:OD1	2.49	0.46
2:H:906:VAL:HG22	2:H:907:GLU:H	1.80	0.46
2:H:940:VAL:HG23	2:H:941:ASN:ND2	2.31	0.46
2:H:1723:VAL:CG1	2:H:1727:LYS:HE3	2.46	0.46
2:H:3209:LEU:HD11	2:H:3289:LEU:HD22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:473:GLN:OE1	2:B:531:ASN:HB2	2.16	0.46
2:B:746:LEU:CD1	2:B:753:ILE:HG12	2.45	0.46
2:B:895:ARG:NH2	2:B:897:ASP:OD1	2.49	0.46
2:B:2067:GLU:O	2:B:2071:GLU:HG3	2.15	0.46
2:B:2187:TRP:O	2:B:2189:PRO:HD3	2.16	0.46
2:D:578:GLU:OE2	2:D:582:LYS:HE3	2.15	0.46
2:D:895:ARG:NH2	2:D:897:ASP:OD1	2.49	0.46
2:D:1578:TYR:HE1	2:D:1682:GLN:O	1.99	0.46
2:D:2420:LEU:CD1	2:D:2464:ILE:HG12	2.45	0.46
2:D:4833:TRP:O	2:D:4837:GLN:HG2	2.16	0.46
2:F:109:ILE:CG2	2:F:152:ILE:HD11	2.42	0.46
2:F:2228:PHE:HB3	2:F:2232:LEU:HB2	1.97	0.46
2:F:2819:LEU:O	2:F:2823:LEU:HG	2.15	0.46
2:H:154:PRO:HB3	2:H:159:ARG:HB2	1.98	0.46
2:H:954:PRO:O	2:H:964:LYS:HD2	2.16	0.46
2:H:1621:ARG:HD2	2:H:1665:PHE:CE1	2.50	0.46
2:H:2314:ILE:O	2:H:2318:LEU:HG	2.16	0.46
2:H:3608:THR:O	2:H:3612:GLN:HG3	2.16	0.46
2:H:3826:ASP:OD1	2:H:3826:ASP:N	2.49	0.46
1:A:31:LEU:HD12	1:A:37:PHE:CD1	2.51	0.46
2:B:154:PRO:HB3	2:B:159:ARG:HB2	1.98	0.46
2:B:159:ARG:HA	2:B:163:GLU:OE1	2.16	0.46
2:B:624:LEU:HB2	2:B:625:PRO:HD3	1.97	0.46
2:B:968:LEU:O	2:B:970:LEU:HG	2.15	0.46
2:B:2437:THR:HG22	2:B:2479:MET:CG	2.46	0.46
2:B:3523:ILE:CG2	2:B:3524:PRO:HD3	2.44	0.46
2:B:3738:PHE:O	2:B:3742:LEU:HG	2.16	0.46
2:B:3977:ASP:HB3	2:B:3978:ILE:HD12	1.97	0.46
2:D:828:LYS:HG2	2:D:829:ARG:N	2.31	0.46
2:D:895:ARG:HB3	2:D:902:HIS:HA	1.98	0.46
2:D:941:ASN:HB3	2:D:944:ALA:HB2	1.97	0.46
2:D:954:PRO:O	2:D:964:LYS:HD2	2.16	0.46
2:D:2314:ILE:O	2:D:2318:LEU:HG	2.16	0.46
2:D:3946:GLU:O	2:D:3950:LEU:HG	2.16	0.46
2:D:4545:ARG:O	2:D:4548:ILE:HG22	2.16	0.46
2:F:20:GLU:HG2	2:F:69:VAL:HG22	1.98	0.46
2:F:1880:PHE:CZ	2:F:1893:ARG:HG2	2.50	0.46
2:F:2437:THR:HG22	2:F:2479:MET:CG	2.46	0.46
2:F:3152:PRO:CD	2:F:3153:PRO:HD2	2.46	0.46
2:F:3907:LEU:O	2:F:3911:THR:HG23	2.15	0.46
2:H:251:TYR:CE2	2:H:383:VAL:HG22	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:3547:LEU:HD23	2:H:3618:ARG:NH1	2.29	0.46
2:H:3946:GLU:O	2:H:3950:LEU:HG	2.16	0.46
2:H:4390:LYS:NZ	2:H:4390:LYS:HB3	2.31	0.46
2:H:4538:TYR:CE2	2:H:4540:ASP:HB3	2.51	0.46
2:H:4833:TRP:O	2:H:4837:GLN:HG2	2.16	0.46
2:B:935:CYS:SG	2:B:1053:PRO:HB3	2.55	0.46
2:B:954:PRO:O	2:B:964:LYS:HD2	2.16	0.46
2:B:1008:GLN:OE1	2:B:1008:GLN:N	2.49	0.46
2:B:3681:MET:HE1	2:B:3727:LEU:HD11	1.97	0.46
2:D:251:TYR:CE2	2:D:383:VAL:HG22	2.51	0.46
2:D:319:SER:CB	2:D:358:ILE:HD11	2.46	0.46
2:F:665:ILE:CD1	2:F:741:VAL:HG13	2.45	0.46
2:F:940:VAL:HG23	2:F:941:ASN:ND2	2.31	0.46
2:F:1081:ALA:HA	2:F:1188:VAL:HG12	1.98	0.46
2:F:2043:GLY:O	2:F:2047:ILE:HG13	2.15	0.46
2:F:4390:LYS:NZ	2:F:4390:LYS:HB3	2.31	0.46
2:F:4538:TYR:CE2	2:F:4540:ASP:HB3	2.51	0.46
1:G:31:LEU:HD12	1:G:37:PHE:CD1	2.51	0.46
2:H:228:HIS:O	2:H:232:GLU:HB2	2.16	0.46
2:H:868:ILE:HG13	2:H:1044:PHE:HE1	1.81	0.46
2:H:2057:PRO:HB3	2:H:2103:ILE:HG21	1.98	0.46
2:H:2122:SER:HB2	2:H:2137:LEU:HD13	1.97	0.46
2:H:2187:TRP:O	2:H:2189:PRO:HD3	2.16	0.46
2:H:3977:ASP:HB3	2:H:3978:ILE:HD12	1.97	0.46
1:A:5:ILE:HG12	1:A:75:LEU:HD22	1.98	0.46
2:B:486:LEU:HD21	2:B:538:PHE:CE2	2.51	0.46
2:B:868:ILE:HG13	2:B:1044:PHE:HE1	1.81	0.46
2:B:1621:ARG:HD2	2:B:1665:PHE:CE1	2.50	0.46
2:B:1686:ILE:HD13	2:B:1691:LEU:HD22	1.96	0.46
2:B:2070:MET:O	2:B:2074:VAL:HG23	2.15	0.46
2:B:2319:ARG:O	2:B:2371:TYR:OH	2.33	0.46
2:B:2536:THR:CG2	2:B:2567:ILE:HG23	2.45	0.46
2:B:3152:PRO:CD	2:B:3153:PRO:HD2	2.46	0.46
2:B:3190:MET:HB3	2:B:3262:ALA:HB1	1.98	0.46
2:D:365:THR:HB	2:D:393:ASP:OD2	2.15	0.46
2:D:473:GLN:OE1	2:D:531:ASN:HB2	2.16	0.46
2:D:705:VAL:HG23	2:D:780:SER:CB	2.45	0.46
2:D:1621:ARG:HD2	2:D:1665:PHE:CE1	2.50	0.46
2:D:2037:GLU:HG3	2:D:2089:MET:HE2	1.97	0.46
2:D:2313:ARG:HD3	2:F:177:SER:O	2.16	0.46
2:D:2327:LEU:HD11	2:D:2366:PHE:HD2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3842:LEU:HA	2:D:3848:GLN:NE2	2.30	0.46
2:D:4707:PHE:CE2	2:D:4719:ILE:HD11	2.51	0.46
2:F:301:GLN:HB2	2:F:304:LEU:HD22	1.98	0.46
2:F:492:LEU:HD12	2:F:520:LEU:HD12	1.96	0.46
2:F:1723:VAL:CG1	2:F:1727:LYS:HE3	2.46	0.46
2:F:2319:ARG:O	2:F:2371:TYR:OH	2.33	0.46
2:F:3903:MET:HG2	2:F:3950:LEU:HD21	1.98	0.46
2:H:473:GLN:OE1	2:H:531:ASN:HB2	2.16	0.46
2:H:486:LEU:HD21	2:H:538:PHE:HE2	1.80	0.46
2:H:882:MET:O	2:H:886:GLU:HG3	2.15	0.46
2:H:1578:TYR:CE1	2:H:1680:GLN:HG3	2.51	0.46
2:H:3523:ILE:CG2	2:H:3524:PRO:HD3	2.44	0.46
2:B:301:GLN:HB2	2:B:304:LEU:HD22	1.98	0.45
2:B:884:LYS:O	2:B:889:TRP:HB2	2.17	0.45
2:B:3826:ASP:N	2:B:3826:ASP:OD1	2.49	0.45
2:B:4390:LYS:NZ	2:B:4390:LYS:HB3	2.31	0.45
2:B:4545:ARG:O	2:B:4548:ILE:HG22	2.16	0.45
2:D:232:GLU:CG	2:D:253:ALA:HB2	2.36	0.45
2:D:788:ARG:HD2	2:D:1519:HIS:O	2.15	0.45
2:D:882:MET:O	2:D:886:GLU:HG3	2.15	0.45
2:D:988:GLU:HA	2:D:1022:TYR:CD2	2.51	0.45
2:D:2043:GLY:O	2:D:2047:ILE:HG13	2.15	0.45
2:D:2808:SER:OG	2:D:2809:SER:N	2.47	0.45
2:D:4390:LYS:HB3	2:D:4390:LYS:NZ	2.31	0.45
1:E:50:ARG:HD3	1:E:53:LYS:CE	2.42	0.45
2:F:486:LEU:HD21	2:F:538:PHE:CE2	2.51	0.45
2:F:590:LYS:CE	2:F:1477:SER:HB2	2.46	0.45
2:F:884:LYS:O	2:F:889:TRP:HB2	2.17	0.45
2:F:895:ARG:HB3	2:F:902:HIS:HA	1.98	0.45
2:F:2122:SER:HB2	2:F:2137:LEU:HD13	1.97	0.45
2:F:3977:ASP:HB3	2:F:3978:ILE:HD12	1.97	0.45
2:H:115:PHE:CZ	2:H:409:ARG:HD3	2.51	0.45
2:H:301:GLN:HB2	2:H:304:LEU:HD22	1.98	0.45
2:H:319:SER:CB	2:H:358:ILE:HD11	2.46	0.45
2:H:950:LYS:HA	2:H:968:LEU:HA	1.97	0.45
2:B:177:SER:O	2:H:2313:ARG:HD3	2.16	0.45
2:B:1081:ALA:HA	2:B:1188:VAL:HG12	1.98	0.45
2:B:1616:ALA:O	2:B:1620:GLU:HG3	2.16	0.45
2:B:4013:PHE:O	2:B:4017:LEU:HB2	2.16	0.45
2:B:4498:LYS:O	2:B:4502:ARG:HG2	2.16	0.45
1:C:31:LEU:HD12	1:C:37:PHE:CD1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:184:LEU:O	2:D:184:LEU:HD23	2.16	0.45
2:D:624:LEU:HB2	2:D:625:PRO:HD3	1.97	0.45
2:D:884:LYS:O	2:D:889:TRP:HB2	2.17	0.45
2:D:3080:THR:HG23	2:D:3081:LYS:HG3	1.99	0.45
2:D:4013:PHE:O	2:D:4017:LEU:HB2	2.16	0.45
2:D:4538:TYR:CE2	2:D:4540:ASP:HB3	2.51	0.45
2:F:159:ARG:HA	2:F:163:GLU:OE1	2.16	0.45
2:F:988:GLU:HA	2:F:1022:TYR:CD2	2.51	0.45
2:F:2313:ARG:HD3	2:H:177:SER:O	2.16	0.45
2:F:4833:TRP:O	2:F:4837:GLN:HG2	2.16	0.45
2:H:578:GLU:OE2	2:H:582:LYS:HE3	2.15	0.45
2:H:1687:PRO:O	2:H:1688:LEU:HB2	2.15	0.45
2:H:2228:PHE:HB3	2:H:2232:LEU:HB2	1.97	0.45
2:H:2437:THR:HG22	2:H:2479:MET:CG	2.46	0.45
2:B:3080:THR:HG23	2:B:3081:LYS:HG3	1.99	0.45
1:C:5:ILE:HG12	1:C:75:LEU:HD22	1.98	0.45
2:D:301:GLN:HB2	2:D:304:LEU:HD22	1.98	0.45
2:D:2388:LEU:HB3	2:D:2389:PRO:HD3	1.99	0.45
2:D:3190:MET:HB3	2:D:3262:ALA:HB1	1.98	0.45
2:D:3738:PHE:O	2:D:3742:LEU:HG	2.16	0.45
1:E:19:LYS:HE3	1:E:52:GLY:HA3	1.99	0.45
1:E:31:LEU:HD12	1:E:37:PHE:CD1	2.51	0.45
2:F:895:ARG:NH2	2:F:897:ASP:OD1	2.49	0.45
2:F:3946:GLU:O	2:F:3950:LEU:HG	2.16	0.45
1:G:5:ILE:HG12	1:G:75:LEU:HD22	1.98	0.45
2:H:828:LYS:HG2	2:H:829:ARG:N	2.31	0.45
2:H:895:ARG:HB3	2:H:902:HIS:HA	1.98	0.45
2:H:941:ASN:HB3	2:H:944:ALA:HB2	1.97	0.45
2:H:1081:ALA:HA	2:H:1188:VAL:HG12	1.98	0.45
2:B:251:TYR:CE2	2:B:383:VAL:HG22	2.51	0.45
2:B:882:MET:O	2:B:886:GLU:HG3	2.15	0.45
2:B:2388:LEU:HB3	2:B:2389:PRO:HD3	1.99	0.45
2:B:2969:LEU:HD11	2:B:3041:TYR:CD2	2.52	0.45
2:D:486:LEU:HD21	2:D:538:PHE:CE2	2.51	0.45
2:D:2122:SER:HB2	2:D:2137:LEU:HD13	1.97	0.45
2:D:3152:PRO:CD	2:D:3153:PRO:HD2	2.46	0.45
2:D:3379:ASP:N	2:D:3379:ASP:OD1	2.50	0.45
2:F:1578:TYR:CE1	2:F:1680:GLN:HG3	2.51	0.45
2:F:2327:LEU:HD11	2:F:2366:PHE:HD2	1.80	0.45
2:F:2943:GLY:O	2:F:2948:LYS:HE3	2.17	0.45
2:F:3080:THR:HG23	2:F:3081:LYS:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:4013:PHE:O	2:F:4017:LEU:HB2	2.16	0.45
1:G:19:LYS:HE3	1:G:52:GLY:HA3	1.99	0.45
2:H:297:LEU:HD12	2:H:385:LEU:CD1	2.44	0.45
2:H:590:LYS:CE	2:H:1477:SER:HB2	2.46	0.45
2:H:884:LYS:O	2:H:889:TRP:HB2	2.17	0.45
2:H:1393:GLY:O	2:H:1396:VAL:HG22	2.17	0.45
2:H:1840:ASN:O	2:H:1844:ARG:HG3	2.17	0.45
2:H:2388:LEU:HB3	2:H:2389:PRO:HD3	1.99	0.45
2:H:3738:PHE:O	2:H:3742:LEU:HG	2.16	0.45
2:H:4545:ARG:O	2:H:4548:ILE:HG22	2.16	0.45
1:A:19:LYS:HE3	1:A:52:GLY:HA3	1.99	0.45
2:B:319:SER:CB	2:B:358:ILE:HD11	2.46	0.45
2:B:440:LEU:O	2:B:444:GLN:HG3	2.17	0.45
2:B:940:VAL:HG23	2:B:941:ASN:ND2	2.31	0.45
2:B:1392:GLY:O	2:B:1396:VAL:HG13	2.15	0.45
2:B:2314:ILE:O	2:B:2318:LEU:HG	2.16	0.45
1:C:50:ARG:HD3	1:C:53:LYS:CE	2.42	0.45
2:D:440:LEU:O	2:D:444:GLN:HG3	2.17	0.45
2:D:1081:ALA:HA	2:D:1188:VAL:HG12	1.98	0.45
2:D:1578:TYR:CE1	2:D:1680:GLN:HG3	2.51	0.45
2:D:2187:TRP:O	2:D:2189:PRO:HD3	2.16	0.45
2:D:3072:TYR:CE1	2:D:3157:PRO:HB2	2.52	0.45
2:D:3714:LEU:HD23	2:D:3792:LYS:CB	2.47	0.45
2:F:228:HIS:O	2:F:232:GLU:HB2	2.16	0.45
2:F:3826:ASP:OD1	2:F:3826:ASP:N	2.49	0.45
2:F:4498:LYS:O	2:F:4502:ARG:HG2	2.16	0.45
2:F:4707:PHE:CE2	2:F:4719:ILE:HD11	2.51	0.45
2:H:159:ARG:HA	2:H:163:GLU:OE1	2.16	0.45
2:H:184:LEU:HD23	2:H:184:LEU:O	2.16	0.45
2:H:2969:LEU:HD11	2:H:3041:TYR:CD2	2.52	0.45
2:H:3072:TYR:CE1	2:H:3157:PRO:HB2	2.52	0.45
2:H:3080:THR:HG23	2:H:3081:LYS:HG3	1.99	0.45
2:H:3527:MET:CG	2:H:3618:ARG:HH12	2.24	0.45
2:B:228:HIS:O	2:B:232:GLU:HB2	2.16	0.45
2:B:1330:TYR:CE1	2:B:1413:CYS:HB2	2.52	0.45
2:B:2028:LEU:CD2	2:B:2072:VAL:HG22	2.46	0.45
2:B:2057:PRO:HB3	2:B:2103:ILE:HG21	1.98	0.45
2:B:2313:ARG:HD3	2:D:177:SER:O	2.16	0.45
2:B:3072:TYR:CE1	2:B:3157:PRO:HB2	2.52	0.45
2:D:1696:LEU:HD11	2:D:1742:ASP:HB3	1.99	0.45
2:D:3903:MET:HG2	2:D:3950:LEU:HD21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1878:LEU:HD11	2:F:3501:PHE:CD1	2.52	0.45
2:F:1960:ILE:O	2:F:1964:MET:HG2	2.17	0.45
2:F:3608:THR:O	2:F:3612:GLN:HG3	2.16	0.45
2:F:3714:LEU:HD23	2:F:3792:LYS:CB	2.47	0.45
2:F:3738:PHE:O	2:F:3742:LEU:HG	2.16	0.45
2:F:4545:ARG:O	2:F:4548:ILE:HG22	2.16	0.45
2:H:1878:LEU:HD11	2:H:3501:PHE:CD1	2.52	0.45
2:H:3152:PRO:CD	2:H:3153:PRO:HD2	2.46	0.45
2:H:3385:LEU:HD22	2:H:3403:LEU:CD2	2.41	0.45
2:H:3714:LEU:HD23	2:H:3792:LYS:CB	2.47	0.45
2:H:4707:PHE:CE2	2:H:4719:ILE:HD11	2.51	0.45
2:B:184:LEU:O	2:B:184:LEU:HD23	2.16	0.45
2:B:360:SER:OG	2:B:362:LEU:HG	2.15	0.45
2:B:828:LYS:HG2	2:B:829:ARG:N	2.31	0.45
2:B:1248:PRO:HD2	2:B:1251:HIS:HB2	1.99	0.45
2:B:1878:LEU:HD11	2:B:3501:PHE:CD1	2.52	0.45
2:B:3454:LEU:O	2:B:3457:VAL:HG22	2.17	0.45
2:B:4538:TYR:CE2	2:B:4540:ASP:HB3	2.51	0.45
1:C:19:LYS:HE3	1:C:52:GLY:HA3	1.99	0.45
2:D:20:GLU:HG2	2:D:69:VAL:HG22	1.98	0.45
2:D:154:PRO:HB3	2:D:159:ARG:HB2	1.98	0.45
2:D:4498:LYS:O	2:D:4502:ARG:HG2	2.16	0.45
2:F:123:LEU:O	2:F:135:PHE:HB3	2.17	0.45
2:F:251:TYR:CE2	2:F:383:VAL:HG22	2.51	0.45
2:F:1009:GLN:HG3	2:F:1011:LEU:H	1.82	0.45
2:F:2388:LEU:HB3	2:F:2389:PRO:HD3	1.99	0.45
2:F:3072:TYR:CE1	2:F:3157:PRO:HB2	2.52	0.45
2:F:3115:LEU:HD12	2:F:3128:VAL:HG11	1.99	0.45
2:H:447:ILE:HD12	2:H:519:LEU:HD22	1.99	0.45
2:H:486:LEU:HD21	2:H:538:PHE:CE2	2.51	0.45
2:B:232:GLU:CG	2:B:253:ALA:HB2	2.36	0.45
2:B:447:ILE:HD12	2:B:519:LEU:HD22	1.99	0.45
2:B:906:VAL:HG22	2:B:907:GLU:H	1.80	0.45
2:B:1578:TYR:HE1	2:B:1682:GLN:O	1.99	0.45
2:B:2228:PHE:HB3	2:B:2232:LEU:HB2	1.97	0.45
2:B:4456:GLN:HG3	2:B:4456:GLN:O	2.17	0.45
2:D:1330:TYR:CE1	2:D:1413:CYS:HB2	2.52	0.45
2:D:1625:MET:HE2	2:D:2025:ARG:HD2	1.99	0.45
2:D:1840:ASN:O	2:D:1844:ARG:HG3	2.17	0.45
2:D:3681:MET:HE1	2:D:3727:LEU:HD11	1.97	0.45
2:F:3379:ASP:OD1	2:F:3379:ASP:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:705:VAL:HG23	2:H:780:SER:CB	2.45	0.45
2:H:869:ARG:CB	2:H:927:LEU:HD11	2.40	0.45
2:H:1095:THR:HG22	2:H:1197:GLN:OE1	2.17	0.45
2:H:1611:ILE:O	2:H:1616:ALA:N	2.48	0.45
2:H:1960:ILE:O	2:H:1964:MET:HG2	2.17	0.45
2:H:2449:ARG:O	2:H:2449:ARG:NH1	2.32	0.45
2:H:2943:GLY:O	2:H:2948:LYS:HE3	2.17	0.45
2:H:3903:MET:HG2	2:H:3950:LEU:HD21	1.98	0.45
2:B:297:LEU:HD12	2:B:385:LEU:CD1	2.44	0.45
2:B:1625:MET:HE1	2:B:2025:ARG:HD2	1.99	0.45
2:B:3115:LEU:HD12	2:B:3128:VAL:HG11	1.99	0.45
2:B:3165:GLU:O	2:B:3169:VAL:HG12	2.17	0.45
2:D:343:VAL:HG13	2:D:344:PRO:HD2	1.99	0.45
2:D:1095:THR:HG22	2:D:1197:GLN:OE1	2.17	0.45
2:D:2319:ARG:HD3	2:D:2371:TYR:CE1	2.52	0.45
2:D:2896:GLU:OE2	2:D:2944:SER:OG	2.18	0.45
2:D:3109:MET:HE3	2:D:3170:ILE:HG12	1.99	0.45
2:D:3825:TRP:O	2:D:3829:VAL:HG23	2.17	0.45
2:F:440:LEU:O	2:F:444:GLN:HG3	2.17	0.45
2:F:941:ASN:HB3	2:F:944:ALA:HB2	1.97	0.45
2:F:1578:TYR:HE1	2:F:1682:GLN:O	1.99	0.45
2:F:3454:LEU:O	2:F:3457:VAL:HG22	2.17	0.45
2:F:3547:LEU:HD23	2:F:3618:ARG:NH1	2.29	0.45
2:H:440:LEU:O	2:H:444:GLN:HG3	2.17	0.45
2:H:3246:GLU:O	2:H:3249:ILE:HG13	2.17	0.45
2:B:890:THR:N	2:B:900:ARG:O	2.41	0.45
2:B:1002:GLY:O	2:B:1014:LYS:HB3	2.17	0.45
2:B:1840:ASN:O	2:B:1844:ARG:HG3	2.17	0.45
2:B:2319:ARG:HD3	2:B:2371:TYR:CE1	2.52	0.45
2:B:3903:MET:HG2	2:B:3950:LEU:HD21	1.98	0.45
1:C:5:ILE:HD11	1:C:63:GLY:HA2	1.99	0.45
2:D:270:ARG:O	2:D:274:SER:HB3	2.17	0.45
2:D:447:ILE:HD12	2:D:519:LEU:HD22	1.99	0.45
2:D:940:VAL:HG23	2:D:941:ASN:ND2	2.31	0.45
2:D:1002:GLY:O	2:D:1014:LYS:HB3	2.17	0.45
2:D:1878:LEU:HD11	2:D:3501:PHE:CD1	2.52	0.45
2:D:2057:PRO:HB3	2:D:2103:ILE:HG21	1.98	0.45
2:D:2367:LEU:HD11	2:D:2378:PHE:HZ	1.82	0.45
2:D:3436:ASN:OD1	2:D:3439:LYS:HG3	2.17	0.45
2:F:1095:THR:HG22	2:F:1197:GLN:OE1	2.17	0.45
2:F:1393:GLY:O	2:F:1396:VAL:HG22	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1399:SER:HB2	2:F:1429:ARG:NH2	2.29	0.45
2:F:1616:ALA:O	2:F:1620:GLU:HG3	2.16	0.45
2:F:1696:LEU:HD11	2:F:1742:ASP:HB3	1.99	0.45
2:H:72:GLN:HE21	2:H:74:LEU:HD13	1.82	0.45
2:H:1616:ALA:O	2:H:1620:GLU:HG3	2.16	0.45
2:H:1696:LEU:HD11	2:H:1742:ASP:HB3	1.99	0.45
2:H:2028:LEU:CD2	2:H:2072:VAL:HG22	2.46	0.45
2:H:4013:PHE:O	2:H:4017:LEU:HB2	2.16	0.45
2:B:261:ARG:O	2:B:288:HIS:NE2	2.34	0.44
2:B:422:VAL:HG23	2:B:491:ARG:CG	2.44	0.44
2:B:861:LEU:HD12	2:B:862:PRO:CD	2.46	0.44
2:B:895:ARG:HB3	2:B:902:HIS:HA	1.98	0.44
2:B:2327:LEU:HD11	2:B:2366:PHE:CD2	2.53	0.44
2:B:3109:MET:HE3	2:B:3170:ILE:HG12	1.99	0.44
2:B:3436:ASN:OD1	2:B:3439:LYS:HG3	2.17	0.44
2:B:4409:VAL:O	2:B:4413:ILE:HG13	2.17	0.44
2:D:123:LEU:O	2:D:135:PHE:HB3	2.17	0.44
2:D:941:ASN:HB2	2:D:1048:GLY:HA3	2.00	0.44
2:D:1248:PRO:HD2	2:D:1251:HIS:HB2	1.99	0.44
2:D:1616:ALA:O	2:D:1620:GLU:HG3	2.16	0.44
2:D:1966:ARG:O	2:D:1970:GLU:HG3	2.18	0.44
2:D:2943:GLY:O	2:D:2948:LYS:HE3	2.17	0.44
2:D:3454:LEU:O	2:D:3457:VAL:HG22	2.17	0.44
2:D:4409:VAL:O	2:D:4413:ILE:HG13	2.17	0.44
2:D:4476:ILE:O	2:D:4479:VAL:HG22	2.18	0.44
2:F:473:GLN:OE1	2:F:531:ASN:HB2	2.16	0.44
2:F:1555:MET:HE3	2:F:1601:LEU:HD12	1.99	0.44
2:F:1966:ARG:O	2:F:1970:GLU:HG3	2.18	0.44
2:H:1399:SER:HB2	2:H:1429:ARG:NH2	2.29	0.44
2:H:3115:LEU:HD12	2:H:3128:VAL:HG11	1.99	0.44
2:H:4476:ILE:O	2:H:4479:VAL:HG22	2.18	0.44
2:B:788:ARG:HA	2:B:1521:TRP:O	2.17	0.44
2:B:1009:GLN:HG3	2:B:1011:LEU:H	1.82	0.44
2:B:1838:GLN:HE21	2:B:3497:ILE:HG13	1.82	0.44
2:B:1960:ILE:O	2:B:1964:MET:HG2	2.17	0.44
2:B:1981:MET:HE2	2:B:1981:MET:HB3	1.86	0.44
2:B:3706:GLU:O	2:B:3710:ARG:HG3	2.17	0.44
2:B:4476:ILE:O	2:B:4479:VAL:HG22	2.18	0.44
2:B:4491:LEU:HG	2:B:4495:LYS:HE2	1.99	0.44
2:D:1723:VAL:CG1	2:D:1727:LYS:HE3	2.46	0.44
2:D:3115:LEU:HD12	2:D:3128:VAL:HG11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:72:GLN:HE21	2:F:74:LEU:HD13	1.82	0.44
2:F:270:ARG:O	2:F:274:SER:HB3	2.17	0.44
2:F:447:ILE:HD12	2:F:519:LEU:HD22	1.99	0.44
2:F:2969:LEU:HD11	2:F:3041:TYR:CD2	2.52	0.44
2:F:4409:VAL:O	2:F:4413:ILE:HG13	2.17	0.44
2:F:4476:ILE:O	2:F:4479:VAL:HG22	2.18	0.44
2:F:4779:LYS:HE2	2:F:4779:LYS:HB3	1.76	0.44
2:H:123:LEU:O	2:H:135:PHE:HB3	2.17	0.44
2:H:3776:TYR:OH	2:H:3783:ASP:OD1	2.19	0.44
2:H:4548:ILE:HA	2:H:4560:ILE:HG21	1.99	0.44
2:B:270:ARG:O	2:B:274:SER:HB3	2.17	0.44
2:B:988:GLU:HA	2:B:1022:TYR:CD2	2.51	0.44
2:B:1696:LEU:HD11	2:B:1742:ASP:HB3	1.99	0.44
2:B:2500:MET:HB3	2:B:2501:PRO:HD3	1.99	0.44
2:D:1838:GLN:HE21	2:D:3497:ILE:HG13	1.82	0.44
2:D:1960:ILE:O	2:D:1964:MET:HG2	2.17	0.44
2:D:3165:GLU:O	2:D:3169:VAL:HG12	2.17	0.44
2:D:3246:GLU:O	2:D:3249:ILE:HG13	2.17	0.44
2:D:3657:VAL:O	2:D:3661:MET:HG3	2.18	0.44
1:E:5:ILE:HG12	1:E:75:LEU:HD22	1.98	0.44
2:F:1840:ASN:O	2:F:1844:ARG:HG3	2.17	0.44
2:F:2057:PRO:HB3	2:F:2103:ILE:HG21	1.98	0.44
2:F:2187:TRP:O	2:F:2189:PRO:HD3	2.16	0.44
2:F:3706:GLU:O	2:F:3710:ARG:HG3	2.17	0.44
2:H:1248:PRO:HD2	2:H:1251:HIS:HB2	1.99	0.44
2:H:2896:GLU:OE2	2:H:2944:SER:OG	2.18	0.44
2:H:3190:MET:HB3	2:H:3262:ALA:HB1	1.98	0.44
2:H:4456:GLN:HG3	2:H:4456:GLN:O	2.17	0.44
2:H:4779:LYS:HE2	2:H:4779:LYS:HB3	1.76	0.44
2:B:343:VAL:HG13	2:B:344:PRO:HD2	1.99	0.44
2:B:661:TYR:CE1	2:B:743:SER:HB3	2.53	0.44
2:B:977:PRO:N	2:B:978:PRO:HD2	2.33	0.44
2:B:1611:ILE:O	2:B:1616:ALA:N	2.48	0.44
2:B:3246:GLU:O	2:B:3249:ILE:HG13	2.17	0.44
2:B:3735:ASN:ND2	2:B:3738:PHE:HB2	2.33	0.44
2:B:4491:LEU:O	2:B:4495:LYS:HG3	2.18	0.44
2:D:72:GLN:HE21	2:D:74:LEU:HD13	1.82	0.44
2:D:626:ARG:HD3	2:D:628:ASN:OD1	2.18	0.44
2:D:3522:LEU:HD23	2:D:3577:MET:HE1	2.00	0.44
2:F:4004:ASP:HB2	2:F:4005:PRO:HD3	2.00	0.44
2:F:4491:LEU:HG	2:F:4495:LYS:HE2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:270:ARG:O	2:H:274:SER:HB3	2.17	0.44
2:H:3706:GLU:O	2:H:3710:ARG:HG3	2.17	0.44
2:H:4004:ASP:HB2	2:H:4005:PRO:HD3	2.00	0.44
1:A:5:ILE:HD11	1:A:63:GLY:HA2	1.99	0.44
2:B:1393:GLY:O	2:B:1396:VAL:HG22	2.17	0.44
2:B:1965:ILE:O	2:B:1969:GLN:HG3	2.18	0.44
2:B:2913:ILE:HD11	2:B:2994:ALA:HB2	1.99	0.44
2:D:590:LYS:CE	2:D:1477:SER:HB2	2.46	0.44
2:D:1393:GLY:O	2:D:1396:VAL:HG22	2.17	0.44
2:D:1845:TYR:HB2	2:D:1866:PHE:CE2	2.53	0.44
2:F:184:LEU:O	2:F:184:LEU:HD23	2.16	0.44
2:F:828:LYS:HG2	2:F:829:ARG:N	2.31	0.44
2:F:1845:TYR:HB2	2:F:1866:PHE:CE2	2.53	0.44
2:F:2367:LEU:HD11	2:F:2378:PHE:HZ	1.82	0.44
2:H:20:GLU:HG2	2:H:69:VAL:HG22	1.98	0.44
2:H:988:GLU:HA	2:H:1022:TYR:CD2	2.51	0.44
2:H:3128:VAL:O	2:H:3128:VAL:HG12	2.18	0.44
2:H:3184:ILE:O	2:H:3258:ARG:NH2	2.51	0.44
2:B:1966:ARG:O	2:B:1970:GLU:HG3	2.18	0.44
2:B:1997:LEU:HD21	2:B:3510:LEU:CB	2.48	0.44
2:B:2367:LEU:HD11	2:B:2378:PHE:HZ	1.82	0.44
2:B:2819:LEU:HD21	2:B:2869:PHE:CZ	2.50	0.44
2:B:3184:ILE:O	2:B:3258:ARG:NH2	2.51	0.44
2:B:3488:PRO:HB2	2:B:3490:TYR:CE2	2.53	0.44
2:B:4004:ASP:HB2	2:B:4005:PRO:HD3	2.00	0.44
2:D:661:TYR:CE1	2:D:743:SER:HB3	2.53	0.44
2:D:1965:ILE:O	2:D:1969:GLN:HG3	2.18	0.44
2:D:2536:THR:HG23	2:D:2567:ILE:HG23	1.99	0.44
2:D:3184:ILE:O	2:D:3258:ARG:NH2	2.51	0.44
2:D:3372:LEU:HD23	2:D:3447:ILE:HG21	2.00	0.44
2:D:3735:ASN:ND2	2:D:3738:PHE:HB2	2.33	0.44
2:D:4491:LEU:O	2:D:4495:LYS:HG3	2.18	0.44
1:E:5:ILE:HD11	1:E:63:GLY:HA2	1.99	0.44
2:F:661:TYR:OH	2:F:663:GLU:OE2	2.24	0.44
2:F:788:ARG:HA	2:F:1521:TRP:O	2.17	0.44
2:F:977:PRO:N	2:F:978:PRO:HD2	2.33	0.44
2:F:2936:THR:O	2:F:2940:MET:HG2	2.18	0.44
2:F:3184:ILE:O	2:F:3258:ARG:NH2	2.51	0.44
2:F:3372:LEU:HD23	2:F:3447:ILE:HG21	2.00	0.44
2:H:661:TYR:CE1	2:H:743:SER:HB3	2.53	0.44
2:H:890:THR:N	2:H:900:ARG:O	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:895:ARG:N	2:H:903:PRO:HD3	2.33	0.44
2:H:1997:LEU:HD21	2:H:3510:LEU:CB	2.48	0.44
2:H:2865:VAL:HG13	2:H:2869:PHE:HE2	1.83	0.44
2:H:3326:THR:O	2:H:3326:THR:OG1	2.35	0.44
2:H:3547:LEU:O	2:H:3550:ILE:HG22	2.18	0.44
2:H:3657:VAL:O	2:H:3661:MET:HG3	2.18	0.44
2:B:626:ARG:HD3	2:B:628:ASN:OD1	2.18	0.44
2:B:1095:THR:HG22	2:B:1197:GLN:OE1	2.17	0.44
2:B:1140:ARG:NH2	2:B:1166:GLU:OE1	2.51	0.44
2:B:3128:VAL:O	2:B:3128:VAL:HG12	2.18	0.44
2:B:3379:ASP:N	2:B:3379:ASP:OD1	2.50	0.44
2:D:1009:GLN:HG3	2:D:1011:LEU:H	1.82	0.44
2:D:1140:ARG:NH2	2:D:1166:GLU:OE1	2.51	0.44
2:D:1997:LEU:HD21	2:D:3510:LEU:CB	2.48	0.44
2:D:2969:LEU:HD11	2:D:3041:TYR:CD2	2.52	0.44
2:D:3608:THR:O	2:D:3612:GLN:HG3	2.16	0.44
2:D:4004:ASP:HB2	2:D:4005:PRO:HD3	2.00	0.44
2:F:895:ARG:N	2:F:903:PRO:HD3	2.33	0.44
2:F:941:ASN:HB2	2:F:1048:GLY:HA3	2.00	0.44
2:F:1330:TYR:CE1	2:F:1413:CYS:HB2	2.52	0.44
2:F:2327:LEU:HD11	2:F:2366:PHE:CD2	2.53	0.44
2:H:418:PHE:O	2:H:422:VAL:HG12	2.18	0.44
2:H:1330:TYR:CE1	2:H:1413:CYS:HB2	2.52	0.44
2:H:1578:TYR:HE1	2:H:1682:GLN:O	1.99	0.44
2:H:2936:THR:O	2:H:2940:MET:HG2	2.18	0.44
2:H:3454:LEU:O	2:H:3457:VAL:HG22	2.17	0.44
2:H:4079:ASP:OD1	2:H:4498:LYS:NZ	2.46	0.44
2:H:4491:LEU:O	2:H:4495:LYS:HG3	2.18	0.44
2:B:626:ARG:HD2	2:B:629:LEU:HD12	2.00	0.44
2:B:895:ARG:N	2:B:903:PRO:HD3	2.33	0.44
2:B:2865:VAL:HG13	2:B:2869:PHE:HE2	1.83	0.44
2:B:2943:GLY:O	2:B:2948:LYS:HE3	2.17	0.44
2:B:3403:LEU:HB2	2:B:3441:ILE:HG23	2.00	0.44
2:B:3714:LEU:HD23	2:B:3792:LYS:CB	2.47	0.44
2:D:297:LEU:HD12	2:D:385:LEU:CD1	2.44	0.44
2:D:788:ARG:HA	2:D:1521:TRP:O	2.17	0.44
2:D:859:VAL:HG11	2:D:928:LYS:O	2.18	0.44
2:F:661:TYR:CE1	2:F:743:SER:HB3	2.53	0.44
2:F:1002:GLY:O	2:F:1014:LYS:HB3	2.17	0.44
2:F:3165:GLU:O	2:F:3169:VAL:HG12	2.17	0.44
2:F:3190:MET:HB3	2:F:3262:ALA:HB1	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:3246:GLU:O	2:F:3249:ILE:HG13	2.17	0.44
2:F:3249:ILE:HD12	2:F:3250:LEU:N	2.33	0.44
2:F:3657:VAL:O	2:F:3661:MET:HG3	2.18	0.44
2:F:3735:ASN:ND2	2:F:3738:PHE:HB2	2.33	0.44
2:H:1002:GLY:O	2:H:1014:LYS:HB3	2.17	0.44
2:H:1838:GLN:HE21	2:H:3497:ILE:HG13	1.82	0.44
2:H:1997:LEU:HD21	2:H:3510:LEU:HB2	2.00	0.44
2:H:2913:ILE:HD11	2:H:2994:ALA:HB2	1.99	0.44
2:H:4498:LYS:O	2:H:4502:ARG:HG2	2.16	0.44
2:H:4505:GLU:O	2:H:4550:LYS:NZ	2.34	0.44
2:B:418:PHE:O	2:B:422:VAL:HG12	2.18	0.44
2:B:590:LYS:CE	2:B:1477:SER:HB2	2.46	0.44
2:B:1845:TYR:HB2	2:B:1866:PHE:CE2	2.53	0.44
2:B:2894:GLU:O	2:B:2898:VAL:HG23	2.18	0.44
2:B:3657:VAL:O	2:B:3661:MET:HG3	2.18	0.44
2:D:977:PRO:N	2:D:978:PRO:HD2	2.33	0.44
2:D:987:ALA:HA	2:D:1037:LEU:HD12	2.00	0.44
2:D:3706:GLU:O	2:D:3710:ARG:HG3	2.17	0.44
2:D:4413:ILE:HG23	2:D:4466:LEU:CD1	2.48	0.44
2:F:885:ILE:HG21	2:F:957:TYR:CA	2.32	0.44
2:F:987:ALA:HA	2:F:1037:LEU:HD12	2.00	0.44
2:F:1997:LEU:HD21	2:F:3510:LEU:HB2	2.00	0.44
2:F:2865:VAL:HG13	2:F:2869:PHE:HE2	1.83	0.44
2:F:3436:ASN:OD1	2:F:3439:LYS:HG3	2.17	0.44
2:F:4636:LEU:HD21	2:H:4672:LEU:HD11	2.00	0.44
2:H:788:ARG:HA	2:H:1521:TRP:O	2.17	0.44
2:H:977:PRO:N	2:H:978:PRO:HD2	2.33	0.44
2:H:1009:GLN:HG3	2:H:1011:LEU:H	1.82	0.44
2:H:1965:ILE:O	2:H:1969:GLN:HG3	2.18	0.44
2:H:1966:ARG:O	2:H:1970:GLU:HG3	2.18	0.44
2:H:2327:LEU:HD11	2:H:2366:PHE:CD2	2.53	0.44
2:H:3165:GLU:O	2:H:3169:VAL:HG12	2.17	0.44
2:H:3436:ASN:OD1	2:H:3439:LYS:HG3	2.17	0.44
2:H:3488:PRO:HB2	2:H:3490:TYR:CE2	2.53	0.44
2:B:123:LEU:O	2:B:135:PHE:HB3	2.17	0.43
2:B:228:HIS:HB2	2:B:251:TYR:CE1	2.53	0.43
2:B:3547:LEU:O	2:B:3550:ILE:HG22	2.18	0.43
2:D:907:GLU:HG2	2:D:963:TYR:CD1	2.53	0.43
2:D:1997:LEU:HD21	2:D:3510:LEU:HB2	2.00	0.43
2:D:2327:LEU:HD11	2:D:2366:PHE:CD2	2.53	0.43
2:D:3249:ILE:HD12	2:D:3250:LEU:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3547:LEU:O	2:D:3550:ILE:HG22	2.18	0.43
2:F:343:VAL:HG13	2:F:344:PRO:HD2	1.99	0.43
2:F:859:VAL:HG11	2:F:928:LYS:O	2.18	0.43
2:F:3825:TRP:O	2:F:3829:VAL:HG23	2.17	0.43
2:F:4684:PHE:CB	2:F:4735:ARG:HH21	2.29	0.43
2:H:422:VAL:HG23	2:H:491:ARG:CG	2.44	0.43
2:H:626:ARG:HD3	2:H:628:ASN:OD1	2.18	0.43
2:H:859:VAL:HG11	2:H:928:LYS:O	2.18	0.43
2:H:2292:ASP:O	2:H:2296:ARG:HG3	2.18	0.43
2:H:3735:ASN:ND2	2:H:3738:PHE:HB2	2.33	0.43
2:H:4413:ILE:HG23	2:H:4466:LEU:CD1	2.48	0.43
2:B:906:VAL:HG22	2:B:910:LYS:HB2	2.00	0.43
2:B:987:ALA:HA	2:B:1037:LEU:HD12	2.00	0.43
2:B:1093:VAL:HG23	2:B:1093:VAL:O	2.18	0.43
2:B:4817:LEU:HD12	2:B:4817:LEU:HA	1.76	0.43
2:D:626:ARG:HD2	2:D:629:LEU:HD12	2.00	0.43
2:D:2936:THR:O	2:D:2940:MET:HG2	2.18	0.43
2:D:3942:TYR:CE1	2:D:3950:LEU:HD11	2.53	0.43
1:E:85:ALA:O	1:E:94:PRO:HB3	2.19	0.43
2:F:1248:PRO:HD2	2:F:1251:HIS:HB2	1.99	0.43
2:F:3385:LEU:HD22	2:F:3403:LEU:CD2	2.41	0.43
2:F:3488:PRO:HB2	2:F:3490:TYR:CE2	2.53	0.43
2:F:4413:ILE:HG23	2:F:4466:LEU:CD1	2.48	0.43
2:H:941:ASN:HB2	2:H:1048:GLY:HA3	2.00	0.43
2:H:2894:GLU:O	2:H:2898:VAL:HG23	2.18	0.43
2:H:3403:LEU:HB2	2:H:3441:ILE:HG23	2.00	0.43
2:B:72:GLN:HE21	2:B:74:LEU:HD13	1.82	0.43
2:B:3260:LEU:O	2:B:3264:TYR:HB2	2.18	0.43
2:B:3372:LEU:HD23	2:B:3447:ILE:HG21	2.00	0.43
2:B:3810:GLY:N	2:B:3811:PRO:HA	2.34	0.43
2:D:418:PHE:O	2:D:422:VAL:HG12	2.18	0.43
2:D:1083:ARG:HG2	2:D:1185:ASN:O	2.18	0.43
2:D:4491:LEU:HG	2:D:4495:LYS:HE2	1.99	0.43
2:F:626:ARG:HD3	2:F:628:ASN:OD1	2.18	0.43
2:F:2500:MET:HB3	2:F:2501:PRO:HD3	1.99	0.43
2:F:2822:ILE:CD1	2:F:2865:VAL:HG22	2.40	0.43
2:F:2913:ILE:HD11	2:F:2994:ALA:HB2	1.99	0.43
2:F:4456:GLN:HG3	2:F:4456:GLN:O	2.17	0.43
2:F:4656:GLY:O	2:F:4660:VAL:HG23	2.18	0.43
2:H:987:ALA:HA	2:H:1037:LEU:HD12	2.00	0.43
2:H:1625:MET:HE2	2:H:2025:ARG:HD2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2367:LEU:HD11	2:H:2378:PHE:HZ	1.82	0.43
2:H:3094:THR:HG22	2:H:3096:GLU:HG2	2.00	0.43
2:H:3372:LEU:HD23	2:H:3447:ILE:HG21	2.00	0.43
2:H:3899:LYS:HB2	2:H:3899:LYS:HE3	1.78	0.43
2:H:4085:GLN:O	2:H:4089:GLN:HG3	2.19	0.43
2:H:4656:GLY:O	2:H:4660:VAL:HG23	2.18	0.43
2:H:4684:PHE:CB	2:H:4735:ARG:HH21	2.29	0.43
2:B:859:VAL:HG11	2:B:928:LYS:O	2.18	0.43
2:B:3082:THR:O	2:B:3086:ARG:HG3	2.19	0.43
2:B:3339:GLN:HA	2:B:3342:GLU:HG2	2.00	0.43
2:B:4413:ILE:HG23	2:B:4466:LEU:CD1	2.48	0.43
2:B:4548:ILE:HA	2:B:4560:ILE:HG21	1.99	0.43
2:B:4672:LEU:HD11	2:H:4636:LEU:HD21	2.00	0.43
2:B:4751:LEU:HD23	2:B:4751:LEU:HA	1.85	0.43
1:C:85:ALA:O	1:C:94:PRO:HB3	2.19	0.43
2:D:228:HIS:HB2	2:D:251:TYR:CE1	2.53	0.43
2:D:895:ARG:N	2:D:903:PRO:HD3	2.33	0.43
2:D:2065:MET:O	2:D:2069:VAL:HG23	2.18	0.43
2:D:3260:LEU:O	2:D:3264:TYR:HB2	2.18	0.43
2:D:3488:PRO:HB2	2:D:3490:TYR:CE2	2.53	0.43
2:D:4817:LEU:HD12	2:D:4817:LEU:HA	1.76	0.43
2:F:1838:GLN:HE21	2:F:3497:ILE:HG13	1.82	0.43
2:F:3109:MET:HE3	2:F:3170:ILE:HG12	1.99	0.43
2:F:3547:LEU:O	2:F:3550:ILE:HG22	2.18	0.43
2:F:3810:GLY:N	2:F:3811:PRO:HA	2.34	0.43
2:H:228:HIS:HB2	2:H:251:TYR:CE1	2.53	0.43
2:H:1140:ARG:NH2	2:H:1166:GLU:OE1	2.51	0.43
2:H:1366:THR:HG21	2:H:1383:LYS:HE3	2.00	0.43
2:H:2065:MET:O	2:H:2069:VAL:HG23	2.18	0.43
2:H:2536:THR:HG23	2:H:2567:ILE:HG23	1.99	0.43
2:H:3825:TRP:O	2:H:3829:VAL:HG23	2.17	0.43
2:H:4068:GLU:O	2:H:4072:LEU:HG	2.19	0.43
2:B:411:ILE:HD13	2:B:479:GLU:CG	2.45	0.43
2:B:2536:THR:HG23	2:B:2567:ILE:HG23	1.99	0.43
2:B:2936:THR:O	2:B:2940:MET:HG2	2.18	0.43
2:B:3825:TRP:O	2:B:3829:VAL:HG23	2.17	0.43
2:D:666:ILE:CG2	2:D:669:VAL:HG23	2.49	0.43
2:D:2500:MET:HB3	2:D:2501:PRO:HD3	1.99	0.43
2:D:3082:THR:O	2:D:3086:ARG:HG3	2.19	0.43
2:D:3810:GLY:N	2:D:3811:PRO:HA	2.34	0.43
2:D:4656:GLY:O	2:D:4660:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:906:VAL:HG22	2:F:910:LYS:HB2	2.00	0.43
2:F:1140:ARG:NH2	2:F:1166:GLU:OE1	2.51	0.43
2:F:4068:GLU:O	2:F:4072:LEU:HG	2.19	0.43
2:F:4085:GLN:O	2:F:4089:GLN:HG3	2.19	0.43
2:F:4548:ILE:HA	2:F:4560:ILE:HG21	1.99	0.43
2:H:907:GLU:HG2	2:H:963:TYR:CD1	2.53	0.43
2:H:1845:TYR:HB2	2:H:1866:PHE:CE2	2.53	0.43
2:H:2500:MET:HB3	2:H:2501:PRO:HD3	1.99	0.43
2:H:4409:VAL:O	2:H:4413:ILE:HG13	2.17	0.43
2:B:907:GLU:HG2	2:B:963:TYR:CD1	2.53	0.43
2:B:2292:ASP:O	2:B:2296:ARG:HG3	2.18	0.43
2:B:3681:MET:CE	2:B:3754:VAL:HG13	2.48	0.43
2:B:3714:LEU:HD23	2:B:3792:LYS:HB2	2.01	0.43
2:D:190:ASN:HD21	2:D:192:GLN:HG3	1.84	0.43
2:D:661:TYR:OH	2:D:663:GLU:OE2	2.24	0.43
2:D:861:LEU:HD12	2:D:862:PRO:CD	2.46	0.43
2:D:906:VAL:HG22	2:D:910:LYS:HB2	2.00	0.43
2:D:1555:MET:HE3	2:D:1601:LEU:HD12	1.99	0.43
2:D:2865:VAL:HG13	2:D:2869:PHE:HE2	1.83	0.43
2:D:2894:GLU:O	2:D:2898:VAL:HG23	2.18	0.43
2:D:2913:ILE:HD11	2:D:2994:ALA:HB2	1.99	0.43
2:F:666:ILE:CG2	2:F:669:VAL:HG23	2.49	0.43
2:F:1669:THR:HA	2:F:1670:PRO:HD3	1.85	0.43
2:F:1997:LEU:HD21	2:F:3510:LEU:CB	2.48	0.43
2:F:2894:GLU:O	2:F:2898:VAL:HG23	2.18	0.43
2:F:2933:THR:O	2:F:2933:THR:HG22	2.19	0.43
1:G:5:ILE:HD11	1:G:63:GLY:HA2	1.99	0.43
2:H:343:VAL:HG13	2:H:344:PRO:HD2	1.99	0.43
2:H:662:PHE:CE1	2:H:744:CYS:HB2	2.54	0.43
2:H:2279:MET:O	2:H:2283:ILE:HG13	2.19	0.43
2:H:2933:THR:O	2:H:2933:THR:HG22	2.19	0.43
2:H:3339:GLN:HA	2:H:3342:GLU:HG2	2.00	0.43
2:H:3714:LEU:HD23	2:H:3792:LYS:HB2	2.01	0.43
2:H:4491:LEU:HG	2:H:4495:LYS:HE2	1.99	0.43
2:B:434:LEU:HD22	2:B:434:LEU:H	1.84	0.43
2:B:4068:GLU:O	2:B:4072:LEU:HG	2.19	0.43
2:D:935:CYS:HB3	2:D:1051:ILE:HG22	2.01	0.43
2:D:2321:LEU:HD23	2:D:2321:LEU:HA	1.91	0.43
2:D:3128:VAL:O	2:D:3128:VAL:HG12	2.18	0.43
2:D:3403:LEU:HB2	2:D:3441:ILE:HG23	2.00	0.43
2:D:4456:GLN:HG3	2:D:4456:GLN:O	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:418:PHE:O	2:F:422:VAL:HG12	2.18	0.43
2:F:1585:ASP:OD1	2:F:1588:GLN:NE2	2.52	0.43
2:F:1625:MET:HE2	2:F:2025:ARG:HD2	1.99	0.43
2:F:2065:MET:O	2:F:2069:VAL:HG23	2.18	0.43
2:F:2279:MET:O	2:F:2283:ILE:HG13	2.19	0.43
2:F:2292:ASP:O	2:F:2296:ARG:HG3	2.18	0.43
2:F:3068:THR:OG1	2:F:3069:LEU:HD12	2.19	0.43
2:F:3210:LYS:O	2:F:3210:LYS:HD3	2.19	0.43
2:H:53:THR:HB	2:H:271:ILE:CD1	2.49	0.43
2:H:626:ARG:HD2	2:H:629:LEU:HD12	2.00	0.43
2:H:906:VAL:HG22	2:H:910:LYS:HB2	2.00	0.43
2:H:2319:ARG:HD3	2:H:2371:TYR:CE1	2.52	0.43
2:H:3068:THR:OG1	2:H:3069:LEU:HD12	2.19	0.43
2:H:3175:LEU:HD11	2:H:3213:PHE:CE2	2.54	0.43
2:B:877:HIS:CE1	2:B:911:LEU:HD13	2.54	0.43
2:B:924:THR:O	2:B:928:LYS:HG3	2.19	0.43
2:D:877:HIS:CE1	2:D:911:LEU:HD13	2.54	0.43
2:D:1332:ILE:HG21	2:D:1345:VAL:HG21	2.01	0.43
2:D:3028:LEU:HD12	2:D:3053:LEU:CD1	2.49	0.43
2:D:4700:ASP:OD1	2:D:4701:MET:N	2.52	0.43
2:F:662:PHE:CE1	2:F:744:CYS:HB2	2.54	0.43
2:F:907:GLU:HG2	2:F:963:TYR:CD1	2.53	0.43
2:F:2319:ARG:HD3	2:F:2371:TYR:CE1	2.52	0.43
2:F:2536:THR:HG23	2:F:2567:ILE:HG23	1.99	0.43
2:F:3175:LEU:HD11	2:F:3213:PHE:CE2	2.54	0.43
2:F:3214:ILE:HG23	2:F:3292:MET:HE3	2.01	0.43
2:H:666:ILE:CG2	2:H:669:VAL:HG23	2.49	0.43
2:H:3028:LEU:HD12	2:H:3053:LEU:CD1	2.49	0.43
2:H:3097:GLU:O	2:H:3100:PRO:HD3	2.19	0.43
2:H:3810:GLY:N	2:H:3811:PRO:HA	2.34	0.43
2:H:3898:LEU:CD1	2:H:4006:ALA:HB2	2.45	0.43
2:B:666:ILE:CG2	2:B:669:VAL:HG23	2.49	0.43
2:B:1001:GLN:O	2:B:1014:LYS:NZ	2.45	0.43
2:B:1470:LEU:O	2:B:1474:ILE:HG13	2.19	0.43
2:B:1692:LYS:HD3	2:B:1737:VAL:HG12	2.01	0.43
2:B:2933:THR:O	2:B:2933:THR:HG22	2.19	0.43
2:B:3942:TYR:CE1	2:B:3950:LEU:HD11	2.53	0.43
2:D:872:LEU:HD22	2:D:1044:PHE:CZ	2.54	0.43
2:D:1125:GLY:O	2:D:1141:THR:HA	2.19	0.43
2:D:2933:THR:HG22	2:D:2933:THR:O	2.19	0.43
2:D:3140:LEU:HD11	2:D:3170:ILE:HG13	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:4508:GLY:HA3	2:D:4512:THR:HB	2.01	0.43
2:F:924:THR:O	2:F:928:LYS:HG3	2.19	0.43
2:F:1692:LYS:HD3	2:F:1737:VAL:HG12	2.01	0.43
2:F:3260:LEU:O	2:F:3264:TYR:HB2	2.18	0.43
2:F:4508:GLY:HA3	2:F:4512:THR:HB	2.01	0.43
2:H:434:LEU:HD22	2:H:434:LEU:H	1.84	0.43
2:H:3077:VAL:HA	2:H:3080:THR:CG2	2.40	0.43
2:H:3210:LYS:O	2:H:3210:LYS:HD3	2.19	0.43
2:H:3379:ASP:OD1	2:H:3379:ASP:N	2.50	0.43
2:H:3601:LYS:O	2:H:3605:LYS:HG3	2.19	0.43
2:H:4817:LEU:HA	2:H:4817:LEU:HD12	1.76	0.43
2:B:872:LEU:HD22	2:B:1044:PHE:CZ	2.54	0.43
2:B:3097:GLU:O	2:B:3100:PRO:HD3	2.19	0.43
2:D:662:PHE:CE1	2:D:744:CYS:HB2	2.54	0.43
2:D:1585:ASP:OD1	2:D:1588:GLN:NE2	2.52	0.43
2:D:2292:ASP:O	2:D:2296:ARG:HG3	2.18	0.43
2:D:3068:THR:OG1	2:D:3069:LEU:HD12	2.19	0.43
2:D:3210:LYS:O	2:D:3210:LYS:HD3	2.19	0.43
2:D:4636:LEU:HD21	2:F:4672:LEU:HD11	2.00	0.43
2:F:53:THR:HB	2:F:271:ILE:CD1	2.49	0.43
2:F:1125:GLY:O	2:F:1141:THR:HA	2.19	0.43
2:F:1366:THR:HG21	2:F:1383:LYS:HE3	2.00	0.43
2:F:1470:LEU:O	2:F:1474:ILE:HG13	2.19	0.43
2:F:3082:THR:O	2:F:3086:ARG:HG3	2.19	0.43
1:G:85:ALA:O	1:G:94:PRO:HB3	2.19	0.43
2:H:877:HIS:CE1	2:H:911:LEU:HD13	2.54	0.43
2:H:1470:LEU:O	2:H:1474:ILE:HG13	2.19	0.43
2:B:190:ASN:HD21	2:B:192:GLN:HG3	1.84	0.42
2:B:1997:LEU:HD21	2:B:3510:LEU:HB2	2.00	0.42
2:B:2865:VAL:HG13	2:B:2869:PHE:CE2	2.54	0.42
2:B:3140:LEU:HD11	2:B:3170:ILE:HG13	2.01	0.42
2:B:3249:ILE:HD12	2:B:3250:LEU:N	2.33	0.42
2:D:53:THR:HB	2:D:271:ILE:CD1	2.49	0.42
2:D:1964:MET:HE3	2:D:1985:LEU:HD23	2.00	0.42
2:D:2376:GLN:CD	2:D:2433:THR:HG22	2.40	0.42
2:D:3094:THR:HG22	2:D:3096:GLU:HG2	2.00	0.42
2:F:1964:MET:HE3	2:F:1985:LEU:HD23	2.00	0.42
2:F:3028:LEU:HD12	2:F:3053:LEU:CD1	2.49	0.42
2:F:3128:VAL:O	2:F:3128:VAL:HG12	2.18	0.42
2:F:3403:LEU:HB2	2:F:3441:ILE:HG23	2.00	0.42
2:F:3601:LYS:O	2:F:3605:LYS:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:4079:ASP:OD1	2:F:4498:LYS:NZ	2.46	0.42
2:F:4491:LEU:O	2:F:4495:LYS:HG3	2.18	0.42
2:H:1074:PHE:CE1	2:H:1193:LEU:HD12	2.54	0.42
2:H:3249:ILE:HD12	2:H:3250:LEU:N	2.33	0.42
2:H:3942:TYR:CE1	2:H:3950:LEU:HD11	2.53	0.42
2:B:251:TYR:OH	2:B:395:LEU:HD21	2.20	0.42
2:B:271:ILE:HD12	5:B:5305:ATP:O3G	2.19	0.42
2:B:3068:THR:OG1	2:B:3069:LEU:HD12	2.19	0.42
2:B:3175:LEU:HD11	2:B:3213:PHE:CE2	2.54	0.42
2:B:3601:LYS:O	2:B:3605:LYS:HG3	2.19	0.42
2:D:434:LEU:HD22	2:D:434:LEU:H	1.84	0.42
2:D:719:LEU:HB3	2:D:766:PHE:CZ	2.54	0.42
2:D:2279:MET:O	2:D:2283:ILE:HG13	2.19	0.42
2:D:2866:ASP:OD1	2:D:2929:ILE:HG12	2.19	0.42
2:D:3424:LEU:CD1	2:F:1218:LEU:HD22	2.50	0.42
2:D:3681:MET:CE	2:D:3754:VAL:HG13	2.48	0.42
2:D:4068:GLU:O	2:D:4072:LEU:HG	2.19	0.42
2:F:228:HIS:HB2	2:F:251:TYR:CE1	2.53	0.42
2:F:626:ARG:HD2	2:F:629:LEU:HD12	2.00	0.42
2:F:728:VAL:O	2:F:733:LEU:HD11	2.19	0.42
2:F:1083:ARG:HG2	2:F:1185:ASN:O	2.18	0.42
2:F:3849:ILE:HD11	2:F:3970:ARG:HH11	1.84	0.42
2:F:3942:TYR:CE1	2:F:3950:LEU:HD11	2.53	0.42
2:H:1125:GLY:O	2:H:1141:THR:HA	2.19	0.42
2:H:1692:LYS:HD3	2:H:1737:VAL:HG12	2.01	0.42
2:H:1964:MET:HE3	2:H:1985:LEU:HD23	2.00	0.42
2:H:2376:GLN:CD	2:H:2433:THR:HG22	2.40	0.42
2:H:2450:LEU:HB3	2:H:2464:ILE:HD13	2.01	0.42
2:H:3260:LEU:O	2:H:3264:TYR:HB2	2.18	0.42
2:B:935:CYS:HB3	2:B:1051:ILE:HG22	2.01	0.42
2:B:1366:THR:HG21	2:B:1383:LYS:HE3	2.00	0.42
2:B:1585:ASP:OD1	2:B:1585:ASP:N	2.42	0.42
2:B:2021:LEU:HD13	2:B:2065:MET:SD	2.60	0.42
2:B:2065:MET:O	2:B:2069:VAL:HG23	2.18	0.42
2:B:3210:LYS:O	2:B:3210:LYS:HD3	2.19	0.42
2:B:3849:ILE:HD11	2:B:3970:ARG:HH11	1.84	0.42
2:B:4044:TRP:CZ3	2:B:4811:LEU:HD13	2.55	0.42
2:D:924:THR:O	2:D:928:LYS:HG3	2.19	0.42
2:D:1340:PRO:HB2	2:D:1396:VAL:CG1	2.49	0.42
2:D:3601:LYS:O	2:D:3605:LYS:HG3	2.19	0.42
2:D:3714:LEU:HD23	2:D:3792:LYS:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:434:LEU:HD22	2:F:434:LEU:H	1.84	0.42
2:F:764:GLY:HA2	2:F:1370:THR:O	2.20	0.42
2:F:861:LEU:HD12	2:F:862:PRO:CD	2.46	0.42
2:F:1340:PRO:HB2	2:F:1396:VAL:CG1	2.49	0.42
2:F:1347:TRP:HB3	2:F:1443:VAL:HB	2.01	0.42
2:F:2376:GLN:CD	2:F:2433:THR:HG22	2.40	0.42
2:F:3094:THR:HG22	2:F:3096:GLU:HG2	2.00	0.42
2:H:1083:ARG:HG2	2:H:1185:ASN:O	2.18	0.42
2:H:3849:ILE:HD11	2:H:3970:ARG:HH11	1.84	0.42
2:B:764:GLY:HA2	2:B:1370:THR:O	2.20	0.42
2:B:2376:GLN:CD	2:B:2433:THR:HG22	2.40	0.42
2:B:3028:LEU:HD12	2:B:3053:LEU:CD1	2.49	0.42
2:B:4656:GLY:O	2:B:4660:VAL:HG23	2.18	0.42
2:D:728:VAL:O	2:D:733:LEU:HD11	2.19	0.42
2:D:1093:VAL:O	2:D:1093:VAL:HG23	2.18	0.42
2:D:1258:ARG:NH1	2:D:1486:CYS:SG	2.93	0.42
2:D:1347:TRP:HB3	2:D:1443:VAL:HB	2.01	0.42
2:D:1981:MET:HB3	2:D:1981:MET:HE2	1.86	0.42
2:D:2037:GLU:HA	2:D:2089:MET:CE	2.50	0.42
2:D:2865:VAL:HG13	2:D:2869:PHE:CE2	2.54	0.42
2:D:3175:LEU:HD11	2:D:3213:PHE:CE2	2.54	0.42
2:D:3235:LYS:HD3	2:D:3235:LYS:HA	1.90	0.42
2:D:3339:GLN:HA	2:D:3342:GLU:HG2	2.00	0.42
2:D:3681:MET:CE	2:D:3727:LEU:HD11	2.50	0.42
2:F:271:ILE:HD12	5:F:5305:ATP:O3G	2.19	0.42
2:F:1585:ASP:OD1	2:F:1585:ASP:N	2.42	0.42
2:F:1965:ILE:O	2:F:1969:GLN:HG3	2.18	0.42
2:F:3028:LEU:HD21	2:F:3064:PHE:CD2	2.55	0.42
2:H:251:TYR:OH	2:H:395:LEU:HD21	2.20	0.42
2:H:271:ILE:HD12	5:H:5305:ATP:O3G	2.19	0.42
2:H:2865:VAL:HG13	2:H:2869:PHE:CE2	2.54	0.42
2:H:3050:GLY:HA3	2:H:3130:GLU:O	2.20	0.42
2:H:3082:THR:O	2:H:3086:ARG:HG3	2.19	0.42
2:H:3140:LEU:HD11	2:H:3170:ILE:HG13	2.01	0.42
2:B:941:ASN:HB2	2:B:1048:GLY:HA3	2.00	0.42
2:B:1083:ARG:HG2	2:B:1185:ASN:O	2.18	0.42
2:B:1258:ARG:NH1	2:B:1486:CYS:SG	2.93	0.42
2:B:2909:VAL:O	2:B:2909:VAL:HG22	2.19	0.42
2:B:2996:LEU:HB2	2:B:2997:PRO:HD3	2.02	0.42
2:B:3063:ALA:HB1	2:B:3139:TYR:OH	2.19	0.42
2:B:3190:MET:O	2:B:3193:ILE:HG22	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:885:ILE:CG2	2:D:957:TYR:HA	2.32	0.42
2:D:1074:PHE:CE1	2:D:1193:LEU:HD12	2.54	0.42
2:D:1692:LYS:HD3	2:D:1737:VAL:HG12	2.01	0.42
2:D:2437:THR:HG22	2:D:2479:MET:SD	2.60	0.42
2:D:3063:ALA:HB1	2:D:3139:TYR:OH	2.19	0.42
2:D:4548:ILE:HA	2:D:4560:ILE:HG21	1.99	0.42
2:F:935:CYS:HB3	2:F:1051:ILE:HG22	2.01	0.42
2:F:1093:VAL:HG23	2:F:1093:VAL:O	2.18	0.42
2:F:1206:ASP:O	2:F:1209:THR:OG1	2.29	0.42
2:F:3190:MET:O	2:F:3193:ILE:HG22	2.20	0.42
2:F:3910:LEU:HD12	2:F:3942:TYR:HE2	1.84	0.42
2:F:4044:TRP:CZ3	2:F:4811:LEU:HD13	2.55	0.42
2:H:190:ASN:HD21	2:H:192:GLN:HG3	1.84	0.42
2:H:998:ARG:HB2	2:H:1019:LEU:HD21	2.02	0.42
2:H:1044:PHE:HD1	2:H:1044:PHE:HA	1.78	0.42
2:H:1258:ARG:NH1	2:H:1486:CYS:SG	2.93	0.42
2:H:2021:LEU:HD13	2:H:2065:MET:SD	2.60	0.42
2:H:2346:ILE:HG22	2:H:2348:GLU:HG3	2.02	0.42
2:H:2909:VAL:HG22	2:H:2909:VAL:O	2.19	0.42
2:H:4044:TRP:CZ3	2:H:4811:LEU:HD13	2.55	0.42
2:B:1332:ILE:HG21	2:B:1345:VAL:HG21	2.01	0.42
2:B:1692:LYS:HB2	2:B:1738:PHE:HE1	1.84	0.42
2:B:2487:LEU:O	2:B:2491:VAL:HG23	2.20	0.42
2:B:3424:LEU:CD1	2:D:1218:LEU:HD22	2.50	0.42
2:B:3681:MET:CE	2:B:3727:LEU:HD11	2.50	0.42
2:B:4468:ALA:O	2:B:4472:ILE:HG13	2.20	0.42
2:B:4789:TYR:CZ	2:B:4852:LYS:HG2	2.55	0.42
2:D:1470:LEU:O	2:D:1474:ILE:HG13	2.19	0.42
2:F:719:LEU:HB3	2:F:766:PHE:CZ	2.54	0.42
2:F:872:LEU:HD22	2:F:1044:PHE:CZ	2.54	0.42
2:F:877:HIS:CE1	2:F:911:LEU:HD13	2.54	0.42
2:F:1258:ARG:NH1	2:F:1486:CYS:SG	2.93	0.42
2:F:3140:LEU:HD11	2:F:3170:ILE:HG13	2.01	0.42
2:F:3339:GLN:HA	2:F:3342:GLU:HG2	2.00	0.42
2:F:3437:ALA:O	2:F:3441:ILE:HG13	2.20	0.42
2:H:589:ASP:HB2	2:H:629:LEU:HD21	2.01	0.42
2:H:3028:LEU:HD21	2:H:3064:PHE:CD2	2.55	0.42
2:B:2279:MET:O	2:B:2283:ILE:HG13	2.19	0.42
2:B:3050:GLY:HA3	2:B:3130:GLU:O	2.20	0.42
2:B:3206:PRO:HA	2:B:3270:TYR:OH	2.20	0.42
2:B:4636:LEU:HD21	2:D:4672:LEU:HD11	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:589:ASP:HB2	2:D:629:LEU:HD21	2.01	0.42
2:F:1631:ILE:HD12	2:F:1827:VAL:HG21	2.02	0.42
2:F:2905:LEU:HD22	2:F:2923:MET:HE1	2.01	0.42
2:F:3424:LEU:CD1	2:H:1218:LEU:HD22	2.50	0.42
2:F:3527:MET:CG	2:F:3618:ARG:HH12	2.24	0.42
2:F:3714:LEU:HD23	2:F:3792:LYS:HB2	2.01	0.42
2:F:4700:ASP:OD1	2:F:4701:MET:N	2.52	0.42
2:H:151:THR:OG1	2:H:174:VAL:HB	2.20	0.42
2:H:728:VAL:O	2:H:733:LEU:HD11	2.19	0.42
2:H:1093:VAL:HG23	2:H:1093:VAL:O	2.18	0.42
2:H:3717:ASP:OD1	2:H:3717:ASP:N	2.46	0.42
2:H:3910:LEU:HD12	2:H:3942:TYR:HE2	1.84	0.42
1:A:85:ALA:O	1:A:94:PRO:HB3	2.19	0.42
2:B:53:THR:HB	2:B:271:ILE:CD1	2.49	0.42
2:B:662:PHE:CE1	2:B:744:CYS:HB2	2.54	0.42
2:B:665:ILE:HD13	2:B:741:VAL:HG13	2.02	0.42
2:B:1074:PHE:CE1	2:B:1193:LEU:HD12	2.54	0.42
2:B:1125:GLY:O	2:B:1141:THR:HA	2.19	0.42
2:B:3437:ALA:O	2:B:3441:ILE:HG13	2.20	0.42
2:B:3910:LEU:HD12	2:B:3942:TYR:HE2	1.84	0.42
2:B:4413:ILE:HG23	2:B:4466:LEU:HD11	2.02	0.42
2:D:869:ARG:HG3	2:D:927:LEU:CD1	2.50	0.42
2:D:998:ARG:HB2	2:D:1019:LEU:HD21	2.02	0.42
2:D:3849:ILE:HD11	2:D:3970:ARG:HH11	1.84	0.42
2:D:4688:SER:HB2	2:D:4695:ASP:H	1.85	0.42
2:D:4789:TYR:CZ	2:D:4852:LYS:HG2	2.55	0.42
2:F:251:TYR:OH	2:F:395:LEU:HD21	2.20	0.42
2:F:1003:TRP:HA	2:F:1014:LYS:HB3	2.02	0.42
2:F:1692:LYS:HB2	2:F:1738:PHE:HE1	1.84	0.42
2:F:3063:ALA:HB1	2:F:3139:TYR:OH	2.19	0.42
2:F:3097:GLU:O	2:F:3100:PRO:HD3	2.19	0.42
2:H:289:ILE:HD12	7:H:5306:CL:CL	2.57	0.42
2:H:861:LEU:HD12	2:H:862:PRO:CD	2.46	0.42
2:H:4508:GLY:HA3	2:H:4512:THR:HB	2.01	0.42
2:B:1003:TRP:HA	2:B:1014:LYS:HB3	2.02	0.42
2:B:2346:ILE:HG22	2:B:2348:GLU:HG3	2.02	0.42
2:B:3028:LEU:HD21	2:B:3064:PHE:CD2	2.55	0.42
2:B:4700:ASP:OD1	2:B:4701:MET:N	2.52	0.42
2:D:271:ILE:HD12	5:D:5305:ATP:O3G	2.19	0.42
2:D:422:VAL:HG23	2:D:491:ARG:CG	2.44	0.42
2:D:665:ILE:HD13	2:D:741:VAL:HG13	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2021:LEU:HD13	2:D:2065:MET:SD	2.60	0.42
2:D:2450:LEU:HB3	2:D:2464:ILE:HD13	2.01	0.42
2:D:3028:LEU:HD21	2:D:3064:PHE:CD2	2.55	0.42
2:D:3136:LEU:O	2:D:3140:LEU:HG	2.20	0.42
2:D:3190:MET:O	2:D:3193:ILE:HG22	2.20	0.42
2:D:4468:ALA:O	2:D:4472:ILE:HG13	2.20	0.42
2:D:4826:THR:OG1	2:D:4829:GLU:HG3	2.20	0.42
2:F:1332:ILE:HG21	2:F:1345:VAL:HG21	2.01	0.42
2:F:2257:ASP:OD1	2:F:2257:ASP:N	2.53	0.42
2:F:4595:MET:O	2:F:4599:ILE:HG13	2.20	0.42
2:F:4688:SER:HB2	2:F:4695:ASP:H	1.85	0.42
2:H:719:LEU:HB3	2:H:766:PHE:CZ	2.54	0.42
2:H:764:GLY:HA2	2:H:1370:THR:O	2.20	0.42
2:H:2037:GLU:HG3	2:H:2089:MET:HE2	2.01	0.42
2:H:2905:LEU:HD22	2:H:2923:MET:HE1	2.01	0.42
2:H:3136:LEU:O	2:H:3140:LEU:HG	2.20	0.42
2:B:589:ASP:HB2	2:B:629:LEU:HD21	2.01	0.42
2:B:719:LEU:HB3	2:B:766:PHE:CZ	2.54	0.42
2:B:869:ARG:HG3	2:B:927:LEU:CD1	2.50	0.42
2:B:1218:LEU:HD22	2:H:3424:LEU:CD1	2.50	0.42
2:B:1631:ILE:HD12	2:B:1827:VAL:HG21	2.02	0.42
2:B:2007:SER:HB3	2:B:3495:HIS:CD2	2.55	0.42
2:D:581:ILE:HD12	2:D:618:LEU:CD1	2.50	0.42
2:D:1366:THR:HG21	2:D:1383:LYS:HE3	2.00	0.42
2:D:2909:VAL:O	2:D:2909:VAL:HG22	2.19	0.42
2:D:3097:GLU:O	2:D:3100:PRO:HD3	2.19	0.42
2:D:4079:ASP:OD1	2:D:4498:LYS:NZ	2.46	0.42
2:F:151:THR:OG1	2:F:174:VAL:HB	2.20	0.42
2:F:589:ASP:HB2	2:F:629:LEU:HD21	2.01	0.42
2:F:1074:PHE:CE1	2:F:1193:LEU:HD12	2.54	0.42
2:F:4468:ALA:O	2:F:4472:ILE:HG13	2.20	0.42
2:H:872:LEU:HD22	2:H:1044:PHE:CZ	2.54	0.42
2:H:924:THR:O	2:H:928:LYS:HG3	2.19	0.42
2:H:1585:ASP:OD1	2:H:1588:GLN:NE2	2.52	0.42
2:H:2437:THR:HG22	2:H:2479:MET:SD	2.60	0.42
2:H:3437:ALA:O	2:H:3441:ILE:HG13	2.20	0.42
2:B:1585:ASP:OD1	2:B:1588:GLN:NE2	2.52	0.41
2:B:2257:ASP:OD1	2:B:2257:ASP:N	2.53	0.41
2:B:2437:THR:HG22	2:B:2479:MET:SD	2.60	0.41
2:B:3326:THR:HB	2:D:1169:ILE:HD11	2.02	0.41
2:B:4684:PHE:CB	2:B:4735:ARG:HH21	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:492:LEU:HD11	2:D:516:ILE:CG2	2.50	0.41
2:D:2007:SER:HB3	2:D:3495:HIS:CD2	2.55	0.41
2:D:2346:ILE:HG22	2:D:2348:GLU:HG3	2.02	0.41
2:D:3050:GLY:HA3	2:D:3130:GLU:O	2.20	0.41
2:D:4085:GLN:O	2:D:4089:GLN:HG3	2.19	0.41
2:D:4758:ILE:HD12	2:F:4749:ILE:CD1	2.50	0.41
2:F:665:ILE:HD13	2:F:741:VAL:HG13	2.02	0.41
2:F:2037:GLU:HA	2:F:2089:MET:CE	2.50	0.41
2:F:2346:ILE:HG22	2:F:2348:GLU:HG3	2.02	0.41
2:F:2450:LEU:HB3	2:F:2464:ILE:HD13	2.01	0.41
2:F:2969:LEU:HD12	2:F:3034:LEU:HD22	2.02	0.41
2:F:3326:THR:HB	2:H:1169:ILE:HD11	2.02	0.41
2:F:3415:ASP:CG	2:F:3416:PRO:HD2	2.41	0.41
2:F:3902:ASP:CG	2:F:3906:LYS:HE3	2.41	0.41
2:H:103:LEU:C	2:H:104:LEU:HD12	2.41	0.41
2:H:665:ILE:HD13	2:H:741:VAL:HG13	2.02	0.41
2:H:2487:LEU:O	2:H:2491:VAL:HG23	2.20	0.41
2:H:2969:LEU:HD12	2:H:3034:LEU:HD22	2.02	0.41
2:H:3063:ALA:HB1	2:H:3139:TYR:OH	2.19	0.41
2:H:4789:TYR:CZ	2:H:4852:LYS:HG2	2.55	0.41
2:B:783:ALA:CB	2:B:1528:PRO:HA	2.50	0.41
2:B:2188:ASN:HD21	2:B:2191:GLU:HG3	1.86	0.41
2:B:2969:LEU:HD12	2:B:3034:LEU:HD22	2.02	0.41
2:B:4508:GLY:HA3	2:B:4512:THR:HB	2.01	0.41
2:D:733:LEU:HD23	2:D:733:LEU:HA	1.92	0.41
2:D:1159:MET:HB2	2:D:1178:PHE:HB2	2.02	0.41
2:D:3415:ASP:CG	2:D:3416:PRO:HD2	2.41	0.41
2:F:289:ILE:HD12	7:F:5306:CL:CL	2.57	0.41
2:F:366:TYR:HA	2:F:382:LYS:O	2.21	0.41
2:F:869:ARG:HG3	2:F:927:LEU:CD1	2.50	0.41
2:F:2204:PHE:CE2	2:F:2207:SER:HA	2.55	0.41
2:F:2321:LEU:HD23	2:F:2321:LEU:HA	1.91	0.41
2:F:2865:VAL:HG13	2:F:2869:PHE:CE2	2.54	0.41
2:F:2909:VAL:HG22	2:F:2909:VAL:O	2.19	0.41
2:F:3136:LEU:O	2:F:3140:LEU:HG	2.20	0.41
2:F:3849:ILE:HG22	2:F:3853:LYS:HE3	2.03	0.41
2:F:4675:VAL:O	2:F:4679:ASN:ND2	2.44	0.41
2:F:4826:THR:OG1	2:F:4829:GLU:HG3	2.20	0.41
2:H:109:ILE:CG2	2:H:152:ILE:HD11	2.42	0.41
2:H:1332:ILE:HG21	2:H:1345:VAL:HG21	2.01	0.41
2:H:4501:ALA:HB1	2:H:4543:VAL:HG21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:421:PHE:HA	2:B:434:LEU:HG	2.02	0.41
2:B:2450:LEU:HB3	2:B:2464:ILE:HD13	2.01	0.41
2:B:2882:LYS:O	2:B:2882:LYS:HG3	2.20	0.41
2:B:3094:THR:HG22	2:B:3096:GLU:HG2	2.00	0.41
2:B:4085:GLN:O	2:B:4089:GLN:HG3	2.19	0.41
2:B:4688:SER:HB2	2:B:4695:ASP:H	1.85	0.41
2:D:421:PHE:CZ	2:D:492:LEU:HD21	2.50	0.41
2:D:764:GLY:HA2	2:D:1370:THR:O	2.20	0.41
2:D:3370:ILE:O	2:D:3370:ILE:HG22	2.21	0.41
2:F:783:ALA:CB	2:F:1528:PRO:HA	2.50	0.41
2:F:2007:SER:HB3	2:F:3495:HIS:CD2	2.55	0.41
2:F:2188:ASN:HD21	2:F:2191:GLU:HG3	1.86	0.41
2:F:2487:LEU:O	2:F:2491:VAL:HG23	2.20	0.41
2:F:2996:LEU:HB2	2:F:2997:PRO:HD3	2.02	0.41
2:F:4789:TYR:CZ	2:F:4852:LYS:HG2	2.55	0.41
2:H:869:ARG:HG3	2:H:927:LEU:CD1	2.50	0.41
2:H:1290:LEU:HD23	2:H:1290:LEU:HA	1.89	0.41
2:H:3206:PRO:HA	2:H:3270:TYR:OH	2.20	0.41
2:H:4595:MET:O	2:H:4599:ILE:HG13	2.20	0.41
2:H:4700:ASP:OD1	2:H:4701:MET:N	2.52	0.41
2:B:728:VAL:O	2:B:733:LEU:HD11	2.19	0.41
2:B:2204:PHE:CE2	2:B:2207:SER:HA	2.55	0.41
2:B:2212:GLU:O	2:B:2216:VAL:HG23	2.21	0.41
2:B:3136:LEU:O	2:B:3140:LEU:HG	2.20	0.41
2:B:3415:ASP:CG	2:B:3416:PRO:HD2	2.41	0.41
2:B:3902:ASP:CG	2:B:3906:LYS:HE3	2.41	0.41
2:B:4501:ALA:HB1	2:B:4543:VAL:HG21	2.03	0.41
1:C:68:SER:C	1:C:104:LEU:HD23	2.41	0.41
2:D:1206:ASP:O	2:D:1209:THR:OG1	2.29	0.41
2:D:1332:ILE:HD12	2:D:1332:ILE:HA	1.97	0.41
2:D:1688:LEU:HD23	2:D:1688:LEU:HA	1.91	0.41
2:D:3849:ILE:HG22	2:D:3853:LYS:HE3	2.03	0.41
2:D:3902:ASP:CG	2:D:3906:LYS:HE3	2.41	0.41
2:F:2021:LEU:HD13	2:F:2065:MET:SD	2.60	0.41
2:F:2515:TYR:OH	2:F:2532:GLU:OE1	2.29	0.41
2:F:2866:ASP:OD1	2:F:2929:ILE:HG12	2.19	0.41
2:F:2869:PHE:HB2	2:F:2929:ILE:CG2	2.51	0.41
2:F:3681:MET:CE	2:F:3727:LEU:HD11	2.50	0.41
2:H:1088:TYR:HD2	2:H:1151:MET:HG2	1.85	0.41
2:H:1159:MET:HB2	2:H:1178:PHE:HB2	2.02	0.41
2:H:1347:TRP:HB3	2:H:1443:VAL:HB	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2204:PHE:CE2	2:H:2207:SER:HA	2.55	0.41
2:H:2866:ASP:OD1	2:H:2929:ILE:HG12	2.19	0.41
2:H:3670:ASP:OD2	2:H:3673:PHE:HB2	2.21	0.41
1:A:91:VAL:HG21	2:B:1672:PHE:CE1	2.56	0.41
2:B:151:THR:OG1	2:B:174:VAL:HB	2.20	0.41
2:B:289:ILE:HD12	7:B:5306:CL:CL	2.57	0.41
2:B:998:ARG:HB2	2:B:1019:LEU:HD21	2.02	0.41
2:B:1005:TYR:HA	2:B:1016:ASN:O	2.21	0.41
2:B:1347:TRP:HB3	2:B:1443:VAL:HB	2.01	0.41
2:B:2037:GLU:HA	2:B:2089:MET:CE	2.50	0.41
2:B:3670:ASP:OD2	2:B:3673:PHE:HB2	2.21	0.41
2:D:1823:VAL:O	2:D:1827:VAL:HG23	2.21	0.41
2:D:2035:GLU:O	2:D:2039:LEU:HG	2.21	0.41
2:D:3214:ILE:HG23	2:D:3292:MET:HE3	2.02	0.41
2:D:3326:THR:HB	2:F:1169:ILE:HD11	2.02	0.41
2:F:581:ILE:HD12	2:F:618:LEU:CD1	2.50	0.41
2:F:1005:TYR:HA	2:F:1016:ASN:O	2.21	0.41
2:F:1878:LEU:HB2	2:F:3504:THR:HG21	2.03	0.41
2:F:2437:THR:HG22	2:F:2479:MET:SD	2.60	0.41
2:F:3681:MET:HE1	2:F:3727:LEU:CD1	2.50	0.41
2:F:3932:PHE:O	2:F:3936:MET:HG2	2.21	0.41
2:H:421:PHE:HA	2:H:434:LEU:HG	2.02	0.41
2:H:935:CYS:HB3	2:H:1051:ILE:HG22	2.01	0.41
2:H:1688:LEU:HD23	2:H:1688:LEU:HA	1.91	0.41
2:H:2037:GLU:HA	2:H:2089:MET:CE	2.50	0.41
2:H:3190:MET:O	2:H:3193:ILE:HG22	2.20	0.41
2:H:3370:ILE:HG22	2:H:3370:ILE:O	2.21	0.41
2:H:3681:MET:CE	2:H:3727:LEU:HD11	2.50	0.41
2:H:3902:ASP:CG	2:H:3906:LYS:HE3	2.41	0.41
2:B:76:VAL:O	2:B:80:GLN:HG3	2.20	0.41
2:B:103:LEU:C	2:B:104:LEU:HD12	2.41	0.41
2:B:1169:ILE:HD11	2:H:3326:THR:HB	2.02	0.41
2:D:870:ASP:O	2:D:874:GLU:HG3	2.21	0.41
2:D:891:PHE:HD1	2:D:905:LEU:HB2	1.86	0.41
2:D:1831:ASP:O	2:D:1834:VAL:HG22	2.20	0.41
2:D:2052:VAL:HG13	2:D:2056:HIS:CD2	2.56	0.41
2:D:2427:ALA:HB3	2:D:2428:PRO:HD3	2.03	0.41
2:D:2927:LEU:HD13	2:D:2998:ILE:CD1	2.51	0.41
2:D:3206:PRO:HA	2:D:3270:TYR:OH	2.20	0.41
2:D:4413:ILE:HG23	2:D:4466:LEU:HD11	2.02	0.41
2:F:492:LEU:HD11	2:F:516:ILE:CG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:665:ILE:CD1	2:F:741:VAL:HG22	2.49	0.41
2:F:3050:GLY:HA3	2:F:3130:GLU:O	2.20	0.41
2:F:3370:ILE:HG22	2:F:3370:ILE:O	2.21	0.41
2:F:4501:ALA:HB1	2:F:4543:VAL:HG21	2.03	0.41
2:H:783:ALA:CB	2:H:1528:PRO:HA	2.50	0.41
2:H:1642:LEU:HD21	2:H:1903:LEU:HA	2.03	0.41
2:H:2882:LYS:HG3	2:H:2882:LYS:O	2.20	0.41
2:H:4688:SER:HB2	2:H:4695:ASP:H	1.85	0.41
2:B:935:CYS:HA	2:B:1053:PRO:HA	2.03	0.41
2:B:1340:PRO:HB2	2:B:1396:VAL:CG1	2.49	0.41
2:B:3018:GLY:HA2	2:B:3077:VAL:HG12	2.03	0.41
2:B:3664:TYR:CE1	2:B:3668:LYS:HE3	2.56	0.41
2:B:4595:MET:O	2:B:4599:ILE:HG13	2.20	0.41
2:D:76:VAL:O	2:D:80:GLN:HG3	2.20	0.41
2:D:151:THR:OG1	2:D:174:VAL:HB	2.20	0.41
2:D:289:ILE:HD12	7:D:5306:CL:CL	2.57	0.41
2:D:2212:GLU:O	2:D:2216:VAL:HG23	2.21	0.41
2:D:2487:LEU:O	2:D:2491:VAL:HG23	2.20	0.41
2:D:2822:ILE:CD1	2:D:2865:VAL:HG22	2.40	0.41
2:D:3133:LEU:HD12	2:D:3133:LEU:HA	1.79	0.41
2:D:3437:ALA:O	2:D:3441:ILE:HG13	2.20	0.41
2:D:3664:TYR:CE1	2:D:3668:LYS:HE3	2.56	0.41
2:D:3890:SER:O	2:D:3894:VAL:HG23	2.21	0.41
2:F:103:LEU:C	2:F:104:LEU:HD12	2.41	0.41
2:F:2361:ALA:HB3	2:F:2362:PRO:HD3	2.03	0.41
2:F:3787:GLN:HG2	2:F:3851:LEU:HD22	2.03	0.41
2:F:3890:SER:O	2:F:3894:VAL:HG23	2.21	0.41
2:F:4420:TYR:CD1	2:F:4453:PHE:HB3	2.56	0.41
2:H:492:LEU:HD11	2:H:516:ILE:CG2	2.50	0.41
2:H:1003:TRP:HA	2:H:1014:LYS:HB3	2.02	0.41
2:H:1340:PRO:HB2	2:H:1396:VAL:CG1	2.49	0.41
2:H:3018:GLY:HA2	2:H:3077:VAL:HG12	2.03	0.41
2:H:4468:ALA:O	2:H:4472:ILE:HG13	2.20	0.41
2:B:1823:VAL:O	2:B:1827:VAL:HG23	2.21	0.41
2:B:2427:ALA:HB3	2:B:2428:PRO:HD3	2.03	0.41
2:B:2866:ASP:OD1	2:B:2929:ILE:HG12	2.19	0.41
2:B:3890:SER:O	2:B:3894:VAL:HG23	2.21	0.41
2:B:4020:ILE:HG23	2:B:4034:PHE:HE1	1.86	0.41
2:B:4826:THR:OG1	2:B:4829:GLU:HG3	2.20	0.41
1:C:91:VAL:HG21	2:D:1672:PHE:CE1	2.56	0.41
2:D:251:TYR:OH	2:D:395:LEU:HD21	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:366:TYR:HA	2:D:382:LYS:O	2.21	0.41
2:D:2047:ILE:HD13	2:D:2065:MET:HE1	2.02	0.41
2:D:2188:ASN:HD21	2:D:2191:GLU:HG3	1.86	0.41
2:D:2361:ALA:HB3	2:D:2362:PRO:HD3	2.03	0.41
2:D:3932:PHE:O	2:D:3936:MET:HG2	2.21	0.41
2:D:4020:ILE:HG23	2:D:4034:PHE:HE1	1.86	0.41
2:D:4420:TYR:CD1	2:D:4453:PHE:HB3	2.56	0.41
2:D:4761:ALA:O	2:D:4765:LEU:HG	2.21	0.41
2:F:422:VAL:O	2:F:422:VAL:HG22	2.21	0.41
2:F:1841:GLN:HG3	2:F:1844:ARG:NH2	2.36	0.41
2:F:2882:LYS:HG3	2:F:2882:LYS:O	2.20	0.41
2:F:3206:PRO:HA	2:F:3270:TYR:OH	2.20	0.41
2:F:4413:ILE:HG23	2:F:4466:LEU:HD11	2.02	0.41
2:H:666:ILE:CD1	2:H:736:LEU:HB3	2.51	0.41
2:H:2007:SER:HB3	2:H:3495:HIS:CD2	2.55	0.41
2:H:2019:ALA:O	2:H:2023:GLN:HG3	2.21	0.41
2:H:2212:GLU:O	2:H:2216:VAL:HG23	2.21	0.41
2:H:2257:ASP:OD1	2:H:2257:ASP:N	2.53	0.41
2:H:2869:PHE:HB2	2:H:2929:ILE:CG2	2.51	0.41
2:H:2996:LEU:HB2	2:H:2997:PRO:HD3	2.02	0.41
2:H:3415:ASP:CG	2:H:3416:PRO:HD2	2.41	0.41
2:H:3664:TYR:CE1	2:H:3668:LYS:HE3	2.56	0.41
2:H:3787:GLN:HG2	2:H:3851:LEU:HD22	2.03	0.41
2:B:295:LEU:HG	2:B:303:LEU:HD11	2.03	0.41
2:B:366:TYR:HA	2:B:382:LYS:O	2.21	0.41
2:B:492:LEU:HD11	2:B:516:ILE:CG2	2.50	0.41
2:B:581:ILE:HD12	2:B:618:LEU:CD1	2.50	0.41
2:B:859:VAL:CG2	2:B:932:ALA:HB2	2.47	0.41
2:B:870:ASP:O	2:B:874:GLU:HG3	2.21	0.41
2:B:2927:LEU:HD13	2:B:2998:ILE:CD1	2.51	0.41
2:B:4761:ALA:O	2:B:4765:LEU:HG	2.21	0.41
2:D:422:VAL:HG22	2:D:422:VAL:O	2.21	0.41
2:D:935:CYS:HA	2:D:1053:PRO:HA	2.03	0.41
2:D:1003:TRP:HA	2:D:1014:LYS:HB3	2.02	0.41
2:D:1025:LEU:HD12	2:D:1026:ASP:H	1.86	0.41
2:D:1088:TYR:HD2	2:D:1151:MET:HG2	1.85	0.41
2:D:1631:ILE:HD12	2:D:1827:VAL:HG21	2.02	0.41
2:D:1878:LEU:HB2	2:D:3504:THR:HG21	2.03	0.41
2:D:2204:PHE:CE2	2:D:2207:SER:HA	2.55	0.41
2:D:2348:GLU:OE2	2:D:2405:THR:HG22	2.21	0.41
2:D:2882:LYS:HG3	2:D:2882:LYS:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3382:LEU:HB3	2:D:3444:VAL:HG11	2.03	0.41
2:D:3898:LEU:CD1	2:D:4006:ALA:HB2	2.45	0.41
2:D:4595:MET:O	2:D:4599:ILE:HG13	2.20	0.41
2:F:76:VAL:O	2:F:80:GLN:HG3	2.20	0.41
2:F:190:ASN:HD21	2:F:192:GLN:HG3	1.84	0.41
2:F:998:ARG:HB2	2:F:1019:LEU:HD21	2.02	0.41
2:F:1823:VAL:O	2:F:1827:VAL:HG23	2.21	0.41
2:F:2348:GLU:OE2	2:F:2405:THR:HG22	2.21	0.41
2:F:2555:ASP:O	2:F:2559:MET:HG3	2.21	0.41
2:F:3018:GLY:HA2	2:F:3077:VAL:HG12	2.03	0.41
2:F:3605:LYS:NZ	2:F:3605:LYS:HB3	2.36	0.41
2:F:3670:ASP:OD2	2:F:3673:PHE:HB2	2.21	0.41
2:H:232:GLU:CG	2:H:253:ALA:HB2	2.36	0.41
2:H:295:LEU:HG	2:H:303:LEU:HD11	2.03	0.41
2:H:422:VAL:O	2:H:422:VAL:HG22	2.21	0.41
2:H:581:ILE:HD12	2:H:618:LEU:CD1	2.50	0.41
2:H:1005:TYR:HA	2:H:1016:ASN:O	2.21	0.41
2:H:1658:ARG:HA	2:H:1658:ARG:HD3	1.96	0.41
2:H:1841:GLN:HG3	2:H:1844:ARG:NH2	2.36	0.41
2:H:2348:GLU:OE2	2:H:2405:THR:HG22	2.21	0.41
2:H:2361:ALA:HB3	2:H:2362:PRO:HD3	2.03	0.41
2:H:2427:ALA:HB3	2:H:2428:PRO:HD3	2.03	0.41
2:H:3681:MET:CE	2:H:3754:VAL:HG13	2.48	0.41
2:H:3890:SER:O	2:H:3894:VAL:HG23	2.21	0.41
2:H:3932:PHE:O	2:H:3936:MET:HG2	2.21	0.41
2:H:4761:ALA:O	2:H:4765:LEU:HG	2.21	0.41
2:H:4826:THR:OG1	2:H:4829:GLU:HG3	2.20	0.41
2:B:422:VAL:HG22	2:B:422:VAL:O	2.21	0.41
2:B:895:ARG:HB3	2:B:903:PRO:CD	2.51	0.41
2:B:1159:MET:HB2	2:B:1178:PHE:HB2	2.02	0.41
2:B:2908:LEU:HD23	2:B:2908:LEU:HA	1.93	0.41
2:B:3370:ILE:HG22	2:B:3370:ILE:O	2.21	0.41
2:B:3605:LYS:HB3	2:B:3605:LYS:NZ	2.36	0.41
2:B:4420:TYR:CD1	2:B:4453:PHE:HB3	2.56	0.41
2:B:4779:LYS:HE2	2:B:4779:LYS:HB3	1.76	0.41
2:D:2245:GLN:O	2:D:2249:LYS:HG3	2.21	0.41
2:D:2257:ASP:OD1	2:D:2257:ASP:N	2.53	0.41
2:D:4044:TRP:CZ3	2:D:4811:LEU:HD13	2.55	0.41
2:F:69:VAL:HG11	2:F:112:ARG:HH21	1.86	0.41
2:F:514:LYS:HE3	2:F:514:LYS:HB2	1.92	0.41
2:F:870:ASP:O	2:F:874:GLU:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1088:TYR:HD2	2:F:1151:MET:HG2	1.85	0.41
2:F:1642:LEU:HD21	2:F:1903:LEU:HA	2.03	0.41
2:F:2427:ALA:HB3	2:F:2428:PRO:HD3	2.03	0.41
2:F:3680:LEU:HD22	2:F:3719:PHE:CZ	2.55	0.41
2:F:3951:LEU:HD23	2:F:3951:LEU:HA	1.93	0.41
2:F:4496:ARG:O	2:F:4499:GLU:HG2	2.21	0.41
2:H:366:TYR:HA	2:H:382:LYS:O	2.21	0.41
2:H:733:LEU:HD23	2:H:733:LEU:HA	1.92	0.41
2:H:871:ARG:NH2	2:H:874:GLU:OE2	2.54	0.41
2:H:953:LEU:HD12	2:H:965:PRO:O	2.21	0.41
2:H:1025:LEU:HD12	2:H:1026:ASP:H	1.86	0.41
2:H:1831:ASP:O	2:H:1834:VAL:HG22	2.20	0.41
1:A:68:SER:C	1:A:104:LEU:HD23	2.41	0.40
2:B:53:THR:HB	2:B:271:ILE:HD13	2.04	0.40
2:B:348:TYR:CE2	2:B:399:ARG:HB2	2.57	0.40
2:B:443:LEU:HD23	2:B:443:LEU:HA	1.95	0.40
2:B:666:ILE:CD1	2:B:736:LEU:HB3	2.51	0.40
2:B:891:PHE:HD1	2:B:905:LEU:HB2	1.86	0.40
2:B:1088:TYR:HD2	2:B:1151:MET:HG2	1.85	0.40
2:B:2555:ASP:O	2:B:2559:MET:HG3	2.21	0.40
2:B:4675:VAL:O	2:B:4679:ASN:ND2	2.44	0.40
2:D:103:LEU:C	2:D:104:LEU:HD12	2.41	0.40
2:D:348:TYR:CE2	2:D:399:ARG:HB2	2.57	0.40
2:D:891:PHE:HB3	2:D:959:MET:CB	2.51	0.40
2:D:1005:TYR:HA	2:D:1016:ASN:O	2.21	0.40
2:D:1658:ARG:HA	2:D:1658:ARG:HD3	1.96	0.40
2:D:1841:GLN:HG3	2:D:1844:ARG:NH2	2.36	0.40
2:D:2019:ALA:O	2:D:2023:GLN:HG3	2.21	0.40
2:D:2555:ASP:O	2:D:2559:MET:HG3	2.21	0.40
2:D:2969:LEU:HD12	2:D:3034:LEU:HD22	2.02	0.40
2:D:2996:LEU:HB2	2:D:2997:PRO:HD3	2.02	0.40
2:D:3605:LYS:HB3	2:D:3605:LYS:NZ	2.36	0.40
2:D:4424:GLU:HA	2:D:4450:MET:O	2.22	0.40
2:D:4501:ALA:HB1	2:D:4543:VAL:HG21	2.03	0.40
2:F:295:LEU:HG	2:F:303:LEU:HD11	2.03	0.40
2:F:1831:ASP:O	2:F:1834:VAL:HG22	2.20	0.40
2:F:1878:LEU:HD12	2:F:3504:THR:CG2	2.51	0.40
2:F:2019:ALA:O	2:F:2023:GLN:HG3	2.21	0.40
2:F:4421:LYS:HD3	2:F:4456:GLN:HB3	2.03	0.40
2:F:4424:GLU:HA	2:F:4450:MET:O	2.22	0.40
2:H:870:ASP:O	2:H:874:GLU:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1631:ILE:HD12	2:H:1827:VAL:HG21	2.02	0.40
2:H:1878:LEU:HB2	2:H:3504:THR:HG21	2.03	0.40
2:H:1878:LEU:HD12	2:H:3504:THR:CG2	2.51	0.40
2:H:3605:LYS:NZ	2:H:3605:LYS:HB3	2.36	0.40
2:H:3849:ILE:HG22	2:H:3853:LYS:HE3	2.03	0.40
2:H:4421:LYS:HD3	2:H:4456:GLN:HB3	2.03	0.40
2:H:4496:ARG:O	2:H:4499:GLU:HG2	2.21	0.40
2:B:871:ARG:NH2	2:B:874:GLU:OE2	2.54	0.40
2:B:1831:ASP:O	2:B:1834:VAL:HG22	2.20	0.40
2:B:2869:PHE:HB2	2:B:2929:ILE:CG2	2.51	0.40
2:B:2905:LEU:HD12	2:B:2930:LEU:CD1	2.51	0.40
2:B:4424:GLU:HA	2:B:4450:MET:O	2.22	0.40
2:D:53:THR:HB	2:D:271:ILE:HD13	2.04	0.40
2:D:549:LEU:HD23	2:D:549:LEU:HA	1.91	0.40
2:D:728:VAL:HG21	2:D:762:VAL:HG12	2.03	0.40
2:D:783:ALA:CB	2:D:1528:PRO:HA	2.50	0.40
2:D:871:ARG:NH2	2:D:874:GLU:OE2	2.54	0.40
2:D:953:LEU:HD12	2:D:965:PRO:O	2.21	0.40
2:D:2905:LEU:HD12	2:D:2930:LEU:CD1	2.51	0.40
2:D:4496:ARG:O	2:D:4499:GLU:HG2	2.21	0.40
2:F:422:VAL:HG23	2:F:491:ARG:CG	2.44	0.40
2:F:666:ILE:CD1	2:F:736:LEU:HB3	2.51	0.40
2:F:707:ASP:OD2	2:F:723:ARG:NH1	2.55	0.40
2:F:733:LEU:HD23	2:F:733:LEU:HA	1.92	0.40
2:F:891:PHE:HD1	2:F:905:LEU:HB2	1.86	0.40
2:F:2248:ILE:HG12	2:F:2284:MET:CE	2.52	0.40
2:F:2905:LEU:HD12	2:F:2930:LEU:CD1	2.51	0.40
1:G:91:VAL:HG21	2:H:1672:PHE:CE1	2.56	0.40
2:H:728:VAL:HG21	2:H:762:VAL:HG12	2.03	0.40
2:H:2035:GLU:O	2:H:2039:LEU:HG	2.21	0.40
2:H:2188:ASN:HD21	2:H:2191:GLU:HG3	1.86	0.40
2:H:3681:MET:HE1	2:H:3727:LEU:CD1	2.50	0.40
2:H:4413:ILE:HG23	2:H:4466:LEU:HD11	2.02	0.40
2:B:1624:MET:HA	2:B:1624:MET:CE	2.51	0.40
2:B:2299:PRO:HG2	2:B:2311:ALA:O	2.21	0.40
2:B:2515:TYR:OH	2:B:2532:GLU:OE1	2.29	0.40
2:B:3382:LEU:HB3	2:B:3444:VAL:HG11	2.03	0.40
2:D:295:LEU:HG	2:D:303:LEU:HD11	2.03	0.40
2:D:1421:MET:HE2	2:D:1421:MET:HB2	1.98	0.40
2:D:2812:LYS:O	2:D:2817:LYS:HE3	2.22	0.40
2:D:2869:PHE:HB2	2:D:2929:ILE:CG2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3018:GLY:HA2	2:D:3077:VAL:HG12	2.03	0.40
2:D:3221:LYS:HE2	2:D:3221:LYS:HB3	1.94	0.40
2:D:3670:ASP:OD2	2:D:3673:PHE:HB2	2.21	0.40
2:D:3787:GLN:HG2	2:D:3851:LEU:HD22	2.03	0.40
2:D:4421:LYS:HD3	2:D:4456:GLN:HB3	2.03	0.40
2:F:871:ARG:NH2	2:F:874:GLU:OE2	2.54	0.40
2:F:890:THR:N	2:F:900:ARG:O	2.41	0.40
2:F:2052:VAL:HG13	2:F:2056:HIS:CD2	2.56	0.40
2:F:2245:GLN:O	2:F:2249:LYS:HG3	2.21	0.40
2:F:2291:ILE:HG21	2:F:2363:MET:SD	2.62	0.40
2:F:3253:PHE:HD1	2:F:3253:PHE:HA	1.81	0.40
2:H:859:VAL:CG2	2:H:932:ALA:HB2	2.47	0.40
2:H:872:LEU:O	2:H:876:ILE:HG12	2.22	0.40
2:H:1823:VAL:O	2:H:1827:VAL:HG23	2.21	0.40
2:H:2248:ILE:HG12	2:H:2284:MET:CE	2.52	0.40
2:H:3934:LYS:HE2	2:H:3934:LYS:HB3	1.90	0.40
2:H:4420:TYR:CD1	2:H:4453:PHE:HB3	2.56	0.40
2:B:531:ASN:HD22	2:B:534:ASN:H	1.69	0.40
2:B:907:GLU:HG2	2:B:963:TYR:HD1	1.87	0.40
2:B:1025:LEU:HD12	2:B:1026:ASP:H	1.86	0.40
2:B:1642:LEU:HD21	2:B:1903:LEU:HA	2.03	0.40
2:B:2019:ALA:O	2:B:2023:GLN:HG3	2.21	0.40
2:B:2248:ILE:HG12	2:B:2284:MET:CE	2.52	0.40
2:D:251:TYR:CD2	2:D:366:TYR:HB3	2.57	0.40
2:D:2248:ILE:HG12	2:D:2284:MET:CE	2.52	0.40
2:D:2291:ILE:HG21	2:D:2363:MET:SD	2.62	0.40
2:D:3204:ALA:HB1	2:D:3208:LEU:CD1	2.46	0.40
2:D:3326:THR:O	2:D:3326:THR:OG1	2.35	0.40
2:D:4561:ALA:HB1	2:D:4566:LEU:O	2.22	0.40
2:F:251:TYR:CD2	2:F:366:TYR:HB3	2.57	0.40
1:G:12:ASP:OD1	1:G:14:ARG:N	2.48	0.40
2:H:76:VAL:O	2:H:80:GLN:HG3	2.20	0.40
2:H:421:PHE:CZ	2:H:492:LEU:HD21	2.50	0.40
2:H:4561:ALA:HB1	2:H:4566:LEU:O	2.22	0.40
2:B:874:GLU:HG2	2:B:908:PHE:CE2	2.57	0.40
2:B:875:ASN:O	2:B:879:LEU:HG	2.22	0.40
2:B:953:LEU:HD12	2:B:965:PRO:O	2.21	0.40
2:B:2035:GLU:O	2:B:2039:LEU:HG	2.21	0.40
2:B:2052:VAL:HG13	2:B:2056:HIS:CD2	2.56	0.40
2:B:2348:GLU:OE2	2:B:2405:THR:HG22	2.21	0.40
2:B:2361:ALA:HB3	2:B:2362:PRO:HD3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2822:ILE:CD1	2:B:2865:VAL:HG22	2.40	0.40
2:B:2905:LEU:HD22	2:B:2923:MET:HE1	2.04	0.40
2:B:3849:ILE:HG22	2:B:3853:LYS:HE3	2.03	0.40
2:B:4421:LYS:HD3	2:B:4456:GLN:HB3	2.03	0.40
2:D:875:ASN:O	2:D:879:LEU:HG	2.22	0.40
2:D:1878:LEU:HD12	2:D:3504:THR:CG2	2.51	0.40
2:D:4683:LYS:H	2:D:4683:LYS:HG2	1.70	0.40
2:F:348:TYR:CE2	2:F:399:ARG:HB2	2.57	0.40
2:F:679:HIS:O	2:F:781:PHE:HA	2.22	0.40
2:F:907:GLU:HG2	2:F:963:TYR:HD1	1.87	0.40
2:F:953:LEU:HD12	2:F:965:PRO:O	2.21	0.40
2:F:3664:TYR:CE1	2:F:3668:LYS:HE3	2.56	0.40
2:F:4020:ILE:HG23	2:F:4034:PHE:HE1	1.86	0.40
2:F:4561:ALA:HB1	2:F:4566:LEU:O	2.22	0.40
2:F:4761:ALA:O	2:F:4765:LEU:HG	2.21	0.40
2:H:69:VAL:HG11	2:H:112:ARG:HH21	1.86	0.40
2:H:549:LEU:HD23	2:H:549:LEU:HA	1.91	0.40
2:H:2052:VAL:HG13	2:H:2056:HIS:CD2	2.56	0.40
2:H:2245:GLN:O	2:H:2249:LYS:HG3	2.21	0.40
2:H:2291:ILE:HG21	2:H:2363:MET:SD	2.62	0.40
2:H:2555:ASP:O	2:H:2559:MET:HG3	2.21	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	106/110 (96%)	100 (94%)	6 (6%)	0	100	100
1	C	106/110 (96%)	100 (94%)	6 (6%)	0	100	100
1	E	106/110 (96%)	100 (94%)	6 (6%)	0	100	100
1	G	106/110 (96%)	100 (94%)	6 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	4034/4859 (83%)	3934 (98%)	100 (2%)	0	100	100
2	D	4034/4859 (83%)	3934 (98%)	100 (2%)	0	100	100
2	F	4034/4859 (83%)	3934 (98%)	100 (2%)	0	100	100
2	H	4034/4859 (83%)	3934 (98%)	100 (2%)	0	100	100
All	All	16560/19876 (83%)	16136 (97%)	424 (3%)	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	86/90 (96%)	84 (98%)	2 (2%)	45	70
1	C	86/90 (96%)	84 (98%)	2 (2%)	45	70
1	E	86/90 (96%)	84 (98%)	2 (2%)	45	70
1	G	86/90 (96%)	84 (98%)	2 (2%)	45	70
2	B	3370/4253 (79%)	3343 (99%)	27 (1%)	79	89
2	D	3370/4253 (79%)	3343 (99%)	27 (1%)	79	89
2	F	3370/4253 (79%)	3343 (99%)	27 (1%)	79	89
2	H	3370/4253 (79%)	3343 (99%)	27 (1%)	79	89
All	All	13824/17372 (80%)	13708 (99%)	116 (1%)	77	89

All (116) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	26	HIS
1	A	80	ASP
2	B	184	LEU
2	B	495	TYR
2	B	588	LEU
2	B	606	LEU

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Mol	Chain	Res	Type
2	B	1044	PHE
2	B	1111	ASP
2	B	1142	TRP
2	B	1223	GLU
2	B	1495	ILE
2	B	1531	MET
2	B	2031	ARG
2	B	2301	MET
2	B	3019	ASP
2	B	3264	TYR
2	B	3306	PHE
2	B	3545	ASP
2	B	3581	SER
2	B	3651	ASN
2	B	3668	LYS
2	B	3738	PHE
2	B	3772	PHE
2	B	3783	ASP
2	B	4541	LYS
2	B	4701	MET
2	B	4787	ASN
2	B	4814	LEU
2	B	4817	LEU
1	C	26	HIS
1	C	80	ASP
2	D	184	LEU
2	D	495	TYR
2	D	588	LEU
2	D	606	LEU
2	D	1044	PHE
2	D	1111	ASP
2	D	1142	TRP
2	D	1223	GLU
2	D	1495	ILE
2	D	1531	MET
2	D	2031	ARG
2	D	2301	MET
2	D	3019	ASP
2	D	3264	TYR
2	D	3306	PHE
2	D	3545	ASP
2	D	3581	SER

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Mol	Chain	Res	Type
2	D	3651	ASN
2	D	3668	LYS
2	D	3738	PHE
2	D	3772	PHE
2	D	3783	ASP
2	D	4541	LYS
2	D	4701	MET
2	D	4787	ASN
2	D	4814	LEU
2	D	4817	LEU
1	E	26	HIS
1	E	80	ASP
2	F	184	LEU
2	F	495	TYR
2	F	588	LEU
2	F	606	LEU
2	F	1044	PHE
2	F	1111	ASP
2	F	1142	TRP
2	F	1223	GLU
2	F	1495	ILE
2	F	1531	MET
2	F	2031	ARG
2	F	2301	MET
2	F	3019	ASP
2	F	3264	TYR
2	F	3306	PHE
2	F	3545	ASP
2	F	3581	SER
2	F	3651	ASN
2	F	3668	LYS
2	F	3738	PHE
2	F	3772	PHE
2	F	3783	ASP
2	F	4541	LYS
2	F	4701	MET
2	F	4787	ASN
2	F	4814	LEU
2	F	4817	LEU
1	G	26	HIS
1	G	80	ASP
2	H	184	LEU

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Mol	Chain	Res	Type
2	H	495	TYR
2	H	588	LEU
2	H	606	LEU
2	H	1044	PHE
2	H	1111	ASP
2	H	1142	TRP
2	H	1223	GLU
2	H	1495	ILE
2	H	1531	MET
2	H	2031	ARG
2	H	2301	MET
2	H	3019	ASP
2	H	3264	TYR
2	H	3306	PHE
2	H	3545	ASP
2	H	3581	SER
2	H	3651	ASN
2	H	3668	LYS
2	H	3738	PHE
2	H	3772	PHE
2	H	3783	ASP
2	H	4541	LYS
2	H	4701	MET
2	H	4787	ASN
2	H	4814	LEU
2	H	4817	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (215) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	26	HIS
1	A	54	GLN
1	A	66	GLN
2	B	24	GLN
2	B	72	GLN
2	B	107	HIS
2	B	190	ASN
2	B	192	GLN
2	B	199	GLN
2	B	245	GLN
2	B	306	GLN
2	B	387	GLN

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Mol	Chain	Res	Type
2	B	398	GLN
2	B	401	GLN
2	B	474	ASN
2	B	493	ASN
2	B	531	ASN
2	B	537	GLN
2	B	718	HIS
2	B	760	GLN
2	B	858	GLN
2	B	875	ASN
2	B	877	HIS
2	B	883	ASN
2	B	941	ASN
2	B	1009	GLN
2	B	1219	GLN
2	B	1230	ASN
2	B	1436	GLN
2	B	1535	HIS
2	B	1680	GLN
2	B	1682	GLN
2	B	1721	GLN
2	B	1838	GLN
2	B	1850	GLN
2	B	2172	GLN
2	B	2445	GLN
2	B	2481	GLN
2	B	2549	HIS
2	B	2911	HIS
2	B	2987	ASN
2	B	3009	HIS
2	B	3243	GLN
2	B	3321	ASN
2	B	3356	GLN
2	B	3421	GLN
2	B	3453	HIS
2	B	3659	GLN
2	B	3690	ASN
2	B	3734	HIS
2	B	3766	GLN
2	B	3848	GLN
2	B	4530	ASN
2	B	4537	ASN

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Mol	Chain	Res	Type
2	B	4787	ASN
2	B	4853	GLN
1	C	26	HIS
1	C	54	GLN
1	C	66	GLN
2	D	24	GLN
2	D	72	GLN
2	D	190	ASN
2	D	192	GLN
2	D	199	GLN
2	D	306	GLN
2	D	387	GLN
2	D	398	GLN
2	D	401	GLN
2	D	474	ASN
2	D	493	ASN
2	D	531	ASN
2	D	537	GLN
2	D	718	HIS
2	D	760	GLN
2	D	858	GLN
2	D	875	ASN
2	D	877	HIS
2	D	883	ASN
2	D	941	ASN
2	D	1009	GLN
2	D	1219	GLN
2	D	1230	ASN
2	D	1436	GLN
2	D	1535	HIS
2	D	1680	GLN
2	D	1682	GLN
2	D	1721	GLN
2	D	1838	GLN
2	D	1850	GLN
2	D	2172	GLN
2	D	2445	GLN
2	D	2481	GLN
2	D	2911	HIS
2	D	2987	ASN
2	D	3009	HIS
2	D	3243	GLN

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Mol	Chain	Res	Type
2	D	3321	ASN
2	D	3356	GLN
2	D	3421	GLN
2	D	3453	HIS
2	D	3659	GLN
2	D	3690	ASN
2	D	3734	HIS
2	D	3766	GLN
2	D	3848	GLN
2	D	4530	ASN
2	D	4787	ASN
2	D	4853	GLN
1	E	26	HIS
1	E	54	GLN
1	E	66	GLN
2	F	24	GLN
2	F	72	GLN
2	F	190	ASN
2	F	192	GLN
2	F	199	GLN
2	F	306	GLN
2	F	387	GLN
2	F	398	GLN
2	F	401	GLN
2	F	474	ASN
2	F	493	ASN
2	F	531	ASN
2	F	537	GLN
2	F	718	HIS
2	F	760	GLN
2	F	858	GLN
2	F	875	ASN
2	F	877	HIS
2	F	883	ASN
2	F	941	ASN
2	F	1009	GLN
2	F	1219	GLN
2	F	1230	ASN
2	F	1436	GLN
2	F	1535	HIS
2	F	1680	GLN
2	F	1682	GLN

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Mol	Chain	Res	Type
2	F	1721	GLN
2	F	1838	GLN
2	F	1850	GLN
2	F	2172	GLN
2	F	2445	GLN
2	F	2481	GLN
2	F	2911	HIS
2	F	2987	ASN
2	F	3009	HIS
2	F	3243	GLN
2	F	3321	ASN
2	F	3356	GLN
2	F	3421	GLN
2	F	3453	HIS
2	F	3659	GLN
2	F	3690	ASN
2	F	3734	HIS
2	F	3766	GLN
2	F	3848	GLN
2	F	4530	ASN
2	F	4537	ASN
2	F	4787	ASN
2	F	4853	GLN
1	G	26	HIS
1	G	54	GLN
1	G	66	GLN
2	H	24	GLN
2	H	72	GLN
2	H	190	ASN
2	H	192	GLN
2	H	199	GLN
2	H	245	GLN
2	H	306	GLN
2	H	387	GLN
2	H	398	GLN
2	H	401	GLN
2	H	474	ASN
2	H	493	ASN
2	H	531	ASN
2	H	537	GLN
2	H	718	HIS
2	H	760	GLN

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Mol	Chain	Res	Type
2	H	858	GLN
2	H	875	ASN
2	H	877	HIS
2	H	883	ASN
2	H	941	ASN
2	H	1009	GLN
2	H	1219	GLN
2	H	1230	ASN
2	H	1436	GLN
2	H	1535	HIS
2	H	1680	GLN
2	H	1682	GLN
2	H	1721	GLN
2	H	1838	GLN
2	H	1850	GLN
2	H	2172	GLN
2	H	2445	GLN
2	H	2481	GLN
2	H	2911	HIS
2	H	2987	ASN
2	H	3009	HIS
2	H	3243	GLN
2	H	3321	ASN
2	H	3356	GLN
2	H	3421	GLN
2	H	3453	HIS
2	H	3659	GLN
2	H	3690	ASN
2	H	3734	HIS
2	H	3766	GLN
2	H	3848	GLN
2	H	4530	ASN
2	H	4537	ASN
2	H	4787	ASN
2	H	4853	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 24 ligands modelled in this entry, 12 are monoatomic - leaving 12 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	$\#\|Z\| > 2$
5	ATP	B	5305	-	28,33,33	0.66	0	34,52,52	0.97	2 (5%)
5	ATP	D	5305	-	28,33,33	0.66	0	34,52,52	0.97	2 (5%)
6	CFF	H	5304	-	8,15,15	1.05	0	8,23,23	2.61	2 (25%)
6	CFF	D	5304	-	8,15,15	1.05	0	8,23,23	2.61	2 (25%)
5	ATP	H	5303	-	28,33,33	0.67	0	34,52,52	0.97	2 (5%)
5	ATP	F	5305	-	28,33,33	0.66	0	34,52,52	0.97	2 (5%)
6	CFF	B	5304	-	8,15,15	1.05	0	8,23,23	2.61	2 (25%)
6	CFF	F	5304	-	8,15,15	1.05	0	8,23,23	2.61	2 (25%)
5	ATP	H	5305	-	28,33,33	0.66	0	34,52,52	0.97	2 (5%)
5	ATP	F	5303	-	28,33,33	0.67	0	34,52,52	0.97	2 (5%)
5	ATP	B	5303	-	28,33,33	0.67	0	34,52,52	0.97	2 (5%)
5	ATP	D	5303	-	28,33,33	0.67	0	34,52,52	0.97	2 (5%)

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
5	ATP	B	5305	-	-	6/18/38/38	0/3/3/3
5	ATP	D	5305	-	-	6/18/38/38	0/3/3/3
6	CFF	H	5304	-	-	-	0/2/2/2
6	CFF	D	5304	-	-	-	0/2/2/2
5	ATP	H	5303	-	-	6/18/38/38	0/3/3/3
5	ATP	F	5305	-	-	6/18/38/38	0/3/3/3
6	CFF	B	5304	-	-	-	0/2/2/2
6	CFF	F	5304	-	-	-	0/2/2/2
5	ATP	H	5305	-	-	6/18/38/38	0/3/3/3
5	ATP	F	5303	-	-	6/18/38/38	0/3/3/3
5	ATP	B	5303	-	-	6/18/38/38	0/3/3/3
5	ATP	D	5303	-	-	6/18/38/38	0/3/3/3

There are no bond length outliers.

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	B	5304	CFF	C5-C6-N1	-6.20	111.91	118.20
6	D	5304	CFF	C5-C6-N1	-6.20	111.91	118.20
6	F	5304	CFF	C5-C6-N1	-6.20	111.91	118.20
6	H	5304	CFF	C5-C6-N1	-6.20	111.91	118.20
6	B	5304	CFF	C4-C5-C6	3.57	122.67	119.96
6	D	5304	CFF	C4-C5-C6	3.57	122.67	119.96
6	F	5304	CFF	C4-C5-C6	3.57	122.67	119.96
6	H	5304	CFF	C4-C5-C6	3.57	122.67	119.96
5	B	5303	ATP	C5-C6-N6	2.32	123.85	120.31
5	D	5303	ATP	C5-C6-N6	2.32	123.85	120.31
5	F	5303	ATP	C5-C6-N6	2.32	123.85	120.31
5	H	5303	ATP	C5-C6-N6	2.32	123.85	120.31
5	B	5305	ATP	C5-C6-N6	2.32	123.84	120.31
5	D	5305	ATP	C5-C6-N6	2.32	123.84	120.31
5	F	5305	ATP	C5-C6-N6	2.32	123.84	120.31
5	H	5305	ATP	C5-C6-N6	2.32	123.84	120.31
5	B	5303	ATP	C4'-O4'-C1'	-2.10	108.00	109.92
5	D	5303	ATP	C4'-O4'-C1'	-2.10	108.00	109.92
5	F	5303	ATP	C4'-O4'-C1'	-2.10	108.00	109.92
5	H	5303	ATP	C4'-O4'-C1'	-2.10	108.00	109.92
5	B	5305	ATP	O2'-C2'-C3'	-2.10	105.08	111.82
5	D	5305	ATP	O2'-C2'-C3'	-2.10	105.08	111.82
5	F	5305	ATP	O2'-C2'-C3'	-2.10	105.08	111.82
5	H	5305	ATP	O2'-C2'-C3'	-2.10	105.08	111.82

There are no chirality outliers.

All (48) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	5305	ATP	C5'-O5'-PA-O1A
5	B	5305	ATP	C5'-O5'-PA-O3A
5	D	5305	ATP	C5'-O5'-PA-O1A
5	D	5305	ATP	C5'-O5'-PA-O3A
5	F	5305	ATP	C5'-O5'-PA-O1A
5	F	5305	ATP	C5'-O5'-PA-O3A
5	H	5305	ATP	C5'-O5'-PA-O1A
5	H	5305	ATP	C5'-O5'-PA-O3A
5	B	5305	ATP	C3'-C4'-C5'-O5'
5	D	5305	ATP	C3'-C4'-C5'-O5'
5	F	5305	ATP	C3'-C4'-C5'-O5'
5	H	5305	ATP	C3'-C4'-C5'-O5'
5	B	5305	ATP	C4'-C5'-O5'-PA
5	D	5305	ATP	C4'-C5'-O5'-PA
5	F	5305	ATP	C4'-C5'-O5'-PA
5	H	5305	ATP	C4'-C5'-O5'-PA
5	B	5303	ATP	PB-O3A-PA-O5'
5	D	5303	ATP	PB-O3A-PA-O5'
5	F	5303	ATP	PB-O3A-PA-O5'
5	H	5303	ATP	PB-O3A-PA-O5'
5	B	5305	ATP	C5'-O5'-PA-O2A
5	D	5305	ATP	C5'-O5'-PA-O2A
5	F	5305	ATP	C5'-O5'-PA-O2A
5	H	5305	ATP	C5'-O5'-PA-O2A
5	B	5303	ATP	PB-O3A-PA-O1A
5	D	5303	ATP	PB-O3A-PA-O1A
5	F	5303	ATP	PB-O3A-PA-O1A
5	H	5303	ATP	PB-O3A-PA-O1A
5	B	5305	ATP	O4'-C4'-C5'-O5'
5	D	5305	ATP	O4'-C4'-C5'-O5'
5	F	5305	ATP	O4'-C4'-C5'-O5'
5	H	5305	ATP	O4'-C4'-C5'-O5'
5	B	5303	ATP	PG-O3B-PB-O2B
5	B	5303	ATP	PA-O3A-PB-O2B
5	D	5303	ATP	PG-O3B-PB-O2B
5	D	5303	ATP	PA-O3A-PB-O2B
5	F	5303	ATP	PG-O3B-PB-O2B
5	F	5303	ATP	PA-O3A-PB-O2B
5	H	5303	ATP	PG-O3B-PB-O2B
5	H	5303	ATP	PA-O3A-PB-O2B

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Mol	Chain	Res	Type	Atoms
5	B	5303	ATP	PA-O3A-PB-O1B
5	D	5303	ATP	PA-O3A-PB-O1B
5	F	5303	ATP	PA-O3A-PB-O1B
5	H	5303	ATP	PA-O3A-PB-O1B
5	B	5303	ATP	C3'-C4'-C5'-O5'
5	D	5303	ATP	C3'-C4'-C5'-O5'
5	F	5303	ATP	C3'-C4'-C5'-O5'
5	H	5303	ATP	C3'-C4'-C5'-O5'

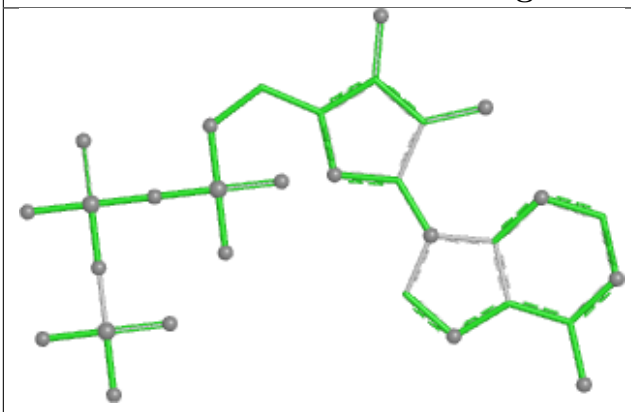
There are no ring outliers.

4 monomers are involved in 8 short contacts:

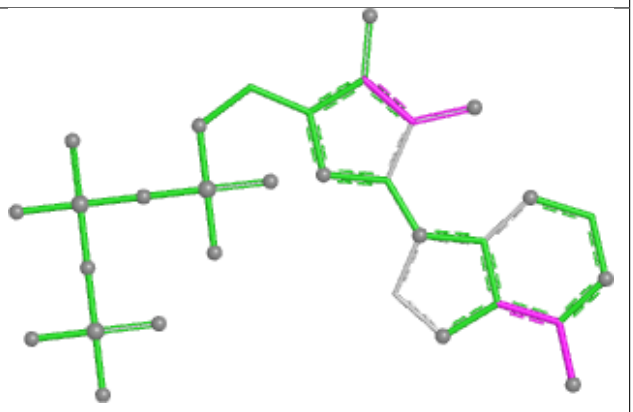
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	B	5305	ATP	2	0
5	D	5305	ATP	2	0
5	F	5305	ATP	2	0
5	H	5305	ATP	2	0

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.

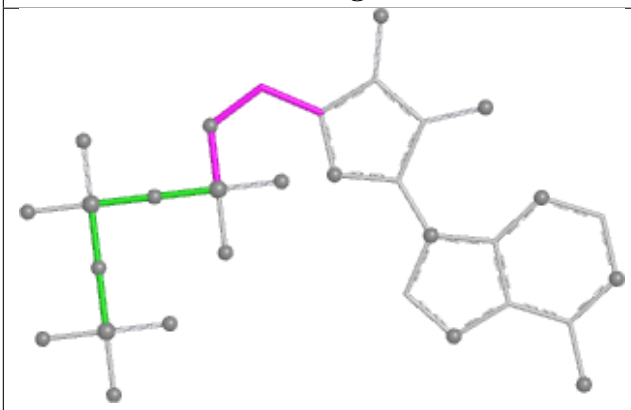
Ligand ATP B 5305



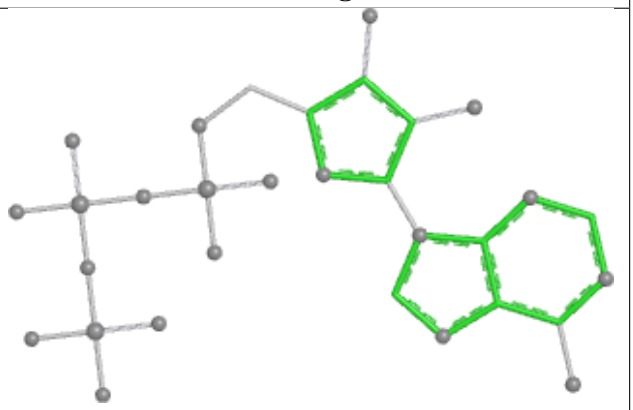
Bond lengths



Bond angles

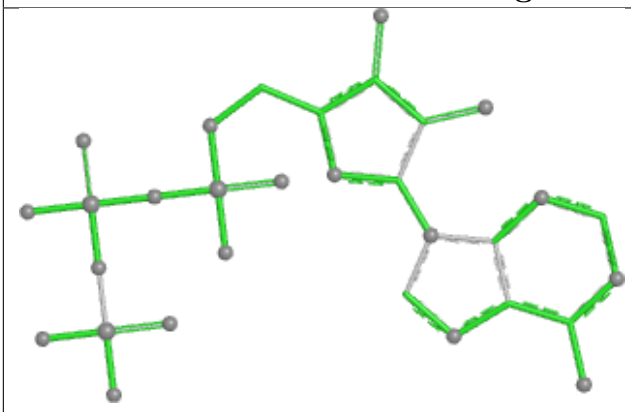


Torsions



Rings

Ligand ATP D 5305



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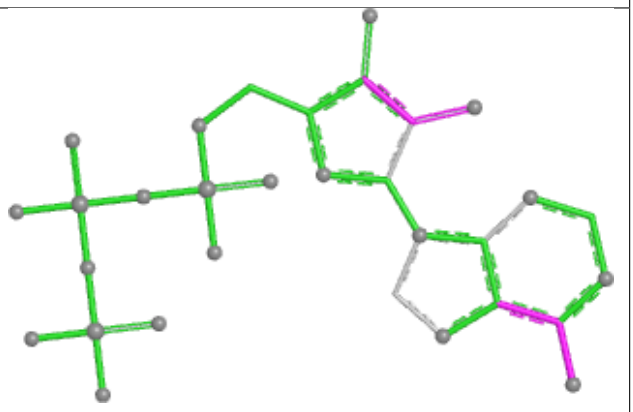

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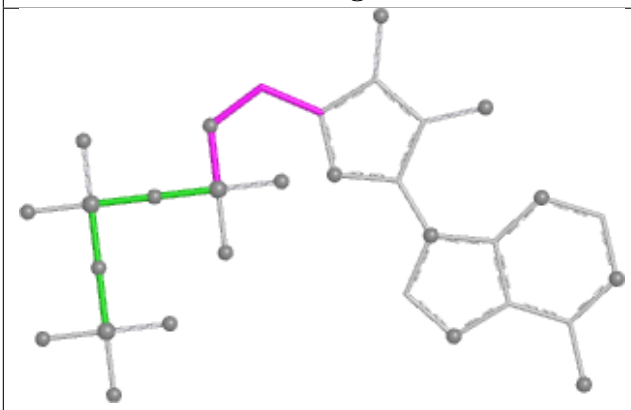

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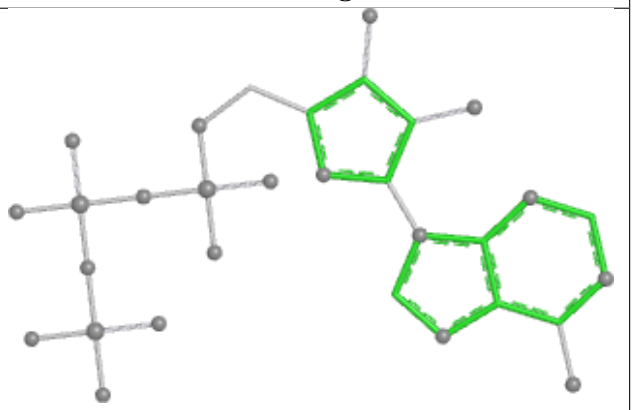
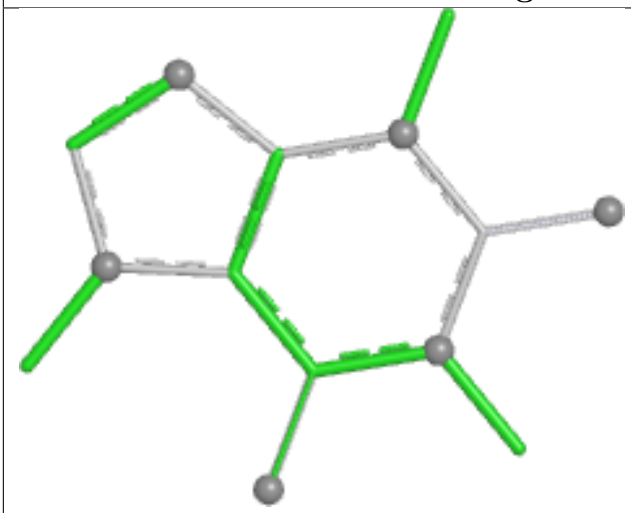


Rings

Ligand CFF H 5304



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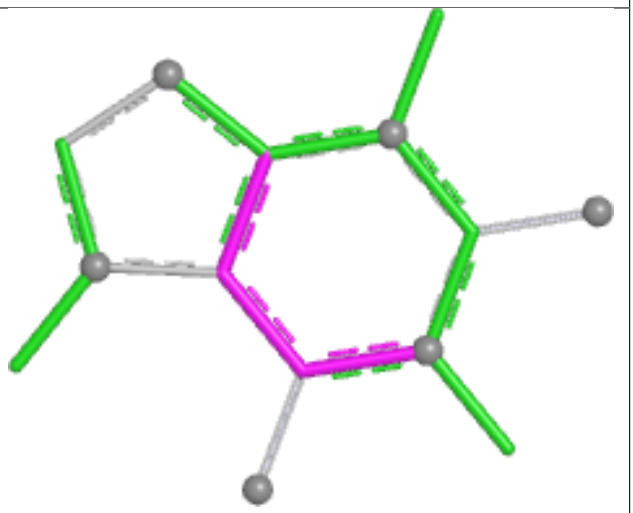

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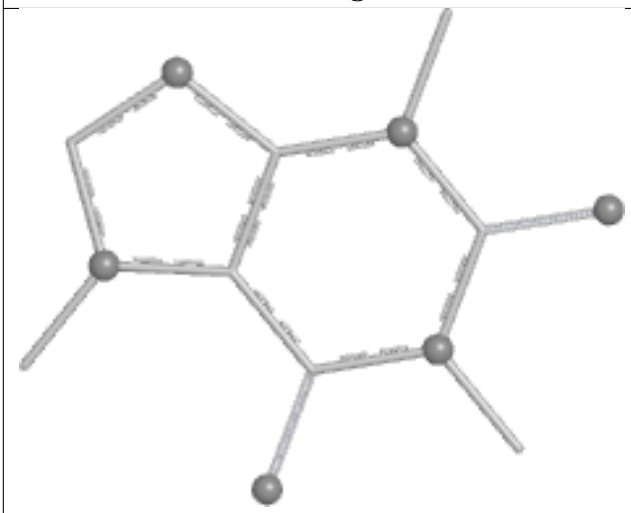
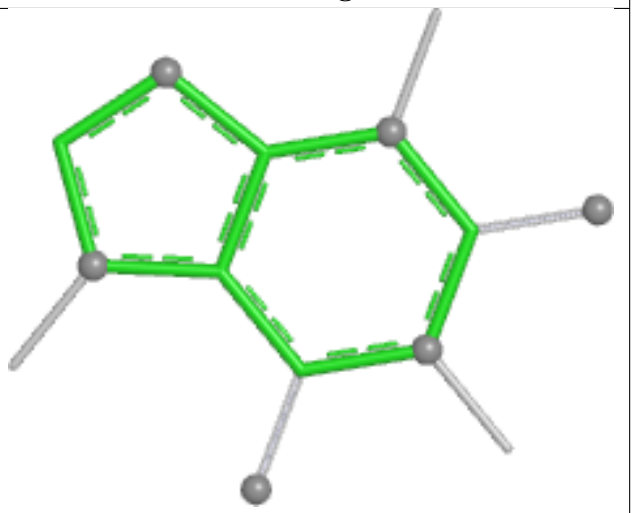
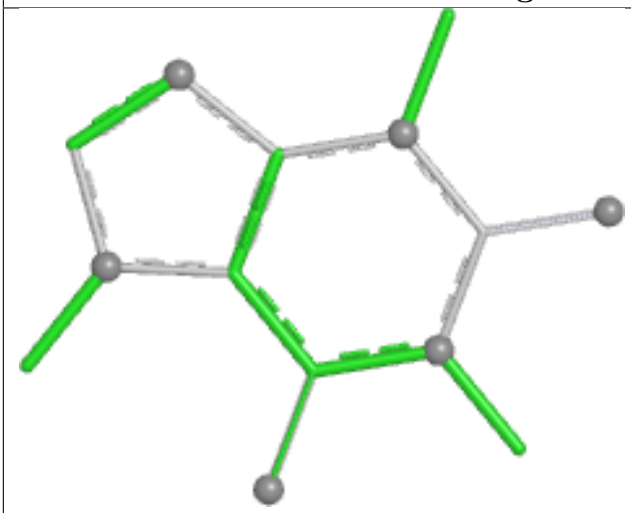


Torsions



Rings

Ligand CFF D 5304



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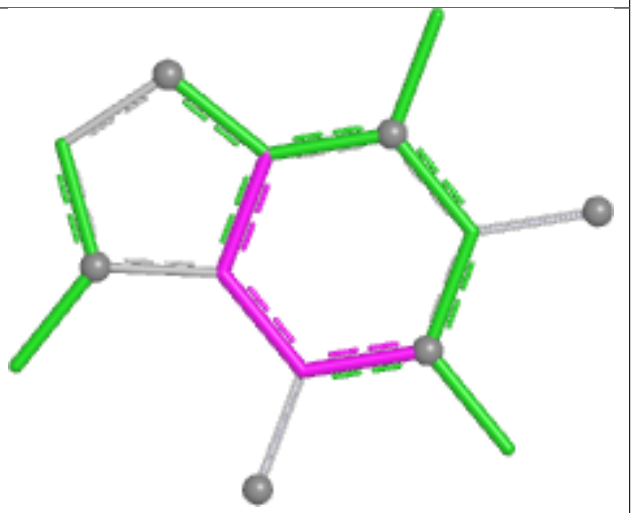

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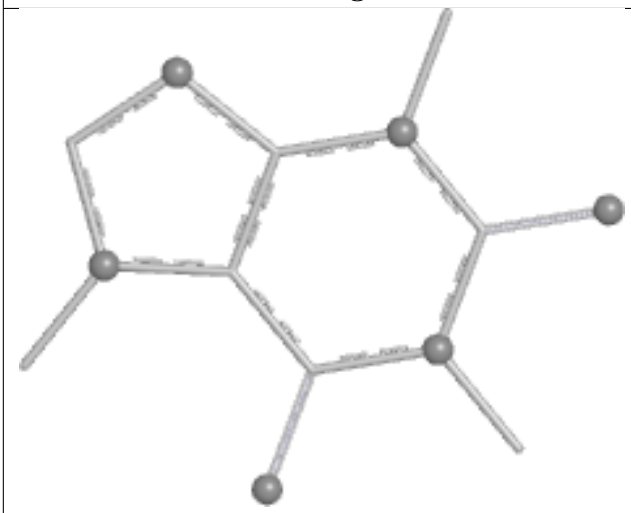

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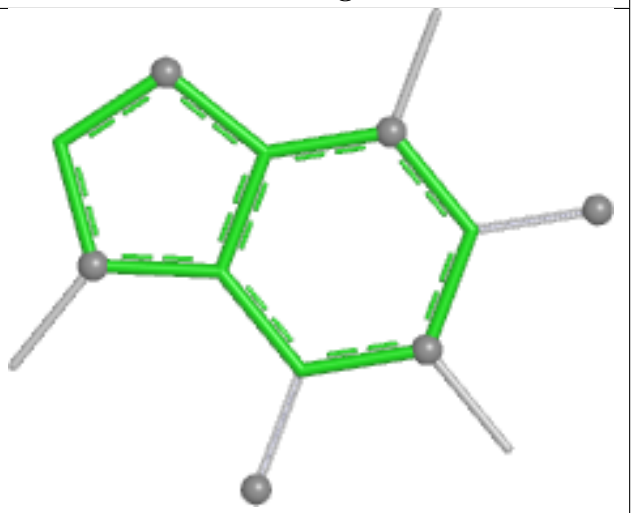
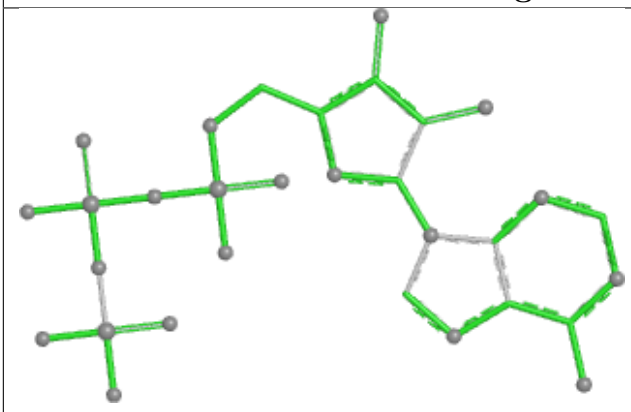
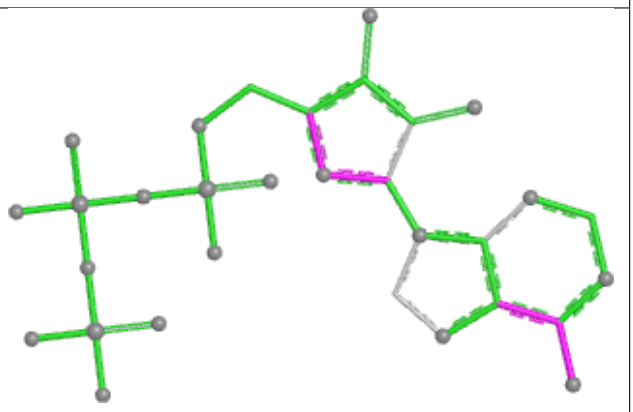


Rings

Ligand ATP H 5303



Bond lengths



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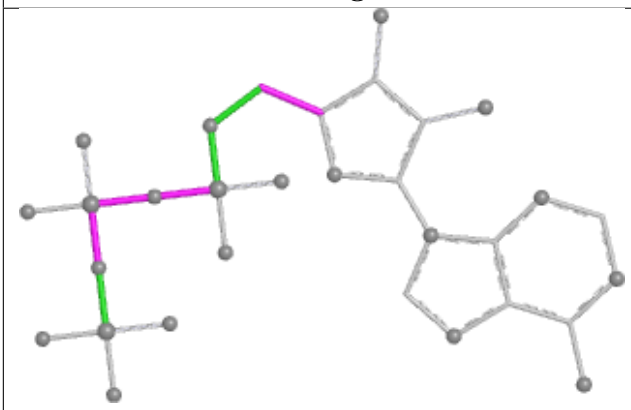

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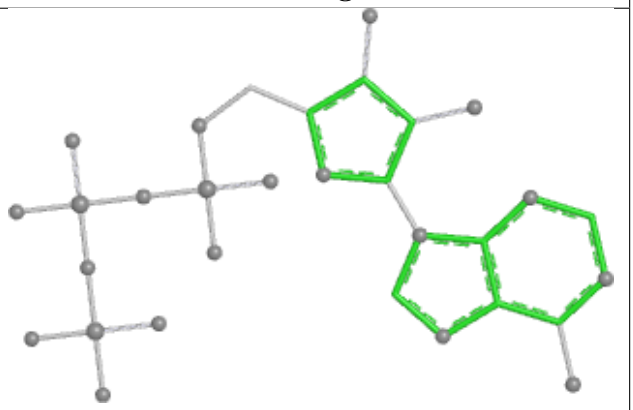
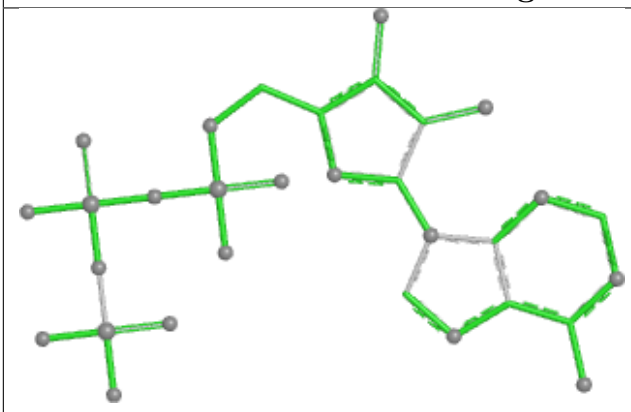


Rings

Ligand ATP F 5305



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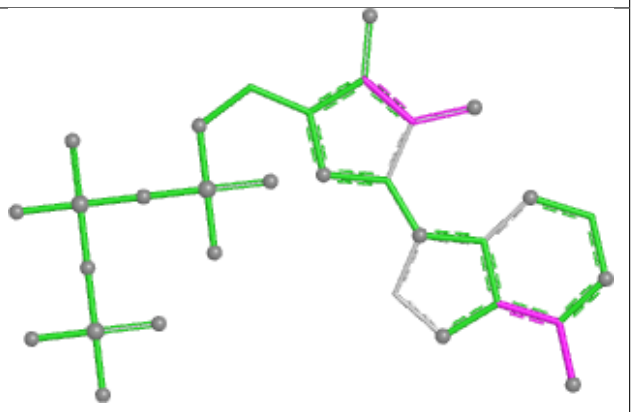
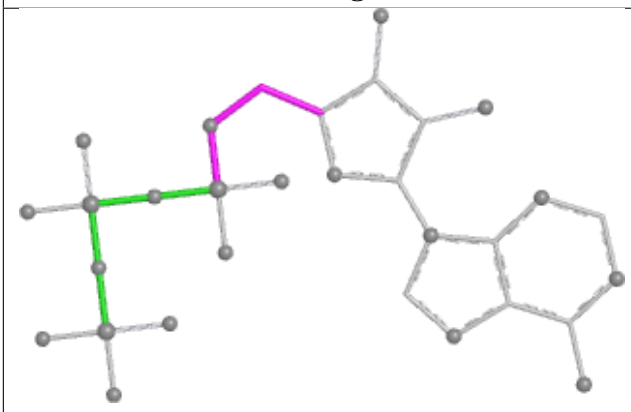


Bond angles



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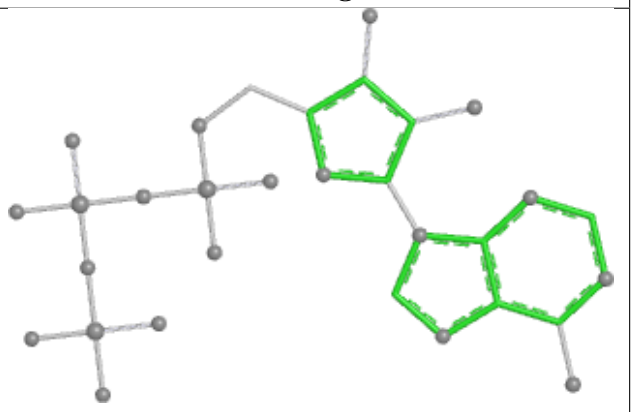
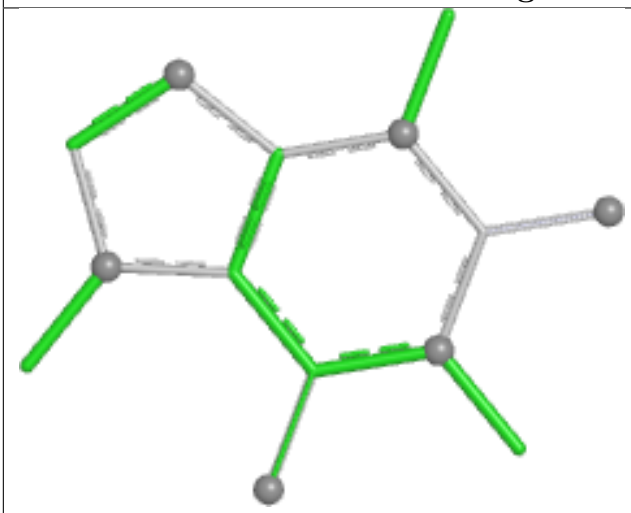


Rings

Ligand CFF B 5304



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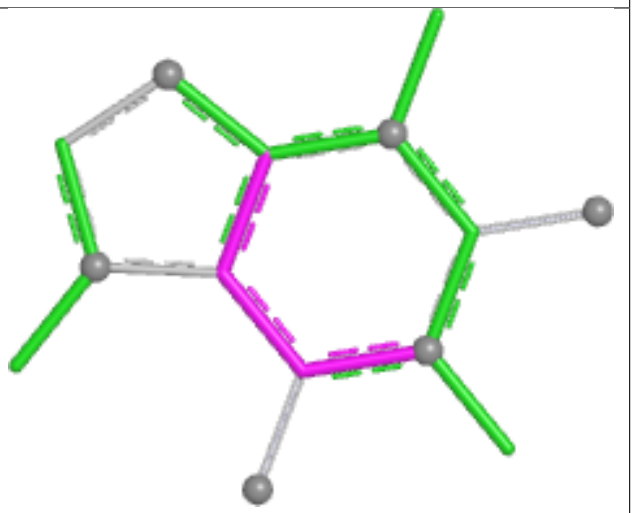

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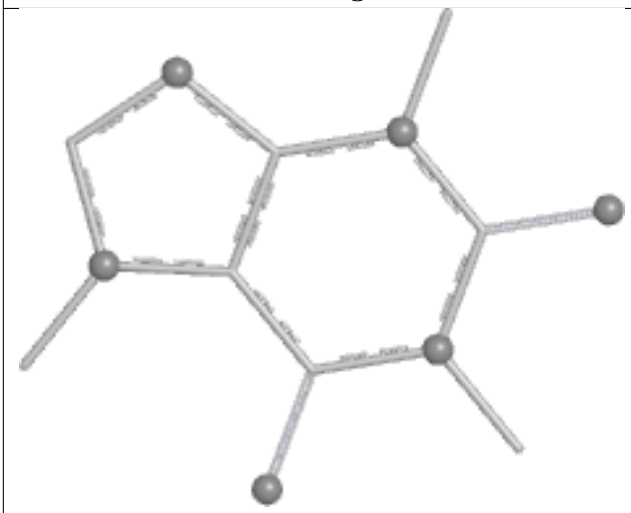

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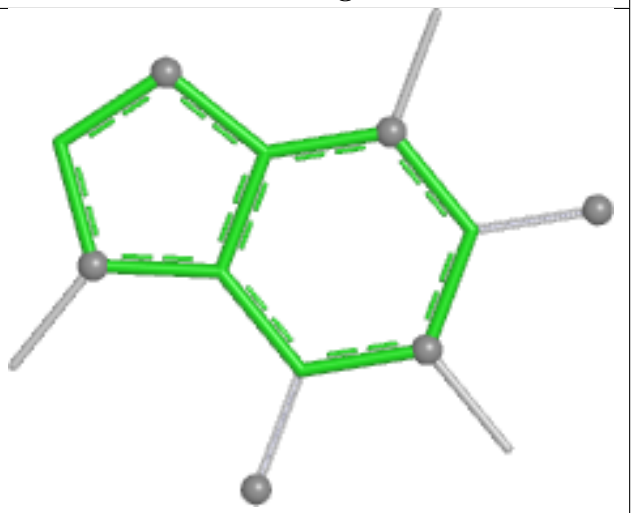
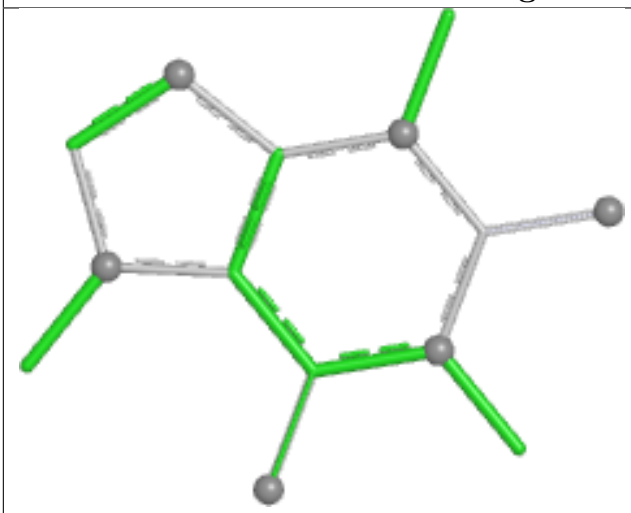


Rings

Ligand CFF F 5304



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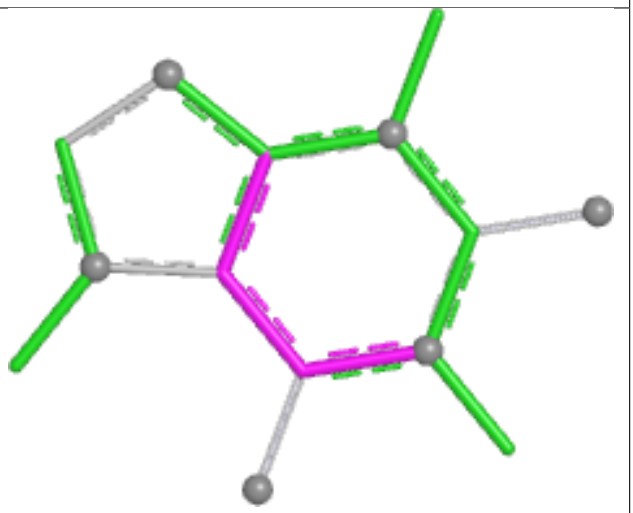

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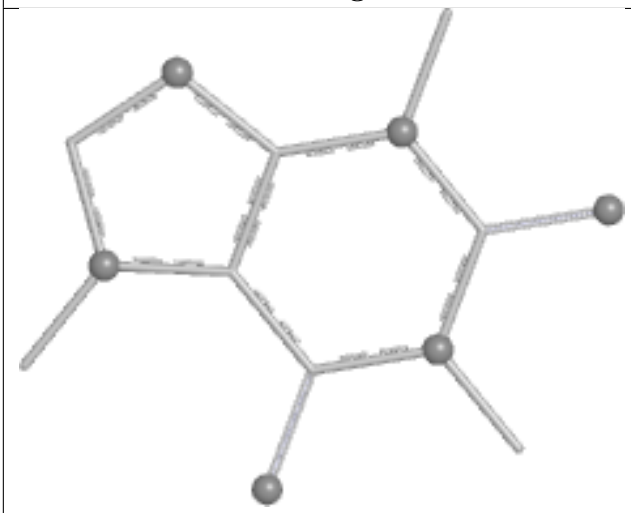

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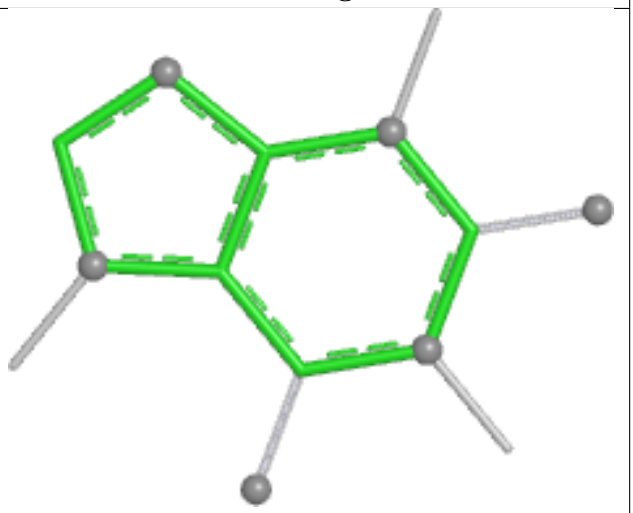
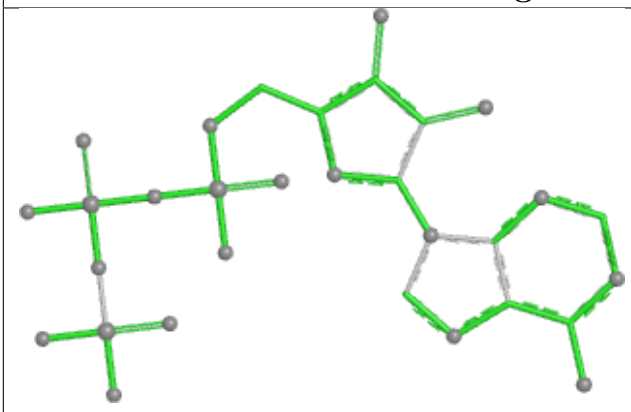
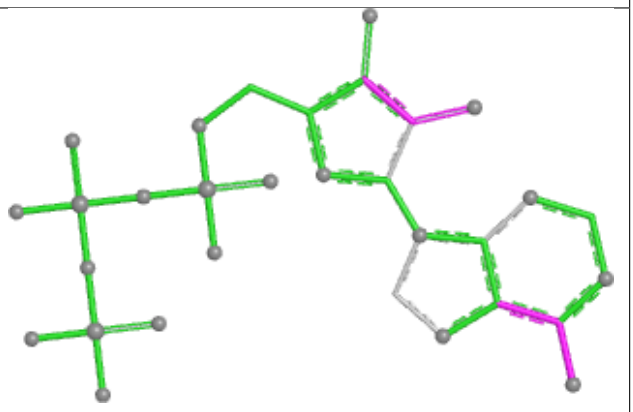


Rings

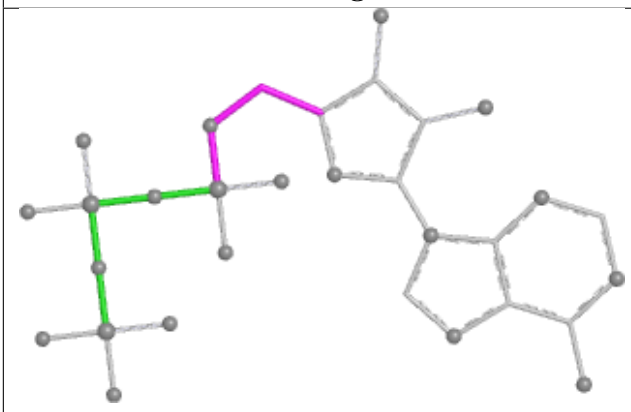
Ligand ATP H 5305



Bond lengths



Bond angles



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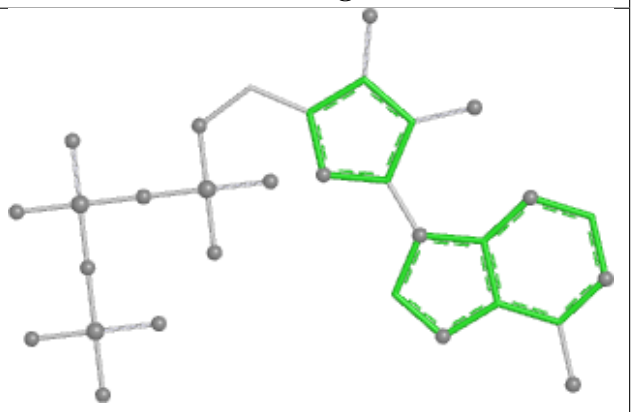
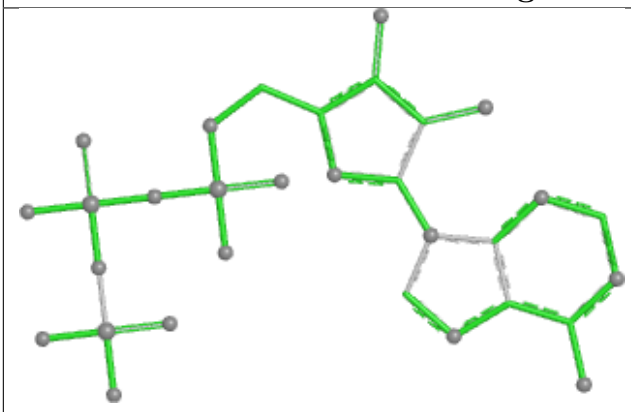
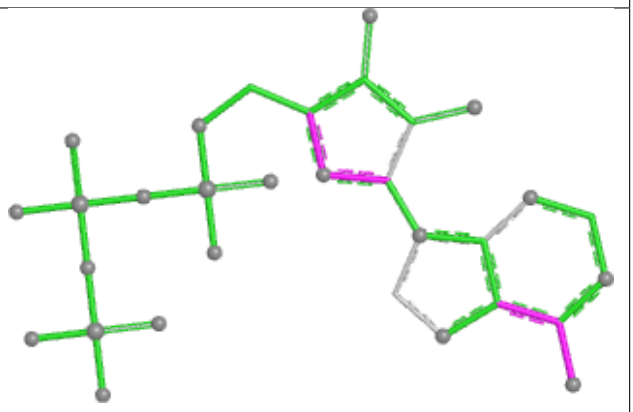


Rings

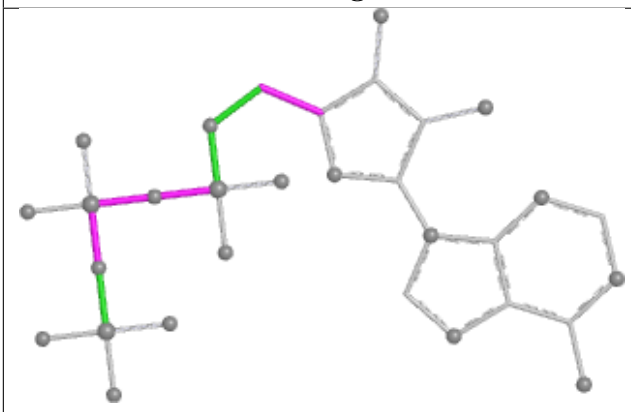
Ligand ATP F 5303



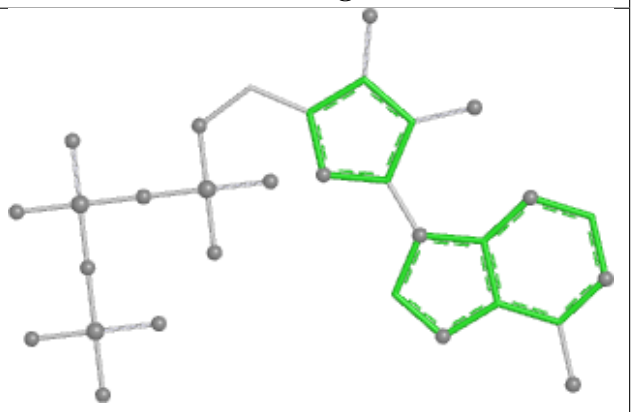
Bond lengths



Bond angles

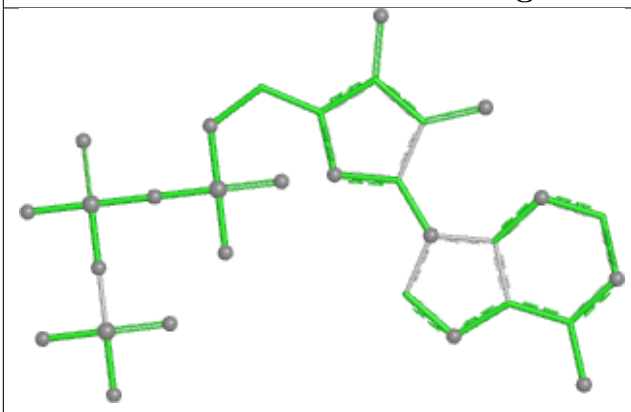


Torsions

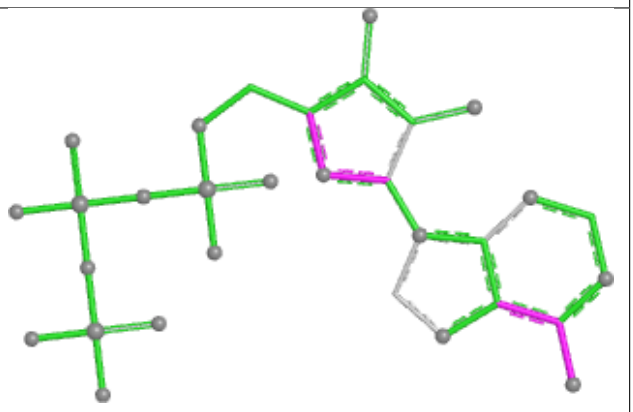


Rings

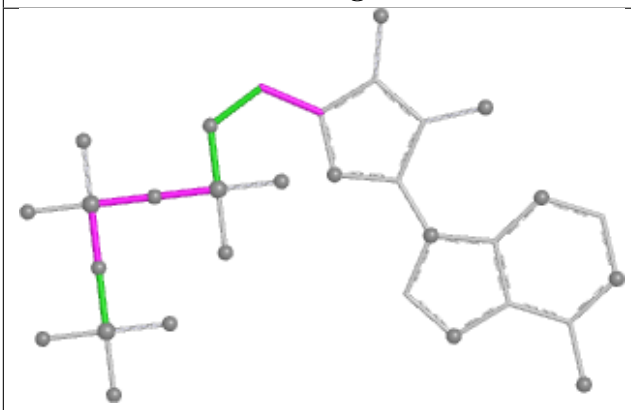
Ligand ATP B 5303



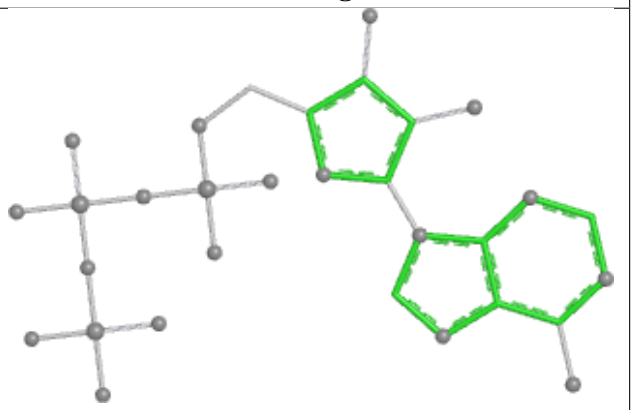
Bond lengths



Bond angles

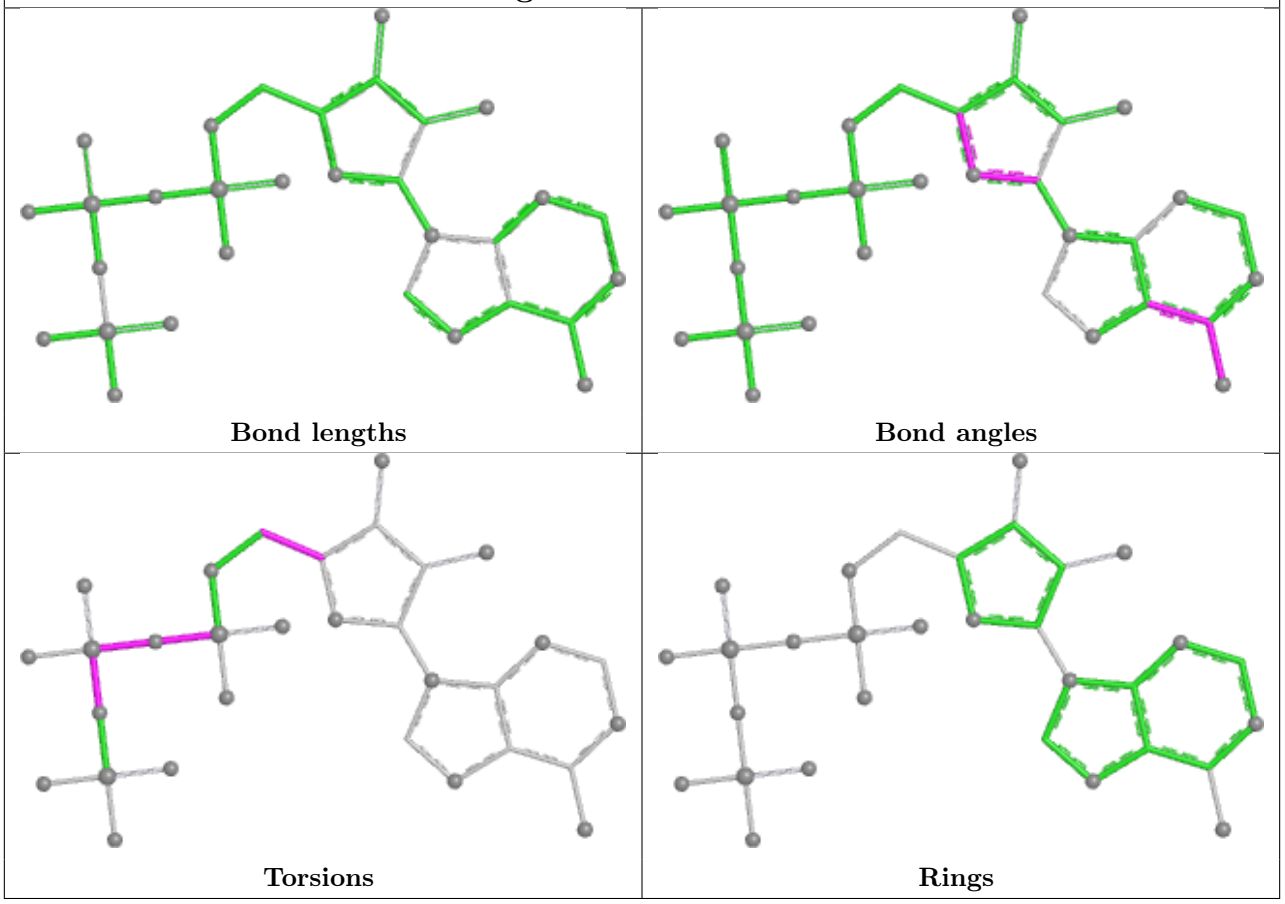


Torsions



Rings

Ligand ATP D 5303



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.

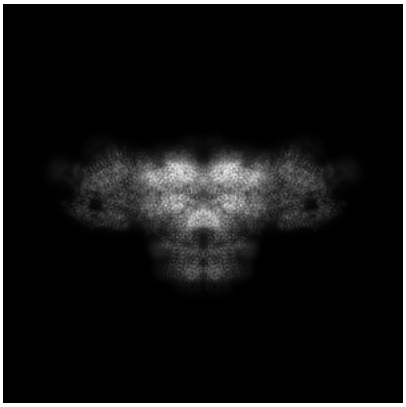
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-45117. These allow visual inspection of the internal detail of the map and identification of artifacts.

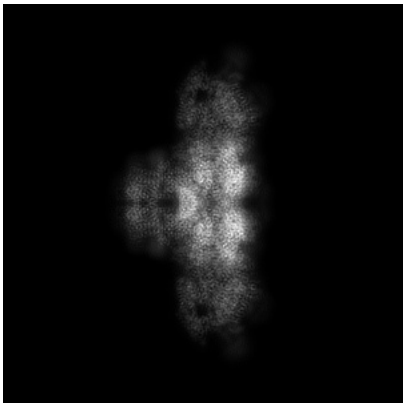
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

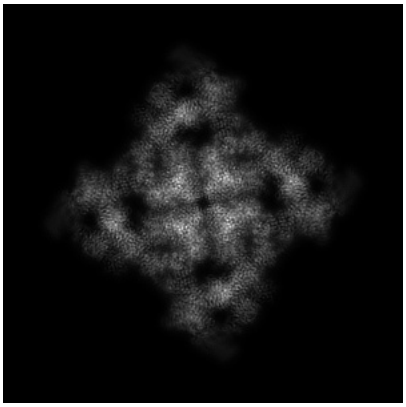
6.1.1 Primary map



X



Y

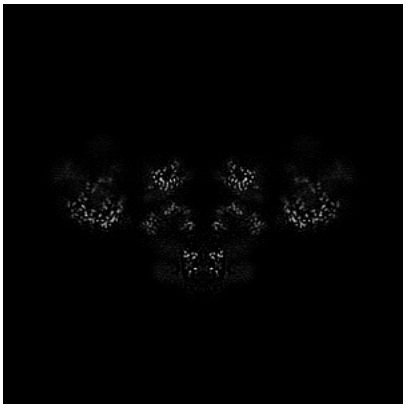


Z

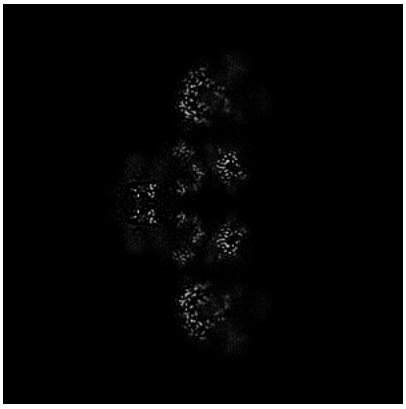
The images above show the map projected in three orthogonal directions.

6.2 Central slices

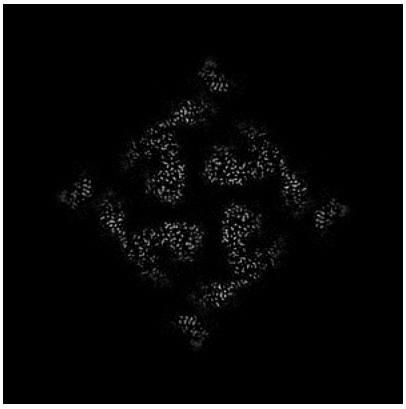
6.2.1 Primary map



X Index: 256



Y Index: 256



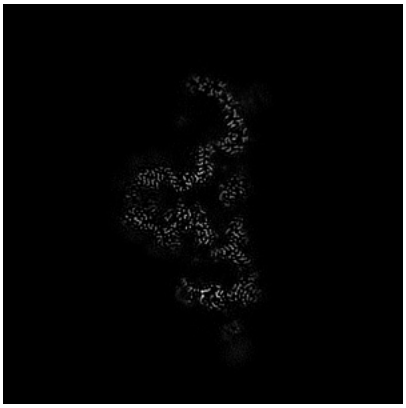
Z Index: 256

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

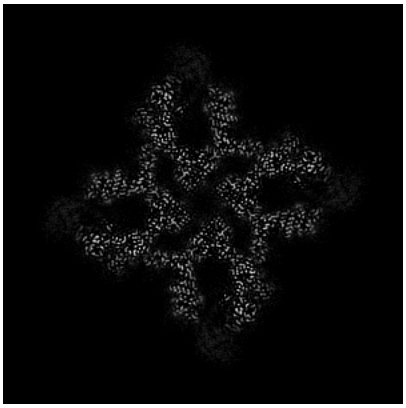
6.3 Largest variance slices (i)

6.3.1 Primary map

X Index: 284



Y Index: 228

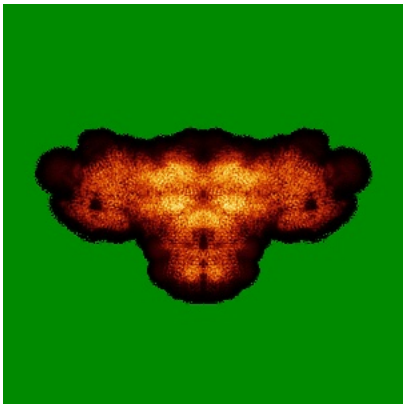


Z Index: 289

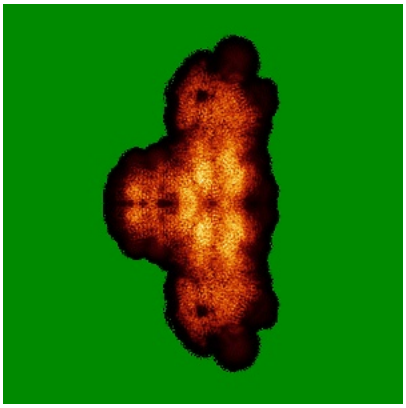
The images above show the largest variance slices of the map in three orthogonal directions.

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

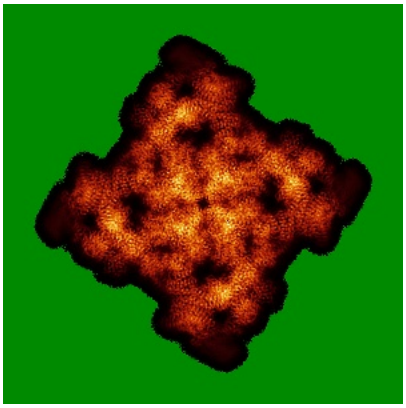
6.4.1 Primary map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.068. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

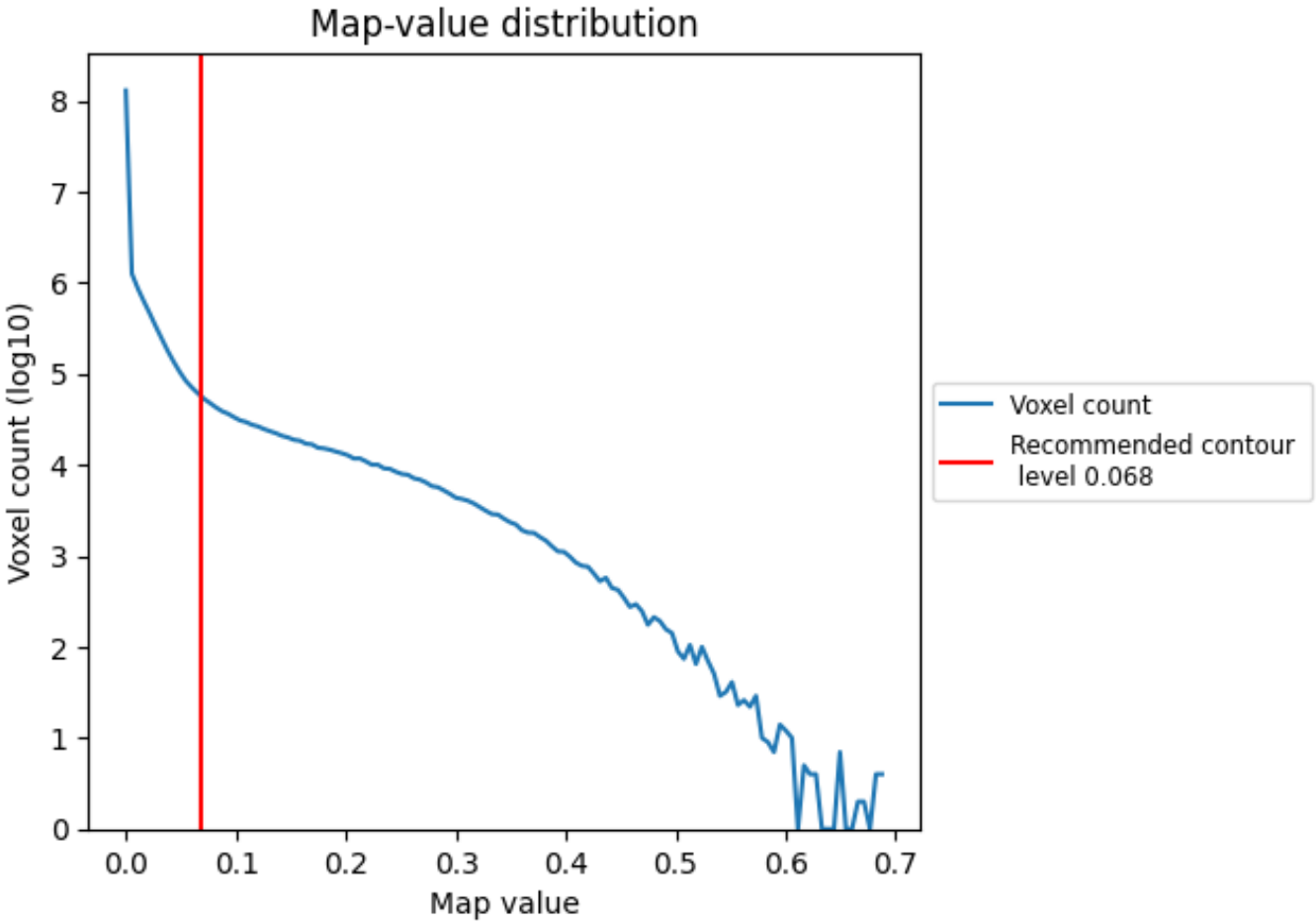
6.6 Mask visualisation (i)

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

7 Map analysis

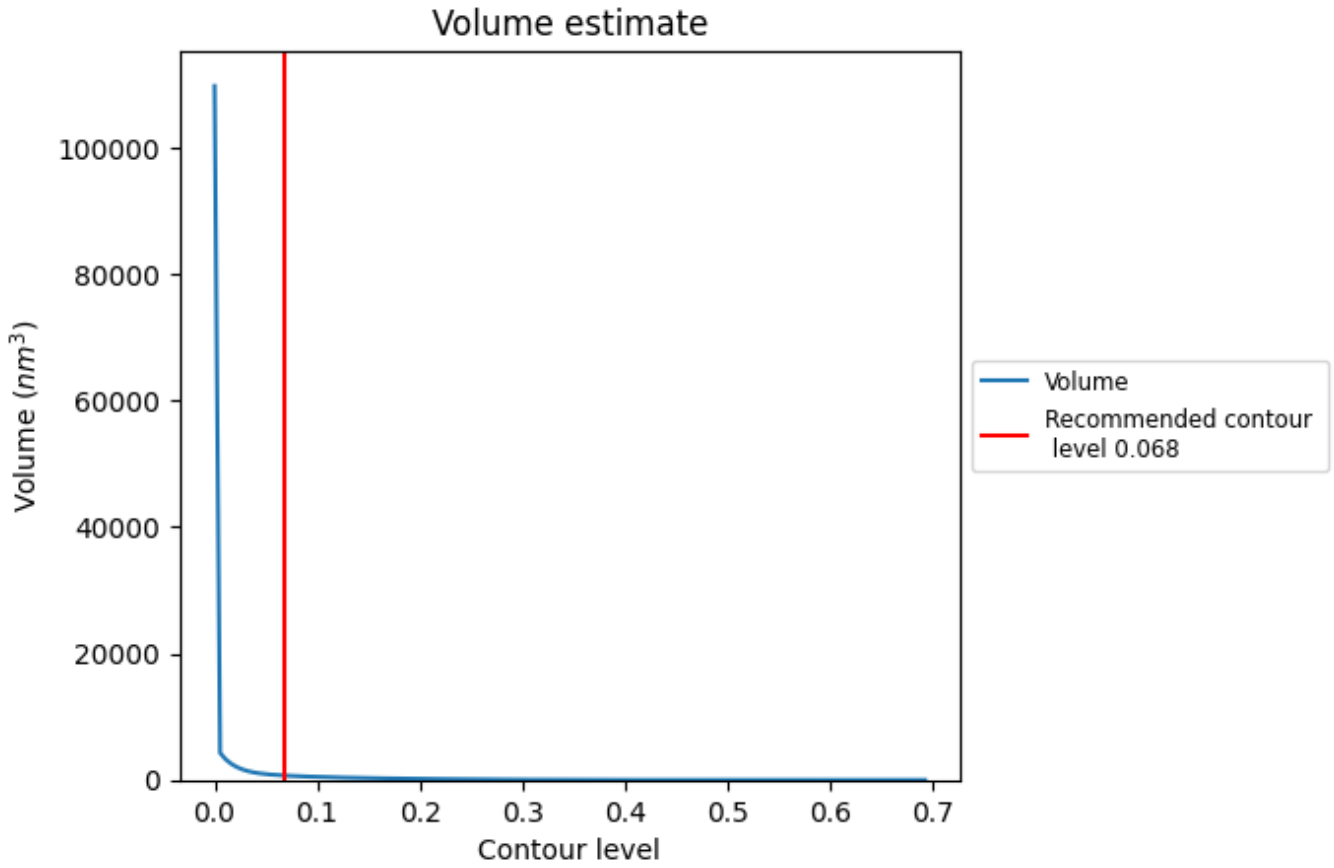
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

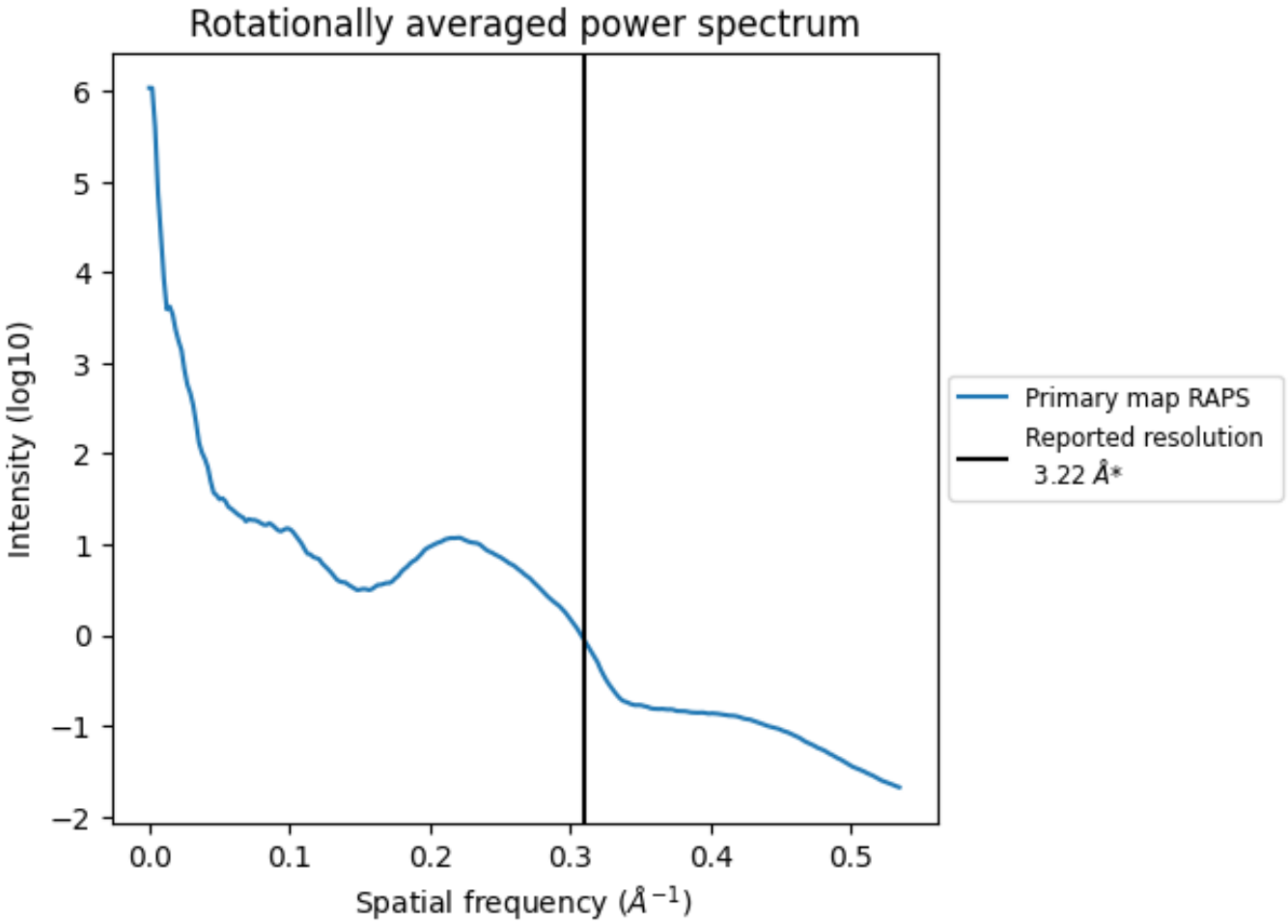
7.2 Volume estimate



The volume at the recommended contour level is 704 nm^3; this corresponds to an approximate mass of 636 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 0.311 Å^{-1}

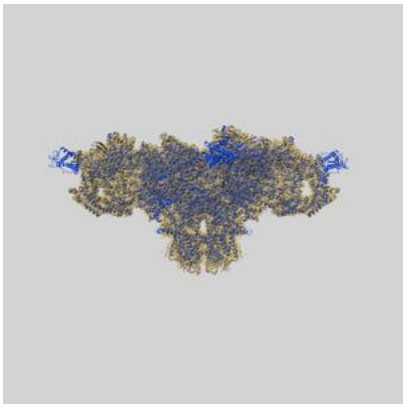
8 Fourier-Shell correlation (i)

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

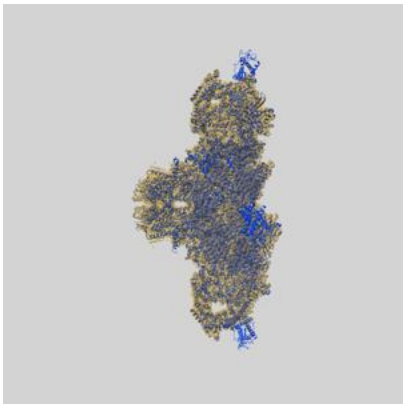
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-45117 and PDB model 9C1F. Per-residue inclusion information can be found in section 3 on page 7.

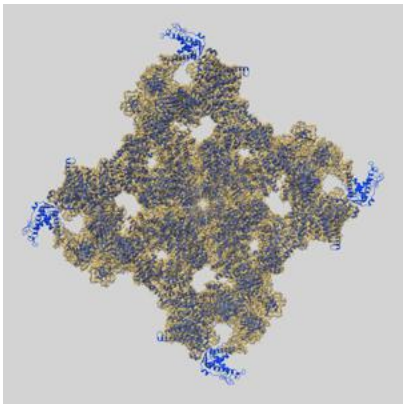
9.1 Map-model overlay



X



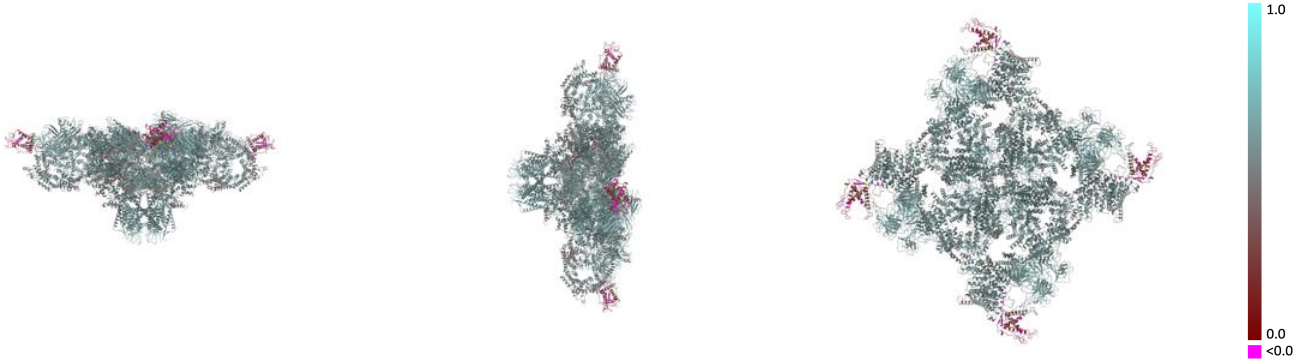
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.068 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

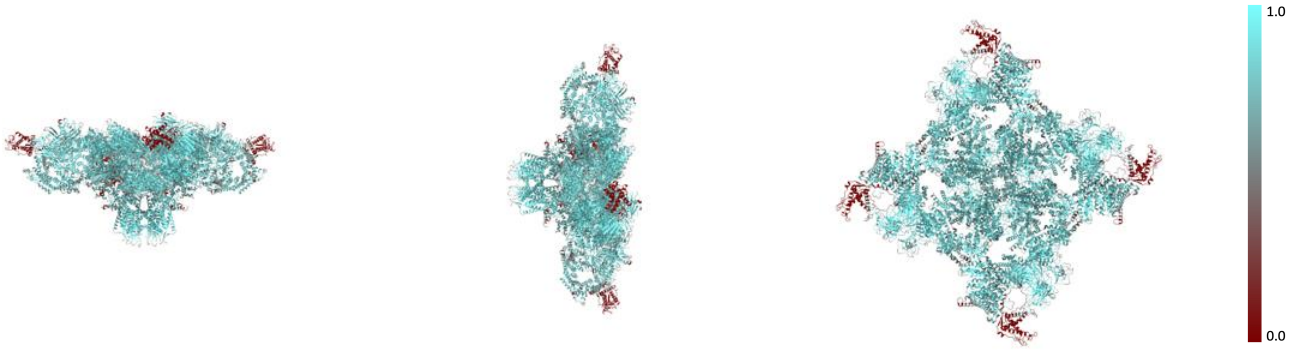
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

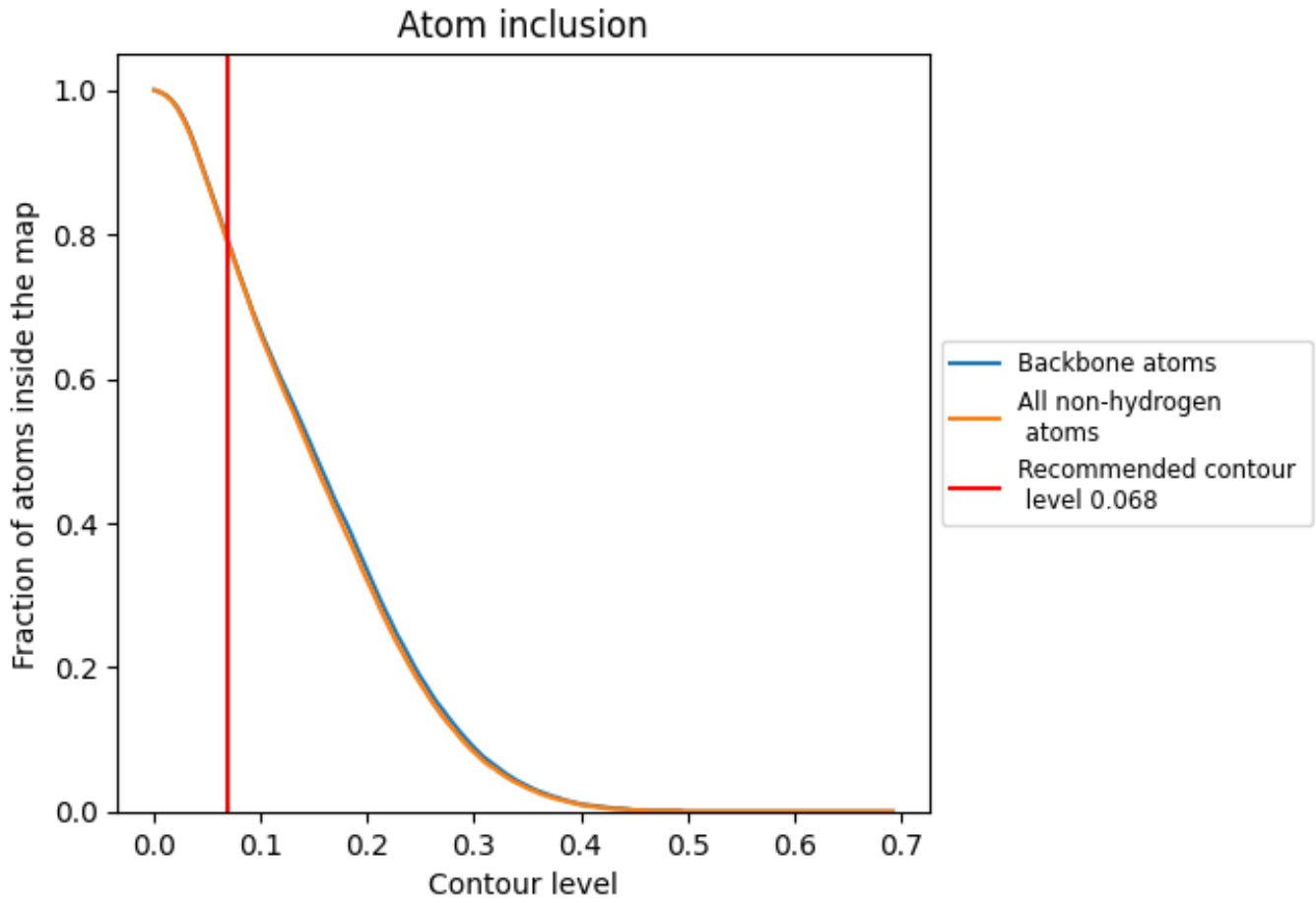
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.068).

9.4 Atom inclusion (i)



At the recommended contour level, 80% of all backbone atoms, 79% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.068) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7910	0.5530
A	0.7220	0.5760
B	0.7960	0.5520
C	0.7200	0.5720
D	0.7960	0.5520
E	0.7210	0.5720
F	0.7960	0.5520
G	0.7220	0.5740
H	0.7960	0.5520