Full wwPDB EM Validation Report ⓘ

Dec 17, 2022 – 02:51 pm GMT

PDB ID	:	6YAI
EMDB ID	:	EMD-10754
Title	:	Clathrin with bound beta2 appendage of AP2
Authors	:	Kovtun, O.; Kane Dickson, V.; Kelly, B.T.; Owen, D.; Briggs, J.A.G.
Deposited on	:	2020-03-12
Resolution	:	9.20 Å(reported)
Based on initial models	:	1E42, 6SCT, 1XI4

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:

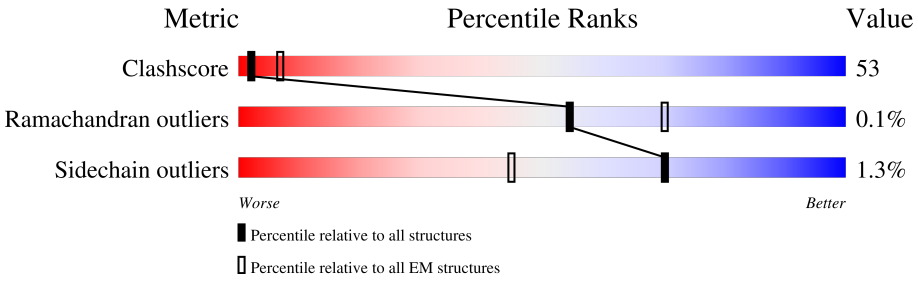
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

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 9.20 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	1630	6% 17% 77%
1	B	1630	8% 20% 71%
1	E	1630	10% 8% 36% 55%
1	H	1630	5% 10% 86%
1	J	1630	· 6% 90%
1	K	1630	5% 11% 84%
1	L	1630	10% 23% 66%
1	M	1630	9% 22% 68%

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Mol	Chain	Length	Quality of chain
2	F	233	
3	C	1630	
4	D	229	
4	I	229	
4	N	229	
4	O	229	

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 35282 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Clathrin heavy chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	E	726	Total 5740	C 3660	N 981	O 1066	S 33	0	0
1	M	518	Total 4213	C 2681	N 725	O 787	S 20	0	0
1	A	379	Total 3168	C 2037	N 528	O 584	S 19	0	0
1	B	468	Total 3744	C 2357	N 652	O 717	S 18	0	0
1	J	165	Total 1379	C 875	N 227	O 269	S 8	0	0
1	K	257	Total 2150	C 1377	N 358	O 404	S 11	0	0
1	L	548	Total 4458	C 2843	N 757	O 838	S 20	0	0
1	H	236	Total 1928	C 1239	N 327	O 353	S 9	0	0

- Molecule 2 is a protein called AP-2 complex subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	F	233	Total 1844	C 1189	N 307	O 337	S 11	0	0

- Molecule 3 is a protein called Clathrin heavy chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	513	Total 4133	C 2645	N 706	O 762	S 20	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	871	THR	GLU	conflict	UNP C0MHR2

- Molecule 4 is a protein called Clathrin light chain.

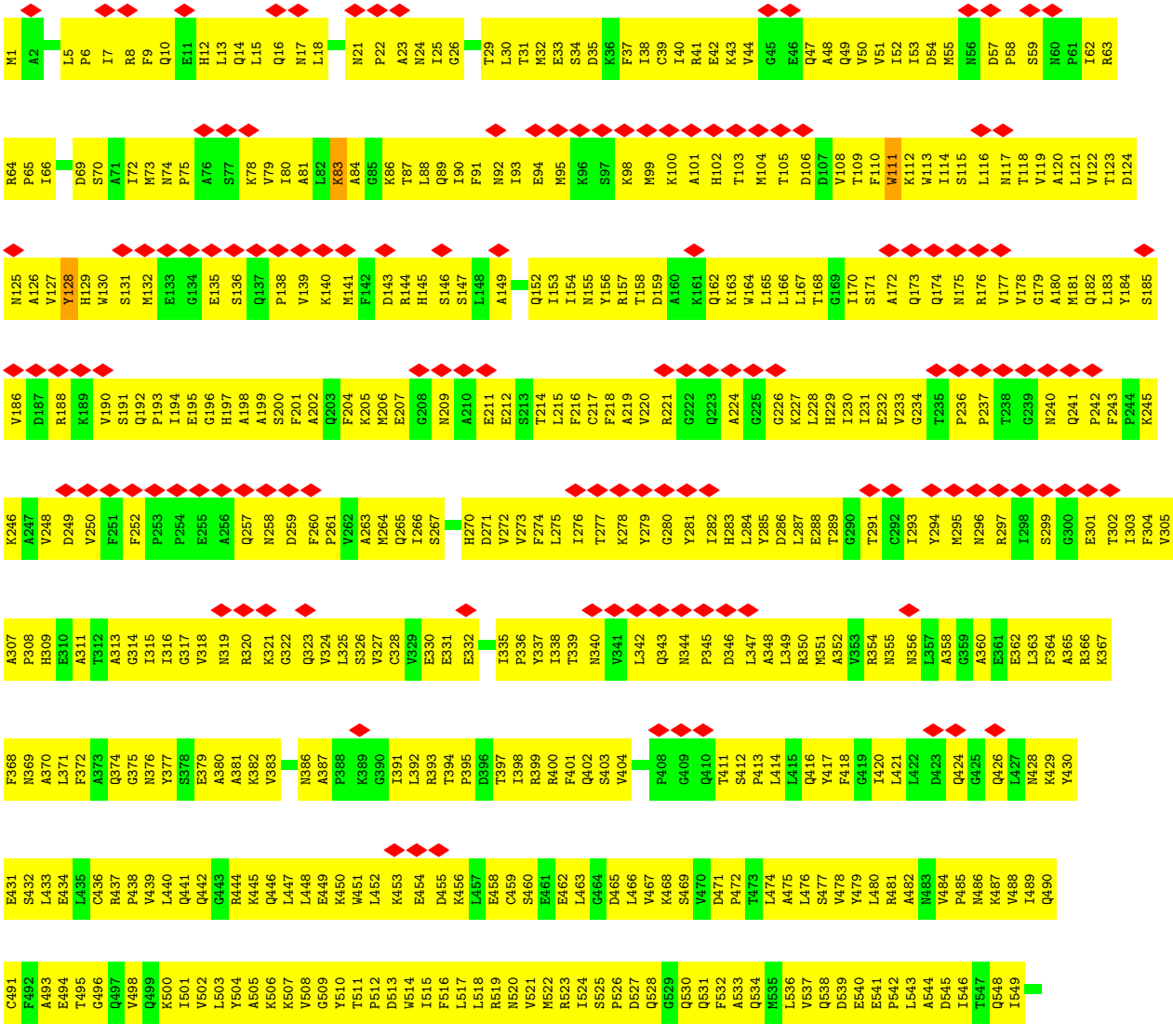
Mol	Chain	Residues	Atoms	AltConf	Trace
4	D	104	Total C N O S 875 539 165 168 3	0	0
4	O	59	Total C N O 514 312 101 101	0	0
4	I	58	Total C N O S 468 291 86 88 3	0	0
4	N	80	Total C N O S 668 412 123 130 3	0	0

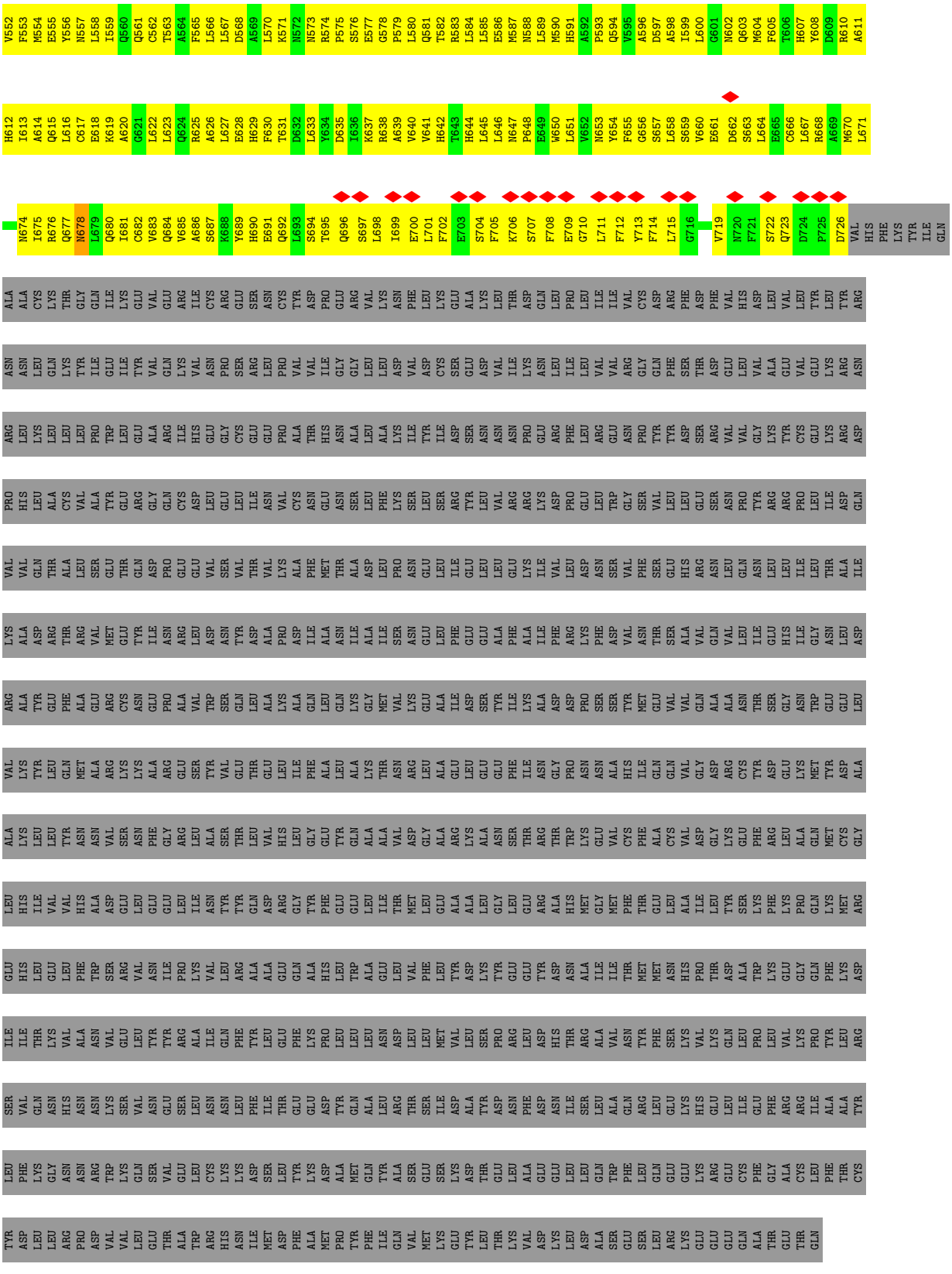
3 Residue-property plots (i)

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

- Molecule 1: Clathrin heavy chain

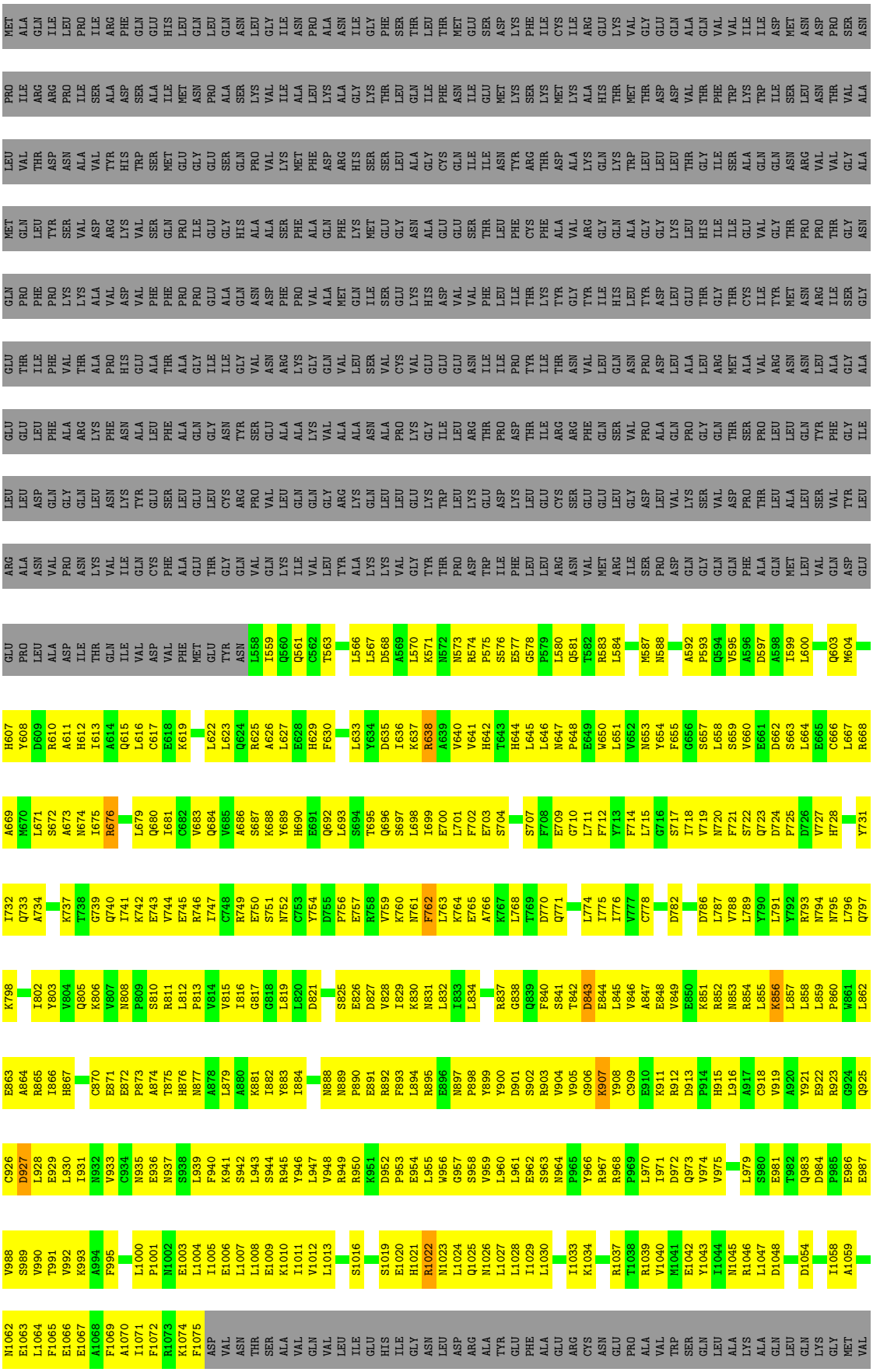
Chain E:

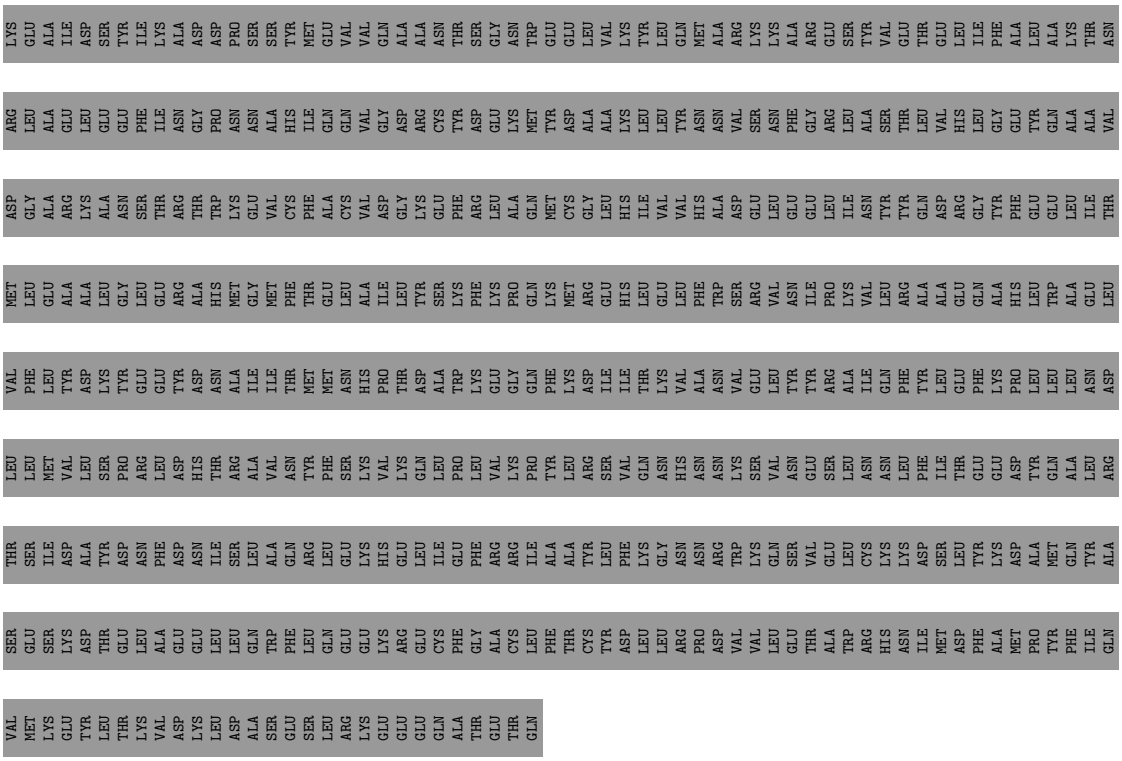




• Molecule 1: Clathrin heavy chain

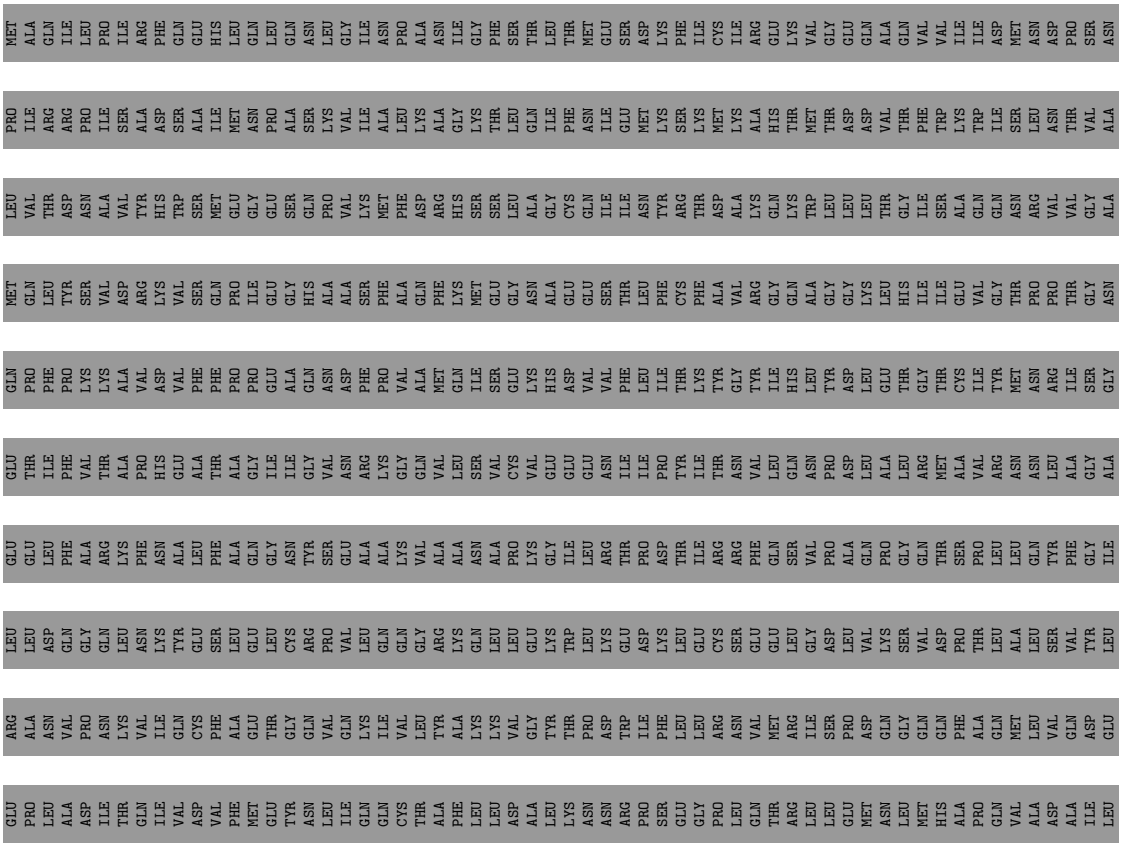
Chain M: 9% 22% 68%

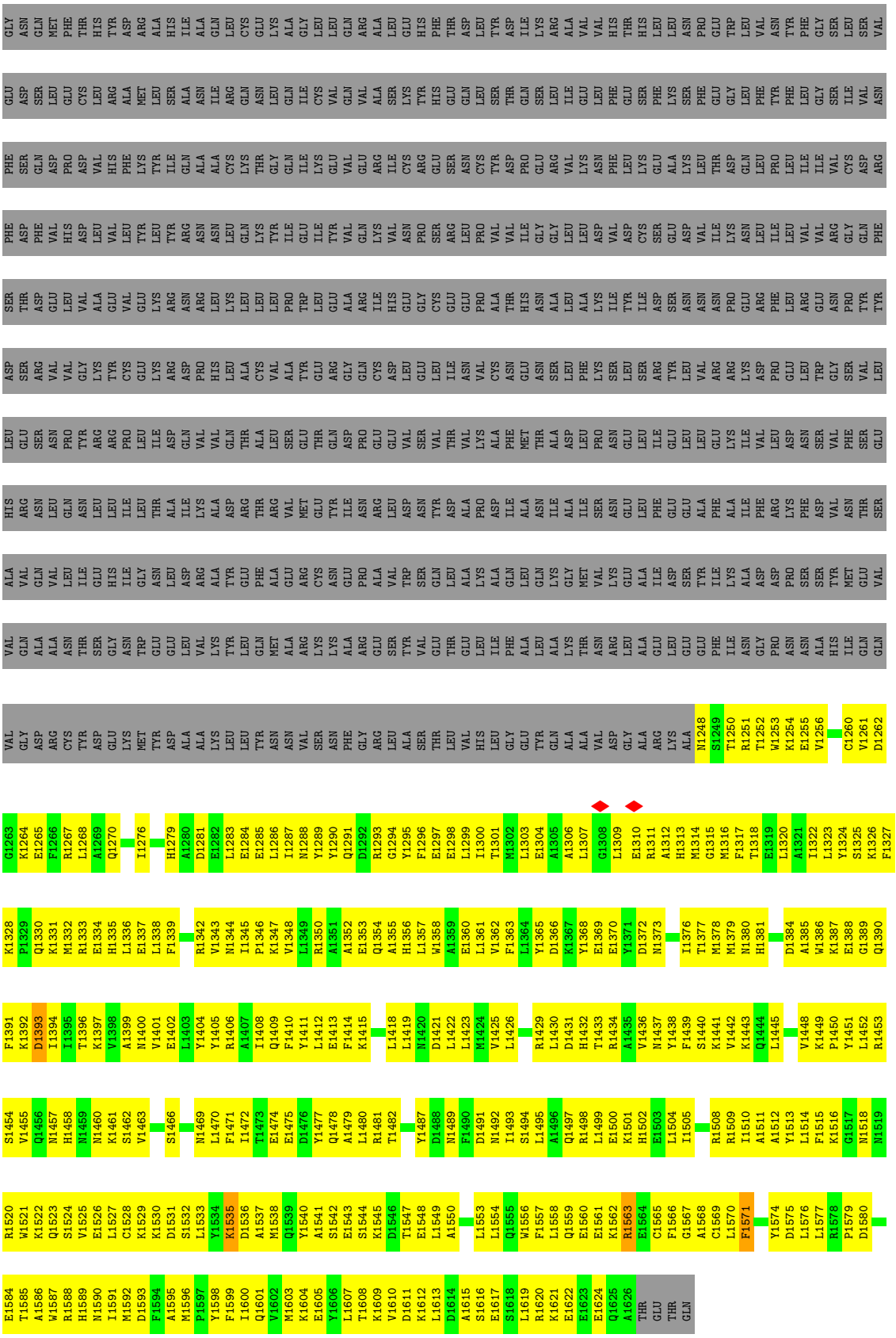




• Molecule 1: Clathrin heavy chain

Chain A: 6% 17% 77%





• Molecule 1: Clathrin heavy chain

Chain B: 8% 20% 71%

MET ALA GLN ILE LEU PRO ILE ARG PHE GLN GLU HIS LEU GLN LEU GLN ASN LEU GLY ILE ASN PRO ALA ASN ILE GLY PHE SER THR LEU THR MET GLU SER ASP LYS PHE ILE CYS ILE ARG GLU LYS VAL GLY GLN ALA GLN VAL VAL ILE ILE ASP MET ASN ASP PRO SER ASN

PRO ILE ARG ARG PRO ILE SER ALA ASP SER ALA ILE MET ASN PRO ALA SER LYS VAL ILE ALA LEU LYS ALA GLY LYS THR LEU GLN ILE PHE ASN ILE GLU MET LYS SER LYS MET LYS ALA HIS THR MET THR ASP ASP VAL THR PHE TRP LYS TRP ILE SER LEU ASN THR VAL ALA

LEU VAL THR ASP ASN ALA VAL TYR HIS TRP SER MET GLU GLY GLU SER GLN PRO VAL LYS MET PHE ASP ARG HIS SER SER LEU ALA GLY CYS GLN ILE ILE ASN TYR ARG THR ASP ALA LYS GLN LYS TRP LEU LEU LEU THR GLY ILE SER ALA GLN GLN ASN ARG VAL VAL GLY ALA

MET GLN LEU TYR SER VAL ASP ARG LYS VAL SER GLN PRO ILE GLU GLY HIS ALA ALA SER PHE ALA GLN PHE LYS MET GLU GLY ASN ALA GLU GLU SER THR LEU PHE CYS PHE ALA VAL ARG GLY GLN ALA GLY GLY LYS LEU HIS ILE ILE GLU VAL GLY THR PRO PRO THR GLY ASN

GLN PRO PHE PRO LYS LYS ALA VAL ASP VAL PHE PHE PRO PRO GLU ALA GLN ASN ASP PHE PRO VAL ALA MET GLN ILE SER GLU LYS HIS ASP VAL VAL PHE LEU ILE THR LYS TYR GLY TYR ILE HIS LEU TYR ASP LEU GLU THR GLY THR CYS ILE TYR MET ASN ARG ILE SER GLY

GLU THR ILE PHE VAL THR ALA PRO HIS GLU ALA THR ALA GLY ILE ILE GLY VAL ASN ARG LYS GLY GLN VAL LEU SER VAL CYS VAL GLU GLU GLU ASN ILE ILE PRO TYR ILE THR ASN VAL LEU GLN ASN PRO ASP LEU ALA LEU ARG MET ALA VAL ARG ASN ASN LEU ALA GLY ALA

GLU GLU LEU PHE ALA ARG LYS PHE ASN ALA LEU PHE ALA GLN GLY ASN TYR SER GLU ALA ALA LYS VAL ALA ALA ASN ALA PRO LYS GLY ILE LEU ARG THR PRO ASP THR ILE ARG ARG PHE GLN SER VAL PRO ALA GLN PRO GLY GLN THR SER PRO LEU LEU GLN TYR PHE GLY ILE

LEU LEU ASP GLN GLY GLN LEU ASN LYS TYR GLU SER LEU GLU LEU CYS ARG PRO VAL LEU GLN GLN GLY ARG LYS GLN LEU LEU GLU LYS TRP LEU LYS GLU ASP LYS LEU GLU CYS SER GLU GLU LEU GLY ASP LEU VAL LYS SER VAL ASP PRO THR LEU ALA LEU SER VAL TYR LEU

ARG ALA ASN VAL PRO ASN LYS VAL ILE GLN CYS PHE ALA GLU THR GLY GLN VAL GLN LYS ILE VAL LEU TYR ALA LYS LYS VAL GLY TYR THR PRO ASP TRP ILE PHE LEU LEU ARG ASN VAL MET ARG ILE SER PRO ASP GLN GLY GLN GLN PHE ALA GLN MET LEU VAL GLN ASP GLU

GLU PRO LEU ALA ASP ILE THR GLN ILE VAL ASP VAL PHE MET GLU TYR ASN LEU ILE GLN GLN CYS THR ALA PHE LEU LEU ASP ALA LEU LYS ASN ASN ARG PRO SER GLU GLY PRO LEU GLN THR ARG LEU LEU GLU MET ASN LEU MET HIS ALA PRO GLN VAL ALA ASP ALA ILE LEU

GLY ASN GLN MET PHE THR HIS TYR ASP ARG ALA HIS ILE ALA GLN LEU CYS GLU LYS ALA GLY LEU LEU GLN ARG ALA LEU GLU HIS PHE THR ASP LEU TYR ASP ILE LYS ARG ALA VAL VAL HIS THR HIS LEU LEU ASN PRO GLU TRP LEU VAL ASN TYR PHE GLY SER LEU SER VAL

GLU ASP SER LEU GLU CYS LEU ARG ALA MET LEU SER ALA ASN ILE ARG GLN ASN LEU GLN ILE CYS VAL GLN VAL ALA SER LYS TYR HIS GLU GLN LEU SER THR GLN SER LEU ILE GLU LEU PHE GLU SER PHE LYS SER PHE GLU GLY LEU PHE TYR PHE LEU GLY SER ILE VAL ASN

PHE SER GLN ASP PRO ASP VAL HIS PHE LYS TYR ILE GLN ALA ALA CYS LYS THR GLY GLN ILE LYS GLU VAL GLU ARG ILE CYS ARG GLU SER ASN CYS TYR ASP PRO GLU ARG VAL LYS ASN PHE LEU LYS GLU ALA LYS LEU THR ASP GLN LEU PRO LEU ILE ILE VAL CYS ASP ARG

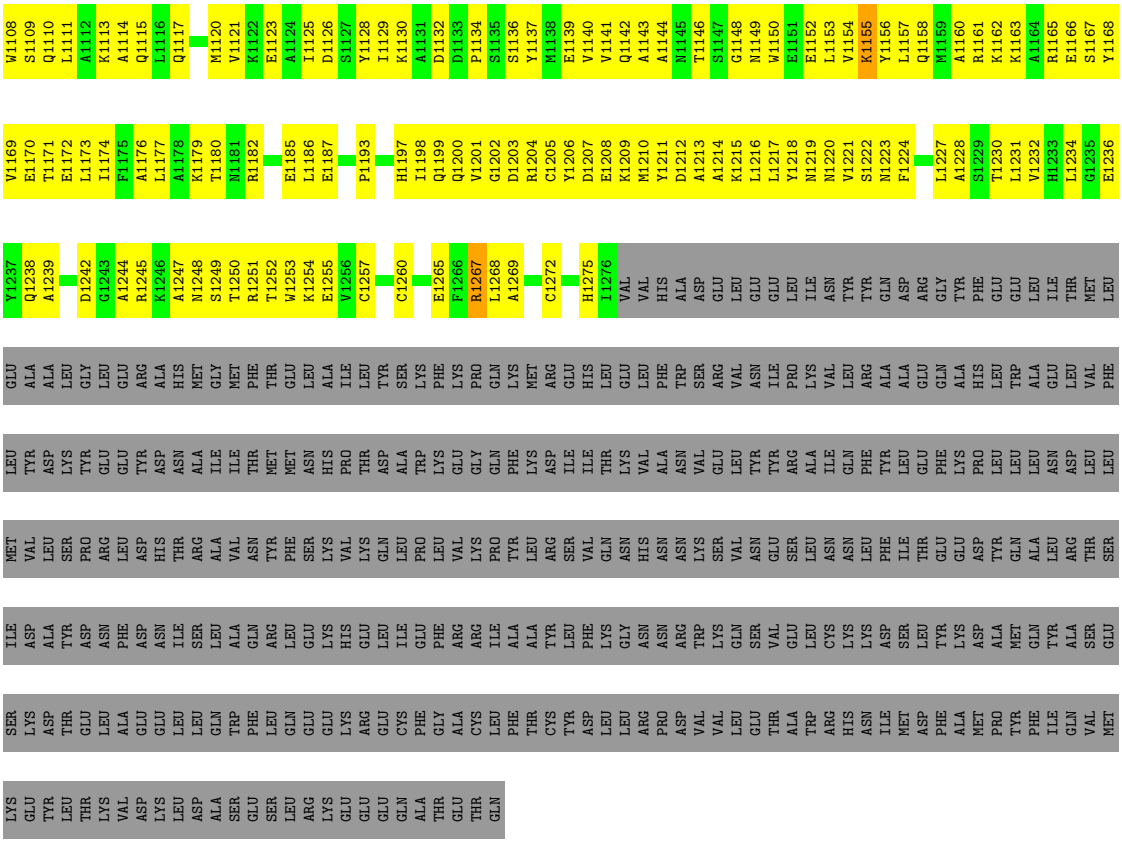
PHE ASP PHE VAL HIS ASP LEU VAL LEU TYR LEU TYR ARG ASN ASN LEU GLN LYS TYR ILE GLU ILE TYR VAL GLN LYS VAL ASN P809 S810 R811 L812 P813 V814 V815 I816 L819 L820 D821 V822 D823 E826 D827 V828 I829 K830 N831 L832 I833 Q839 F840 S841 T842 D843 E844 L845 V846

A847 E848 V849 E850 K851 R852 N853 R854 L855 K856 L857 L858 L859 P860 W861 L862 E863 A864 R865 I866 H867 E871 E872 P873 A874 T875 H876 N877 A878 L879 A880 K881 I882 Y883 I884 D885 S886 N887 N888 N889 P890 E891 R892 F893 L894 R895 E896 N897 Y900 D901 S902 R903 V904 V905 G906 K907 Y908 C909

E910 K911 R912 D913 P914 H915 L916 A917 C918 V919 A920 Y921 E922 R923 G924 Q925 C926 D927 L928 E929 L930 I931 N932 V933 C934 N935 E936 N937 F940 K941 S942 L943 S944 R945 Y946 L947 V948 D952 P953 E954 L955 W956 G957 S958 V959 L960 L961 E962 S963 N964 P965 Y966 R967 R968 P969 L970 I971 D972

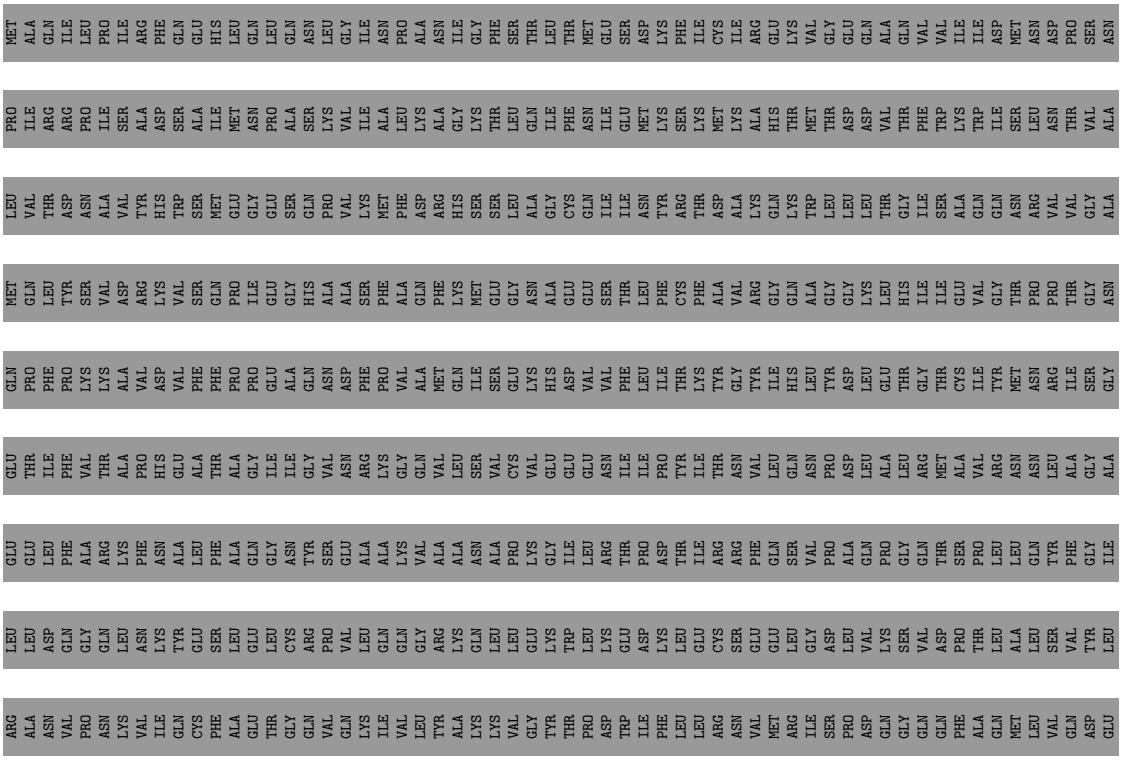
Q973 V974 V975 Q976 T977 A978 L979 D984 P985 E986 E987 V988 S989 V990 T991 V992 K993 A994 F995 M996 L1000 P1001 N1002 E1003 L1004 I1005 E1006 L1007 L1008 E1009 K1010 I1011 V1012 L1013 F1018 S1019 E1020 H1021 R1022 N1023 L1024 Q1025 N1026 L1027 L1028 I1029 L1030 T1031 A1032 I1033 K1034 A1035 D1036 R1037 T1038 R1039 V1040

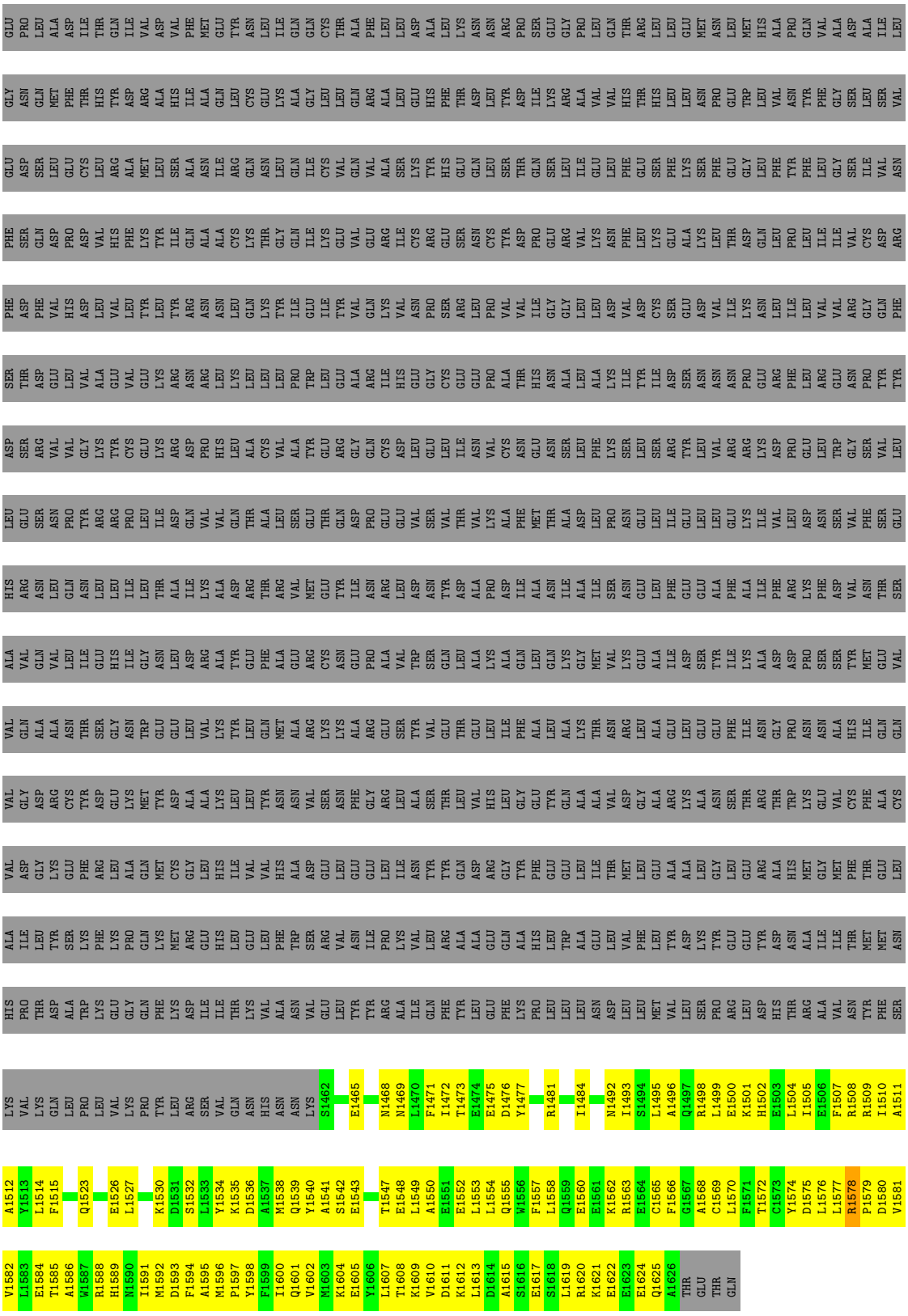
M1041 E1042 Y1043 I1044 N1045 R1046 L1047 D1048 N1049 Y1050 D1051 A1052 P1053 D1054 I1055 A1056 N1057 I1058 A1059 I1060 E1063 E1067 A1068 F1069 A1070 I1071 F1072 R1073 K1074 F1075 D1076 T1079 S1080 A1081 V1082 Q1083 V1084 L1085 I1086 E1087 H1088 I1089 G1090 N1091 L1092 A1095 Y1096 E1097 R1101 C1102 N1103 E1104 P1105 A1106 V1107



- Molecule 1: Clathrin heavy chain

Chain J: 6% 90%





• Molecule 1: Clathrin heavy chain

Chain K: 5% 11% 84%

MET ALA GLN ILE LEU PRO ILE ARG PHE GLN GLU HIS LEU GLN LEU GLN ASN LEU GLY ILE ASN PRO ALA ASN ILE GLY PHE SER THR LEU THR MET GLU SER ASP LYS PHE ILE CYS ILE ARG GLU LYS VAL GLY GLU GLN ALA GLN VAL VAL ILE ILE ASP MET ASN ASP PRO SER ASN

PRO ILE ARG ARG PRO ILE SER ALA ASP SER ALA ILE MET ASN PRO ALA SER LYS VAL ILE ALA LEU LYS ALA GLY LYS THR LEU GLN ILE PHE ASN ILE GLU MET LYS SER LYS MET LYS ALA HIS THR MET THR ASP ASP VAL THR PHE TRP LYS TRP ILE SER LEU ASN THR VAL ALA

LEU VAL THR ASP ASN ALA VAL TYR HIS TRP SER MET GLU GLY GLU SER GLN PRO VAL LYS MET PHE ASP ARG HIS SER SER LEU ALA GLY CYS GLN ILE ILE ASN TYR ARG THR ASP ALA LYS GLN LYS TRP LEU LEU LEU THR GLY ILE SER ALA GLN GLN ASN ARG VAL VAL GLY ALA

MET GLN LEU TYR SER VAL ASP ARG LYS VAL SER GLN PRO ILE GLU GLY HIS ALA ALA SER PHE ALA GLN PHE LYS MET GLU GLY ASN ALA GLU GLU SER THR LEU PHE CYS PHE ALA VAL ARG GLY GLN ALA GLY GLY LYS LEU HIS ILE ILE GLU VAL GLY THR PRO PRO THR GLY ASN

GLN PRO PHE PRO LYS LYS ALA VAL ASP VAL PHE PHE PRO PRO GLU ALA GLN ASN ASP PHE PRO VAL ALA MET GLN ILE SER GLU LYS HIS ASP VAL VAL PHE LEU ILE THR LYS TYR GLY TYR ILE HIS LEU TYR ASP LEU GLU THR GLY THR CYS ILE TYR MET ASN ARG ILE SER GLY

GLU THR ILE PHE VAL THR ALA PRO HIS GLU ALA THR ALA GLY ILE ILE GLY VAL ASN ARG LYS GLY GLN VAL LEU SER VAL CYS VAL GLU GLU GLU ASN ILE ILE PRO TYR ILE THR ASN VAL LEU GLN ASN PRO ASP LEU ALA LEU ARG MET ALA VAL ARG ASN ASN LEU ALA GLY ALA

GLU GLU LEU PHE ALA ARG LYS PHE ASN ALA LEU PHE ALA GLN GLY ASN TYR SER GLU ALA ALA LYS VAL ALA ALA ASN ALA PRO LYS GLY ILE LEU ARG THR PRO ASP THR ILE ARG ARG PHE GLN SER VAL PRO ALA GLN PRO GLY GLN THR SER PRO LEU LEU GLN TYR PHE GLY ILE

LEU LEU ASP GLN GLY GLN LEU ASN LYS TYR GLU SER LEU GLU LEU CYS ARG PRO VAL LEU GLN GLN GLY ARG LYS GLN LEU LEU GLU LYS TRP LEU LYS GLU ASP LYS LEU GLU CYS SER GLU GLU LEU GLY ASP LEU VAL LYS SER VAL ASP PRO THR LEU ALA LEU SER VAL TYR LEU

ARG ALA ASN VAL PRO ASN LYS VAL ILE GLN CYS PHE ALA GLU THR GLY GLN VAL GLN LYS ILE VAL LEU TYR ALA LYS LYS VAL GLY TYR THR PRO ASP TRP ILE PHE LEU LEU ARG ASN VAL MET ARG ILE SER PRO ASP GLN GLY GLN GLN PHE ALA GLN MET LEU VAL GLN ASP GLU

GLU PRO LEU ALA ASP ILE THR GLN ILE VAL ASP VAL PHE MET GLU TYR ASN LEU ILE GLN GLN CYS THR ALA PHE LEU LEU ASP ALA LEU LYS ASN ASN ARG PRO SER GLU GLY PRO LEU GLN THR ARG LEU LEU GLU MET ASN LEU MET HIS ALA PRO GLN VAL ALA ASP ALA ILE LEU

GLY ASN GLN MET PHE THR HIS TYR ASP ARG ALA HIS ILE ALA GLN LEU CYS GLU LYS ALA GLY LEU LEU GLN ARG ALA LEU GLU HIS PHE THR ASP LEU TYR ASP ILE LYS ARG ALA VAL VAL HIS THR HIS LEU LEU ASN PRO GLU TRP LEU VAL ASN TYR PHE GLY SER LEU SER VAL

GLU ASP SER LEU GLU CYS LEU ARG ALA MET LEU SER ALA ASN ILE ARG GLN ASN LEU GLN ILE CYS VAL GLN VAL ALA SER LYS TYR HIS GLU GLN LEU SER THR GLN SER LEU ILE GLU LEU PHE GLU SER PHE LYS SER PHE GLU GLY LEU PHE TYR PHE LEU GLY SER ILE VAL ASN

PHE SER GLN ASP PRO ASP VAL HIS PHE LYS TYR ILE GLN ALA ALA CYS LYS THR GLY GLN ILE LYS GLU VAL GLU ARG ILE CYS ARG GLU SER ASN CYS TYR ASP PRO GLU ARG VAL LYS ASN PHE LEU LYS GLU ALA LYS LEU THR ASP GLN LEU PRO LEU ILE ILE VAL CYS ASP ARG

PHE ASP PHE VAL HIS ASP LEU VAL LEU TYR LEU TYR ARG ASN ASN LEU GLN LYS TYR ILE GLU ILE TYR VAL GLN LYS VAL ASN PRO SER ARG LEU PRO VAL VAL ILE GLY GLY LEU LEU ASP VAL ASP CYS SER GLU ASP VAL ILE LYS ASN LEU ILE LEU VAL VAL ARG GLY GLN PHE

SER THR ASP GLU LEU VAL ALA GLU VAL GLU LYS ARG ASN ARG LEU LYS LEU LEU LEU PRO TRP LEU GLU ALA ARG ILE HIS GLU GLY CYS GLU GLU PRO ALA THR HIS ASN ALA LEU ALA LYS ILE TYR ILE ASP SER ASN ASN ASN PRO GLU ARG PHE LEU ARG GLU ASN PRO TYR TYR

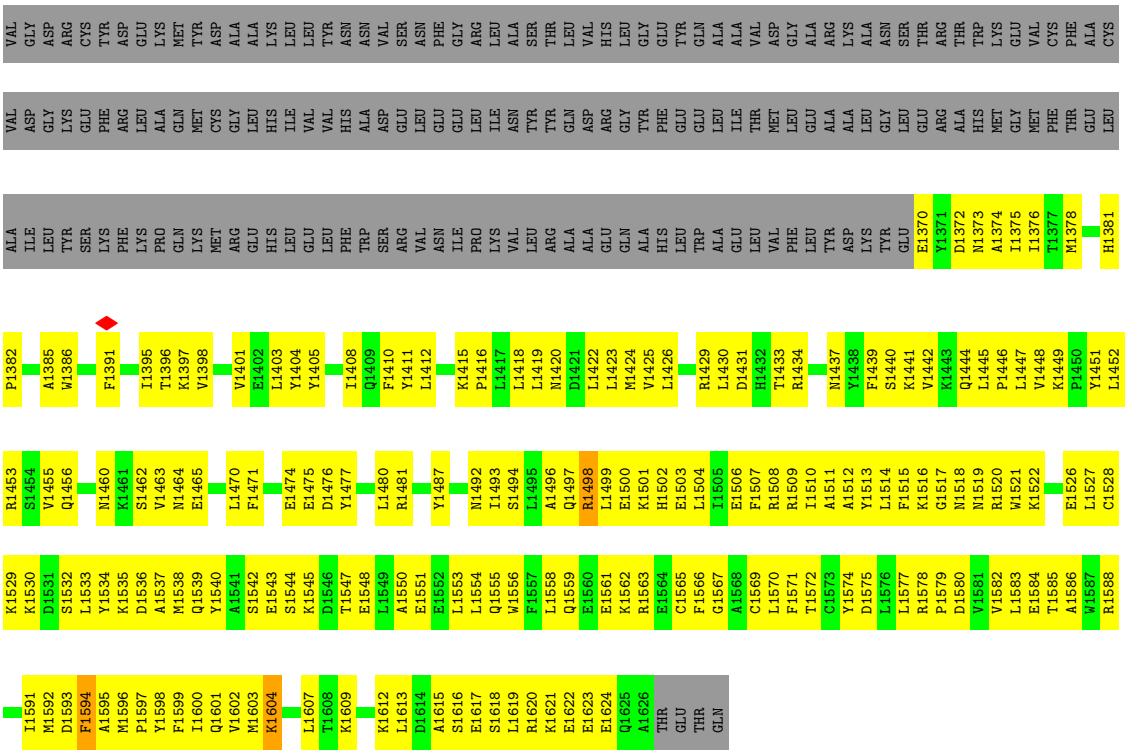
ASP SER ARG VAL VAL GLY LYS TYR CYS GLU LYS ARG ASP PRO HIS LEU ALA CYS VAL ALA TYR GLU ARG GLY GLN CYS ASP LEU GLU LEU ILE ASN VAL CYS ASN GLU ASN SER LEU PHE LYS SER LEU SER ARG TYR LEU VAL ARG ARG LYS ASP PRO GLU LEU TRP GLY SER VAL LEU

LEU GLU SER ASN PRO TYR ARG ARG PRO LEU ILE ASP GLN VAL VAL GLN THR ALA LEU SER GLU THR GLN ASP PRO GLU GLU VAL SER VAL THR VAL LYS ALA PHE MET THR ALA ASP LEU PRO ASN GLU LEU ILE GLU LEU LEU GLU LYS ILE VAL LEU ASP ASN SER VAL PHE SER GLU

HIS ARG ASN LEU GLN ASN LEU LEU ILE LEU THR ALA ILE LYS ALA ASP ARG THR ARG VAL MET GLU TYR ILE ASN ARG LEU ASP ASN TYR ASP ALA PRO ASP ILE ALA ASN ILE ALA ILE SER ASN GLU LEU PHE GLU GLU ALA PHE ALA ILE PHE ARG LYS PHE ASP VAL ASN THR SER

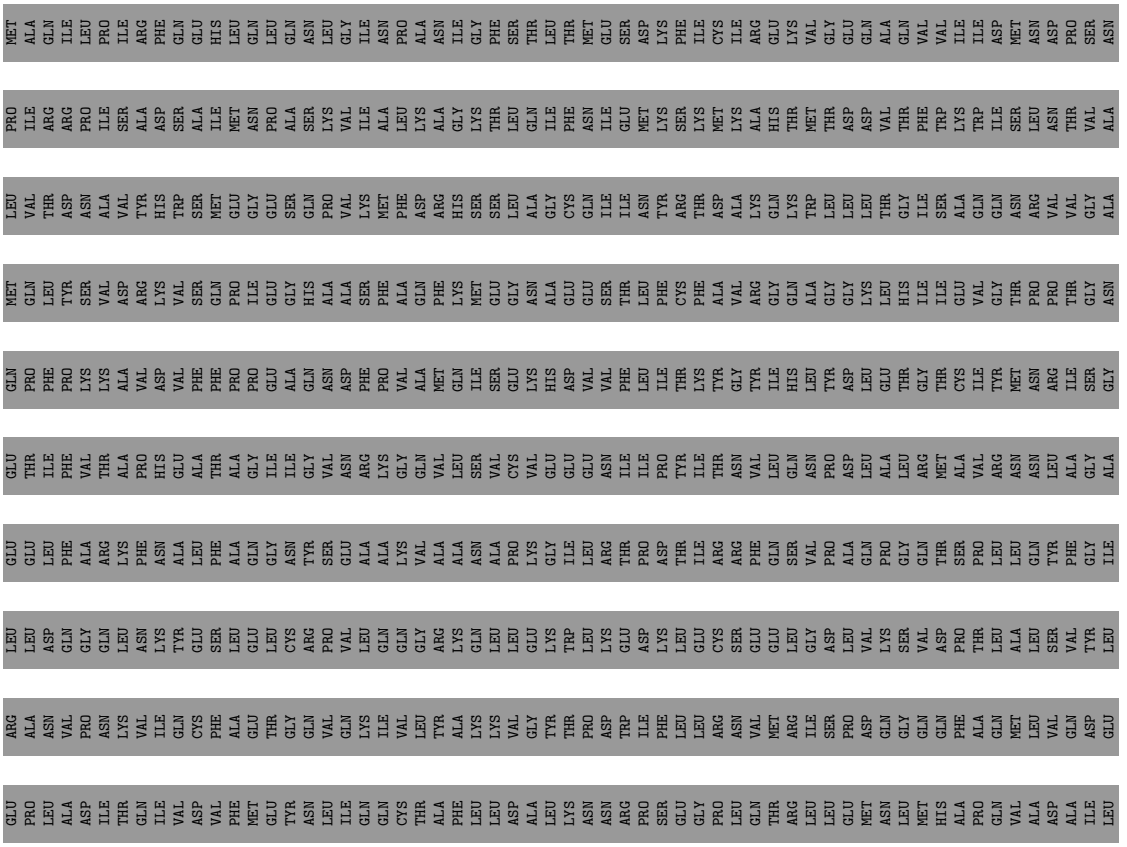
ALA VAL GLN VAL LEU ILE GLU HIS ILE GLY ASN LEU ASP ARG ALA TYR GLU PHE ALA GLU ARG CYS ASN GLU PRO ALA VAL TRP SER GLN LEU ALA LYS ALA GLN LEU GLN LYS GLY MET VAL LYS GLU ALA ILE ASP SER TYR ILE LYS ALA ASP ASP PRO SER SER TYR MET GLU VAL

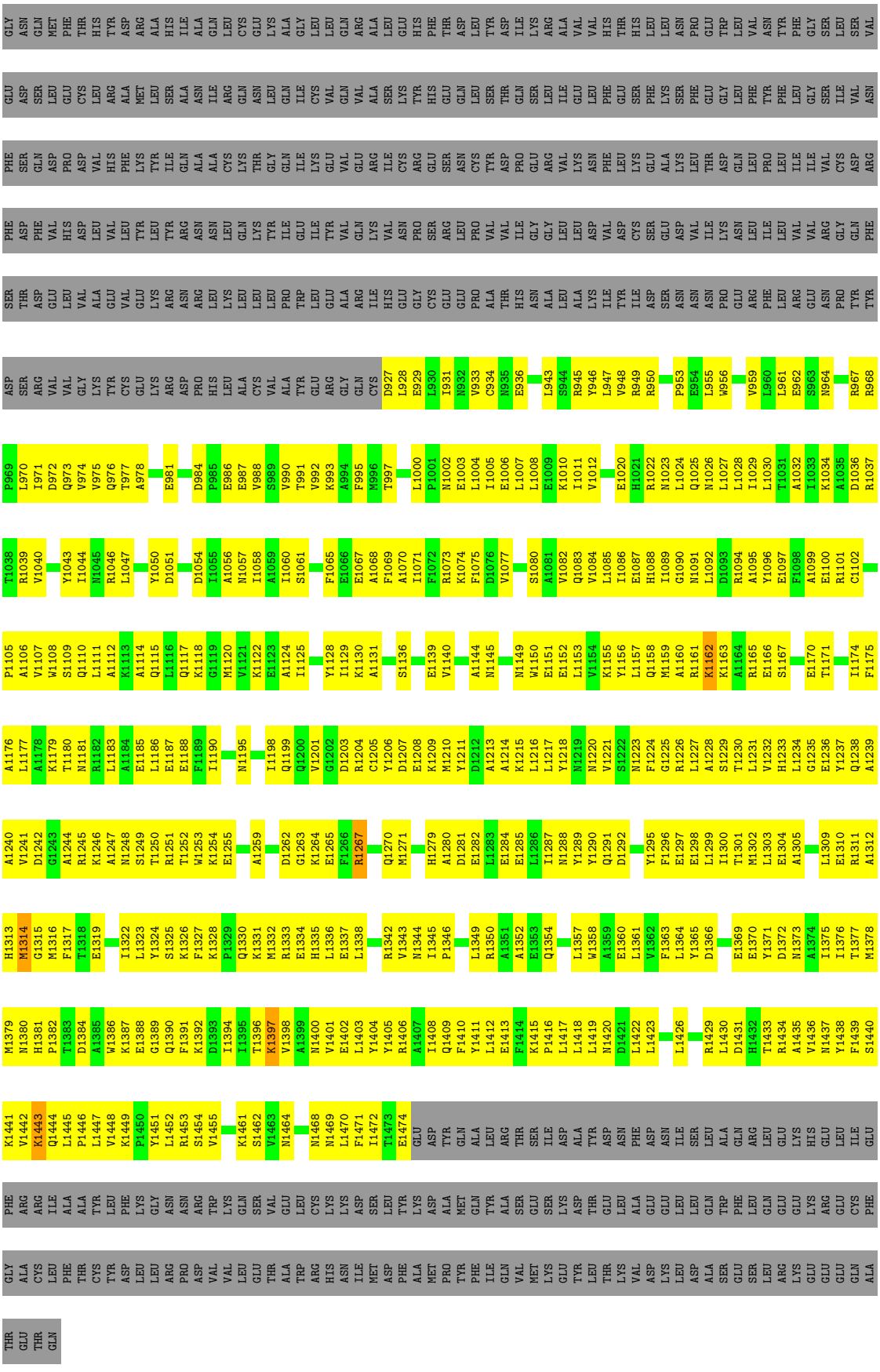
VAL GLN ALA ALA ASN THR SER GLY ASN TRP GLU GLU LEU VAL LYS TYR LEU GLN MET ALA ARG LYS LYS ALA ARG GLU SER TYR VAL GLU THR GLU LEU ILE PHE ALA LEU ALA LYS THR ASN ARG LEU ALA GLU LEU GLU GLU PHE ILE ASN GLY PRO ASN ASN ALA HIS ILE GLN GLN



• Molecule 1: Clathrin heavy chain

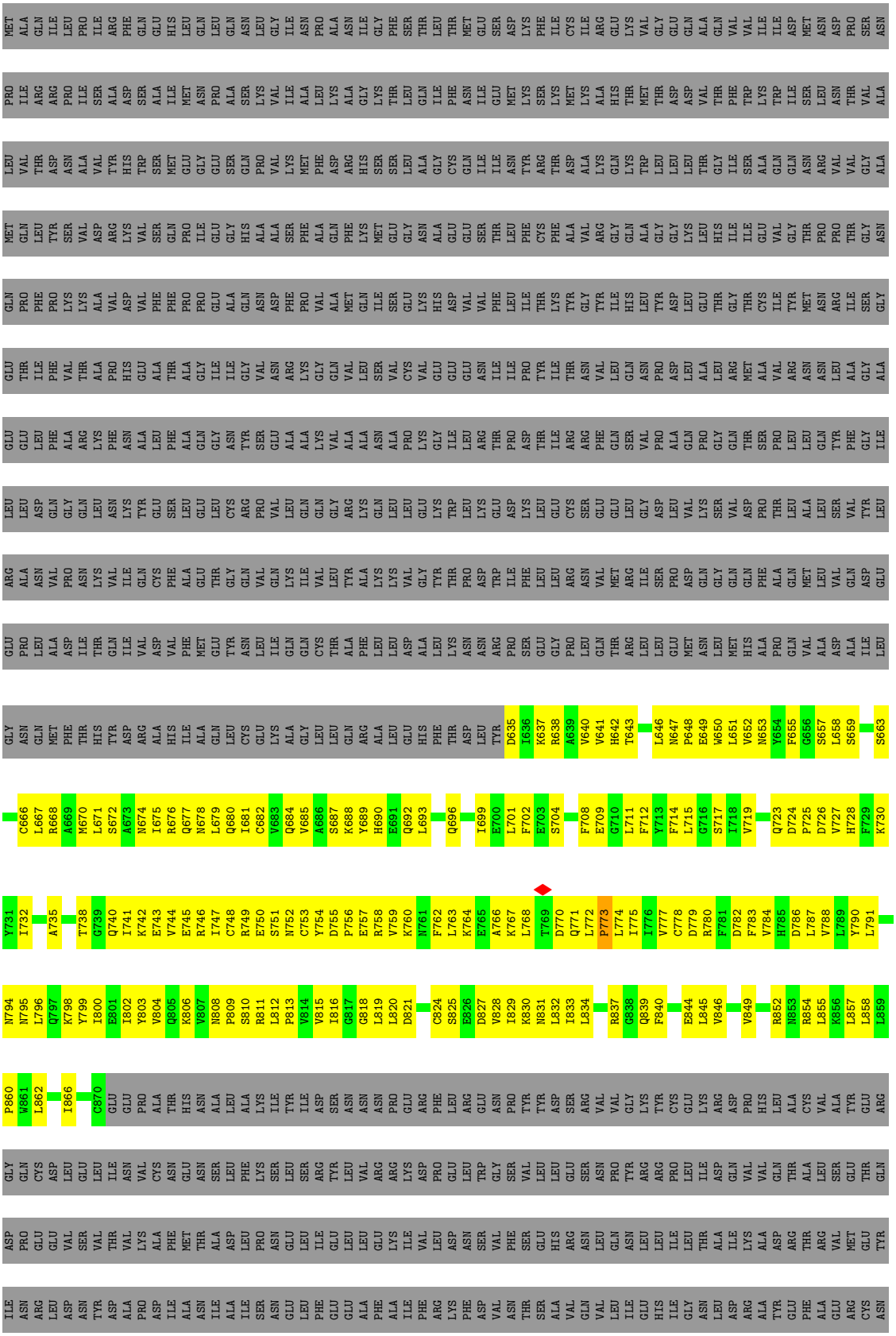
Chain L: 10% 23% 66%

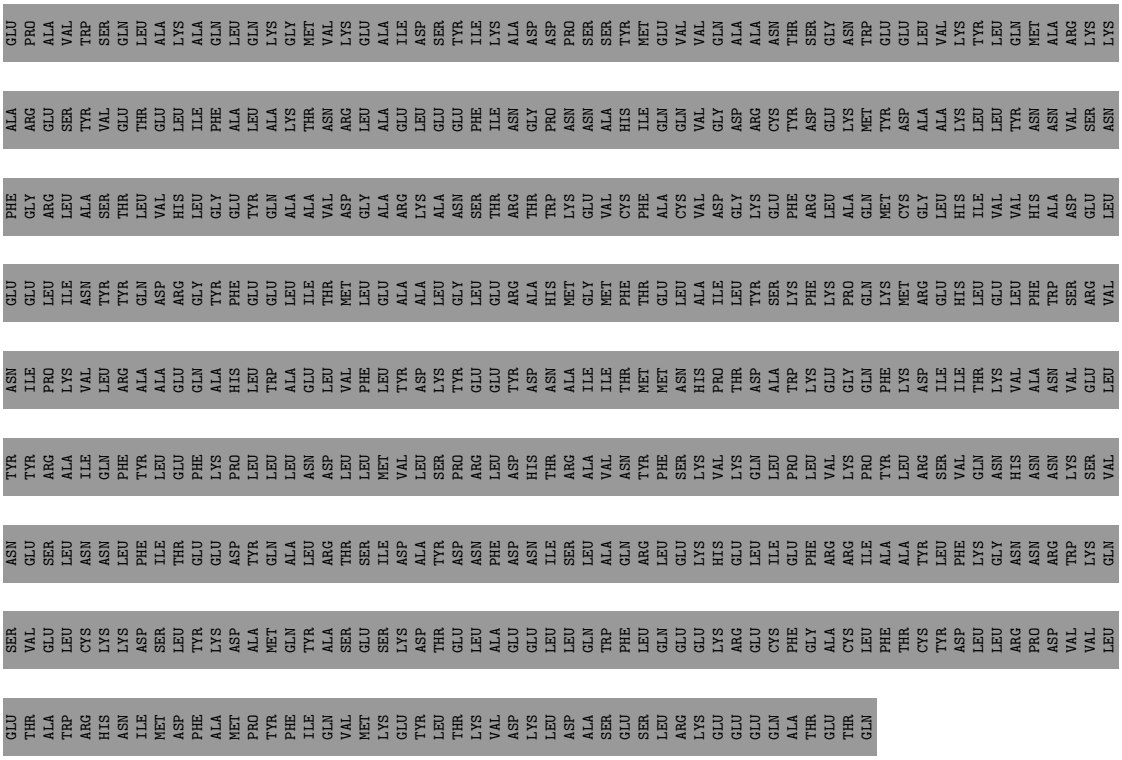




- Molecule 1: Clathrin heavy chain

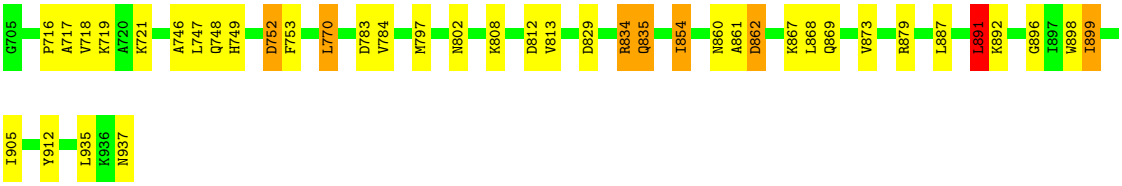
Chain H: 5% 10% 86%





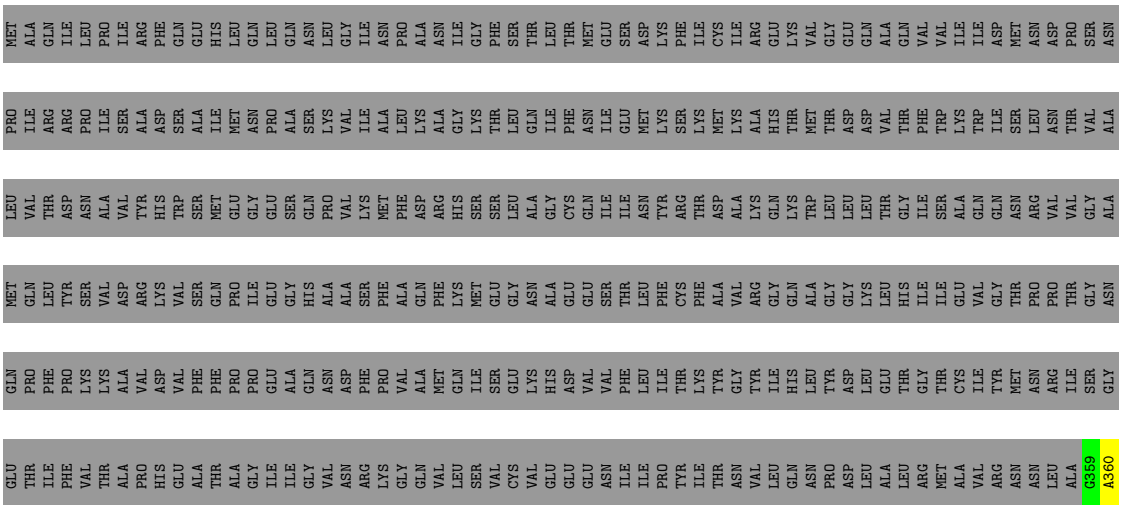
• Molecule 2: AP-2 complex subunit beta

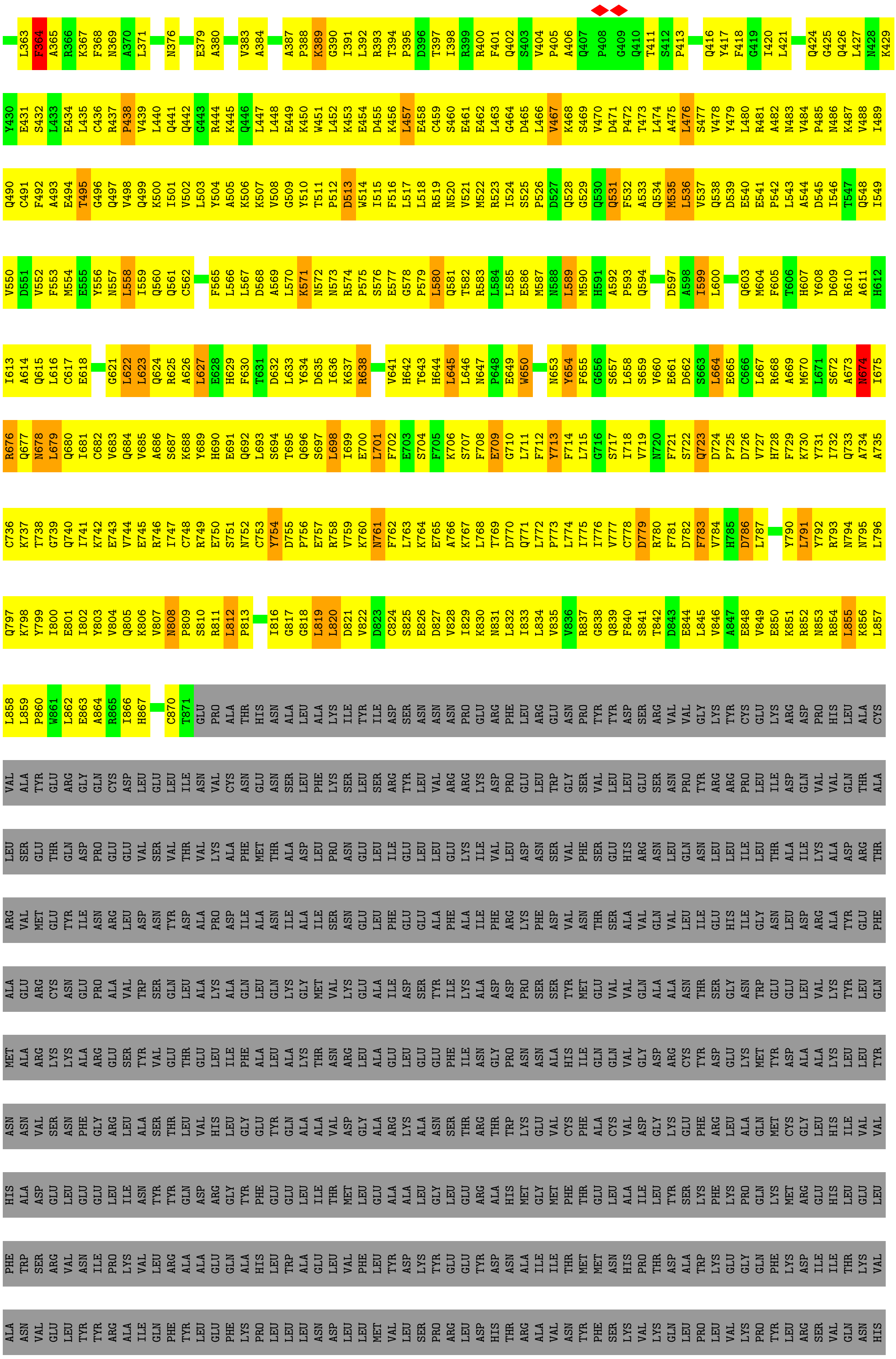
Chain F:

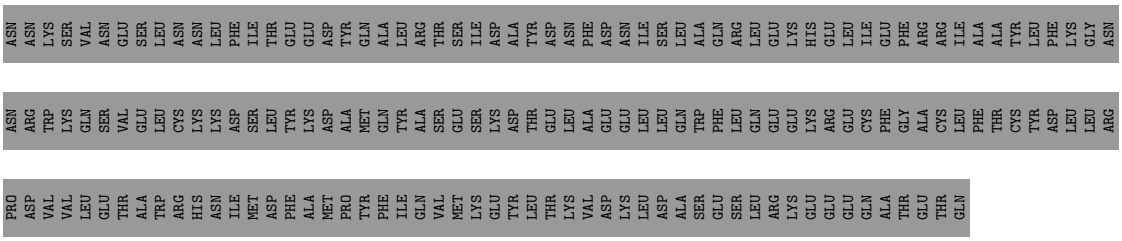


• Molecule 3: Clathrin heavy chain

Chain C:

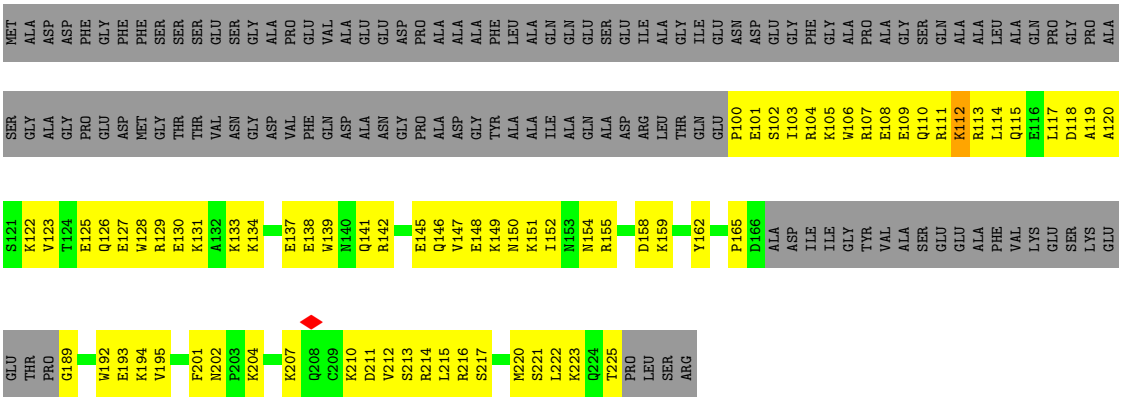



L363 F364 A365 R366 K367 F368 N369 A370 L371 N376 E379 A380 V383 A384 A387 P388 K389 G390 I391 L392 R393 T394 P395 D396 T397 I398 R399 R400 F401 Q402 S403 V404 P405 A406 Q407 P408 G409 Q410 T411 S412 P413 Q416 Y417 F418 G419 I420 L421 Q424 G425 Q426 L427 N428 K429
Y430 E431 S432 L433 E434 L435 C436 R437 P438 V439 L440 Q441 Q442 G443 R444 K445 Q446 L447 L448 E449 K450 W451 L452 K453 E454 D455 K456 L457 E458 C459 S460 E461 E462 L463 G464 D465 L466 V467 K468 S469 V470 D471 P472 T473 L474 A475 L476 S477 V478 Y479 L480 R481 A482 N483 V484 P485 N486 K487 V488 I489
Q490 C491 F492 A493 E494 T495 G496 Q497 V498 Q499 K500 I501 V502 L503 Y504 A505 K506 K507 V508 G509 Y510 T511 P512 D513 W514 I515 F516 L517 L518 R519 N520 V521 M522 R523 I524 S525 P526 D527 Q528 G529 Q530 Q531 F532 A533 Q534 M535 L536 V537 Q538 D539 E540 E541 P542 L543 A544 D545 I546 T547 Q548 I549
V550 D551 V552 F553 M554 E555 Y556 N557 L558 I559 Q560 Q561 C562 F565 L566 L567 D568 A569 L570 K571 N572 N573 R574 P575 S576 E577 G578 P579 L580 Q581 T582 R583 L584 L585 E586 M587 N588 L589 M590 H591 A592 P593 Q594 D597 A598 I599 L600 Q603 M604 F605 T606 H607 Y608 D609 R610 A611 H612
I613 A614 Q615 L616 C617 E618 G621 L622 L623 Q624 R625 A626 L627 E628 H629 F630 T631 D632 L633 Y634 D635 I636 K637 R638 V641 H642 T643 H644 L645 L646 N647 P648 E649 W650 N653 Y654 F655 G656 S657 L658 S659 V660 E661 D662 S663 L664 E665 C666 L667 R668 A669 M670 L671 S672 A673 N674 I675
R676 Q677 N678 L679 Q680 I681 C682 V683 Q684 V685 A686 S687 K688 Y689 H690 E691 Q692 L693 S694 T695 Q696 S697 L698 I699 E700 L701 F702 E703 S704 F705 K706 S707 F708 E709 G710 L711 F712 Y713 F714 L715 G716 S717 I718 V719 N720 F721 S722 Q723 D724 P725 D726 V727 H728 F729 K730 Y731 I732 Q733 A734 A735
C736 K737 T738 G739 Q740 I741 K742 E743 V744 E745 R746 I747 C748 R749 E750 S751 N752 C753 Y754 D755 P756 E757 R758 V759 K760 N761 F762 L763 K764 E765 A766 K767 L768 T769 D770 Q771 L772 P773 L774 I775 I776 V777 C778 D779 R780 F781 D782 F783 V784 H785 D786 L787 Y790 L791 Y792 R793 N794 N795 L796
Q797 K798 Y799 I800 E801 I802 Y803 V804 Q805 K806 V807 N808 P809 S810 R811 L812 P813 I816 G817 G818 L819 L820 D821 V822 D823 C824 S825 E826 D827 V828 I829 K830 N831 L832 I833 L834 V835 V836 R837 G838 Q839 F840 S841 T842 D843 E844 L845 V846 A847 E848 V849 E850 K851 R852 N853 R854 L855 K856 L857
L858 L859 P860 W861 L862 E863 A864 R865 I866 H867 C870 T871 GLU PRO ALA THR HIS ASN ALA LEU ALA LYS ILE TYR ILE ASP SER ASN ASN ASN PRO GLU ARG PHE LEU ARG GLU ASN PRO TYR TYR ASP SER ARG VAL VAL GLY LYS TYR CYS GLU LYS ARG ASP PRO HIS LEU ALA CYS
VAL ALA TYR GLU ARG GLY GLN CYS ASP LEU GLU LEU ILE ASN VAL CYS ASN GLU ASN SER LEU PHE LYS SER LEU SER ARG TYR LEU VAL ARG ARG LYS ASP PRO GLU LEU TRP GLY SER VAL LEU LEU GLU SER ASN PRO TYR ARG ARG PRO LEU ILE ASP GLN VAL VAL GLN THR ALA
LEU SER GLU THR GLN ASP PRO GLU GLU VAL SER VAL THR VAL LYS ALA PHE MET THR ALA ASP LEU PRO ASN GLU LEU ILE GLU LEU LEU GLU LYS ILE VAL LEU ASP ASN SER VAL PHE SER GLU HIS ARG ASN LEU GLN ASN LEU LEU ILE LEU THR ALA ILE LYS ALA ASP ARG THR
ARG VAL MET GLU TYR ILE ASN ARG LEU ASP ASN TYR ASP ALA PRO ASP ILE ALA ASN ILE ALA ILE SER ASN GLU LEU PHE GLU GLU ALA PHE ALA ILE PHE ARG LYS PHE ASP VAL ASN THR SER ALA VAL GLN VAL LEU ILE GLU HIS ILE GLY ASN LEU ASP ARG ALA TYR GLU PHE
ALA GLU ARG CYS ASN GLU PRO ALA VAL TRP SER GLN LEU ALA LYS ALA GLN LEU GLN LYS GLY MET VAL LYS GLU ALA ILE ASP SER TYR ILE LYS ALA ASP ASP PRO SER SER TYR MET GLU VAL VAL GLN ALA ALA ASN THR SER GLY ASN TRP GLU GLU LEU VAL LYS TYR LEU GLN
MET ALA ARG LYS LYS ALA ARG GLU SER TYR VAL GLU THR GLU LEU ILE PHE ALA LEU ALA LYS THR ASN ARG LEU ALA GLU LEU GLU GLU PHE ILE ASN GLY PRO ASN ASN ALA HIS ILE GLN GLN VAL GLY ASP ARG CYS TYR ASP GLU LYS MET TYR ASP ALA ALA LYS LEU LEU TYR
ASN ASN VAL SER ASN PHE GLY ARG LEU ALA SER THR LEU VAL HIS LEU GLY GLU TYR GLN ALA ALA VAL ASP GLY ALA ARG LYS ALA ASN SER THR ARG THR TRP LYS GLU VAL CYS PHE ALA CYS VAL ASP GLY LYS GLU PHE ARG LEU ALA GLN MET CYS GLY LEU HIS ILE VAL VAL
HIS ALA ASP GLU LEU GLU GLU LEU ILE ASN TYR TYR GLN ASP ARG GLY TYR PHE GLU GLU LEU ILE THR MET LEU GLU ALA ALA LEU GLY LEU GLU ARG ALA HIS MET GLY MET PHE THR GLU LEU ALA ILE LEU TYR SER LYS PHE LYS PRO GLN LYS MET ARG GLU HIS LEU GLU LEU
PHE TRP SER ARG VAL ASN ILE PRO LYS VAL LEU ARG ALA ALA GLU GLN ALA HIS LEU TRP ALA GLU LEU VAL PHE LEU TYR ASP LYS TYR GLU GLU TYR ASP ASN ALA ILE ILE THR MET MET ASN HIS PRO THR ASP ALA TRP LYS GLU GLY GLN PHE LYS ASP ILE ILE THR LYS VAL
ALA ASN VAL GLU LEU TYR TYR ARG ALA ILE GLN PHE TYR LEU GLU PHE LYS PRO LEU LEU LEU ASN ASP LEU LEU MET VAL LEU SER PRO ARG LEU ASP HIS THR ARG ALA VAL ASN TYR PHE SER LYS VAL LYS GLN LEU PRO LEU VAL LYS PRO TYR LEU ARG SER VAL GLN ASN HIS



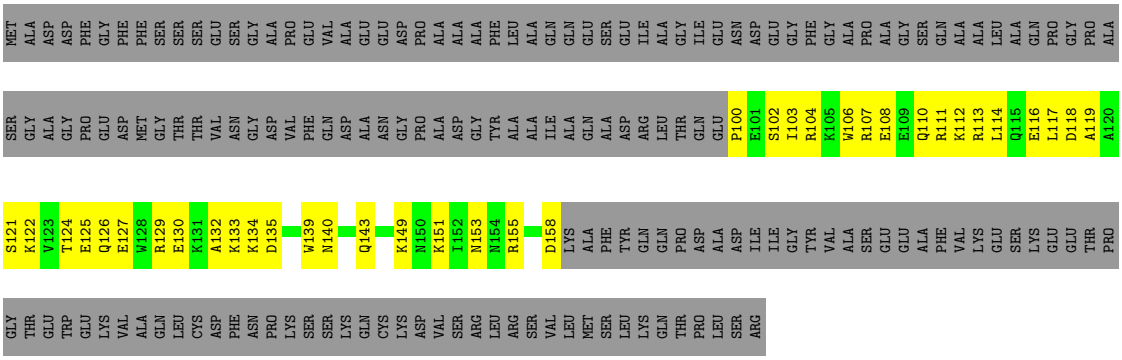
• Molecule 4: Clathrin light chain

Chain D:



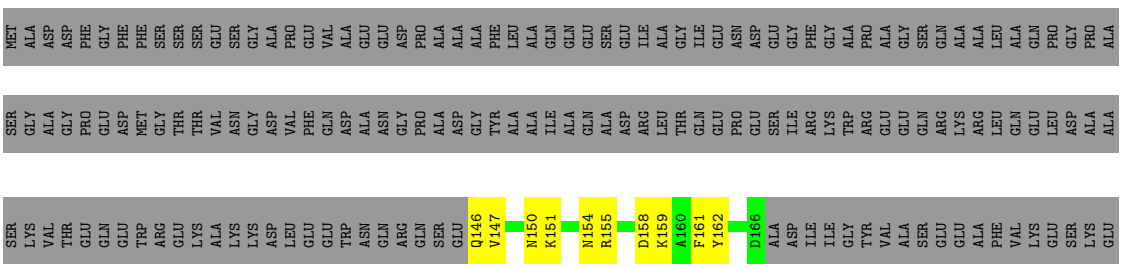
• Molecule 4: Clathrin light chain

Chain O:

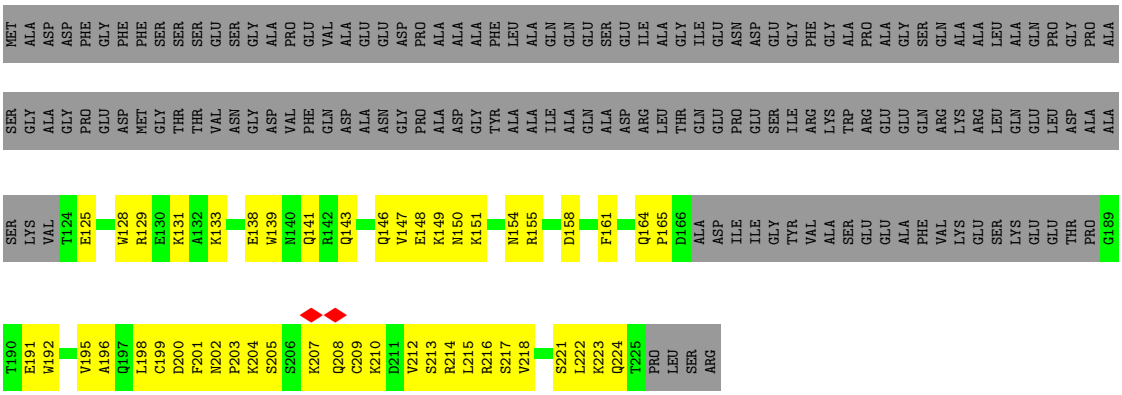


• Molecule 4: Clathrin light chain

Chain I:



• Molecule 4: Clathrin light chain



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	12076	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION; CTF correction in novaCTF with by multiplication	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	3.2	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	6500	Depositor
Magnification	81000	Depositor
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.641	Depositor
Minimum map value	-0.445	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.056	Depositor
Recommended contour level	0.07	Depositor
Map size (Å)	284.8, 284.8, 284.8	wwPDB
Map dimensions	160, 160, 160	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.78, 1.78, 1.78	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	0.35	0/3240	0.49	0/4375
1	B	0.32	0/3810	0.49	1/5160 (0.0%)
1	E	1.25	7/5858 (0.1%)	0.53	2/7941 (0.0%)
1	H	0.27	0/1965	0.45	0/2659
1	J	0.29	0/1405	0.43	0/1892
1	K	0.29	0/2196	0.45	0/2966
1	L	0.31	0/4547	0.47	0/6158
1	M	0.33	0/4294	0.47	0/5820
2	F	0.81	0/1886	0.99	7/2562 (0.3%)
3	C	1.34	9/4211 (0.2%)	0.98	22/5700 (0.4%)
4	D	0.30	0/887	0.44	0/1183
4	I	0.26	0/473	0.44	0/631
4	N	0.25	0/677	0.39	0/904
4	O	0.28	0/520	0.42	0/692
All	All	0.75	16/35969 (0.0%)	0.59	32/48643 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	1
3	C	0	9
All	All	0	10

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	83	LYS	CD-CE	75.02	3.38	1.51
3	C	364	PHE	CE2-CZ	35.66	2.05	1.37
3	C	364	PHE	CE1-CZ	35.12	2.04	1.37
3	C	364	PHE	CD2-CE2	32.77	2.04	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	111	TRP	CE3-CZ3	32.02	1.92	1.38
3	C	364	PHE	CD1-CE1	32.00	2.03	1.39
3	C	364	PHE	CG-CD1	22.67	1.72	1.38
3	C	364	PHE	CG-CD2	22.35	1.72	1.38
1	E	111	TRP	CZ3-CH2	21.44	1.74	1.40
1	E	111	TRP	CE2-CZ2	18.59	1.71	1.39
1	E	111	TRP	CD2-CE2	16.42	1.61	1.41
1	E	111	TRP	CD2-CE3	11.36	1.57	1.40
1	E	111	TRP	CZ2-CH2	11.00	1.58	1.37
3	C	650	TRP	CB-CG	-7.73	1.36	1.50
3	C	654	TYR	CD2-CE2	-5.74	1.30	1.39
3	C	678	ASN	CA-C	-5.33	1.39	1.52

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	536	LEU	CB-CG-CD1	-11.20	91.96	111.00
3	C	457	LEU	CB-CG-CD1	-9.96	94.07	111.00
3	C	713	TYR	CA-CB-CG	-9.38	95.58	113.40
3	C	364	PHE	CB-CG-CD2	-8.90	114.57	120.80
3	C	698	LEU	CA-CB-CG	8.21	134.19	115.30
3	C	476	LEU	CA-CB-CG	8.18	134.10	115.30
3	C	701	LEU	CA-CB-CG	-7.56	97.92	115.30
2	F	752	ASP	CB-CG-OD2	7.33	124.90	118.30
2	F	783	ASP	CB-CG-OD2	7.29	124.86	118.30
3	C	580	LEU	CA-CB-CG	-7.05	99.08	115.30
1	E	83	LYS	CD-CE-NZ	7.00	127.81	111.70
3	C	558	LEU	CA-CB-CG	6.77	130.86	115.30
2	F	862	ASP	CB-CG-OD1	6.68	124.32	118.30
1	B	812	LEU	CA-CB-CG	-6.62	100.08	115.30
3	C	678	ASN	O-C-N	-6.60	112.14	122.70
3	C	623	LEU	CA-CB-CG	-6.51	100.33	115.30
3	C	678	ASN	CA-C-N	6.36	131.19	117.20
1	E	83	LYS	CG-CD-CE	6.35	130.96	111.90
2	F	891	LEU	CA-CB-CG	6.24	129.66	115.30
3	C	627	LEU	CA-CB-CG	-5.92	101.69	115.30
3	C	654	TYR	CA-CB-CG	-5.86	102.27	113.40
3	C	820	LEU	CA-CB-CG	-5.79	101.97	115.30
3	C	599	ILE	CG1-CB-CG2	-5.72	98.81	111.40
3	C	638	ARG	CG-CD-NE	5.66	123.69	111.80
3	C	589	LEU	CA-CB-CG	5.58	128.14	115.30
3	C	645	LEU	CA-CB-CG	5.49	127.92	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	F	770	LEU	CB-CG-CD2	-5.31	101.97	111.00
3	C	791	LEU	CA-CB-CG	-5.19	103.36	115.30
2	F	812	ASP	CB-CG-OD1	5.14	122.93	118.30
3	C	535	MET	CB-CG-SD	5.13	127.80	112.40
3	C	535	MET	CA-CB-CG	-5.09	104.65	113.30
2	F	829	ASP	CB-CG-OD2	5.03	122.83	118.30

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	811	ARG	Peptide
3	C	364	PHE	Sidechain
3	C	531	GLN	Peptide
3	C	571	LYS	Peptide
3	C	622	LEU	Peptide
3	C	647	ASN	Peptide
3	C	709	GLU	Peptide
3	C	723	GLN	Peptide
3	C	754	TYR	Peptide
3	C	855	LEU	Peptide

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3168	0	3118	333	0
1	B	3744	0	3703	342	0
1	E	5740	0	5756	802	0
1	H	1928	0	1947	148	0
1	J	1379	0	1333	106	0
1	K	2150	0	2117	174	0
1	L	4458	0	4413	375	0
1	M	4213	0	4209	435	0
2	F	1844	0	1849	73	0
3	C	4133	0	4168	852	0
4	D	875	0	872	88	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	I	468	0	474	33	0
4	N	668	0	657	56	0
4	O	514	0	508	40	0
All	All	35282	0	35124	3741	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 53.

All (3741) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:111:TRP:CE3	1:E:111:TRP:CZ3	1.92	1.56
3:C:742:LYS:HE2	1:H:641:VAL:CG1	1.30	1.54
3:C:364:PHE:CD1	3:C:364:PHE:CE1	2.03	1.47
3:C:742:LYS:CE	1:H:641:VAL:HG11	1.45	1.47
3:C:364:PHE:CE1	3:C:364:PHE:CZ	2.04	1.46
3:C:364:PHE:CE2	3:C:364:PHE:CD2	2.04	1.46
3:C:364:PHE:CZ	3:C:364:PHE:CE2	2.05	1.45
2:F:717:ALA:O	1:M:721:PHE:CZ	1.69	1.45
2:F:746:ALA:CB	1:M:721:PHE:HB2	1.50	1.39
1:E:83:LYS:CE	1:E:111:TRP:CE2	2.32	1.13
2:F:717:ALA:O	1:M:721:PHE:HZ	0.77	1.10
1:E:83:LYS:CD	1:E:111:TRP:CE3	2.35	1.09
1:E:83:LYS:CD	1:E:111:TRP:CD2	2.36	1.09
1:E:83:LYS:CE	1:E:111:TRP:CD2	2.36	1.08
1:E:83:LYS:CE	1:E:111:TRP:CE3	2.36	1.07
1:E:83:LYS:CD	1:E:111:TRP:CZ3	2.38	1.07
1:E:83:LYS:CD	1:E:111:TRP:CE2	2.38	1.06
1:E:83:LYS:CE	1:E:111:TRP:CZ3	2.38	1.05
2:F:746:ALA:CB	1:M:721:PHE:CB	2.34	1.05
2:F:746:ALA:HB2	1:M:721:PHE:CB	1.86	1.03
1:E:83:LYS:CE	1:E:111:TRP:CZ2	2.41	1.03
1:E:490:GLN:HB2	1:E:513:ASP:HB3	1.32	1.02
1:K:1601:GLN:HB2	4:N:214:ARG:HE	1.19	1.02
2:F:721:LYS:O	1:M:721:PHE:CG	1.74	1.00
3:C:510:TYR:HB2	3:C:512:PRO:HD2	1.44	1.00
1:E:83:LYS:CE	1:E:111:TRP:CH2	2.45	1.00
2:F:746:ALA:HB2	1:M:721:PHE:HB2	1.00	0.99
2:F:718:VAL:HG12	1:M:723:GLN:HG3	1.44	0.98
3:C:626:ALA:O	3:C:629:HIS:ND1	1.96	0.98
2:F:746:ALA:HA	1:M:721:PHE:HA	1.44	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:553:PHE:HD1	3:C:558:LEU:HB3	1.24	0.97
2:F:747:LEU:H	1:M:721:PHE:H	1.03	0.97
3:C:393:ARG:HA	3:C:398:ILE:HB	1.46	0.97
1:E:83:LYS:CD	1:E:111:TRP:CH2	2.48	0.97
1:L:1092:LEU:O	1:L:1096:TYR:HB3	1.64	0.97
2:F:747:LEU:HB2	1:M:720:ASN:HA	1.47	0.96
1:L:1084:VAL:O	1:L:1088:HIS:HB2	1.64	0.96
2:F:746:ALA:HB1	1:M:721:PHE:HB2	1.45	0.96
3:C:768:LEU:HG	3:C:771:GLN:HE21	1.30	0.95
3:C:566:LEU:HB3	3:C:580:LEU:HD21	1.46	0.95
1:B:1092:LEU:O	1:B:1096:TYR:HB3	1.65	0.95
1:E:83:LYS:CD	1:E:111:TRP:CZ2	2.50	0.95
3:C:505:ALA:HB3	3:C:536:LEU:HD11	1.48	0.94
3:C:436:CYS:HB2	3:C:457:LEU:HD11	1.49	0.94
1:E:480:LEU:HA	1:E:484:VAL:HG22	1.50	0.93
1:E:281:TYR:HA	1:E:297:ARG:HA	1.50	0.93
3:C:467:VAL:O	3:C:471:ASP:N	2.02	0.93
3:C:360:ALA:HB1	3:C:363:LEU:HB2	1.52	0.92
3:C:749:ARG:O	3:C:780:ARG:NH2	2.01	0.92
3:C:538:GLN:OE1	3:C:572:ASN:ND2	2.03	0.91
3:C:638:ARG:HD2	3:C:638:ARG:N	1.82	0.91
2:F:747:LEU:N	1:M:721:PHE:H	1.69	0.91
2:F:717:ALA:C	1:M:721:PHE:HZ	1.72	0.90
3:C:761:ASN:HA	3:C:764:LYS:HD2	1.51	0.90
3:C:502:VAL:O	3:C:506:LYS:HB2	1.72	0.90
3:C:531:GLN:HB2	3:C:565:PHE:HE2	1.36	0.90
3:C:742:LYS:HE2	1:H:641:VAL:HG12	1.51	0.90
3:C:706:LYS:O	3:C:737:LYS:NZ	2.03	0.90
3:C:553:PHE:CD1	3:C:558:LEU:HB3	2.06	0.89
3:C:749:ARG:HA	3:C:780:ARG:HH12	1.37	0.89
3:C:773:PRO:HA	3:C:776:ILE:HD12	1.53	0.89
3:C:566:LEU:HD13	3:C:580:LEU:HD11	1.54	0.88
1:L:1145:ASN:HA	1:L:1150:TRP:HE1	1.36	0.88
2:F:721:LYS:O	1:M:721:PHE:CB	2.21	0.88
3:C:665:GLU:HA	3:C:668:ARG:HD3	1.54	0.88
1:J:1550:ALA:O	1:J:1554:LEU:HB2	1.73	0.88
1:K:1470:LEU:O	1:K:1474:GLU:HB2	1.73	0.88
2:F:747:LEU:HD12	1:M:719:VAL:HB	1.54	0.88
3:C:686:ALA:O	3:C:690:HIS:HB3	1.72	0.88
3:C:742:LYS:HG3	1:H:641:VAL:HG21	1.55	0.88
1:K:1499:LEU:HB2	1:K:1511:ALA:HB2	1.55	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:791:LEU:HA	3:C:794:ASN:HD21	1.36	0.87
1:E:352:ALA:O	1:E:356:ASN:N	2.07	0.87
3:C:752:ASN:OD1	3:C:780:ARG:NH2	2.07	0.87
3:C:599:ILE:HG22	3:C:604:MET:HB2	1.56	0.87
2:F:747:LEU:H	1:M:721:PHE:N	1.73	0.86
3:C:476:LEU:HD23	3:C:489:ILE:HG12	1.58	0.86
1:K:1604:LYS:HZ1	4:N:213:SER:H	1.21	0.86
1:E:83:LYS:HD3	1:E:111:TRP:CE3	2.08	0.86
1:E:491:CYS:O	1:E:520:ASN:ND2	2.08	0.86
3:C:550:VAL:HG21	3:C:587:MET:HG3	1.57	0.86
3:C:755:ASP:OD1	3:C:758:ARG:N	2.08	0.85
3:C:830:LYS:HE3	3:C:857:LEU:HB3	1.55	0.85
3:C:724:ASP:O	3:C:728:HIS:ND1	2.09	0.85
1:E:112:LYS:NZ	1:E:155:ASN:OD1	2.10	0.85
3:C:473:THR:HA	3:C:476:LEU:HD12	1.56	0.85
3:C:638:ARG:HD2	3:C:638:ARG:H	1.40	0.85
3:C:757:GLU:HA	3:C:760:LYS:HG2	1.57	0.85
1:A:1558:LEU:HA	1:A:1563:ARG:HE	1.42	0.84
1:E:155:ASN:HD21	1:E:157:ARG:HD3	1.42	0.84
1:A:1312:ALA:HB1	1:A:1316:MET:HG3	1.59	0.84
1:K:1528:CYS:HB3	1:K:1537:ALA:HA	1.60	0.84
2:F:718:VAL:HA	1:M:723:GLN:NE2	1.93	0.84
3:C:570:LEU:O	3:C:603:GLN:NE2	2.09	0.84
1:E:83:LYS:HE2	1:E:111:TRP:CZ2	2.10	0.84
3:C:556:TYR:HB3	3:C:558:LEU:HD13	1.58	0.84
1:E:83:LYS:HE3	1:E:111:TRP:CZ3	2.12	0.83
1:E:79:VAL:HA	1:E:92:ASN:HA	1.60	0.83
1:M:849:VAL:HG11	1:M:855:LEU:HB3	1.59	0.83
1:E:83:LYS:HD2	1:E:111:TRP:CZ3	2.12	0.83
1:B:852:ARG:HB3	1:B:854:ARG:HD2	1.61	0.83
1:E:108:VAL:HG11	1:E:111:TRP:HB3	1.61	0.83
1:L:1295:TYR:HB3	1:L:1298:GLU:HB2	1.61	0.83
3:C:614:ALA:HA	3:C:629:HIS:HB2	1.61	0.82
3:C:696:GLN:N	3:C:696:GLN:OE1	2.11	0.82
3:C:528:GLN:NE2	3:C:557:ASN:O	2.12	0.82
3:C:440:LEU:HD13	3:C:448:LEU:HD23	1.59	0.82
1:B:908:TYR:O	1:B:912:ARG:NH1	2.12	0.82
1:E:157:ARG:HB2	1:E:166:LEU:HB3	1.59	0.82
1:E:196:GLY:HA2	1:E:220:VAL:HB	1.60	0.82
3:C:804:VAL:HG22	3:C:812:LEU:HD22	1.61	0.82
1:E:207:GLU:HB2	1:E:354:ARG:HE	1.45	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:521:VAL:HG22	3:C:524:ILE:HD12	1.60	0.82
1:E:184:TYR:HA	1:E:191:SER:HA	1.60	0.82
1:E:502:VAL:HG22	1:E:506:LYS:HE2	1.59	0.82
1:L:1105:PRO:HA	1:L:1108:TRP:HD1	1.45	0.82
1:E:490:GLN:HE21	1:E:504:TYR:HB3	1.44	0.82
1:E:202:ALA:O	1:E:215:LEU:N	2.11	0.81
3:C:468:LYS:HG2	3:C:475:ALA:CB	2.09	0.81
3:C:502:VAL:HA	3:C:536:LEU:HD12	1.62	0.81
3:C:670:MET:SD	3:C:678:ASN:HB3	2.20	0.81
3:C:742:LYS:CE	1:H:641:VAL:CG1	2.26	0.81
3:C:623:LEU:HA	3:C:626:ALA:HB3	1.63	0.81
1:J:1584:GLU:HG2	1:J:1588:ARG:HH21	1.45	0.81
1:E:371:LEU:HB2	1:E:380:ALA:HB2	1.61	0.81
1:E:587:MET:SD	1:E:591:HIS:NE2	2.53	0.81
3:C:461:GLU:HA	3:C:479:TYR:HE1	1.45	0.81
3:C:463:LEU:HD23	3:C:464:GLY:H	1.45	0.81
3:C:581:GLN:HB3	3:C:608:TYR:HB2	1.62	0.81
3:C:762:PHE:O	3:C:766:ALA:N	2.12	0.81
3:C:680:GLN:OE1	3:C:680:GLN:N	2.12	0.81
1:H:837:ARG:HD3	1:H:840:PHE:HB3	1.63	0.81
1:E:232:GLU:HB3	1:E:243:PHE:HB3	1.63	0.80
1:A:1352:ALA:O	1:A:1356:HIS:N	2.13	0.80
1:E:40:ILE:O	1:E:51:VAL:N	2.13	0.80
3:C:629:HIS:O	3:C:633:LEU:N	2.13	0.80
1:M:849:VAL:O	1:M:853:ASN:N	2.13	0.80
1:B:1250:THR:HA	1:B:1253:TRP:HD1	1.45	0.80
1:H:774:LEU:HD13	1:H:787:LEU:HD11	1.64	0.80
1:E:515:ILE:HG12	1:E:548:GLN:HE22	1.46	0.80
1:L:1199:GLN:HE21	1:L:1223:ASN:HD21	1.29	0.80
1:L:1434:ARG:NH1	1:L:1434:ARG:O	2.15	0.80
1:E:128:TYR:HB3	1:E:140:LYS:HG2	1.64	0.80
3:C:641:VAL:HA	3:C:644:HIS:NE2	1.97	0.80
1:A:1358:TRP:HA	1:A:1361:LEU:HD12	1.63	0.80
3:C:764:LYS:O	3:C:767:LYS:NZ	2.13	0.80
1:M:597:ASP:HB2	1:M:625:ARG:HH21	1.47	0.80
3:C:514:TRP:CD1	3:C:543:LEU:HG	2.17	0.79
3:C:521:VAL:HA	3:C:524:ILE:HB	1.64	0.79
3:C:578:GLY:O	3:C:582:THR:N	2.14	0.79
3:C:476:LEU:HA	3:C:489:ILE:HG13	1.63	0.79
1:K:1609:LYS:HA	1:K:1612:LYS:HE3	1.65	0.79
3:C:533:ALA:O	3:C:537:VAL:N	2.14	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:657:SER:O	1:E:690:HIS:NE2	2.14	0.79
3:C:805:GLN:HG2	3:C:806:LYS:HG3	1.63	0.79
1:A:1497:GLN:O	1:A:1501:LYS:NZ	2.16	0.79
3:C:786:ASP:N	3:C:786:ASP:OD1	2.15	0.79
1:E:145:HIS:HB2	1:E:182:GLN:HG3	1.63	0.79
1:E:168:THR:HG23	1:E:181:MET:HG2	1.65	0.79
1:M:791:LEU:HD13	1:M:796:LEU:HD21	1.64	0.79
1:E:676:ARG:HE	1:E:705:PHE:HA	1.45	0.79
1:E:157:ARG:N	1:E:166:LEU:O	2.14	0.78
2:F:746:ALA:HB1	1:M:721:PHE:N	1.98	0.78
3:C:553:PHE:O	3:C:558:LEU:N	2.16	0.78
1:E:126:ALA:HA	1:E:143:ASP:HA	1.66	0.78
3:C:817:GLY:O	3:C:852:ARG:NH2	2.16	0.78
3:C:519:ARG:HG2	3:C:523:ARG:HH12	1.47	0.78
1:M:671:LEU:HA	1:M:674:ASN:HB2	1.63	0.78
3:C:837:ARG:NH1	3:C:839:GLN:O	2.17	0.78
3:C:490:GLN:HB3	3:C:513:ASP:HB2	1.65	0.78
1:A:1251:ARG:HH11	1:A:1254:LYS:HE2	1.48	0.78
1:A:1505:ILE:HA	1:A:1508:ARG:HB2	1.65	0.78
3:C:461:GLU:O	3:C:479:TYR:OH	2.01	0.78
3:C:820:LEU:HD23	3:C:852:ARG:HB3	1.66	0.78
1:M:600:LEU:HA	1:M:604:MET:HB3	1.65	0.78
3:C:487:LYS:O	3:C:491:CYS:HB2	1.83	0.78
1:E:614:ALA:HB3	1:E:638:ARG:HH11	1.49	0.78
2:F:717:ALA:HB1	1:M:721:PHE:HE1	1.48	0.78
3:C:498:VAL:HG11	3:C:535:MET:HE3	1.66	0.78
3:C:696:GLN:O	3:C:700:GLU:HG2	1.84	0.78
1:A:1556:TRP:HA	1:A:1559:GLN:HG2	1.66	0.77
1:B:1211:TYR:HB3	1:B:1234:LEU:HG	1.66	0.77
1:L:1250:THR:OG1	1:L:1251:ARG:NH1	2.16	0.77
1:E:600:LEU:HD21	1:E:629:HIS:HA	1.64	0.77
3:C:630:PHE:O	3:C:634:TYR:N	2.17	0.77
3:C:674:ASN:OD1	3:C:674:ASN:N	2.17	0.77
1:M:805:GLN:HG3	1:M:806:LYS:HG3	1.67	0.77
1:L:993:LYS:O	1:L:997:THR:N	2.17	0.77
1:E:466:LEU:O	1:E:469:SER:OG	2.02	0.77
3:C:531:GLN:HB2	3:C:565:PHE:CE2	2.20	0.77
3:C:623:LEU:HD13	3:C:646:LEU:HD22	1.65	0.77
1:A:1532:SER:HB2	1:A:1536:ASP:HB2	1.66	0.77
1:E:611:ALA:O	1:E:638:ARG:NH1	2.18	0.77
1:M:918:CYS:SG	1:M:919:VAL:N	2.58	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1296:PHE:HA	1:L:1299:LEU:HD12	1.63	0.77
1:A:1471:PHE:O	1:A:1475:GLU:N	2.16	0.77
1:L:1396:THR:O	1:L:1429:ARG:NH1	2.18	0.77
3:C:548:GLN:HE21	3:C:552:VAL:HG23	1.48	0.77
1:L:1282:GLU:O	1:L:1285:GLU:N	2.18	0.77
3:C:560:GLN:OE1	3:C:561:GLN:NE2	2.18	0.77
3:C:854:ARG:HG3	3:C:856:LYS:HZ3	1.49	0.77
1:K:1550:ALA:O	1:K:1554:LEU:HB2	1.85	0.77
1:E:31:THR:HB	1:E:39:CYS:HB3	1.65	0.76
3:C:465:ASP:HA	3:C:468:LYS:HG3	1.65	0.76
3:C:492:PHE:HA	3:C:520:ASN:OD1	1.85	0.76
3:C:840:PHE:HE2	3:C:845:LEU:HB2	1.49	0.76
1:B:976:GLN:OE1	1:B:976:GLN:N	2.19	0.76
1:E:411:THR:O	1:E:416:GLN:NE2	2.17	0.76
1:B:927:ASP:HA	1:B:930:LEU:HD12	1.67	0.76
1:E:674:ASN:HB3	1:E:678:ASN:HB2	1.67	0.76
3:C:532:PHE:O	3:C:536:LEU:HB2	1.84	0.76
1:M:664:LEU:O	1:M:668:ARG:NH1	2.19	0.76
1:M:1023:ASN:H	1:M:1026:ASN:HD21	1.33	0.76
1:E:360:ALA:O	1:E:364:PHE:N	2.17	0.76
1:K:1517:GLY:O	1:L:1101:ARG:NH2	2.18	0.76
1:L:1218:TYR:HB3	1:L:1223:ASN:HB2	1.68	0.76
1:L:1284:GLU:HA	1:L:1287:ILE:HD12	1.66	0.76
1:E:110:PHE:O	1:E:122:VAL:N	2.19	0.76
1:E:674:ASN:O	1:E:678:ASN:N	2.15	0.76
1:B:886:SER:OG	1:B:888:ASN:ND2	2.18	0.76
3:C:852:ARG:O	3:C:854:ARG:NH1	2.17	0.76
1:A:1295:TYR:HB3	1:A:1298:GLU:HB2	1.67	0.76
3:C:467:VAL:HG23	3:C:475:ALA:HB2	1.68	0.76
3:C:603:GLN:HE21	3:C:607:HIS:CE1	2.03	0.76
3:C:756:PRO:HA	3:C:759:VAL:HB	1.66	0.76
1:B:1198:ILE:HG13	1:B:1202:GLY:HA3	1.66	0.76
1:L:1370:GLU:HG3	1:L:1373:ASN:HB2	1.68	0.76
1:E:263:ALA:HB3	1:E:276:ILE:HB	1.68	0.76
3:C:674:ASN:O	3:C:676:ARG:NH1	2.19	0.75
1:M:1059:ALA:HA	1:M:1062:ASN:HB2	1.68	0.75
1:A:1248:ASN:OD1	1:B:853:ASN:ND2	2.19	0.75
1:A:1528:CYS:O	1:A:1532:SER:N	2.18	0.75
1:L:1411:TYR:O	1:L:1415:LYS:N	2.19	0.75
1:H:810:SER:HB3	1:H:839:GLN:HG3	1.68	0.75
3:C:497:GLN:OE1	3:C:500:LYS:NZ	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:493:ALA:HB2	1:E:501:ILE:HG12	1.67	0.75
1:L:1177:LEU:HD13	1:L:1186:LEU:HD13	1.66	0.75
1:E:199:ALA:HA	1:E:218:PHE:HA	1.67	0.75
1:E:562:CYS:SG	1:E:563:THR:N	2.59	0.75
3:C:726:ASP:OD1	3:C:758:ARG:NH1	2.19	0.75
1:M:852:ARG:O	1:M:854:ARG:NH1	2.20	0.75
3:C:514:TRP:HE1	3:C:549:ILE:HG12	1.52	0.75
4:D:111:ARG:HA	4:D:114:LEU:HD12	1.68	0.75
3:C:798:LYS:O	3:C:802:ILE:N	2.17	0.75
2:F:746:ALA:HA	1:M:721:PHE:CA	2.16	0.75
3:C:502:VAL:O	3:C:506:LYS:CB	2.35	0.75
1:M:1039:ARG:O	1:M:1046:ARG:NH2	2.19	0.75
1:L:1270:GLN:NE2	1:L:1302:MET:O	2.20	0.75
3:C:600:LEU:HD12	3:C:605:PHE:HB2	1.69	0.74
3:C:735:ALA:HB1	3:C:744:VAL:HG22	1.68	0.74
4:D:146:GLN:HE21	4:D:150:ASN:HD22	1.35	0.74
1:E:128:TYR:HD2	1:E:138:PRO:HB2	1.52	0.74
1:E:656:GLY:O	1:E:660:VAL:N	2.17	0.74
3:C:506:LYS:NZ	3:C:536:LEU:O	2.20	0.74
3:C:831:ASN:O	3:C:835:VAL:N	2.15	0.74
2:F:747:LEU:CB	1:M:720:ASN:HA	2.17	0.74
3:C:468:LYS:HB3	3:C:492:PHE:HB2	1.68	0.74
1:M:741:ILE:HD12	1:M:744:VAL:HB	1.69	0.74
1:A:1505:ILE:O	1:A:1509:ARG:N	2.20	0.74
1:B:881:LYS:HA	1:B:884:ILE:HD12	1.69	0.74
3:C:554:MET:HA	3:C:559:ILE:HG13	1.68	0.74
1:E:317:GLY:O	1:E:325:LEU:N	2.21	0.74
3:C:465:ASP:N	3:C:479:TYR:OH	2.21	0.74
3:C:827:ASP:O	3:C:831:ASN:ND2	2.20	0.74
1:B:812:LEU:HA	1:B:815:VAL:HG22	1.68	0.74
1:L:1020:GLU:HG3	1:L:1022:ARG:H	1.53	0.74
1:E:52:ILE:N	1:E:62:ILE:O	2.19	0.74
1:E:171:SER:O	1:E:178:VAL:N	2.19	0.74
3:C:457:LEU:HD23	3:C:458:GLU:H	1.53	0.74
1:A:1322:ILE:O	1:A:1325:SER:OG	2.06	0.74
1:A:1393:ASP:O	1:A:1397:LYS:NZ	2.20	0.74
1:L:1314:MET:HB2	1:L:1343:VAL:HG22	1.70	0.74
1:A:1396:THR:OG1	1:A:1397:LYS:NZ	2.21	0.74
4:O:113:ARG:NH2	4:O:116:GLU:OE1	2.20	0.74
1:L:1380:ASN:OD1	1:L:1381:HIS:ND1	2.20	0.74
3:C:429:LYS:HD3	3:C:458:GLU:HG3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:678:ASN:HA	3:C:681:ILE:HB	1.70	0.74
1:E:18:LEU:O	1:E:63:ARG:NH2	2.21	0.74
3:C:790:TYR:O	3:C:794:ASN:ND2	2.21	0.74
1:B:1001:PRO:HD2	1:B:1004:LEU:HD13	1.67	0.74
1:E:21:ASN:HB3	1:E:24:ASN:HB2	1.69	0.73
1:E:684:GLN:O	1:E:687:SER:OG	2.04	0.73
3:C:849:VAL:O	3:C:853:ASN:N	2.22	0.73
1:B:1103:ASN:HA	1:B:1108:TRP:HZ2	1.53	0.73
1:M:925:GLN:HB3	1:M:950:ARG:HH22	1.53	0.73
1:L:1244:ALA:O	1:L:1248:ASN:ND2	2.22	0.73
1:E:577:GLU:HB2	1:E:580:LEU:HG	1.70	0.73
3:C:597:ASP:H	3:C:625:ARG:HH21	1.36	0.73
4:O:139:TRP:HH2	1:L:1446:PRO:HB2	1.54	0.73
1:A:1533:LEU:O	1:A:1562:LYS:NZ	2.20	0.73
1:E:84:ALA:HB3	1:E:87:THR:HB	1.68	0.73
1:K:1496:ALA:HB2	1:K:1514:LEU:HD11	1.68	0.73
1:E:52:ILE:O	1:E:62:ILE:N	2.20	0.73
1:E:209:ASN:ND2	1:E:241:GLN:O	2.21	0.73
1:E:476:LEU:HB3	1:E:500:LYS:HD2	1.70	0.73
1:M:881:LYS:HA	1:M:884:ILE:HD12	1.70	0.73
2:F:898:TRP:C	2:F:899:ILE:HD12	2.08	0.73
3:C:708:PHE:CE2	3:C:709:GLU:HB3	2.24	0.73
1:B:1139:GLU:OE1	1:B:1139:GLU:N	2.19	0.73
3:C:641:VAL:HA	3:C:644:HIS:CD2	2.24	0.73
3:C:493:ALA:O	3:C:517:LEU:HD12	1.87	0.73
3:C:784:VAL:HA	3:C:787:LEU:HB3	1.71	0.73
1:B:922:GLU:O	1:B:925:GLN:NE2	2.21	0.73
1:L:1332:MET:O	1:L:1336:LEU:HB3	1.88	0.73
1:E:206:MET:HB2	1:E:209:ASN:HD22	1.54	0.72
1:E:83:LYS:NZ	1:E:111:TRP:O	2.22	0.72
1:M:1023:ASN:HA	1:M:1027:LEU:HD23	1.71	0.72
1:E:83:LYS:HG3	1:E:88:LEU:HD13	1.70	0.72
3:C:586:GLU:O	3:C:589:LEU:HG	1.89	0.72
1:A:1399:ALA:O	1:A:1429:ARG:NH2	2.22	0.72
3:C:461:GLU:HA	3:C:479:TYR:CE1	2.23	0.72
1:M:803:TYR:OH	1:M:811:ARG:NH1	2.21	0.72
3:C:866:ILE:HA	3:C:870:CYS:HB3	1.70	0.72
1:L:1382:PRO:O	1:L:1386:TRP:N	2.22	0.72
1:E:265:GLN:O	1:E:274:PHE:N	2.21	0.72
3:C:426:GLN:NE2	3:C:427:LEU:O	2.23	0.72
3:C:468:LYS:HD2	3:C:479:TYR:HE2	1.55	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:668:ARG:HB2	3:C:668:ARG:NH2	2.05	0.72
1:K:1556:TRP:HA	1:K:1559:GLN:HG2	1.72	0.72
1:L:1416:PRO:HA	1:L:1419:LEU:HB2	1.70	0.72
1:E:400:ARG:O	1:E:403:SER:OG	2.07	0.72
1:E:510:TYR:HB2	1:E:513:ASP:HB2	1.71	0.72
3:C:690:HIS:HB2	3:C:698:LEU:HD11	1.70	0.72
3:C:707:SER:OG	3:C:737:LYS:NZ	2.23	0.72
2:F:854:ILE:HG23	2:F:912:TYR:HB2	1.72	0.72
1:A:1601:GLN:HA	1:A:1604:LYS:HE2	1.70	0.72
1:B:871:GLU:HA	1:B:876:HIS:HE2	1.53	0.72
1:L:1285:GLU:N	1:L:1285:GLU:OE1	2.23	0.72
2:F:860:ASN:HB2	2:F:862:ASP:OD1	1.89	0.72
3:C:576:SER:OG	3:C:607:HIS:ND1	2.18	0.72
1:M:1030:LEU:HA	1:M:1033:ILE:HD12	1.72	0.72
1:E:221:ARG:NH1	1:E:259:ASP:O	2.22	0.72
1:E:539:ASP:O	1:E:574:ARG:NH1	2.23	0.72
1:J:1492:ASN:HB3	1:J:1514:LEU:HD13	1.72	0.72
1:L:1037:ARG:HD2	1:L:1039:ARG:HH21	1.55	0.72
1:L:1265:GLU:OE2	1:L:1267:ARG:NH2	2.23	0.72
1:E:83:LYS:HD3	1:E:111:TRP:CD2	2.22	0.71
1:E:637:LYS:NZ	1:E:662:ASP:OD2	2.23	0.71
1:B:956:TRP:O	1:B:960:LEU:N	2.19	0.71
1:K:1398:VAL:O	1:K:1429:ARG:NH2	2.23	0.71
1:L:1065:PHE:O	1:L:1069:PHE:N	2.23	0.71
1:L:1471:PHE:HA	1:L:1474:GLU:HB2	1.72	0.71
1:H:791:LEU:HB3	1:H:796:LEU:HG	1.71	0.71
1:E:502:VAL:HG21	1:E:539:ASP:HB2	1.70	0.71
1:M:841:SER:OG	1:M:843:ASP:OD1	2.08	0.71
1:K:1562:LYS:NZ	4:N:199:CYS:SG	2.63	0.71
1:E:363:LEU:HA	1:E:366:ARG:HD2	1.73	0.71
3:C:742:LYS:CD	1:H:641:VAL:HG11	2.20	0.71
1:M:687:SER:HA	1:M:690:HIS:CD2	2.24	0.71
1:M:908:TYR:O	1:M:912:ARG:NH1	2.22	0.71
1:A:1360:GLU:OE1	1:A:1360:GLU:N	2.20	0.71
1:J:1588:ARG:HH22	4:N:221:SER:HB2	1.54	0.71
1:E:476:LEU:O	1:E:500:LYS:NZ	2.20	0.71
2:F:747:LEU:HB2	1:M:720:ASN:CA	2.20	0.71
3:C:489:ILE:HG23	3:C:490:GLN:HG3	1.71	0.71
1:M:676:ARG:HG3	1:M:679:LEU:HD22	1.72	0.71
1:E:44:VAL:HG22	1:E:49:GLN:HG3	1.72	0.71
3:C:539:ASP:OD1	3:C:572:ASN:ND2	2.22	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:837:ARG:NH1	1:M:838:GLY:O	2.23	0.71
1:A:1400:ASN:ND2	1:A:1402:GLU:OE2	2.23	0.71
1:L:1446:PRO:HA	1:L:1449:LYS:HE2	1.72	0.71
1:M:563:THR:HG23	1:M:584:LEU:HD22	1.73	0.71
1:L:1161:ARG:O	1:L:1165:ARG:NH2	2.22	0.71
1:L:1170:GLU:OE1	1:L:1170:GLU:N	2.22	0.71
1:E:484:VAL:HG13	1:E:500:LYS:HE2	1.73	0.71
1:E:453:LYS:HG2	1:E:481:ARG:HH22	1.54	0.71
3:C:519:ARG:HG2	3:C:523:ARG:HH22	1.55	0.71
1:M:872:GLU:HB2	1:M:875:THR:HG22	1.71	0.71
1:B:1158:GLN:O	1:B:1162:LYS:NZ	2.24	0.71
1:E:307:ALA:N	1:E:316:ILE:O	2.23	0.71
1:M:642:HIS:HA	1:M:645:LEU:HD13	1.73	0.71
1:M:1042:GLU:HA	1:M:1045:ASN:HD21	1.56	0.71
1:E:211:GLU:H	1:E:240:ASN:HD21	1.38	0.71
1:B:890:PRO:HB2	1:B:893:PHE:HB3	1.73	0.71
1:H:674:ASN:O	1:H:676:ARG:NH2	2.24	0.71
4:N:209:CYS:SG	4:N:210:LYS:N	2.64	0.70
1:A:1393:ASP:OD2	1:A:1393:ASP:N	2.22	0.70
1:K:1578:ARG:HH11	1:K:1580:ASP:HB3	1.55	0.70
1:L:964:ASN:HB3	1:L:967:ARG:HE	1.56	0.70
1:K:1481:ARG:NH1	1:K:1506:GLU:OE2	2.24	0.70
3:C:791:LEU:O	3:C:795:ASN:N	2.24	0.70
1:L:1109:SER:OG	1:L:1110:GLN:NE2	2.24	0.70
1:L:1151:GLU:O	1:L:1155:LYS:NZ	2.24	0.70
1:E:465:ASP:OD1	1:E:479:TYR:OH	2.07	0.70
1:A:1344:ASN:OD1	1:B:937:ASN:ND2	2.25	0.70
1:A:1460:ASN:HB3	1:A:1463:VAL:HG23	1.72	0.70
1:L:1423:LEU:HA	1:L:1426:LEU:HB2	1.73	0.70
3:C:436:CYS:CB	3:C:457:LEU:HD11	2.20	0.70
1:E:236:PRO:HG3	1:E:242:PRO:HG3	1.73	0.70
1:J:1472:ILE:O	1:J:1502:HIS:NE2	2.24	0.70
1:E:660:VAL:HB	1:E:667:LEU:HD21	1.72	0.70
1:E:681:ILE:H	1:E:681:ILE:HD12	1.57	0.70
1:A:1558:LEU:O	1:A:1563:ARG:NH2	2.24	0.70
1:H:725:PRO:HB3	1:H:754:TYR:HA	1.72	0.70
1:E:259:ASP:OD1	1:E:260:PHE:N	2.25	0.70
1:E:644:HIS:ND1	1:E:670:MET:SD	2.62	0.70
1:A:1313:HIS:CD2	1:A:1315:GLY:H	2.09	0.70
1:B:1105:PRO:HA	1:B:1108:TRP:CD1	2.27	0.70
4:D:103:ILE:HA	4:D:106:TRP:HB3	1.71	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:367:LYS:HE3	3:C:371:LEU:HD11	1.72	0.69
3:C:582:THR:HA	3:C:608:TYR:CZ	2.27	0.69
3:C:819:LEU:HD22	3:C:829:ILE:HG13	1.74	0.69
1:M:971:ILE:HA	1:M:974:VAL:HG22	1.73	0.69
1:L:1203:ASP:HA	1:L:1206:TYR:CZ	2.27	0.69
1:E:100:LYS:NZ	1:E:135:GLU:OE1	2.26	0.69
2:F:746:ALA:HB1	1:M:721:PHE:CB	2.12	0.69
3:C:798:LYS:HB3	3:C:802:ILE:HG23	1.75	0.69
3:C:820:LEU:HB3	3:C:852:ARG:HE	1.57	0.69
1:B:928:LEU:HA	1:B:931:ILE:HD12	1.74	0.69
1:E:377:TYR:O	1:E:381:ALA:HB2	1.92	0.69
3:C:438:PRO:O	3:C:442:GLN:N	2.25	0.69
3:C:542:PRO:HA	3:C:546:ILE:HD11	1.74	0.69
3:C:593:PRO:O	3:C:625:ARG:NH2	2.24	0.69
1:M:1064:LEU:HB3	1:M:1067:GLU:HB3	1.74	0.69
1:A:1324:TYR:O	1:A:1328:LYS:N	2.24	0.69
3:C:743:GLU:HA	3:C:746:ARG:CZ	2.22	0.69
1:B:891:GLU:HG2	1:B:895:ARG:HH12	1.58	0.69
1:B:1242:ASP:HA	1:B:1245:ARG:HE	1.58	0.69
1:E:486:ASN:ND2	1:E:509:GLY:O	2.26	0.69
1:J:1472:ILE:HD13	1:J:1498:ARG:HD2	1.75	0.69
1:H:668:ARG:NH1	1:H:672:SER:OG	2.26	0.69
1:E:182:GLN:HA	1:E:193:PRO:HA	1.72	0.69
3:C:477:SER:HB2	3:C:481:ARG:HE	1.58	0.69
1:A:1540:TYR:HA	1:A:1543:GLU:HG3	1.74	0.69
1:A:1574:TYR:HA	1:A:1577:LEU:HD23	1.73	0.69
4:I:218:VAL:HG22	4:I:223:LYS:HE2	1.75	0.69
1:E:273:VAL:N	1:E:285:TYR:O	2.24	0.69
1:E:534:GLN:NE2	1:E:568:ASP:OD2	2.25	0.69
3:C:745:GLU:HA	3:C:748:CYS:SG	2.32	0.69
3:C:796:LEU:HD21	3:C:800:ILE:HG22	1.75	0.69
3:C:837:ARG:HH21	3:C:838:GLY:H	1.40	0.69
3:C:863:GLU:O	3:C:867:HIS:ND1	2.22	0.69
1:M:660:VAL:HG22	1:M:662:ASP:H	1.58	0.69
1:M:928:LEU:HA	1:M:931:ILE:HD12	1.74	0.69
1:M:939:LEU:HD23	1:M:942:SER:H	1.56	0.69
1:M:970:LEU:HA	1:M:973:GLN:NE2	2.07	0.69
1:A:1493:ILE:O	1:A:1497:GLN:NE2	2.25	0.69
1:L:1242:ASP:O	1:L:1246:LYS:NZ	2.26	0.69
1:E:43:LYS:HA	1:E:48:ALA:HA	1.75	0.69
3:C:457:LEU:HD22	3:C:463:LEU:HB3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:505:ALA:CB	3:C:536:LEU:HD11	2.22	0.69
4:D:138:GLU:OE1	4:D:142:ARG:NH1	2.19	0.69
1:E:83:LYS:HE2	1:E:111:TRP:CH2	2.24	0.69
3:C:708:PHE:CD2	3:C:709:GLU:HB3	2.28	0.69
1:B:926:CYS:HB3	1:B:929:GLU:HB2	1.75	0.69
1:L:1249:SER:HB3	1:L:1252:THR:HG23	1.75	0.69
1:E:379:GLU:HA	1:E:382:LYS:HD2	1.73	0.68
1:E:454:GLU:OE1	1:E:456:LYS:NZ	2.26	0.68
1:E:568:ASP:HA	1:E:571:LYS:HD2	1.75	0.68
3:C:491:CYS:O	3:C:516:PHE:HB3	1.92	0.68
3:C:553:PHE:CG	3:C:562:CYS:HB2	2.28	0.68
1:M:817:GLY:O	1:M:852:ARG:NH2	2.25	0.68
1:A:1523:GLN:HA	1:A:1526:GLU:HB3	1.74	0.68
1:K:1397:LYS:HE3	1:L:976:GLN:HE21	1.58	0.68
4:I:195:VAL:O	4:I:199:CYS:N	2.16	0.68
1:E:433:LEU:HD21	1:E:462:GLU:HB3	1.75	0.68
1:E:593:PRO:O	1:E:625:ARG:NH1	2.26	0.68
3:C:793:ARG:HH22	1:B:1221:VAL:C	1.97	0.68
1:B:909:CYS:HA	1:B:912:ARG:HD2	1.74	0.68
1:B:1030:LEU:HA	1:B:1033:ILE:HD12	1.74	0.68
1:B:1106:ALA:O	1:B:1110:GLN:NE2	2.25	0.68
3:C:502:VAL:HG11	3:C:535:MET:HB2	1.76	0.68
3:C:659:SER:O	3:C:660:VAL:N	2.27	0.68
1:J:1500:GLU:HG3	1:J:1501:LYS:HG3	1.75	0.68
1:B:1232:VAL:HG21	1:B:1252:THR:HG21	1.76	0.68
1:K:1504:LEU:HB2	1:K:1507:PHE:HD1	1.58	0.68
1:E:475:ALA:HB1	1:E:479:TYR:HE2	1.57	0.68
1:M:657:SER:O	1:M:663:SER:OG	2.09	0.68
1:M:843:ASP:OD1	1:M:843:ASP:N	2.24	0.68
1:M:968:ARG:HD2	1:M:971:ILE:HD11	1.74	0.68
1:E:284:LEU:HG	1:E:293:ILE:HB	1.74	0.68
3:C:650:TRP:O	3:C:653:ASN:HB3	1.93	0.68
3:C:840:PHE:CE2	3:C:845:LEU:HB2	2.27	0.68
1:M:946:TYR:O	1:M:950:ARG:N	2.25	0.68
1:A:1439:PHE:HA	1:A:1442:VAL:HG22	1.73	0.68
1:L:990:VAL:HA	1:L:993:LYS:HD2	1.76	0.68
1:E:377:TYR:CG	1:E:413:PRO:HB3	2.29	0.68
1:E:411:THR:HB	1:E:416:GLN:HG2	1.74	0.68
1:A:1579:PRO:HD2	1:J:1607:LEU:HD21	1.76	0.68
1:B:945:ARG:HA	1:B:948:VAL:HG22	1.76	0.68
1:E:597:ASP:OD1	1:E:629:HIS:NE2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:739:GLY:O	1:M:740:GLN:NE2	2.27	0.68
1:B:866:ILE:HD13	1:B:879:LEU:HD21	1.75	0.68
1:B:891:GLU:O	1:B:895:ARG:HB2	1.94	0.68
1:E:230:ILE:HB	1:E:246:LYS:HB2	1.76	0.68
1:E:266:ILE:HD13	1:E:287:LEU:HD13	1.76	0.68
1:E:283:HIS:HB3	1:E:285:TYR:HE1	1.59	0.68
1:E:283:HIS:NE2	1:E:295:MET:SD	2.66	0.68
4:D:103:ILE:HG23	4:D:106:TRP:HD1	1.59	0.68
1:K:1494:SER:O	1:K:1498:ARG:NE	2.26	0.68
1:M:741:ILE:O	1:M:745:GLU:N	2.20	0.68
1:H:760:LYS:HA	1:H:763:LEU:HD12	1.76	0.68
1:E:83:LYS:HD2	1:E:111:TRP:CH2	2.29	0.67
1:E:467:VAL:HG11	1:E:474:LEU:HB2	1.75	0.67
2:F:746:ALA:CB	1:M:721:PHE:CA	2.71	0.67
1:L:1280:ALA:HB2	1:L:1316:MET:HE1	1.75	0.67
1:E:63:ARG:O	1:E:64:ARG:NH1	2.27	0.67
3:C:650:TRP:CZ2	3:C:654:TYR:HE2	2.13	0.67
3:C:715:LEU:HB3	3:C:719:VAL:HG12	1.74	0.67
1:M:873:PRO:O	1:M:877:ASN:ND2	2.27	0.67
1:M:922:GLU:O	1:M:925:GLN:NE2	2.27	0.67
1:B:1267:ARG:HH11	1:B:1268:LEU:HG	1.59	0.67
1:H:791:LEU:O	1:H:795:ASN:N	2.26	0.67
4:N:218:VAL:HG22	4:N:223:LYS:HB2	1.76	0.67
1:E:164:TRP:HB3	1:E:183:LEU:HD11	1.76	0.67
3:C:743:GLU:OE1	3:C:743:GLU:N	2.27	0.67
1:M:655:PHE:HA	1:M:658:LEU:HB3	1.75	0.67
1:A:1377:THR:O	1:A:1381:HIS:N	2.24	0.67
4:D:138:GLU:O	4:D:141:GLN:NE2	2.28	0.67
1:M:866:ILE:HG13	1:M:879:LEU:HD11	1.76	0.67
1:A:1469:ASN:HA	1:A:1472:ILE:HD12	1.76	0.67
1:B:858:LEU:O	1:B:862:LEU:N	2.19	0.67
1:E:81:ALA:HB1	1:E:88:LEU:HD11	1.77	0.67
1:E:372:PHE:HE1	1:E:417:TYR:HE1	1.42	0.67
1:E:467:VAL:O	1:E:471:ASP:N	2.18	0.67
1:M:826:GLU:OE1	1:M:826:GLU:N	2.26	0.67
4:D:108:GLU:HA	4:D:111:ARG:HG2	1.77	0.67
1:K:1445:LEU:HA	1:K:1448:VAL:HG22	1.76	0.67
3:C:521:VAL:HG13	3:C:524:ILE:HG21	1.76	0.67
1:L:1185:GLU:N	1:L:1185:GLU:OE1	2.27	0.67
1:H:852:ARG:O	1:H:854:ARG:NH1	2.28	0.67
1:E:568:ASP:OD1	1:E:571:LYS:NZ	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:466:LEU:O	3:C:469:SER:OG	2.10	0.67
3:C:708:PHE:CG	3:C:709:GLU:N	2.63	0.67
1:L:1398:VAL:O	1:L:1429:ARG:NH2	2.28	0.67
3:C:418:PHE:HZ	3:C:447:LEU:HD13	1.57	0.67
3:C:495:THR:OG1	3:C:526:PRO:HG2	1.95	0.67
3:C:546:ILE:HB	3:C:583:ARG:HH11	1.59	0.67
1:A:1492:ASN:HA	1:A:1495:LEU:HD13	1.77	0.67
1:B:1157:LEU:HD13	1:B:1173:LEU:HA	1.77	0.67
1:E:668:ARG:HG2	1:E:698:LEU:HD11	1.75	0.67
3:C:662:ASP:O	3:C:665:GLU:N	2.26	0.67
1:B:1123:GLU:N	1:B:1123:GLU:OE2	2.27	0.67
1:E:402:GLN:HA	1:E:414:LEU:HD11	1.75	0.67
1:E:451:TRP:HB3	1:E:456:LYS:HB2	1.77	0.67
1:E:490:GLN:CB	1:E:513:ASP:HB3	2.18	0.67
1:E:576:SER:O	1:E:581:GLN:NE2	2.28	0.67
1:M:957:GLY:HA2	1:M:960:LEU:HB2	1.76	0.67
1:B:1125:ILE:HG12	1:B:1152:GLU:HG3	1.76	0.67
1:B:1143:ALA:O	1:B:1149:ASN:ND2	2.28	0.67
1:B:1203:ASP:OD1	1:B:1218:TYR:OH	2.13	0.67
1:B:1218:TYR:HB3	1:B:1227:LEU:HB3	1.76	0.67
1:E:26:GLY:O	1:E:30:LEU:N	2.29	0.66
4:D:126:GLN:OE1	4:D:129:ARG:NH1	2.28	0.66
1:J:1609:LYS:O	1:J:1613:LEU:HG	1.95	0.66
1:K:1574:TYR:OH	1:K:1601:GLN:NE2	2.28	0.66
1:E:31:THR:N	1:E:39:CYS:O	2.28	0.66
3:C:502:VAL:HG12	3:C:532:PHE:O	1.94	0.66
3:C:826:GLU:N	3:C:826:GLU:OE1	2.28	0.66
1:A:1411:TYR:O	1:A:1415:LYS:N	2.27	0.66
1:L:1136:SER:O	1:L:1140:VAL:N	2.24	0.66
1:L:1188:GLU:OE1	1:L:1188:GLU:N	2.29	0.66
1:E:38:ILE:HB	1:E:53:ILE:HB	1.78	0.66
1:E:51:VAL:HG13	1:E:63:ARG:HG2	1.76	0.66
1:E:200:SER:O	1:E:217:CYS:N	2.25	0.66
1:E:318:VAL:HG22	1:E:324:VAL:HG22	1.77	0.66
3:C:479:TYR:HB3	3:C:485:PRO:HD2	1.77	0.66
3:C:857:LEU:O	3:C:859:LEU:N	2.27	0.66
1:L:1097:GLU:N	1:L:1097:GLU:OE1	2.27	0.66
3:C:393:ARG:NH2	3:C:425:GLY:O	2.28	0.66
3:C:864:ALA:HA	3:C:867:HIS:CE1	2.29	0.66
1:E:74:ASN:ND2	1:E:116:LEU:O	2.22	0.66
1:E:181:MET:N	1:E:194:ILE:O	2.21	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:231:ILE:HG22	1:E:245:LYS:HB3	1.76	0.66
1:B:1128:TYR:OH	1:B:1136:SER:OG	2.13	0.66
4:D:118:ASP:OD1	4:D:119:ALA:N	2.28	0.66
1:E:439:VAL:HA	1:E:442:GLN:HB2	1.78	0.66
3:C:684:GLN:O	3:C:687:SER:OG	2.09	0.66
1:B:1207:ASP:O	1:B:1209:LYS:NZ	2.29	0.66
1:E:8:ARG:NH2	1:E:332:GLU:OE2	2.29	0.66
1:E:109:THR:OG1	1:E:124:ASP:OD1	2.13	0.66
1:E:676:ARG:HH21	1:E:704:SER:C	1.98	0.66
1:M:890:PRO:HB2	1:M:893:PHE:HB3	1.76	0.66
1:L:1007:LEU:HD23	1:L:1010:LYS:HZ1	1.60	0.66
1:E:31:THR:HG21	1:E:72:ILE:HA	1.76	0.66
3:C:725:PRO:C	3:C:758:ARG:HH22	1.99	0.66
1:A:1494:SER:HA	1:A:1497:GLN:HG2	1.78	0.66
1:E:90:ILE:HG21	1:E:132:MET:HB3	1.76	0.66
1:E:175:ASN:O	1:E:176:ARG:NH1	2.25	0.66
3:C:478:VAL:O	3:C:482:ALA:N	2.25	0.66
3:C:655:PHE:O	3:C:659:SER:N	2.27	0.66
1:M:709:GLU:O	1:M:712:PHE:HB3	1.96	0.66
1:E:121:LEU:N	1:E:128:TYR:O	2.23	0.66
3:C:534:GLN:HB2	3:C:565:PHE:CD1	2.30	0.66
3:C:727:VAL:O	3:C:731:TYR:HB2	1.96	0.66
1:A:1608:THR:OG1	1:A:1609:LYS:NZ	2.29	0.66
4:D:146:GLN:O	4:D:150:ASN:ND2	2.29	0.66
1:K:1526:GLU:HA	1:K:1529:LYS:HD3	1.78	0.66
3:C:668:ARG:HB2	3:C:668:ARG:HH21	1.61	0.65
1:H:825:SER:OG	1:H:827:ASP:OD1	2.13	0.65
4:N:218:VAL:O	4:N:223:LYS:N	2.29	0.65
1:K:1595:ALA:O	1:K:1599:PHE:N	2.26	0.65
1:M:567:LEU:HD23	1:M:570:LEU:HD12	1.78	0.65
1:M:802:ILE:HA	1:M:805:GLN:HG2	1.77	0.65
4:O:130:GLU:HA	4:O:133:LYS:HE2	1.78	0.65
1:K:1539:GLN:O	1:K:1542:SER:OG	2.15	0.65
1:E:172:ALA:HA	1:E:177:VAL:HA	1.77	0.65
1:M:714:PHE:O	1:M:717:SER:OG	2.13	0.65
1:A:1492:ASN:HB2	1:A:1518:ASN:HD21	1.59	0.65
1:L:1328:LYS:HB3	1:L:1331:LYS:HD3	1.77	0.65
1:E:349:LEU:HD13	1:E:367:LYS:HE3	1.76	0.65
1:A:1493:ILE:HG13	1:A:1494:SER:H	1.60	0.65
4:N:128:TRP:HA	4:N:131:LYS:HE3	1.77	0.65
1:E:289:THR:OG1	1:E:291:THR:OG1	2.13	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:615:GLN:O	3:C:618:GLU:HB3	1.97	0.65
3:C:669:ALA:O	3:C:672:SER:OG	2.14	0.65
3:C:839:GLN:N	3:C:839:GLN:OE1	2.30	0.65
1:M:1016:SER:O	1:M:1019:SER:OG	2.14	0.65
1:B:995:PHE:HA	1:B:1000:LEU:HD23	1.77	0.65
3:C:576:SER:HB3	3:C:607:HIS:HB3	1.78	0.65
1:L:1158:GLN:O	1:L:1162:LYS:NZ	2.17	0.65
1:E:183:LEU:O	1:E:192:GLN:N	2.27	0.65
1:E:267:SER:O	1:E:271:ASP:N	2.29	0.65
3:C:825:SER:OG	3:C:826:GLU:OE1	2.13	0.65
1:M:786:ASP:OD1	1:M:786:ASP:N	2.27	0.65
1:B:1111:LEU:O	1:B:1115:GLN:NE2	2.30	0.65
1:L:1352:ALA:HB1	1:L:1361:LEU:HD22	1.78	0.65
3:C:832:LEU:HA	3:C:835:VAL:HG22	1.79	0.64
1:A:1513:TYR:O	1:A:1516:LYS:HG2	1.97	0.64
1:B:849:VAL:O	1:B:853:ASN:N	2.30	0.64
1:B:1025:GLN:HE21	1:B:1050:TYR:HB2	1.62	0.64
1:L:1139:GLU:OE1	1:L:1139:GLU:N	2.22	0.64
3:C:687:SER:HB3	3:C:714:PHE:HE1	1.63	0.64
1:A:1460:ASN:ND2	1:A:1462:SER:OG	2.30	0.64
1:A:1514:LEU:O	1:A:1518:ASN:N	2.29	0.64
1:K:1503:GLU:H	1:K:1508:ARG:HH22	1.44	0.64
1:L:1129:ILE:HB	1:L:1130:LYS:HZ3	1.61	0.64
1:L:1238:GLN:NE2	1:L:1242:ASP:OD1	2.30	0.64
1:E:8:ARG:NE	1:E:330:GLU:OE1	2.30	0.64
1:E:342:LEU:O	1:E:344:ASN:ND2	2.30	0.64
1:E:505:ALA:O	1:E:514:TRP:NE1	2.29	0.64
3:C:442:GLN:HB3	3:C:444:ARG:HG2	1.79	0.64
3:C:486:ASN:HB3	3:C:510:TYR:HE1	1.61	0.64
3:C:626:ALA:C	3:C:629:HIS:HD1	1.98	0.64
3:C:793:ARG:NH2	1:B:1221:VAL:O	2.23	0.64
1:M:856:LYS:H	1:M:856:LYS:HD2	1.63	0.64
1:A:1402:GLU:OE1	1:A:1402:GLU:N	2.31	0.64
1:B:1198:ILE:HD11	1:B:1218:TYR:HD1	1.63	0.64
3:C:474:LEU:O	3:C:477:SER:OG	2.11	0.64
1:B:1002:ASN:ND2	1:B:1034:LYS:O	2.31	0.64
1:E:211:GLU:H	1:E:240:ASN:ND2	1.94	0.64
3:C:762:PHE:O	3:C:765:GLU:HG2	1.98	0.64
3:C:501:ILE:HG21	3:C:517:LEU:HD13	1.79	0.64
3:C:743:GLU:O	3:C:746:ARG:HB3	1.98	0.64
1:B:1039:ARG:HB2	1:B:1043:TYR:CZ	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:618:GLU:HG2	1:E:642:HIS:NE2	2.13	0.64
1:M:939:LEU:HD21	1:M:941:LYS:HE3	1.77	0.64
1:L:1419:LEU:O	1:L:1423:LEU:HG	1.98	0.64
1:E:275:LEU:O	1:E:283:HIS:N	2.31	0.64
1:E:524:ILE:HB	1:E:526:PRO:HG2	1.79	0.64
3:C:463:LEU:HD23	3:C:464:GLY:N	2.13	0.64
3:C:791:LEU:HB3	3:C:796:LEU:HD12	1.80	0.64
4:O:126:GLN:OE1	4:O:129:ARG:NH1	2.30	0.64
1:K:1584:GLU:OE1	1:K:1588:ARG:NH2	2.30	0.64
1:L:1128:TYR:HD1	1:L:1131:ALA:HB3	1.62	0.64
1:L:1224:PHE:O	1:L:1226:ARG:NH2	2.28	0.64
1:L:1360:GLU:OE1	1:L:1360:GLU:N	2.30	0.64
4:I:150:ASN:O	4:I:154:ASN:ND2	2.31	0.64
4:N:192:TRP:HA	4:N:195:VAL:HG22	1.80	0.64
4:D:119:ALA:HA	4:D:122:LYS:HD3	1.80	0.64
1:K:1527:LEU:HA	1:K:1530:LYS:HG3	1.78	0.64
1:L:1043:TYR:O	1:L:1047:LEU:N	2.31	0.64
1:E:1:MET:HE2	2:F:896:GLY:O	1.98	0.64
1:E:514:TRP:HH2	1:E:541:GLU:H	1.47	0.64
3:C:514:TRP:HE1	3:C:549:ILE:CG1	2.10	0.64
3:C:715:LEU:HD23	3:C:718:ILE:HD12	1.79	0.64
1:M:655:PHE:O	1:M:659:SER:N	2.25	0.64
1:B:1142:GLN:O	1:B:1146:THR:OG1	2.15	0.64
1:B:1216:LEU:O	1:B:1220:ASN:ND2	2.31	0.64
1:E:202:ALA:N	1:E:215:LEU:O	2.27	0.63
3:C:650:TRP:CE2	3:C:654:TYR:HE2	2.15	0.63
1:M:718:ILE:O	1:M:722:SER:OG	2.15	0.63
1:B:1157:LEU:HB2	1:B:1173:LEU:HD13	1.80	0.63
1:B:1221:VAL:HB	1:B:1223:ASN:HD21	1.63	0.63
1:K:1492:ASN:HB3	1:K:1514:LEU:HD13	1.80	0.63
1:K:1571:PHE:HA	1:K:1574:TYR:HB2	1.80	0.63
4:I:217:SER:O	4:I:221:SER:N	2.26	0.63
1:E:100:LYS:HG3	1:E:130:TRP:HZ2	1.64	0.63
1:E:115:SER:OG	1:E:118:THR:N	2.23	0.63
1:E:309:HIS:N	1:E:314:GLY:O	2.30	0.63
1:E:510:TYR:O	1:E:514:TRP:N	2.26	0.63
3:C:581:GLN:HE21	3:C:604:MET:HA	1.62	0.63
1:A:1378:MET:HE2	1:A:1386:TRP:HD1	1.64	0.63
1:B:828:VAL:HA	1:B:831:ASN:HD22	1.63	0.63
1:J:1557:PHE:HD2	1:J:1566:PHE:HD1	1.44	0.63
1:H:772:LEU:HG	1:H:799:TYR:HE1	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:10:GLN:O	1:E:326:SER:N	2.32	0.63
1:E:123:THR:HG23	1:E:128:TYR:CE1	2.33	0.63
1:E:166:LEU:HA	1:E:183:LEU:HA	1.80	0.63
3:C:779:ASP:OD1	3:C:779:ASP:N	2.30	0.63
1:A:1449:LYS:HA	1:A:1452:LEU:HD12	1.80	0.63
1:K:1456:GLN:OE1	1:K:1464:ASN:ND2	2.31	0.63
1:E:573:ASN:HA	1:E:576:SER:OG	1.99	0.63
3:C:426:GLN:HG3	3:C:455:ASP:O	1.99	0.63
3:C:574:ARG:HG3	3:C:575:PRO:HD3	1.80	0.63
1:M:987:GLU:HA	1:M:990:VAL:HG12	1.80	0.63
3:C:665:GLU:O	3:C:668:ARG:NH2	2.31	0.63
1:J:1617:GLU:OE1	1:J:1621:LYS:NZ	2.22	0.63
1:L:1405:TYR:HA	1:L:1408:ILE:HD12	1.79	0.63
1:E:296:ASN:OD1	1:E:297:ARG:N	2.32	0.63
1:B:813:PRO:HA	1:B:839:GLN:H	1.63	0.63
4:O:104:ARG:HE	4:O:111:ARG:HH22	1.46	0.63
1:J:1605:GLU:O	1:J:1609:LYS:HG2	1.99	0.63
1:L:1203:ASP:OD1	1:L:1218:TYR:OH	2.16	0.63
1:E:87:THR:HA	1:E:103:THR:HA	1.79	0.63
1:E:445:LYS:HA	1:E:448:LEU:HD12	1.80	0.63
3:C:440:LEU:HD12	3:C:445:LYS:HG3	1.80	0.63
3:C:762:PHE:HA	3:C:765:GLU:HG2	1.80	0.63
1:M:890:PRO:O	1:M:894:LEU:N	2.25	0.63
1:A:1605:GLU:HB2	4:D:210:LYS:HE3	1.81	0.63
1:B:1109:SER:OG	1:B:1110:GLN:NE2	2.32	0.63
4:N:205:SER:O	4:N:208:GLN:NE2	2.32	0.63
1:E:226:GLY:O	1:E:250:VAL:N	2.30	0.63
1:E:534:GLN:HG2	1:E:565:PHE:HA	1.81	0.63
3:C:498:VAL:HG13	3:C:532:PHE:HD1	1.62	0.63
3:C:812:LEU:HB2	3:C:837:ARG:NH1	2.14	0.63
1:M:687:SER:HA	1:M:690:HIS:HD2	1.61	0.63
1:K:1470:LEU:O	1:K:1474:GLU:CB	2.47	0.63
1:L:943:LEU:HD21	1:L:959:VAL:HG11	1.80	0.63
1:L:1082:VAL:HG21	1:L:1107:VAL:HG13	1.81	0.63
1:L:1234:LEU:HD22	1:L:1236:GLU:HB2	1.81	0.63
1:L:1309:LEU:HD12	1:L:1312:ALA:HB3	1.81	0.63
1:E:72:ILE:HG13	1:E:81:ALA:HB3	1.80	0.62
1:E:523:ARG:HE	1:E:552:VAL:HG11	1.63	0.62
1:E:523:ARG:HH21	1:E:552:VAL:HG21	1.64	0.62
3:C:441:GLN:OE1	3:C:441:GLN:N	2.29	0.62
3:C:519:ARG:HG2	3:C:523:ARG:NH1	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:549:ILE:O	3:C:553:PHE:HD2	1.82	0.62
1:M:826:GLU:HA	1:M:829:ILE:HD13	1.81	0.62
1:L:1444:GLN:HB3	1:L:1447:LEU:HD12	1.81	0.62
1:H:680:GLN:HG3	1:H:684:GLN:HE21	1.63	0.62
1:H:778:CYS:O	1:H:782:ASP:N	2.31	0.62
1:E:118:THR:HA	1:E:131:SER:HA	1.80	0.62
1:E:702:PHE:O	1:E:706:LYS:N	2.31	0.62
3:C:510:TYR:O	3:C:513:ASP:HB3	1.99	0.62
3:C:540:GLU:HA	3:C:569:ALA:HB1	1.81	0.62
3:C:709:GLU:O	3:C:712:PHE:HB3	1.99	0.62
1:K:1408:ILE:HG13	1:K:1419:LEU:HD22	1.79	0.62
1:L:1390:GLN:H	1:L:1390:GLN:CD	2.02	0.62
1:E:628:GLU:O	1:E:631:THR:OG1	2.15	0.62
3:C:494:GLU:HA	3:C:520:ASN:HB3	1.80	0.62
1:L:1388:GLU:HG2	1:L:1389:GLY:H	1.64	0.62
1:E:259:ASP:OD1	1:E:278:LYS:N	2.32	0.62
1:E:386:ASN:OD1	1:E:424:GLN:NE2	2.32	0.62
1:M:581:GLN:HG3	1:M:608:TYR:HE1	1.63	0.62
1:M:1008:LEU:HA	1:M:1011:ILE:HG22	1.80	0.62
1:A:1449:LYS:HE2	1:A:1453:ARG:HD3	1.79	0.62
1:L:1259:ALA:O	1:L:1263:GLY:N	2.30	0.62
1:E:180:ALA:HA	1:E:195:GLU:HA	1.81	0.62
1:E:282:ILE:N	1:E:296:ASN:O	2.26	0.62
1:E:368:PHE:CE1	1:E:383:VAL:HG23	2.34	0.62
1:E:653:ASN:HB3	1:E:674:ASN:HD21	1.65	0.62
2:F:748:GLN:CG	1:M:720:ASN:ND2	2.59	0.62
3:C:534:GLN:HB2	3:C:565:PHE:HA	1.80	0.62
3:C:677:GLN:O	3:C:680:GLN:NE2	2.31	0.62
1:B:1025:GLN:N	1:B:1025:GLN:OE1	2.33	0.62
3:C:581:GLN:CB	3:C:608:TYR:HB2	2.29	0.62
3:C:664:LEU:H	3:C:664:LEU:HD12	1.63	0.62
4:O:113:ARG:HH21	4:O:117:LEU:HG	1.65	0.62
1:L:1025:GLN:HA	1:L:1028:LEU:HB3	1.80	0.62
1:E:579:PRO:O	1:E:582:THR:OG1	2.16	0.62
3:C:514:TRP:CZ3	3:C:517:LEU:HD22	2.35	0.62
3:C:755:ASP:H	3:C:758:ARG:NH2	1.98	0.62
1:M:747:ILE:O	1:M:751:SER:N	2.27	0.62
1:B:1047:LEU:HD12	1:B:1048:ASP:H	1.64	0.62
1:L:948:VAL:HG21	1:L:978:ALA:HA	1.81	0.62
1:H:749:ARG:O	1:H:752:ASN:ND2	2.30	0.62
1:E:433:LEU:HD23	1:E:466:LEU:HD11	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:499:GLN:HA	3:C:502:VAL:HG22	1.82	0.62
3:C:518:LEU:O	3:C:522:MET:HG3	2.00	0.62
3:C:675:ILE:HA	3:C:676:ARG:NH1	2.15	0.62
3:C:742:LYS:HE2	1:H:641:VAL:HG11	0.64	0.62
1:K:1500:GLU:HA	1:K:1508:ARG:HB3	1.82	0.62
1:L:1099:ALA:HA	1:L:1102:CYS:HB2	1.80	0.62
1:H:648:PRO:HA	1:H:651:LEU:HB2	1.82	0.62
1:E:38:ILE:N	1:E:53:ILE:O	2.33	0.62
3:C:504:TYR:O	3:C:510:TYR:N	2.33	0.62
3:C:553:PHE:O	3:C:557:ASN:N	2.32	0.62
3:C:689:TYR:HA	3:C:692:GLN:NE2	2.15	0.62
1:M:574:ARG:HB3	1:M:575:PRO:HD3	1.82	0.62
1:M:610:ARG:HB2	1:M:633:LEU:HD21	1.79	0.62
1:M:717:SER:O	1:M:720:ASN:ND2	2.33	0.62
1:A:1491:ASP:OD1	1:A:1492:ASN:N	2.30	0.62
1:H:687:SER:HA	1:H:690:HIS:CD2	2.34	0.62
1:E:179:GLY:O	1:E:196:GLY:N	2.32	0.62
1:E:599:ILE:HA	1:E:602:ASN:HB2	1.82	0.62
1:E:654:TYR:HE1	1:E:680:GLN:HB2	1.65	0.62
2:F:718:VAL:HG12	1:M:723:GLN:CG	2.25	0.62
3:C:523:ARG:HG3	3:C:523:ARG:O	1.98	0.62
3:C:724:ASP:HB3	3:C:727:VAL:HG12	1.81	0.62
3:C:741:ILE:HB	3:C:745:GLU:HG2	1.81	0.62
3:C:772:LEU:HB2	3:C:775:ILE:HD13	1.81	0.62
4:O:155:ARG:NH1	4:O:158:ASP:O	2.33	0.62
1:J:1624:GLU:OE2	1:J:1625:GLN:NE2	2.33	0.62
1:E:277:THR:OG1	1:E:281:TYR:HB2	1.99	0.61
3:C:712:PHE:CE1	3:C:734:ALA:HB3	2.35	0.61
3:C:719:VAL:CG2	3:C:727:VAL:HG11	2.30	0.61
3:C:760:LYS:O	3:C:764:LYS:HG3	2.00	0.61
3:C:821:ASP:OD1	3:C:822:VAL:N	2.33	0.61
1:M:812:LEU:O	1:M:816:ILE:HG12	2.00	0.61
1:B:1201:VAL:HA	1:B:1204:ARG:HB2	1.81	0.61
1:H:715:LEU:O	1:H:719:VAL:N	2.27	0.61
1:E:217:CYS:SG	1:E:230:ILE:HG12	2.40	0.61
1:E:368:PHE:HB3	1:E:372:PHE:HE2	1.65	0.61
1:A:1445:LEU:H	1:A:1445:LEU:HD12	1.65	0.61
1:A:1596:MET:HA	1:A:1599:PHE:HD2	1.65	0.61
1:B:940:PHE:HA	1:B:943:LEU:HD23	1.82	0.61
1:B:1236:GLU:OE2	1:B:1239:ALA:N	2.33	0.61
4:D:130:GLU:HA	4:D:133:LYS:HD2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1547:THR:HG23	1:J:1548:GLU:HG2	1.81	0.61
1:K:1521:TRP:O	1:K:1522:LYS:HG2	2.01	0.61
1:L:1032:ALA:HB2	1:L:1043:TYR:HE2	1.65	0.61
1:H:682:CYS:HA	1:H:685:VAL:HG12	1.82	0.61
1:E:335:ILE:HD11	1:E:352:ALA:HB2	1.82	0.61
1:E:654:TYR:CE1	1:E:680:GLN:HB2	2.34	0.61
1:E:655:PHE:HA	1:E:658:LEU:HD12	1.81	0.61
3:C:528:GLN:HB3	3:C:561:GLN:NE2	2.15	0.61
3:C:851:LYS:HE3	3:C:852:ARG:NH1	2.14	0.61
1:M:578:GLY:HA2	1:M:607:HIS:HB3	1.81	0.61
1:M:701:LEU:O	1:M:704:SER:OG	2.17	0.61
1:K:1620:ARG:O	1:K:1624:GLU:HG2	2.00	0.61
1:H:687:SER:HA	1:H:690:HIS:HD2	1.64	0.61
1:E:527:ASP:H	1:E:531:GLN:HE22	1.48	0.61
3:C:519:ARG:CG	3:C:523:ARG:HH12	2.12	0.61
1:M:617:CYS:HB2	1:M:622:LEU:HB2	1.80	0.61
4:O:118:ASP:OD1	4:O:119:ALA:N	2.34	0.61
4:O:130:GLU:O	4:O:134:LYS:NZ	2.24	0.61
1:L:1086:ILE:HA	1:L:1090:GLY:HA2	1.81	0.61
1:L:1400:ASN:OD1	1:L:1403:LEU:N	2.30	0.61
1:E:527:ASP:N	1:E:531:GLN:HE22	1.99	0.61
3:C:577:GLU:HB2	3:C:579:PRO:HD2	1.82	0.61
1:B:971:ILE:O	1:B:975:VAL:HG13	2.01	0.61
1:B:1035:ALA:O	1:B:1037:ARG:NH1	2.33	0.61
4:D:125:GLU:HG3	4:D:129:ARG:HH22	1.64	0.61
1:L:1026:ASN:O	1:L:1030:LEU:HB2	2.00	0.61
1:L:1372:ASP:OD1	1:L:1372:ASP:N	2.30	0.61
3:C:529:GLY:H	3:C:561:GLN:HG2	1.64	0.61
3:C:553:PHE:HA	3:C:558:LEU:HB2	1.81	0.61
3:C:696:GLN:O	3:C:699:ILE:HG12	2.00	0.61
1:L:1020:GLU:OE1	1:L:1022:ARG:NH1	2.33	0.61
3:C:683:VAL:HG21	3:C:710:GLY:HA3	1.83	0.61
1:M:1040:VAL:HA	1:M:1043:TYR:CD2	2.35	0.61
1:J:1586:ALA:HA	1:J:1591:ILE:HG13	1.83	0.61
1:K:1398:VAL:HG11	1:K:1403:LEU:HD22	1.83	0.61
1:K:1609:LYS:O	1:K:1613:LEU:HG	2.01	0.61
3:C:545:ASP:OD1	3:C:545:ASP:N	2.33	0.61
1:M:970:LEU:O	1:M:974:VAL:HG13	2.01	0.61
1:B:1174:ILE:HG13	1:B:1201:VAL:HG11	1.82	0.61
1:E:83:LYS:NZ	1:E:111:TRP:CD2	2.68	0.61
1:E:708:PHE:HB3	1:E:712:PHE:CZ	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:808:LYS:HG3	2:F:813:VAL:HG22	1.82	0.61
3:C:724:ASP:O	3:C:727:VAL:HG12	2.00	0.61
1:M:901:ASP:OD2	1:M:904:VAL:N	2.28	0.61
1:A:1376:ILE:HA	1:A:1406:ARG:HH22	1.65	0.61
1:B:873:PRO:O	1:B:877:ASN:N	2.28	0.61
1:H:790:TYR:O	1:H:794:ASN:ND2	2.34	0.61
4:N:215:LEU:HA	4:N:218:VAL:HG12	1.82	0.61
1:E:224:ALA:HB1	1:E:227:LYS:HE3	1.83	0.61
3:C:472:PRO:HG2	3:C:494:GLU:H	1.66	0.61
3:C:741:ILE:HG13	3:C:742:LYS:N	2.15	0.61
3:C:770:ASP:OD1	3:C:770:ASP:N	2.32	0.61
1:M:913:ASP:HB3	1:M:916:LEU:HG	1.83	0.61
1:M:1071:ILE:HA	1:M:1074:LYS:HB3	1.81	0.61
1:B:909:CYS:HB2	1:B:912:ARG:HB2	1.83	0.61
1:E:109:THR:N	1:E:122:VAL:O	2.33	0.60
3:C:479:TYR:HD2	3:C:489:ILE:HA	1.66	0.60
3:C:837:ARG:HH11	3:C:840:PHE:HD1	1.49	0.60
1:B:955:LEU:O	1:B:958:SER:OG	2.16	0.60
1:H:748:CYS:HB2	1:H:777:VAL:HG21	1.83	0.60
1:H:815:VAL:O	1:H:819:LEU:HG	2.00	0.60
1:E:120:ALA:HA	1:E:129:HIS:HA	1.84	0.60
1:E:128:TYR:HA	1:E:140:LYS:HA	1.82	0.60
1:E:449:GLU:O	1:E:453:LYS:HG3	2.01	0.60
1:E:519:ARG:HB3	1:E:523:ARG:CZ	2.31	0.60
1:E:676:ARG:HB2	1:E:705:PHE:HD1	1.66	0.60
3:C:424:GLN:HE21	3:C:427:LEU:HD11	1.66	0.60
3:C:545:ASP:OD2	3:C:548:GLN:HB2	2.01	0.60
3:C:577:GLU:OE1	3:C:580:LEU:N	2.33	0.60
3:C:729:PHE:HD1	3:C:759:VAL:HG22	1.66	0.60
1:M:1042:GLU:HB2	1:M:1046:ARG:HH21	1.66	0.60
1:A:1440:SER:HA	1:A:1445:LEU:HD11	1.82	0.60
1:E:362:GLU:OE1	1:E:366:ARG:NH2	2.34	0.60
3:C:397:THR:HG22	3:C:400:ARG:HH21	1.67	0.60
1:M:588:ASN:O	1:M:592:ALA:N	2.34	0.60
1:M:648:PRO:HG3	1:M:653:ASN:HD22	1.65	0.60
1:M:696:GLN:OE1	1:M:696:GLN:N	2.35	0.60
1:B:1187:GLU:OE2	1:B:1220:ASN:ND2	2.34	0.60
1:J:1605:GLU:O	1:J:1608:THR:OG1	2.16	0.60
1:H:796:LEU:HD22	1:H:800:ILE:HG23	1.83	0.60
3:C:462:GLU:O	3:C:466:LEU:HG	2.01	0.60
1:M:1003:GLU:OE2	1:M:1037:ARG:NH2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1144:ALA:HA	1:L:1149:ASN:HD21	1.65	0.60
1:E:33:GLU:HG3	1:E:113:TRP:HD1	1.67	0.60
1:M:900:TYR:O	1:M:923:ARG:NH2	2.35	0.60
1:A:1415:LYS:HB3	1:A:1418:LEU:HB2	1.84	0.60
1:B:1086:ILE:HA	1:B:1090:GLY:HA2	1.83	0.60
1:B:1260:CYS:HB3	1:B:1265:GLU:HB2	1.83	0.60
1:L:1378:MET:HE1	1:L:1387:LYS:H	1.66	0.60
1:E:182:GLN:NE2	1:E:191:SER:OG	2.33	0.60
1:E:216:PHE:N	1:E:231:ILE:O	2.30	0.60
1:E:372:PHE:HE1	1:E:417:TYR:CE1	2.19	0.60
1:E:644:HIS:CD2	1:E:666:CYS:HB3	2.36	0.60
1:E:698:LEU:HB3	1:E:702:PHE:CE2	2.36	0.60
3:C:393:ARG:HD2	3:C:431:GLU:HB3	1.83	0.60
3:C:617:CYS:O	3:C:621:GLY:N	2.32	0.60
1:M:702:PHE:O	1:M:707:SER:HB3	2.02	0.60
1:A:1265:GLU:HB3	1:A:1268:LEU:HB2	1.82	0.60
1:B:1230:THR:O	1:B:1234:LEU:HB2	2.01	0.60
4:D:114:LEU:HD23	4:D:117:LEU:HD12	1.84	0.60
1:L:1032:ALA:O	1:L:1036:ASP:N	2.32	0.60
1:L:1216:LEU:O	1:L:1220:ASN:ND2	2.35	0.60
1:L:1365:TYR:CE2	1:L:1373:ASN:HB3	2.37	0.60
1:L:1365:TYR:CZ	1:L:1373:ASN:HB3	2.37	0.60
1:E:183:LEU:HD23	1:E:192:GLN:HE21	1.65	0.60
1:E:183:LEU:N	1:E:192:GLN:O	2.33	0.60
1:M:944:SER:HA	1:M:947:LEU:HD12	1.84	0.60
1:A:1478:GLN:HA	1:A:1481:ARG:HD3	1.81	0.60
1:B:968:ARG:HD2	1:B:971:ILE:HD11	1.83	0.60
1:B:1115:GLN:O	1:B:1120:MET:N	2.34	0.60
4:O:140:ASN:HA	4:O:143:GLN:HG2	1.83	0.60
1:H:724:ASP:O	1:H:728:HIS:ND1	2.21	0.60
1:E:75:PRO:HD2	1:E:116:LEU:HA	1.84	0.60
1:E:218:PHE:CE2	1:E:229:HIS:HB2	2.37	0.60
1:E:260:PHE:O	1:E:278:LYS:N	2.34	0.60
1:E:283:HIS:HB3	1:E:285:TYR:CE1	2.37	0.60
1:E:339:THR:HG22	1:E:345:PRO:HA	1.83	0.60
1:E:506:LYS:HD3	1:E:539:ASP:O	2.02	0.60
1:E:516:PHE:O	1:E:520:ASN:ND2	2.35	0.60
3:C:772:LEU:O	3:C:775:ILE:HG12	2.01	0.60
1:M:664:LEU:O	1:M:668:ARG:HG2	2.02	0.60
1:K:1405:TYR:OH	1:K:1431:ASP:O	2.19	0.60
1:E:32:MET:HB3	1:E:305:VAL:HG11	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:156:TYR:CE1	1:E:165:LEU:HB3	2.37	0.60
1:E:170:ILE:HG22	1:E:179:GLY:HA2	1.84	0.60
1:E:546:ILE:HD12	1:E:580:LEU:HD22	1.83	0.60
1:E:670:MET:O	1:E:674:ASN:ND2	2.35	0.60
3:C:468:LYS:HG2	3:C:475:ALA:HB3	1.84	0.60
3:C:493:ALA:HB1	3:C:501:ILE:HG12	1.83	0.60
1:B:1199:GLN:NE2	1:B:1223:ASN:OD1	2.27	0.60
4:O:149:LYS:O	4:O:153:ASN:ND2	2.35	0.60
3:C:418:PHE:CZ	3:C:447:LEU:HD13	2.36	0.60
3:C:845:LEU:O	3:C:849:VAL:HG12	2.01	0.60
1:B:876:HIS:HB2	1:B:900:TYR:HB3	1.84	0.60
1:L:1251:ARG:HA	1:L:1254:LYS:HE2	1.84	0.60
1:L:1265:GLU:OE1	1:L:1267:ARG:N	2.35	0.60
1:H:846:VAL:HA	1:H:849:VAL:HG22	1.84	0.60
3:C:498:VAL:HG13	3:C:532:PHE:CD1	2.36	0.59
1:M:715:LEU:HD23	1:M:731:TYR:HB2	1.82	0.59
1:B:816:ILE:O	1:B:820:LEU:HG	2.02	0.59
1:L:1150:TRP:HB3	1:L:1176:ALA:HB1	1.82	0.59
1:E:154:ILE:HD11	1:E:170:ILE:HD13	1.83	0.59
1:E:446:GLN:O	1:E:450:LYS:HG3	2.02	0.59
3:C:712:PHE:HE1	3:C:731:TYR:O	1.84	0.59
3:C:831:ASN:HA	3:C:834:LEU:HB2	1.84	0.59
1:M:848:GLU:OE2	1:M:852:ARG:NH1	2.35	0.59
1:B:1132:ASP:O	1:B:1163:LYS:NZ	2.33	0.59
1:E:209:ASN:OD1	1:E:241:GLN:N	2.28	0.59
3:C:440:LEU:HD11	3:C:470:VAL:HG21	1.83	0.59
3:C:851:LYS:HE3	3:C:852:ARG:HH12	1.67	0.59
1:A:1333:ARG:NE	1:A:1337:GLU:OE2	2.31	0.59
1:A:1532:SER:OG	1:A:1537:ALA:N	2.30	0.59
4:N:129:ARG:HG2	4:N:133:LYS:HE3	1.85	0.59
1:E:86:LYS:NZ	1:E:105:THR:O	2.25	0.59
1:E:211:GLU:N	1:E:240:ASN:HD21	2.00	0.59
1:E:366:ARG:HA	1:E:369:ASN:HD22	1.67	0.59
3:C:506:LYS:NZ	3:C:538:GLN:HE21	2.01	0.59
3:C:567:LEU:HD22	3:C:571:LYS:HE3	1.85	0.59
1:M:1023:ASN:H	1:M:1026:ASN:ND2	1.98	0.59
1:B:1166:GLU:HG3	1:B:1169:VAL:H	1.67	0.59
1:E:377:TYR:O	1:E:381:ALA:CB	2.50	0.59
3:C:411:THR:OG1	3:C:416:GLN:OE1	2.20	0.59
3:C:528:GLN:HA	3:C:558:LEU:HG	1.84	0.59
3:C:719:VAL:HG21	3:C:727:VAL:HG11	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:945:ARG:HA	1:M:948:VAL:HG22	1.84	0.59
1:A:1502:HIS:CE1	1:A:1504:LEU:HD12	2.37	0.59
1:J:1535:LYS:O	1:J:1539:GLN:N	2.34	0.59
1:K:1372:ASP:O	1:K:1376:ILE:HG12	2.03	0.59
1:K:1422:LEU:HA	1:K:1425:VAL:HG22	1.84	0.59
1:H:816:ILE:O	1:H:820:LEU:HG	2.02	0.59
1:E:52:ILE:HB	1:E:62:ILE:HB	1.84	0.59
1:E:90:ILE:N	1:E:100:LYS:O	2.35	0.59
1:E:114:ILE:HD13	1:E:120:ALA:HB2	1.84	0.59
1:E:197:HIS:CD2	1:E:220:VAL:HG23	2.37	0.59
2:F:746:ALA:CA	1:M:721:PHE:CA	2.80	0.59
3:C:421:LEU:HD13	3:C:456:LYS:HD3	1.84	0.59
3:C:690:HIS:CE1	3:C:715:LEU:HD21	2.36	0.59
3:C:729:PHE:HD2	3:C:730:LYS:HD3	1.68	0.59
1:A:1437:ASN:O	1:A:1440:SER:OG	2.16	0.59
1:B:829:ILE:O	1:B:833:ILE:HG13	2.02	0.59
1:B:1068:ALA:HA	1:B:1071:ILE:HD12	1.82	0.59
1:L:1332:MET:O	1:L:1336:LEU:CB	2.50	0.59
1:H:747:ILE:O	1:H:751:SER:N	2.32	0.59
4:N:146:GLN:HE22	4:N:149:LYS:HD2	1.67	0.59
4:N:165:PRO:HB2	4:N:198:LEU:HD12	1.83	0.59
1:E:527:ASP:O	1:E:531:GLN:NE2	2.36	0.59
3:C:435:LEU:HG	3:C:451:TRP:CZ3	2.37	0.59
3:C:650:TRP:CE2	3:C:654:TYR:CE2	2.90	0.59
1:M:684:GLN:O	1:M:687:SER:OG	2.12	0.59
1:M:771:GLN:OE1	1:M:771:GLN:N	2.29	0.59
1:M:1000:LEU:HB3	1:M:1004:LEU:HB3	1.84	0.59
1:A:1323:LEU:HD13	1:A:1326:LYS:HD2	1.84	0.59
1:J:1554:LEU:HD11	1:J:1569:CYS:HB3	1.85	0.59
1:L:1388:GLU:OE1	1:L:1388:GLU:N	2.35	0.59
3:C:468:LYS:HG2	3:C:475:ALA:HB1	1.83	0.59
3:C:498:VAL:HG11	3:C:535:MET:CE	2.32	0.59
3:C:804:VAL:O	3:C:809:PRO:HA	2.03	0.59
4:N:202:ASN:O	4:N:204:LYS:NZ	2.35	0.59
4:N:204:LYS:H	4:N:207:LYS:HZ1	1.51	0.59
4:N:217:SER:O	4:N:221:SER:N	2.27	0.59
1:A:1512:ALA:HA	1:A:1524:SER:HB2	1.83	0.59
1:J:1499:LEU:HB2	1:J:1511:ALA:HB2	1.83	0.59
1:L:1201:VAL:HG22	1:L:1204:ARG:HH11	1.68	0.59
1:E:167:LEU:O	1:E:182:GLN:N	2.36	0.59
1:E:199:ALA:HB1	1:E:216:PHE:CE1	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:214:THR:O	1:E:233:VAL:N	2.36	0.59
1:E:682:CYS:O	1:E:686:ALA:CB	2.49	0.59
3:C:371:LEU:HB2	3:C:380:ALA:HB2	1.85	0.59
3:C:546:ILE:HD13	3:C:580:LEU:HD13	1.85	0.59
3:C:692:GLN:HG3	3:C:693:LEU:HD23	1.85	0.59
1:A:1471:PHE:HA	1:A:1474:GLU:HB3	1.85	0.59
1:A:1605:GLU:O	1:A:1608:THR:OG1	2.20	0.59
4:D:142:ARG:HA	4:D:145:GLU:HG3	1.84	0.59
1:L:1129:ILE:HB	1:L:1130:LYS:NZ	2.18	0.59
4:N:146:GLN:O	4:N:150:ASN:ND2	2.35	0.59
1:E:33:GLU:OE1	1:E:113:TRP:N	2.32	0.58
3:C:608:TYR:CD1	3:C:609:ASP:N	2.69	0.58
3:C:820:LEU:HB3	3:C:852:ARG:NE	2.16	0.58
1:M:669:ALA:O	1:M:672:SER:OG	2.18	0.58
1:M:793:ARG:HH22	1:L:1221:VAL:HA	1.68	0.58
1:K:1554:LEU:HB3	1:K:1566:PHE:HZ	1.66	0.58
1:E:642:HIS:HA	1:E:645:LEU:HD12	1.85	0.58
2:F:898:TRP:O	2:F:899:ILE:HD12	2.03	0.58
3:C:654:TYR:O	3:C:688:LYS:HE2	2.02	0.58
3:C:675:ILE:HA	3:C:676:ARG:CZ	2.33	0.58
3:C:676:ARG:HA	3:C:679:LEU:CG	2.34	0.58
3:C:757:GLU:OE1	3:C:757:GLU:N	2.36	0.58
1:B:941:LYS:O	1:B:944:SER:OG	2.17	0.58
4:D:104:ARG:HH11	4:D:108:GLU:HB3	1.68	0.58
1:J:1523:GLN:O	1:J:1527:LEU:N	2.32	0.58
1:L:1203:ASP:OD1	1:L:1206:TYR:OH	2.21	0.58
1:E:6:PRO:O	1:E:330:GLU:N	2.32	0.58
1:E:658:LEU:HD21	1:E:684:GLN:HB3	1.84	0.58
3:C:424:GLN:NE2	3:C:427:LEU:HD11	2.18	0.58
3:C:724:ASP:HB3	3:C:727:VAL:CG1	2.33	0.58
3:C:749:ARG:HG3	3:C:750:GLU:HG3	1.85	0.58
3:C:762:PHE:HA	3:C:765:GLU:OE2	2.04	0.58
1:A:1402:GLU:HA	1:A:1405:TYR:HD2	1.68	0.58
1:K:1420:ASN:O	1:K:1424:MET:HG2	2.03	0.58
4:N:195:VAL:HB	4:N:223:LYS:HE2	1.83	0.58
1:E:511:THR:HA	1:E:514:TRP:HB2	1.85	0.58
2:F:717:ALA:C	1:M:721:PHE:CZ	2.59	0.58
1:M:898:PRO:HD2	1:M:899:TYR:CZ	2.39	0.58
1:A:1356:HIS:HE1	4:D:114:LEU:HD22	1.68	0.58
1:B:1165:ARG:NH1	1:B:1193:PRO:O	2.35	0.58
1:K:1471:PHE:HD1	1:K:1476:ASP:HB3	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1003:GLU:HA	1:M:1007:LEU:HD21	1.85	0.58
1:A:1290:TYR:HB3	1:A:1299:LEU:HD23	1.85	0.58
1:B:921:TYR:O	1:B:925:GLN:N	2.35	0.58
1:E:284:LEU:O	1:E:293:ILE:N	2.37	0.58
1:E:661:GLU:OE2	1:E:690:HIS:ND1	2.37	0.58
3:C:597:ASP:N	3:C:625:ARG:HE	2.01	0.58
3:C:662:ASP:HB3	3:C:665:GLU:HG2	1.84	0.58
1:M:742:LYS:H	1:M:742:LYS:HD2	1.68	0.58
1:B:1208:GLU:HB2	1:B:1210:MET:HG2	1.85	0.58
1:E:478:VAL:O	1:E:482:ALA:N	2.35	0.58
1:E:521:VAL:HG11	1:E:536:LEU:HD12	1.84	0.58
2:F:854:ILE:HD13	2:F:935:LEU:HD12	1.84	0.58
3:C:581:GLN:NE2	3:C:604:MET:HA	2.19	0.58
1:K:1534:TYR:CZ	4:N:164:GLN:HB2	2.38	0.58
1:L:995:PHE:HA	1:L:1000:LEU:HB2	1.85	0.58
1:L:1231:LEU:HB3	1:L:1236:GLU:HB3	1.85	0.58
1:L:1322:ILE:O	1:L:1325:SER:OG	2.21	0.58
1:H:828:VAL:O	1:H:832:LEU:HG	2.03	0.58
1:E:228:LEU:N	1:E:248:VAL:O	2.34	0.58
1:E:513:ASP:HA	1:E:516:PHE:CD2	2.39	0.58
1:E:650:TRP:O	1:E:654:TYR:HD2	1.87	0.58
3:C:514:TRP:HA	3:C:514:TRP:CE3	2.37	0.58
3:C:760:LYS:HA	3:C:763:LEU:HG	1.86	0.58
1:M:638:ARG:HA	1:M:641:VAL:HG12	1.85	0.58
1:A:1306:ALA:HA	1:A:1309:LEU:HD21	1.85	0.58
1:A:1410:PHE:O	1:A:1414:PHE:N	2.36	0.58
1:A:1492:ASN:HD22	1:A:1495:LEU:HD22	1.67	0.58
1:A:1502:HIS:HE1	1:A:1504:LEU:HD12	1.69	0.58
1:K:1382:PRO:HB3	1:K:1410:PHE:HZ	1.69	0.58
4:I:158:ASP:O	4:I:162:TYR:N	2.36	0.58
1:E:83:LYS:HE3	1:E:111:TRP:CE3	2.36	0.58
1:E:447:LEU:HA	1:E:450:LYS:HD2	1.85	0.58
1:E:614:ALA:O	1:E:618:GLU:HG3	2.03	0.58
3:C:365:ALA:O	3:C:369:ASN:ND2	2.37	0.58
3:C:809:PRO:HB2	3:C:837:ARG:NH2	2.19	0.58
1:M:968:ARG:NH2	1:M:972:ASP:OD1	2.36	0.58
1:A:1355:ALA:HB1	1:A:1357:LEU:HG	1.86	0.58
1:A:1460:ASN:OD1	1:A:1461:LYS:N	2.36	0.58
1:L:1324:TYR:O	1:L:1328:LYS:N	2.37	0.58
1:H:642:HIS:O	1:H:646:LEU:N	2.35	0.58
1:E:227:LYS:HA	1:E:249:ASP:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:304:PHE:HE2	1:E:320:ARG:HB2	1.68	0.58
3:C:459:CYS:HB3	3:C:482:ALA:HB1	1.86	0.58
3:C:546:ILE:HG23	3:C:549:ILE:HD12	1.85	0.58
3:C:556:TYR:CB	3:C:558:LEU:HD13	2.32	0.58
1:M:689:TYR:HE2	1:M:698:LEU:HD21	1.69	0.58
1:M:778:CYS:O	1:M:782:ASP:N	2.37	0.58
1:M:1047:LEU:HG	1:M:1048:ASP:H	1.69	0.58
1:A:1411:TYR:HD2	1:A:1419:LEU:HD13	1.69	0.58
1:J:1499:LEU:HB3	1:J:1507:PHE:O	2.04	0.58
1:J:1596:MET:O	1:J:1600:ILE:HG13	2.04	0.58
1:L:1058:ILE:O	1:L:1061:SER:OG	2.16	0.58
1:E:676:ARG:NE	1:E:705:PHE:HA	2.16	0.57
3:C:599:ILE:CG2	3:C:604:MET:HB2	2.31	0.57
3:C:664:LEU:O	3:C:667:LEU:HG	2.04	0.57
1:M:909:CYS:HA	1:M:912:ARG:HD3	1.86	0.57
1:B:855:LEU:HD12	1:B:882:ILE:HB	1.86	0.57
1:B:1067:GLU:N	1:B:1067:GLU:OE1	2.34	0.57
1:L:1171:THR:O	1:L:1174:ILE:HG12	2.04	0.57
1:L:1235:GLY:HA2	1:L:1237:TYR:CZ	2.38	0.57
1:H:667:LEU:O	1:H:671:LEU:HG	2.04	0.57
1:H:754:TYR:HE2	1:H:759:VAL:HG21	1.68	0.57
1:H:830:LYS:HE3	1:H:834:LEU:HD21	1.86	0.57
4:N:195:VAL:HG21	4:N:223:LYS:HG2	1.86	0.57
1:E:379:GLU:O	1:E:383:VAL:HG22	2.04	0.57
2:F:747:LEU:H	1:M:720:ASN:HA	1.69	0.57
3:C:451:TRP:CD1	3:C:456:LYS:HD2	2.38	0.57
3:C:664:LEU:H	3:C:664:LEU:CD1	2.17	0.57
3:C:689:TYR:CE1	3:C:693:LEU:HD21	2.39	0.57
1:M:676:ARG:HA	1:M:679:LEU:HB2	1.86	0.57
1:M:856:LYS:HD2	1:M:856:LYS:N	2.18	0.57
1:A:1604:LYS:NZ	4:D:213:SER:OG	2.26	0.57
1:J:1540:TYR:HA	1:J:1543:GLU:HG3	1.85	0.57
1:L:1438:TYR:HA	1:L:1441:LYS:HE2	1.85	0.57
1:E:459:CYS:HB3	1:E:481:ARG:HB3	1.87	0.57
1:E:484:VAL:HG12	1:E:504:TYR:CE2	2.39	0.57
2:F:867:LYS:NZ	2:F:937:ASN:O	2.37	0.57
3:C:393:ARG:NE	3:C:427:LEU:HD12	2.18	0.57
1:M:761:ASN:O	1:M:764:LYS:HG2	2.04	0.57
1:B:1242:ASP:HA	1:B:1245:ARG:NE	2.19	0.57
4:D:146:GLN:O	4:D:146:GLN:NE2	2.38	0.57
1:E:433:LEU:HB3	1:E:437:ARG:CZ	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:490:GLN:HB3	3:C:513:ASP:CB	2.32	0.57
3:C:511:THR:HG23	3:C:543:LEU:HD12	1.87	0.57
1:M:1037:ARG:HB2	1:M:1039:ARG:HG2	1.84	0.57
1:A:1377:THR:HG23	1:A:1381:HIS:HD2	1.69	0.57
1:B:829:ILE:HG23	1:B:830:LYS:H	1.69	0.57
4:O:108:GLU:OE1	4:O:112:LYS:NZ	2.28	0.57
1:K:1434:ARG:HA	1:K:1437:ASN:HD22	1.68	0.57
1:H:784:VAL:HA	1:H:787:LEU:HB3	1.85	0.57
1:E:221:ARG:HA	1:E:226:GLY:HA2	1.85	0.57
2:F:746:ALA:HB1	1:M:721:PHE:CA	2.33	0.57
3:C:755:ASP:O	3:C:758:ARG:HG2	2.05	0.57
1:A:1421:ASP:N	1:A:1421:ASP:OD1	2.34	0.57
4:D:126:GLN:HE21	4:D:130:GLU:HG3	1.68	0.57
1:H:779:ASP:OD1	1:H:779:ASP:N	2.37	0.57
1:E:159:ASP:N	1:E:164:TRP:O	2.37	0.57
2:F:747:LEU:CA	1:M:720:ASN:HA	2.33	0.57
3:C:519:ARG:HG2	3:C:523:ARG:NH2	2.18	0.57
3:C:777:VAL:HA	3:C:780:ARG:HB2	1.86	0.57
1:M:566:LEU:O	1:M:570:LEU:HG	2.04	0.57
1:B:962:GLU:HG2	1:B:967:ARG:NH1	2.20	0.57
4:D:207:LYS:HG3	4:D:211:ASP:HA	1.87	0.57
1:K:1411:TYR:O	1:K:1415:LYS:N	2.38	0.57
1:L:1085:LEU:HD13	1:L:1095:ALA:HB2	1.86	0.57
1:L:1217:LEU:HA	1:L:1220:ASN:HD21	1.68	0.57
1:L:1224:PHE:HB3	1:L:1247:ALA:HB2	1.85	0.57
4:I:209:CYS:SG	4:I:210:LYS:HG2	2.43	0.57
1:E:346:ASP:HB3	1:E:350:ARG:HH21	1.70	0.57
1:E:605:PHE:HD1	1:E:610:ARG:HG2	1.68	0.57
1:E:696:GLN:NE2	1:E:726:ASP:O	2.29	0.57
3:C:592:ALA:C	3:C:594:GLN:H	2.08	0.57
3:C:808:ASN:ND2	3:C:811:ARG:HH21	2.03	0.57
1:M:654:TYR:HB3	1:M:688:LYS:HE2	1.86	0.57
1:M:744:VAL:O	1:M:747:ILE:HG12	2.04	0.57
1:M:949:ARG:HA	1:M:949:ARG:CZ	2.34	0.57
1:A:1298:GLU:OE1	1:A:1298:GLU:N	2.31	0.57
1:B:1084:VAL:HA	1:B:1087:GLU:HG3	1.85	0.57
1:J:1577:LEU:HD12	1:J:1578:ARG:H	1.70	0.57
1:K:1415:LYS:HB3	1:K:1418:LEU:HD13	1.86	0.57
1:L:1378:MET:HE2	1:L:1386:TRP:HA	1.86	0.57
1:E:70:SER:HB3	1:E:111:TRP:CH2	2.40	0.57
1:E:303:ILE:HA	1:E:319:ASN:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:349:LEU:HD21	1:E:363:LEU:HB3	1.85	0.57
3:C:510:TYR:HD2	3:C:513:ASP:H	1.53	0.57
3:C:654:TYR:O	3:C:657:SER:OG	2.21	0.57
1:M:636:ILE:O	1:M:640:VAL:HG23	2.04	0.57
1:M:760:LYS:HA	1:M:763:LEU:HD12	1.86	0.57
1:M:939:LEU:O	1:M:942:SER:OG	2.14	0.57
1:M:1000:LEU:HB2	1:M:1005:ILE:HG13	1.87	0.57
1:A:1421:ASP:O	1:A:1425:VAL:HG23	2.04	0.57
1:B:1150:TRP:HA	1:B:1153:LEU:HD12	1.87	0.57
1:J:1477:TYR:O	1:J:1481:ARG:N	2.30	0.57
1:J:1532:SER:HB2	1:J:1536:ASP:HB2	1.86	0.57
1:L:1350:ARG:NH1	1:L:1350:ARG:HA	2.20	0.57
4:I:204:LYS:HG2	4:I:207:LYS:HE2	1.87	0.57
1:E:232:GLU:OE1	1:E:243:PHE:N	2.34	0.57
1:E:488:VAL:HA	1:E:491:CYS:SG	2.45	0.57
2:F:717:ALA:HB1	1:M:721:PHE:CE1	2.36	0.57
3:C:406:ALA:HA	3:C:413:PRO:HD2	1.87	0.57
3:C:769:THR:H	3:C:771:GLN:HE22	1.53	0.57
3:C:809:PRO:O	3:C:837:ARG:NH1	2.37	0.57
1:K:1615:ALA:O	1:K:1618:SER:OG	2.17	0.57
1:E:261:PRO:HA	1:E:277:THR:HA	1.87	0.57
1:E:281:TYR:CE1	1:E:297:ARG:HB2	2.39	0.57
1:E:597:ASP:HA	1:E:600:LEU:HD12	1.87	0.57
1:E:695:THR:OG1	1:E:696:GLN:N	2.38	0.57
3:C:452:LEU:HD13	3:C:478:VAL:HG21	1.85	0.57
3:C:490:GLN:HG2	3:C:504:TYR:CD2	2.40	0.57
3:C:719:VAL:HA	3:C:722:SER:HB2	1.87	0.57
4:D:111:ARG:O	4:D:115:GLN:NE2	2.37	0.57
1:L:1310:GLU:HG2	1:L:1311:ARG:HG2	1.87	0.57
3:C:740:GLN:O	3:C:744:VAL:HG23	2.05	0.56
3:C:772:LEU:HA	3:C:775:ILE:HG23	1.86	0.56
1:M:637:LYS:HB3	1:M:638:ARG:NH2	2.19	0.56
1:A:1330:GLN:OE1	1:A:1330:GLN:N	2.38	0.56
1:A:1401:VAL:HA	1:A:1404:TYR:CD2	2.40	0.56
1:J:1574:TYR:OH	1:J:1598:TYR:O	2.23	0.56
1:K:1615:ALA:O	1:K:1619:LEU:HG	2.05	0.56
1:L:1301:THR:HA	1:L:1304:GLU:HG2	1.86	0.56
3:C:486:ASN:HA	3:C:489:ILE:HG22	1.85	0.56
3:C:670:MET:CE	3:C:679:LEU:HD23	2.35	0.56
1:B:874:ALA:O	1:B:878:ALA:N	2.34	0.56
1:B:1115:GLN:HA	1:B:1120:MET:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:125:ASN:O	1:E:144:ARG:N	2.29	0.56
1:E:699:ILE:HG23	1:E:711:LEU:HD22	1.86	0.56
3:C:491:CYS:HA	3:C:516:PHE:CD2	2.40	0.56
3:C:518:LEU:O	3:C:522:MET:N	2.37	0.56
3:C:712:PHE:CE1	3:C:731:TYR:O	2.59	0.56
3:C:747:ILE:O	3:C:751:SER:N	2.39	0.56
3:C:821:ASP:HB3	3:C:852:ARG:NH2	2.21	0.56
3:C:846:VAL:HG12	3:C:855:LEU:HD11	1.87	0.56
1:M:739:GLY:O	1:M:742:LYS:NZ	2.31	0.56
1:A:1339:PHE:HB3	1:A:1342:ARG:HB2	1.88	0.56
1:A:1457:ASN:HA	1:A:1487:TYR:OH	2.05	0.56
1:A:1471:PHE:HB3	1:A:1480:LEU:HD12	1.85	0.56
1:A:1568:ALA:HA	1:A:1571:PHE:HB3	1.85	0.56
1:B:1021:HIS:HB2	1:B:1025:GLN:CD	2.25	0.56
1:H:756:PRO:HA	1:H:759:VAL:HG22	1.86	0.56
1:H:763:LEU:HD13	1:H:774:LEU:HB3	1.86	0.56
1:E:73:MET:HA	1:E:80:ILE:HA	1.87	0.56
1:E:474:LEU:O	1:E:477:SER:OG	2.14	0.56
1:E:490:GLN:HA	1:E:517:LEU:HD21	1.86	0.56
1:E:589:LEU:HA	1:E:596:ALA:HB2	1.88	0.56
1:E:668:ARG:HB3	1:E:698:LEU:HD21	1.88	0.56
3:C:670:MET:O	3:C:674:ASN:N	2.39	0.56
3:C:683:VAL:O	3:C:686:ALA:HB3	2.06	0.56
3:C:768:LEU:HD11	3:C:771:GLN:HG3	1.88	0.56
1:M:568:ASP:HA	1:M:571:LYS:HE3	1.88	0.56
1:B:936:GLU:OE1	1:B:936:GLU:N	2.28	0.56
1:H:649:GLU:O	1:H:653:ASN:ND2	2.30	0.56
3:C:659:SER:HA	3:C:660:VAL:HB	1.87	0.56
3:C:769:THR:H	3:C:771:GLN:NE2	2.03	0.56
1:M:651:LEU:HD12	1:M:654:TYR:HB2	1.86	0.56
1:M:815:VAL:O	1:M:819:LEU:HG	2.05	0.56
1:M:1037:ARG:HD2	1:M:1039:ARG:HE	1.71	0.56
1:A:1411:TYR:HA	1:A:1415:LYS:H	1.69	0.56
1:A:1518:ASN:HA	1:B:1101:ARG:HH22	1.70	0.56
1:B:1121:VAL:O	1:B:1125:ILE:HG13	2.05	0.56
1:J:1557:PHE:HA	1:J:1560:GLU:OE2	2.06	0.56
1:K:1585:THR:HB	1:K:1588:ARG:HH21	1.70	0.56
1:E:231:ILE:HB	1:E:245:LYS:HD3	1.87	0.56
1:E:259:ASP:HB2	1:E:279:TYR:CD2	2.41	0.56
1:E:368:PHE:HB3	1:E:372:PHE:CE2	2.41	0.56
1:E:487:LYS:HA	1:E:513:ASP:OD2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:541:GLU:HA	1:E:574:ARG:HB3	1.87	0.56
3:C:553:PHE:CD2	3:C:562:CYS:HB2	2.40	0.56
1:M:584:LEU:HA	1:M:587:MET:HE2	1.87	0.56
1:A:1298:GLU:O	1:A:1301:THR:OG1	2.23	0.56
4:O:130:GLU:O	4:O:134:LYS:HG2	2.05	0.56
1:J:1579:PRO:HD2	1:K:1607:LEU:HD22	1.86	0.56
1:L:1112:ALA:HA	1:L:1115:GLN:HG2	1.88	0.56
4:N:151:LYS:O	4:N:155:ARG:HG2	2.04	0.56
1:E:616:LEU:HD23	1:E:619:LYS:HZ1	1.71	0.56
1:E:648:PRO:HB2	1:E:653:ASN:ND2	2.21	0.56
1:E:677:GLN:HG2	1:E:678:ASN:OD1	2.04	0.56
2:F:835:GLN:H	2:F:835:GLN:CD	2.08	0.56
3:C:439:VAL:HG13	3:C:448:LEU:HB2	1.86	0.56
3:C:755:ASP:HB3	3:C:758:ARG:NE	2.20	0.56
3:C:854:ARG:HG3	3:C:856:LYS:NZ	2.20	0.56
1:A:1463:VAL:O	1:A:1466:SER:OG	2.23	0.56
1:B:962:GLU:N	1:B:967:ARG:HH11	2.03	0.56
1:B:1245:ARG:O	1:B:1248:ASN:ND2	2.36	0.56
1:L:1431:ASP:OD2	1:L:1434:ARG:N	2.35	0.56
1:H:821:ASP:OD2	1:H:852:ARG:NH2	2.38	0.56
1:E:371:LEU:CB	1:E:380:ALA:HB2	2.35	0.56
3:C:468:LYS:HE3	3:C:492:PHE:HB2	1.88	0.56
3:C:517:LEU:O	3:C:521:VAL:HG23	2.06	0.56
3:C:688:LYS:HA	3:C:691:GLU:OE2	2.05	0.56
3:C:712:PHE:O	3:C:731:TYR:HE1	1.88	0.56
3:C:725:PRO:HA	3:C:753:CYS:O	2.06	0.56
3:C:809:PRO:HB2	3:C:837:ARG:HH22	1.69	0.56
1:M:1024:LEU:O	1:M:1028:LEU:N	2.37	0.56
1:M:1042:GLU:HB2	1:M:1046:ARG:NH2	2.21	0.56
1:M:1054:ASP:OD1	1:M:1054:ASP:N	2.38	0.56
1:A:1477:TYR:O	1:A:1481:ARG:N	2.33	0.56
1:H:808:ASN:HD22	1:H:811:ARG:CZ	2.19	0.56
1:E:538:GLN:NE2	1:E:568:ASP:HB3	2.20	0.56
3:C:514:TRP:HE1	3:C:549:ILE:CD1	2.18	0.56
3:C:783:PHE:CD1	3:C:783:PHE:N	2.74	0.56
1:M:864:ALA:O	1:M:867:HIS:HB3	2.06	0.56
1:B:1020:GLU:OE1	1:B:1022:ARG:NH1	2.39	0.56
4:O:107:ARG:HB3	4:O:111:ARG:HH21	1.71	0.56
1:J:1557:PHE:CZ	1:J:1565:CYS:HB2	2.40	0.56
1:K:1586:ALA:HA	1:K:1591:ILE:HG23	1.86	0.56
1:L:1201:VAL:HA	1:L:1204:ARG:HD3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1357:LEU:O	1:L:1361:LEU:HG	2.05	0.56
1:E:33:GLU:HB2	1:E:37:PHE:HZ	1.70	0.56
3:C:622:LEU:H	3:C:626:ALA:HB2	1.71	0.56
1:A:1251:ARG:NE	1:A:1255:GLU:OE2	2.38	0.56
1:B:1223:ASN:H	1:B:1227:LEU:HD23	1.71	0.56
4:O:106:TRP:O	4:O:110:GLN:HG3	2.06	0.56
1:H:637:LYS:HG3	1:H:638:ARG:HH11	1.69	0.56
3:C:702:PHE:CE2	3:C:707:SER:HA	2.41	0.55
3:C:772:LEU:N	3:C:773:PRO:HD3	2.21	0.55
1:B:866:ILE:HG13	1:B:867:HIS:N	2.21	0.55
1:J:1575:ASP:HB3	4:I:210:LYS:HB3	1.87	0.55
1:L:947:LEU:HD21	1:L:955:LEU:HB3	1.88	0.55
1:L:1054:ASP:N	1:L:1054:ASP:OD1	2.35	0.55
1:H:675:ILE:HB	1:H:677:GLN:HG3	1.88	0.55
1:E:338:ILE:O	1:E:344:ASN:N	2.36	0.55
1:E:614:ALA:HB3	1:E:638:ARG:NH1	2.19	0.55
3:C:566:LEU:CB	3:C:580:LEU:HD21	2.29	0.55
3:C:608:TYR:CE2	3:C:613:ILE:HG22	2.41	0.55
3:C:610:ARG:CG	3:C:632:ASP:HB3	2.36	0.55
1:M:599:ILE:HG22	1:M:604:MET:HB2	1.87	0.55
1:M:681:ILE:HD12	1:M:684:GLN:HB2	1.87	0.55
1:J:1539:GLN:O	1:J:1542:SER:OG	2.20	0.55
4:N:161:PHE:O	4:N:164:GLN:NE2	2.35	0.55
1:E:543:LEU:HD12	1:E:546:ILE:HG12	1.88	0.55
3:C:440:LEU:HA	3:C:445:LYS:HA	1.89	0.55
3:C:729:PHE:HB2	3:C:758:ARG:NH2	2.21	0.55
3:C:760:LYS:HD2	3:C:783:PHE:CD2	2.40	0.55
1:B:820:LEU:HD22	1:B:848:GLU:HG3	1.86	0.55
1:L:1044:ILE:HG21	1:L:1071:ILE:HD11	1.88	0.55
1:E:398:ILE:HD12	1:E:434:GLU:OE1	2.07	0.55
1:E:637:LYS:HA	1:E:640:VAL:HG22	1.88	0.55
3:C:395:PRO:HA	3:C:398:ILE:HG22	1.88	0.55
3:C:695:THR:O	3:C:698:LEU:HB3	2.05	0.55
3:C:712:PHE:O	3:C:731:TYR:CE1	2.59	0.55
1:M:1042:GLU:HA	1:M:1045:ASN:ND2	2.19	0.55
1:A:1585:THR:O	1:A:1589:HIS:ND1	2.33	0.55
1:A:1586:ALA:O	1:A:1590:ASN:N	2.39	0.55
1:B:874:ALA:HA	1:B:877:ASN:HB3	1.86	0.55
1:B:979:LEU:HD21	1:B:1011:ILE:HG13	1.87	0.55
1:B:1214:ALA:HA	1:B:1217:LEU:HD12	1.89	0.55
4:O:124:THR:O	4:O:127:GLU:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:777:VAL:HA	1:H:780:ARG:HB3	1.87	0.55
1:E:83:LYS:CG	1:E:111:TRP:CE2	2.90	0.55
1:E:364:PHE:O	1:E:368:PHE:HD2	1.89	0.55
1:E:479:TYR:HB3	1:E:485:PRO:HD2	1.88	0.55
3:C:726:ASP:HA	3:C:758:ARG:HH12	1.72	0.55
3:C:804:VAL:HG23	3:C:811:ARG:HG3	1.89	0.55
1:M:761:ASN:O	1:M:765:GLU:HG2	2.06	0.55
1:A:1372:ASP:OD1	1:A:1372:ASP:N	2.38	0.55
1:B:1005:ILE:O	1:B:1008:LEU:N	2.39	0.55
1:E:12:HIS:N	1:E:324:VAL:O	2.27	0.55
1:E:198:ALA:O	1:E:219:ALA:N	2.32	0.55
1:E:200:SER:N	1:E:217:CYS:O	2.34	0.55
1:E:335:ILE:HG23	1:E:348:ALA:HB1	1.88	0.55
1:E:350:ARG:HB3	1:E:354:ARG:CZ	2.36	0.55
3:C:783:PHE:N	3:C:783:PHE:HD1	2.03	0.55
1:M:752:ASN:HA	1:M:754:TYR:CE1	2.41	0.55
1:M:844:GLU:N	1:M:844:GLU:OE1	2.39	0.55
1:L:947:LEU:HB3	1:L:956:TRP:CE2	2.42	0.55
4:N:192:TRP:HB3	4:N:224:GLN:HA	1.87	0.55
1:E:368:PHE:CG	1:E:392:LEU:HG	2.41	0.55
1:E:508:VAL:HG22	1:E:514:TRP:HE1	1.72	0.55
3:C:802:ILE:O	3:C:805:GLN:HB3	2.05	0.55
1:M:655:PHE:HD1	1:M:658:LEU:HD23	1.71	0.55
1:M:658:LEU:HD13	1:M:688:LYS:HG2	1.88	0.55
1:B:1244:ALA:HA	1:B:1247:ALA:HB3	1.89	0.55
1:L:1205:CYS:HB2	1:L:1214:ALA:HB2	1.88	0.55
1:L:1228:ALA:HA	1:L:1231:LEU:HD12	1.88	0.55
1:L:1299:LEU:O	1:L:1303:LEU:HG	2.07	0.55
1:L:1439:PHE:O	1:L:1443:LYS:N	2.39	0.55
1:H:689:TYR:O	1:H:693:LEU:N	2.25	0.55
1:E:697:SER:O	1:E:701:LEU:HG	2.07	0.55
3:C:465:ASP:OD2	3:C:488:VAL:HB	2.06	0.55
1:M:702:PHE:HB2	1:M:711:LEU:HD13	1.88	0.55
1:A:1378:MET:HE2	1:A:1386:TRP:CD1	2.42	0.55
1:B:819:LEU:O	1:B:822:VAL:HG12	2.06	0.55
1:B:902:SER:OG	1:B:923:ARG:NH1	2.40	0.55
1:B:1198:ILE:HG21	1:B:1221:VAL:HG11	1.87	0.55
1:L:1084:VAL:O	1:L:1088:HIS:CB	2.46	0.55
1:E:490:GLN:NE2	1:E:509:GLY:O	2.39	0.55
1:E:528:GLN:HB3	1:E:561:GLN:HA	1.88	0.55
2:F:746:ALA:CA	1:M:721:PHE:HA	2.29	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:775:ILE:HG13	3:C:776:ILE:HG13	1.87	0.55
1:A:1332:MET:O	1:A:1336:LEU:HG	2.07	0.55
1:B:859:LEU:HA	1:B:862:LEU:HD12	1.87	0.55
1:B:1106:ALA:O	1:B:1109:SER:OG	2.17	0.55
4:D:112:LYS:HA	4:D:115:GLN:HG2	1.88	0.55
1:K:1475:GLU:HA	1:K:1502:HIS:HE1	1.71	0.55
1:L:1251:ARG:HE	1:L:1254:LYS:HZ1	1.54	0.55
3:C:397:THR:HG22	3:C:400:ARG:NH2	2.21	0.55
1:M:795:ASN:OD1	1:M:796:LEU:N	2.40	0.55
1:M:949:ARG:HA	1:M:949:ARG:NH1	2.22	0.55
1:B:970:LEU:O	1:B:974:VAL:HG13	2.07	0.55
1:B:1160:ALA:HA	1:B:1163:LYS:HD2	1.87	0.55
1:K:1514:LEU:O	1:K:1518:ASN:N	2.40	0.55
1:E:375:GLY:HA2	1:E:377:TYR:CE2	2.42	0.54
1:E:395:PRO:HB2	1:E:399:ARG:HE	1.72	0.54
1:E:468:LYS:HD2	1:E:479:TYR:OH	2.05	0.54
1:E:579:PRO:O	1:E:583:ARG:HG3	2.08	0.54
1:E:670:MET:SD	1:E:670:MET:N	2.80	0.54
3:C:502:VAL:HB	3:C:536:LEU:N	2.23	0.54
3:C:642:HIS:HA	3:C:645:LEU:HD12	1.89	0.54
1:M:567:LEU:HA	1:M:570:LEU:HD12	1.89	0.54
1:M:645:LEU:HD11	1:H:742:LYS:HG3	1.87	0.54
1:M:915:HIS:CD2	1:M:915:HIS:H	2.24	0.54
1:B:878:ALA:HA	1:B:881:LYS:HE3	1.87	0.54
1:B:1126:ASP:HA	1:B:1129:ILE:HD12	1.90	0.54
1:B:1249:SER:HB2	1:B:1251:ARG:HD3	1.90	0.54
1:K:1446:PRO:HG2	4:N:139:TRP:HZ2	1.71	0.54
1:L:1003:GLU:N	1:L:1006:GLU:OE1	2.32	0.54
1:L:1175:PHE:HD1	1:L:1201:VAL:HG13	1.72	0.54
1:E:157:ARG:O	1:E:166:LEU:N	2.38	0.54
3:C:393:ARG:HG3	3:C:417:TYR:OH	2.07	0.54
3:C:848:GLU:OE2	3:C:852:ARG:NH1	2.40	0.54
1:A:1451:TYR:O	1:A:1455:VAL:HG22	2.07	0.54
1:A:1607:LEU:HA	1:A:1610:VAL:HG12	1.90	0.54
1:B:971:ILE:HA	1:B:974:VAL:HG22	1.88	0.54
1:E:657:SER:HB2	1:E:685:VAL:HG21	1.89	0.54
3:C:680:GLN:NE2	3:C:681:ILE:HG12	2.22	0.54
1:M:794:ASN:OD1	1:M:795:ASN:N	2.40	0.54
1:M:865:ARG:HG2	1:M:870:CYS:SG	2.48	0.54
1:A:1526:GLU:HA	1:A:1529:LYS:HD3	1.89	0.54
4:D:128:TRP:HD1	4:D:131:LYS:HZ2	1.53	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:192:TRP:HA	4:D:195:VAL:HG12	1.90	0.54
1:L:971:ILE:HA	1:L:974:VAL:HG22	1.88	0.54
1:L:1388:GLU:HG2	1:L:1389:GLY:N	2.22	0.54
1:E:91:PHE:HA	1:E:99:MET:H	1.72	0.54
1:E:519:ARG:HE	1:E:548:GLN:HG2	1.73	0.54
3:C:505:ALA:HB3	3:C:536:LEU:CD1	2.29	0.54
3:C:762:PHE:HA	3:C:765:GLU:CG	2.37	0.54
4:D:189:GLY:O	4:D:193:GLU:N	2.30	0.54
1:K:1547:THR:HG23	1:K:1548:GLU:HG3	1.90	0.54
1:H:852:ARG:HB3	1:H:854:ARG:HH11	1.71	0.54
3:C:449:GLU:HB3	3:C:453:LYS:NZ	2.22	0.54
3:C:490:GLN:OE1	3:C:513:ASP:HB2	2.08	0.54
3:C:573:ASN:HA	3:C:607:HIS:HE1	1.72	0.54
3:C:746:ARG:O	3:C:749:ARG:HG2	2.07	0.54
3:C:849:VAL:HG21	3:C:855:LEU:HA	1.89	0.54
1:M:821:ASP:HB2	1:M:852:ARG:NH2	2.21	0.54
1:A:1350:ARG:O	1:A:1354:GLN:HG2	2.07	0.54
1:A:1419:LEU:O	1:A:1423:LEU:HG	2.07	0.54
1:B:826:GLU:H	1:B:826:GLU:CD	2.11	0.54
1:B:841:SER:OG	1:B:842:THR:N	2.40	0.54
1:B:891:GLU:HG2	1:B:895:ARG:NH1	2.22	0.54
1:B:1224:PHE:HA	1:B:1227:LEU:HG	1.90	0.54
4:D:192:TRP:CG	4:D:222:LEU:HB2	2.42	0.54
4:O:125:GLU:HG3	4:O:129:ARG:HH22	1.73	0.54
1:L:1122:LYS:HA	1:L:1125:ILE:HD12	1.90	0.54
1:H:768:LEU:HD23	1:H:771:GLN:HA	1.90	0.54
1:E:35:ASP:OD1	1:E:35:ASP:N	2.40	0.54
1:E:288:GLU:OE1	1:E:354:ARG:NH1	2.40	0.54
1:E:463:LEU:O	1:E:467:VAL:HG23	2.08	0.54
1:E:463:LEU:HB2	1:E:478:VAL:HG11	1.88	0.54
1:E:519:ARG:HB3	1:E:523:ARG:NH1	2.22	0.54
1:E:711:LEU:O	1:E:715:LEU:HG	2.06	0.54
3:C:582:THR:HA	3:C:608:TYR:CE2	2.42	0.54
3:C:685:VAL:HG12	3:C:688:LYS:HD3	1.90	0.54
1:M:689:TYR:CZ	1:M:693:LEU:HB2	2.42	0.54
1:A:1526:GLU:O	1:A:1530:LYS:NZ	2.21	0.54
1:K:1381:HIS:HB2	1:K:1385:ALA:HB3	1.88	0.54
1:L:1344:ASN:ND2	1:L:1346:PRO:HD2	2.22	0.54
1:L:1375:ILE:HA	1:L:1391:PHE:HZ	1.73	0.54
1:E:448:LEU:HA	1:E:451:TRP:CD1	2.43	0.54
1:E:465:ASP:OD1	1:E:488:VAL:HG11	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:388:PRO:O	3:C:389:LYS:HG3	2.08	0.54
3:C:464:GLY:O	3:C:467:VAL:HG23	2.08	0.54
3:C:679:LEU:O	3:C:683:VAL:HG23	2.07	0.54
3:C:791:LEU:HD23	3:C:796:LEU:HG	1.90	0.54
1:M:888:ASN:ND2	1:M:889:ASN:H	2.04	0.54
1:M:962:GLU:OE2	1:M:967:ARG:NH2	2.41	0.54
1:A:1296:PHE:O	1:A:1300:ILE:HG23	2.08	0.54
4:O:113:ARG:HE	4:O:117:LEU:HG	1.73	0.54
1:K:1504:LEU:HD21	4:N:154:ASN:HB3	1.88	0.54
1:L:1155:LYS:HA	1:L:1158:GLN:HB3	1.88	0.54
1:E:80:ILE:N	1:E:91:PHE:O	2.29	0.54
1:E:371:LEU:O	1:E:376:ASN:N	2.38	0.54
2:F:891:LEU:HD13	2:F:899:ILE:HB	1.90	0.54
3:C:445:LYS:HG2	3:C:449:GLU:OE1	2.07	0.54
3:C:495:THR:HA	3:C:532:PHE:CZ	2.42	0.54
1:A:1616:SER:O	1:A:1620:ARG:HG2	2.08	0.54
4:D:122:LYS:O	4:D:125:GLU:HG2	2.07	0.54
4:D:147:VAL:HA	4:D:150:ASN:HD21	1.73	0.54
1:K:1561:GLU:OE2	1:K:1563:ARG:NH2	2.41	0.54
1:L:1030:LEU:O	1:L:1034:LYS:HG2	2.08	0.54
3:C:510:TYR:CD2	3:C:513:ASP:N	2.75	0.54
3:C:608:TYR:HD1	3:C:609:ASP:H	1.48	0.54
3:C:637:LYS:O	3:C:641:VAL:HG13	2.08	0.54
1:A:1251:ARG:HA	1:A:1254:LYS:NZ	2.22	0.54
1:B:920:ALA:O	1:B:924:GLY:N	2.40	0.54
1:B:1171:THR:OG1	1:B:1172:GLU:OE2	2.22	0.54
1:H:724:ASP:HB3	1:H:727:VAL:HG22	1.90	0.54
1:E:522:MET:HG3	1:E:549:ILE:HG23	1.89	0.54
3:C:749:ARG:HG3	3:C:750:GLU:N	2.23	0.54
1:M:871:GLU:HA	1:M:876:HIS:HE2	1.72	0.54
1:M:1007:LEU:HA	1:M:1010:LYS:HZ2	1.73	0.54
1:M:1010:LYS:O	1:M:1013:LEU:HG	2.08	0.54
1:A:1297:GLU:O	1:A:1300:ILE:HG12	2.07	0.54
1:B:1218:TYR:HA	1:B:1223:ASN:ND2	2.23	0.54
4:D:128:TRP:O	4:D:131:LYS:HG2	2.07	0.54
1:K:1620:ARG:NE	1:K:1620:ARG:HA	2.23	0.54
1:H:675:ILE:HB	1:H:677:GLN:HE21	1.74	0.54
1:E:506:LYS:NZ	1:E:539:ASP:HB3	2.22	0.53
3:C:533:ALA:O	3:C:537:VAL:HG22	2.08	0.53
1:A:1377:THR:HG23	1:A:1381:HIS:CD2	2.44	0.53
1:A:1441:LYS:O	1:A:1443:LYS:NZ	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1215:LYS:NZ	1:B:1216:LEU:HG	2.23	0.53
4:D:210:LYS:HD2	4:D:212:VAL:HG12	1.88	0.53
1:L:1156:TYR:HD1	1:L:1159:MET:HE3	1.72	0.53
1:L:1333:ARG:NE	1:L:1337:GLU:OE2	2.41	0.53
1:E:309:HIS:O	1:E:313:ALA:N	2.41	0.53
3:C:398:ILE:HD13	3:C:417:TYR:CZ	2.43	0.53
3:C:457:LEU:HD22	3:C:463:LEU:HD13	1.90	0.53
3:C:735:ALA:O	3:C:739:GLY:HA2	2.08	0.53
1:B:872:GLU:O	1:B:875:THR:OG1	2.16	0.53
1:K:1442:VAL:HG13	1:K:1444:GLN:H	1.72	0.53
1:K:1449:LYS:O	1:K:1453:ARG:HG2	2.08	0.53
1:E:691:GLU:HB3	1:E:723:GLN:CD	2.29	0.53
2:F:748:GLN:HG3	1:M:720:ASN:ND2	1.95	0.53
3:C:473:THR:OG1	3:C:496:GLY:HA3	2.07	0.53
3:C:572:ASN:C	3:C:575:PRO:HD2	2.29	0.53
3:C:760:LYS:HE2	3:C:783:PHE:CG	2.43	0.53
3:C:791:LEU:HD12	3:C:794:ASN:HD21	1.74	0.53
1:M:728:HIS:O	1:M:732:ILE:HG12	2.07	0.53
1:M:881:LYS:NZ	1:M:908:TYR:OH	2.40	0.53
1:A:1283:LEU:O	1:A:1287:ILE:HG12	2.08	0.53
1:B:1168:TYR:O	1:B:1172:GLU:HG2	2.08	0.53
4:D:151:LYS:O	4:D:155:ARG:HG2	2.08	0.53
1:L:1419:LEU:O	1:L:1422:LEU:HG	2.07	0.53
4:I:200:ASP:OD1	4:I:200:ASP:N	2.39	0.53
1:E:41:ARG:HH12	1:E:43:LYS:HG3	1.74	0.53
1:E:131:SER:O	1:E:136:SER:OG	2.25	0.53
1:E:439:VAL:HB	1:E:448:LEU:HD21	1.89	0.53
1:E:493:ALA:HB3	1:E:521:VAL:HG22	1.90	0.53
1:E:654:TYR:O	1:E:657:SER:OG	2.24	0.53
1:E:682:CYS:O	1:E:686:ALA:HB2	2.07	0.53
3:C:546:ILE:HB	3:C:583:ARG:NH1	2.24	0.53
3:C:700:GLU:HA	3:C:700:GLU:OE1	2.09	0.53
1:M:722:SER:O	1:M:728:HIS:NE2	2.42	0.53
1:A:1261:VAL:HG21	1:A:1286:LEU:HD11	1.90	0.53
1:A:1301:THR:HA	1:A:1304:GLU:HG2	1.89	0.53
1:B:1198:ILE:HA	1:B:1202:GLY:H	1.74	0.53
1:B:1198:ILE:HD13	1:B:1221:VAL:HB	1.89	0.53
1:B:1216:LEU:H	1:B:1216:LEU:HD12	1.73	0.53
1:L:1065:PHE:HA	1:L:1068:ALA:HB3	1.90	0.53
1:L:1096:TYR:O	1:L:1100:GLU:HB3	2.09	0.53
1:L:1117:GLN:OE1	1:L:1118:LYS:NZ	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:651:LEU:HB3	1:E:655:PHE:CE2	2.44	0.53
3:C:755:ASP:HB3	3:C:758:ARG:CD	2.37	0.53
1:M:1069:PHE:HA	1:M:1072:PHE:CD2	2.43	0.53
1:A:1250:THR:HA	1:A:1253:TRP:HD1	1.73	0.53
1:A:1413:GLU:OE2	4:D:129:ARG:NE	2.38	0.53
4:O:126:GLN:NE2	4:O:126:GLN:O	2.42	0.53
1:J:1505:ILE:N	1:J:1508:ARG:HH21	2.07	0.53
1:L:964:ASN:H	1:L:967:ARG:HH21	1.56	0.53
1:L:1228:ALA:O	1:L:1232:VAL:HG23	2.09	0.53
1:L:1251:ARG:O	1:L:1255:GLU:HG2	2.08	0.53
1:L:1350:ARG:O	1:L:1354:GLN:NE2	2.32	0.53
1:L:1375:ILE:HA	1:L:1391:PHE:CZ	2.44	0.53
1:E:531:GLN:H	1:E:534:GLN:HB2	1.74	0.53
1:E:586:GLU:HG3	1:E:616:LEU:HD13	1.91	0.53
1:E:615:GLN:HG3	1:E:638:ARG:NH1	2.23	0.53
3:C:709:GLU:O	3:C:713:TYR:CD2	2.62	0.53
1:M:559:ILE:O	1:M:563:THR:OG1	2.21	0.53
1:M:658:LEU:HB2	1:M:688:LYS:NZ	2.22	0.53
1:K:1370:GLU:O	1:K:1374:ALA:N	2.38	0.53
1:K:1437:ASN:O	1:K:1441:LYS:HG2	2.08	0.53
1:L:968:ARG:NH2	1:L:972:ASP:OD1	2.42	0.53
1:L:1242:ASP:HA	1:L:1245:ARG:HH21	1.72	0.53
4:N:218:VAL:HG22	4:N:223:LYS:H	1.73	0.53
1:E:72:ILE:O	1:E:113:TRP:NE1	2.37	0.53
3:C:589:LEU:HD12	3:C:590:MET:HG3	1.91	0.53
3:C:759:VAL:O	3:C:763:LEU:HG	2.09	0.53
1:M:689:TYR:CE2	1:M:698:LEU:HD21	2.43	0.53
1:M:891:GLU:O	1:M:895:ARG:HG3	2.09	0.53
1:A:1400:ASN:OD1	1:A:1400:ASN:N	2.41	0.53
1:A:1439:PHE:O	1:A:1443:LYS:N	2.40	0.53
1:B:1050:TYR:HE2	1:B:1055:ILE:HG21	1.74	0.53
1:K:1617:GLU:O	1:K:1621:LYS:HG2	2.09	0.53
1:L:970:LEU:O	1:L:974:VAL:HG13	2.09	0.53
1:L:1026:ASN:O	1:L:1030:LEU:CB	2.56	0.53
1:L:1227:LEU:O	1:L:1231:LEU:HG	2.08	0.53
1:L:1382:PRO:HG3	1:L:1410:PHE:HZ	1.74	0.53
1:E:181:MET:O	1:E:194:ILE:N	2.31	0.53
1:E:402:GLN:HA	1:E:414:LEU:HD21	1.91	0.53
1:E:556:TYR:HB2	1:E:558:LEU:HG	1.91	0.53
1:E:597:ASP:O	1:E:600:LEU:HB2	2.09	0.53
3:C:452:LEU:HD21	3:C:467:VAL:HG11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:701:LEU:HA	3:C:704:SER:OG	2.08	0.53
3:C:797:GLN:HB3	3:C:799:TYR:CE2	2.43	0.53
1:B:1248:ASN:HD22	1:B:1275:HIS:CE1	2.27	0.53
1:H:762:PHE:O	1:H:766:ALA:N	2.30	0.53
1:E:72:ILE:HD12	1:E:113:TRP:CD1	2.44	0.53
1:E:479:TYR:O	1:E:484:VAL:N	2.33	0.53
3:C:514:TRP:NE1	3:C:549:ILE:HG12	2.22	0.53
3:C:729:PHE:CD2	3:C:730:LYS:HD3	2.44	0.53
3:C:804:VAL:HG23	3:C:811:ARG:CG	2.39	0.53
1:A:1363:PHE:HA	1:A:1366:ASP:OD1	2.09	0.53
1:A:1604:LYS:HE3	4:D:210:LYS:HZ1	1.74	0.53
1:B:1054:ASP:O	1:B:1058:ILE:HG12	2.09	0.53
4:D:207:LYS:HE2	4:D:211:ASP:HA	1.91	0.53
1:K:1499:LEU:HB3	1:K:1507:PHE:O	2.09	0.53
1:K:1619:LEU:HB2	1:K:1620:ARG:NH1	2.24	0.53
1:H:647:ASN:O	1:H:651:LEU:HD23	2.08	0.53
1:E:370:ALA:O	1:E:374:GLN:N	2.32	0.53
1:E:545:ASP:H	1:E:548:GLN:CD	2.13	0.53
3:C:420:ILE:O	3:C:424:GLN:HB3	2.09	0.53
3:C:546:ILE:HA	3:C:549:ILE:HD12	1.90	0.53
1:M:797:GLN:OE1	1:M:797:GLN:N	2.42	0.53
1:B:1005:ILE:HA	1:B:1008:LEU:HD23	1.91	0.53
1:K:1412:LEU:HD23	1:K:1416:PRO:HB3	1.91	0.53
1:L:961:LEU:HD23	1:L:961:LEU:H	1.74	0.53
1:H:812:LEU:O	1:H:816:ILE:HG12	2.09	0.53
1:E:81:ALA:HA	1:E:90:ILE:HA	1.89	0.52
1:E:451:TRP:CE3	1:E:456:LYS:HD2	2.44	0.52
3:C:495:THR:HG23	3:C:524:ILE:HD11	1.91	0.52
3:C:822:VAL:HG23	3:C:824:CYS:SG	2.50	0.52
1:M:570:LEU:O	1:M:576:SER:OG	2.27	0.52
1:M:651:LEU:HA	1:M:654:TYR:CD2	2.44	0.52
1:M:1059:ALA:HB1	1:M:1064:LEU:HB2	1.90	0.52
1:A:1493:ILE:HG13	1:A:1494:SER:N	2.24	0.52
1:A:1593:ASP:N	1:A:1593:ASP:OD1	2.40	0.52
1:B:890:PRO:HG2	1:B:894:LEU:HD23	1.91	0.52
1:B:891:GLU:OE1	1:B:891:GLU:N	2.42	0.52
1:L:1360:GLU:O	1:L:1364:LEU:HG	2.09	0.52
1:L:1411:TYR:HD2	1:L:1415:LYS:HB2	1.74	0.52
1:E:338:ILE:HG22	1:E:344:ASN:HB2	1.90	0.52
1:E:416:GLN:O	1:E:420:ILE:HG13	2.09	0.52
1:E:518:LEU:HB3	1:E:549:ILE:HG13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:585:LEU:HD22	1:E:599:ILE:HG21	1.90	0.52
3:C:476:LEU:HB3	3:C:500:LYS:HE3	1.90	0.52
1:M:961:LEU:HD23	1:M:961:LEU:H	1.75	0.52
1:A:1521:TRP:O	1:A:1523:GLN:N	2.42	0.52
1:A:1566:PHE:HA	1:A:1569:CYS:SG	2.49	0.52
1:H:827:ASP:O	1:H:831:ASN:ND2	2.43	0.52
1:E:84:ALA:N	1:E:87:THR:O	2.37	0.52
1:E:627:LEU:O	1:E:631:THR:HG23	2.09	0.52
3:C:718:ILE:O	3:C:722:SER:OG	2.21	0.52
3:C:812:LEU:HB2	3:C:837:ARG:HH11	1.75	0.52
1:M:1025:GLN:NE2	1:M:1048:ASP:O	2.40	0.52
1:A:1450:PRO:HA	1:A:1453:ARG:HH21	1.74	0.52
1:B:1097:GLU:OE1	1:B:1097:GLU:N	2.29	0.52
4:D:107:ARG:HA	4:D:110:GLN:OE1	2.10	0.52
1:K:1475:GLU:HA	1:K:1502:HIS:CE1	2.44	0.52
1:L:1323:LEU:HA	1:L:1326:LYS:HB2	1.92	0.52
1:L:1409:GLN:HG2	1:L:1412:LEU:HD23	1.91	0.52
1:L:1469:ASN:HA	1:L:1472:ILE:HD12	1.92	0.52
1:H:809:PRO:HG2	1:H:839:GLN:HG2	1.91	0.52
1:E:267:SER:HB3	1:E:274:PHE:CE2	2.44	0.52
1:E:302:THR:HB	1:E:304:PHE:CE1	2.44	0.52
3:C:833:ILE:HG21	3:C:858:LEU:HD21	1.90	0.52
1:A:1250:THR:HA	1:A:1253:TRP:CD1	2.44	0.52
1:K:1620:ARG:HH21	1:K:1623:GLU:HG2	1.75	0.52
4:I:202:ASN:H	4:I:204:LYS:NZ	2.07	0.52
1:E:398:ILE:HA	1:E:401:PHE:CD2	2.45	0.52
1:E:428:ASN:N	1:E:431:GLU:OE1	2.39	0.52
1:E:438:PRO:O	1:E:442:GLN:N	2.33	0.52
1:E:578:GLY:O	1:E:582:THR:HG23	2.10	0.52
3:C:576:SER:HG	3:C:607:HIS:CG	2.21	0.52
3:C:765:GLU:HA	3:C:767:LYS:NZ	2.25	0.52
1:A:1445:LEU:HA	1:A:1448:VAL:HG22	1.90	0.52
1:A:1494:SER:O	1:A:1498:ARG:HG3	2.08	0.52
1:B:813:PRO:HA	1:B:839:GLN:HG3	1.91	0.52
1:J:1576:LEU:O	1:J:1578:ARG:NH1	2.42	0.52
4:I:146:GLN:O	4:I:150:ASN:ND2	2.42	0.52
1:E:124:ASP:O	1:E:144:ARG:NE	2.41	0.52
1:M:637:LYS:HE3	1:M:638:ARG:HH21	1.74	0.52
1:A:1515:PHE:HD1	1:A:1520:ARG:HB3	1.75	0.52
1:B:826:GLU:N	1:B:826:GLU:OE2	2.43	0.52
1:B:1228:ALA:O	1:B:1232:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1578:ARG:NH1	1:K:1580:ASP:OD2	2.42	0.52
1:K:1598:TYR:O	1:K:1602:VAL:HG23	2.09	0.52
1:L:1000:LEU:HB3	1:L:1004:LEU:HD22	1.91	0.52
1:L:1186:LEU:O	1:L:1190:ILE:HG12	2.10	0.52
1:L:1198:ILE:HD12	1:L:1198:ILE:H	1.75	0.52
1:L:1204:ARG:HA	1:L:1207:ASP:HB2	1.90	0.52
1:E:34:SER:OG	1:E:75:PRO:O	2.13	0.52
1:E:266:ILE:HG21	1:E:287:LEU:HD13	1.91	0.52
3:C:479:TYR:O	3:C:484:VAL:HA	2.09	0.52
3:C:819:LEU:HA	3:C:822:VAL:HG22	1.92	0.52
1:M:597:ASP:HB2	1:M:625:ARG:NH2	2.22	0.52
1:M:756:PRO:HA	1:M:759:VAL:HB	1.92	0.52
1:M:759:VAL:O	1:M:763:LEU:HG	2.10	0.52
1:M:859:LEU:HD12	1:M:860:PRO:HD3	1.92	0.52
1:M:1006:GLU:OE1	1:M:1006:GLU:N	2.43	0.52
1:A:1253:TRP:HA	1:A:1256:VAL:HG12	1.91	0.52
1:A:1608:THR:O	1:A:1612:LYS:HG2	2.09	0.52
1:A:1617:GLU:O	1:A:1621:LYS:HG2	2.09	0.52
1:B:809:PRO:O	1:B:812:LEU:HD12	2.10	0.52
1:B:990:VAL:HA	1:B:993:LYS:HD2	1.90	0.52
1:J:1621:LYS:HA	1:J:1624:GLU:HG3	1.91	0.52
1:L:968:ARG:HD2	1:L:971:ILE:HD11	1.92	0.52
1:E:92:ASN:ND2	1:E:95:MET:H	2.08	0.52
1:E:642:HIS:O	1:E:646:LEU:N	2.34	0.52
3:C:568:ASP:HA	3:C:571:LYS:HD2	1.92	0.52
3:C:743:GLU:HA	3:C:746:ARG:NH1	2.25	0.52
3:C:833:ILE:HD13	3:C:858:LEU:HD21	1.90	0.52
1:M:611:ALA:HA	1:M:633:LEU:HD11	1.90	0.52
1:M:719:VAL:HA	1:M:722:SER:HB2	1.91	0.52
1:M:989:SER:O	1:M:993:LYS:HG2	2.10	0.52
1:A:1281:ASP:N	1:A:1281:ASP:OD1	2.43	0.52
1:A:1541:ALA:O	1:A:1544:SER:OG	2.18	0.52
1:K:1404:TYR:OH	1:K:1429:ARG:NH2	2.27	0.52
1:E:121:LEU:O	1:E:128:TYR:N	2.29	0.52
1:E:156:TYR:HE1	1:E:165:LEU:HB3	1.73	0.52
1:E:541:GLU:HB3	1:E:542:PRO:HD2	1.92	0.52
1:E:663:SER:OG	1:E:663:SER:O	2.27	0.52
3:C:519:ARG:O	3:C:523:ARG:NH1	2.43	0.52
3:C:546:ILE:HG21	3:C:580:LEU:CD1	2.40	0.52
3:C:637:LYS:HB3	3:C:638:ARG:NH1	2.24	0.52
1:M:724:ASP:O	1:M:727:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1026:ASN:O	1:M:1030:LEU:HG	2.09	0.52
1:A:1289:TYR:O	1:A:1293:ARG:HD3	2.09	0.52
1:A:1450:PRO:HA	1:A:1453:ARG:HE	1.75	0.52
1:B:1071:ILE:HA	1:B:1074:LYS:HE3	1.91	0.52
4:D:193:GLU:HA	4:D:223:LYS:HD2	1.92	0.52
4:D:212:VAL:HG21	4:D:214:ARG:HE	1.75	0.52
1:L:1322:ILE:HG22	1:L:1323:LEU:HD22	1.92	0.52
1:E:498:VAL:HG22	1:E:532:PHE:HD1	1.74	0.52
1:E:525:SER:N	1:E:526:PRO:HD2	2.25	0.52
3:C:483:ASN:ND2	3:C:485:PRO:HG3	2.25	0.52
3:C:512:PRO:HA	3:C:515:ILE:HG13	1.92	0.52
3:C:673:ALA:O	3:C:675:ILE:HG12	2.10	0.52
3:C:692:GLN:HG3	3:C:693:LEU:CD2	2.40	0.52
1:M:725:PRO:HA	1:M:728:HIS:HD2	1.74	0.52
1:A:1404:TYR:H	1:A:1404:TYR:HD2	1.58	0.52
1:L:946:TYR:O	1:L:950:ARG:N	2.39	0.52
1:E:265:GLN:NE2	1:E:266:ILE:O	2.43	0.51
3:C:808:ASN:OD1	3:C:808:ASN:N	2.39	0.51
1:M:1042:GLU:OE1	1:M:1046:ARG:NH2	2.43	0.51
1:B:944:SER:O	1:B:948:VAL:HG13	2.10	0.51
4:N:218:VAL:HG23	4:N:222:LEU:HB2	1.91	0.51
1:E:230:ILE:HD13	1:E:287:LEU:O	2.10	0.51
1:E:400:ARG:O	1:E:404:VAL:HG23	2.10	0.51
3:C:724:ASP:CG	3:C:727:VAL:H	2.13	0.51
3:C:810:SER:HB3	3:C:839:GLN:HE21	1.74	0.51
4:O:103:ILE:HA	4:O:106:TRP:HE1	1.74	0.51
1:K:1451:TYR:O	1:K:1455:VAL:HG22	2.11	0.51
1:H:652:VAL:HA	1:H:655:PHE:CD2	2.45	0.51
1:E:5:LEU:O	1:E:337:TYR:OH	2.21	0.51
1:E:581:GLN:HA	1:E:584:LEU:HD12	1.92	0.51
1:E:677:GLN:OE1	1:E:677:GLN:N	2.43	0.51
3:C:444:ARG:HB2	3:C:447:LEU:HB2	1.93	0.51
3:C:546:ILE:O	3:C:549:ILE:HB	2.10	0.51
3:C:683:VAL:CG1	3:C:714:PHE:HB2	2.41	0.51
3:C:774:LEU:O	3:C:778:CYS:HB3	2.10	0.51
1:J:1563:ARG:HB3	1:J:1594:PHE:HZ	1.75	0.51
1:L:1084:VAL:HA	1:L:1087:GLU:HG3	1.92	0.51
1:L:1187:GLU:OE1	1:L:1220:ASN:ND2	2.43	0.51
1:L:1408:ILE:HA	1:L:1419:LEU:HD21	1.92	0.51
1:L:1416:PRO:O	1:L:1419:LEU:HB2	2.11	0.51
1:H:680:GLN:HG3	1:H:684:GLN:NE2	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:92:ASN:HD21	1:E:94:GLU:HB3	1.75	0.51
1:E:675:ILE:HG23	1:E:707:SER:HB3	1.91	0.51
3:C:401:PHE:HZ	3:C:416:GLN:HE21	1.57	0.51
3:C:561:GLN:HB3	3:C:565:PHE:CE2	2.46	0.51
1:B:1161:ARG:HB3	1:B:1162:LYS:NZ	2.24	0.51
1:J:1499:LEU:HD23	1:J:1507:PHE:CD2	2.46	0.51
1:J:1593:ASP:N	1:J:1593:ASP:OD1	2.42	0.51
1:K:1604:LYS:HZ1	4:N:213:SER:N	2.01	0.51
1:H:689:TYR:HD1	1:H:692:GLN:HE21	1.59	0.51
1:E:37:PHE:HE1	1:E:75:PRO:HA	1.75	0.51
1:E:51:VAL:HA	1:E:63:ARG:HA	1.92	0.51
1:E:468:LYS:HZ3	1:E:488:VAL:C	2.13	0.51
3:C:486:ASN:HB3	3:C:510:TYR:CE1	2.44	0.51
3:C:491:CYS:HA	3:C:516:PHE:CG	2.46	0.51
3:C:540:GLU:N	3:C:575:PRO:HB3	2.26	0.51
1:A:1251:ARG:HA	1:A:1254:LYS:HZ2	1.74	0.51
1:B:892:ARG:HA	1:B:895:ARG:HB3	1.92	0.51
1:B:1174:ILE:HA	1:B:1177:LEU:HD12	1.93	0.51
4:D:129:ARG:HG2	4:D:133:LYS:HE3	1.92	0.51
1:L:1077:VAL:O	1:L:1080:SER:OG	2.21	0.51
4:N:143:GLN:O	4:N:147:VAL:HG23	2.09	0.51
1:E:335:ILE:HD12	1:E:358:ALA:O	2.11	0.51
1:E:508:VAL:HG11	1:E:511:THR:HG23	1.93	0.51
3:C:436:CYS:HA	3:C:448:LEU:HD13	1.92	0.51
3:C:761:ASN:HA	3:C:764:LYS:CD	2.33	0.51
3:C:826:GLU:HG2	3:C:827:ASP:OD1	2.11	0.51
3:C:852:ARG:O	3:C:854:ARG:HD2	2.10	0.51
1:M:787:LEU:O	1:M:791:LEU:HG	2.11	0.51
1:A:1304:GLU:HA	1:A:1307:LEU:HG	1.92	0.51
1:A:1376:ILE:O	1:A:1380:ASN:ND2	2.44	0.51
1:A:1477:TYR:HA	1:A:1480:LEU:HB3	1.92	0.51
1:K:1571:PHE:CE1	4:N:212:VAL:HG11	2.45	0.51
1:L:987:GLU:O	1:L:991:THR:HG23	2.11	0.51
1:L:1229:SER:O	1:L:1233:HIS:ND1	2.43	0.51
1:L:1313:HIS:O	1:L:1316:MET:HG2	2.10	0.51
3:C:401:PHE:CD1	3:C:417:TYR:HB2	2.45	0.51
3:C:536:LEU:HD23	3:C:537:VAL:HG13	1.92	0.51
3:C:624:GLN:HG2	3:C:649:GLU:OE1	2.11	0.51
3:C:634:TYR:O	3:C:636:ILE:HG12	2.10	0.51
1:A:1290:TYR:O	1:A:1295:TYR:N	2.30	0.51
1:A:1408:ILE:HG13	1:A:1409:GLN:N	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1436:VAL:HG21	1:A:1462:SER:HB2	1.93	0.51
1:B:985:PRO:HB3	1:B:1018:PHE:HE2	1.76	0.51
4:D:125:GLU:HG3	4:D:129:ARG:NH2	2.25	0.51
4:D:202:ASN:HB2	4:D:204:LYS:HG3	1.92	0.51
1:K:1540:TYR:HA	1:K:1543:GLU:HG3	1.92	0.51
1:L:1227:LEU:HD12	1:L:1228:ALA:N	2.26	0.51
1:L:1391:PHE:HA	1:L:1394:ILE:HG12	1.92	0.51
4:N:139:TRP:O	4:N:143:GLN:HG2	2.10	0.51
1:E:163:LYS:HA	1:E:186:VAL:HB	1.93	0.51
1:E:346:ASP:O	1:E:350:ARG:HG3	2.11	0.51
1:E:494:GLU:CD	1:E:520:ASN:HB3	2.31	0.51
1:E:534:GLN:HG3	1:E:565:PHE:CD1	2.46	0.51
3:C:440:LEU:HB3	3:C:441:GLN:OE1	2.11	0.51
3:C:497:GLN:HB3	3:C:500:LYS:HZ3	1.75	0.51
3:C:708:PHE:HD1	3:C:708:PHE:H	1.58	0.51
3:C:808:ASN:HD22	3:C:811:ARG:HH21	1.59	0.51
1:A:1538:MET:O	1:A:1542:SER:OG	2.19	0.51
1:B:847:ALA:HA	1:B:850:GLU:OE1	2.11	0.51
1:B:913:ASP:OD1	1:B:915:HIS:N	2.38	0.51
4:D:220:MET:O	4:D:225:THR:OG1	2.24	0.51
1:L:1401:VAL:HA	1:L:1404:TYR:CE2	2.46	0.51
1:E:278:LYS:O	1:E:302:THR:OG1	2.18	0.51
1:E:583:ARG:HA	1:E:586:GLU:OE1	2.11	0.51
3:C:439:VAL:CG1	3:C:448:LEU:HD13	2.41	0.51
3:C:749:ARG:HA	3:C:780:ARG:NH1	2.16	0.51
3:C:759:VAL:O	3:C:762:PHE:HB3	2.10	0.51
3:C:768:LEU:HD12	3:C:770:ASP:H	1.76	0.51
3:C:831:ASN:O	3:C:835:VAL:HG13	2.10	0.51
1:M:732:ILE:HG23	1:M:741:ILE:HD13	1.93	0.51
1:M:840:PHE:CZ	1:M:845:LEU:HD13	2.46	0.51
1:A:1317:PHE:O	1:A:1320:LEU:HB3	2.10	0.51
1:B:1253:TRP:CE3	1:B:1272:CYS:HB3	2.46	0.51
1:L:1025:GLN:OE1	1:L:1025:GLN:N	2.43	0.51
1:L:1065:PHE:HB3	1:L:1088:HIS:CE1	2.46	0.51
1:H:803:TYR:OH	1:H:811:ARG:HB2	2.11	0.51
1:E:484:VAL:O	1:E:504:TYR:OH	2.13	0.51
3:C:440:LEU:HB2	3:C:448:LEU:HD22	1.92	0.51
3:C:479:TYR:CD2	3:C:489:ILE:HA	2.46	0.51
3:C:685:VAL:HA	3:C:688:LYS:HB2	1.93	0.51
3:C:803:TYR:CZ	3:C:808:ASN:ND2	2.73	0.51
1:M:757:GLU:O	1:M:760:LYS:HG2	2.12	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1455:VAL:O	1:A:1458:HIS:ND1	2.44	0.51
1:A:1545:LYS:O	1:A:1545:LYS:HD2	2.10	0.51
1:B:1028:LEU:O	1:B:1031:THR:OG1	2.26	0.51
1:K:1526:GLU:OE1	1:K:1530:LYS:NZ	2.43	0.51
1:L:1051:ASP:OD1	1:L:1051:ASP:N	2.39	0.51
1:L:1125:ILE:HD13	1:L:1152:GLU:HG3	1.93	0.51
1:L:1297:GLU:OE2	1:L:1298:GLU:HG2	2.10	0.51
1:H:726:ASP:HA	1:H:758:ARG:HH12	1.76	0.51
4:N:202:ASN:HB2	4:N:204:LYS:HZ2	1.75	0.51
1:E:283:HIS:CE1	1:E:295:MET:HG3	2.46	0.50
1:E:532:PHE:O	1:E:536:LEU:HG	2.11	0.50
1:E:615:GLN:HG3	1:E:638:ARG:CZ	2.41	0.50
3:C:573:ASN:HA	3:C:607:HIS:CE1	2.45	0.50
3:C:689:TYR:HA	3:C:692:GLN:HE21	1.75	0.50
3:C:797:GLN:HB3	3:C:799:TYR:CZ	2.45	0.50
1:M:741:ILE:HG13	1:M:745:GLU:HB3	1.94	0.50
1:M:955:LEU:O	1:M:959:VAL:HG23	2.11	0.50
1:M:995:PHE:HB3	1:M:1005:ILE:HG12	1.93	0.50
1:B:992:VAL:HA	1:B:995:PHE:CD2	2.46	0.50
1:B:1113:LYS:HG3	1:B:1117:GLN:NE2	2.26	0.50
1:B:1128:TYR:O	1:B:1132:ASP:N	2.44	0.50
4:D:165:PRO:HG2	4:D:194:LYS:HZ2	1.76	0.50
1:L:1448:VAL:HG22	1:L:1451:TYR:HB3	1.92	0.50
1:H:741:ILE:O	1:H:745:GLU:N	2.35	0.50
4:I:201:PHE:HB2	4:I:204:LYS:HZ1	1.77	0.50
1:E:316:ILE:HA	1:E:326:SER:HA	1.94	0.50
1:E:434:GLU:HA	1:E:437:ARG:HD2	1.93	0.50
1:E:518:LEU:HD12	1:E:544:ALA:C	2.31	0.50
1:E:598:ALA:O	1:E:602:ASN:ND2	2.44	0.50
1:E:616:LEU:O	1:E:620:ALA:N	2.44	0.50
1:E:617:CYS:HB2	1:E:630:PHE:CZ	2.47	0.50
2:F:747:LEU:HD12	1:M:719:VAL:CB	2.36	0.50
3:C:463:LEU:O	3:C:467:VAL:HG22	2.12	0.50
3:C:490:GLN:HB2	3:C:510:TYR:OH	2.10	0.50
3:C:517:LEU:O	3:C:521:VAL:N	2.43	0.50
3:C:604:MET:O	3:C:608:TYR:HB3	2.11	0.50
1:M:828:VAL:HA	1:M:831:ASN:ND2	2.26	0.50
1:M:858:LEU:O	1:M:862:LEU:HD12	2.11	0.50
1:M:935:ASN:OD1	1:M:935:ASN:N	2.42	0.50
1:M:966:TYR:O	1:M:970:LEU:N	2.30	0.50
1:A:1324:TYR:HB3	1:A:1332:MET:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1550:ALA:HA	1:A:1553:LEU:HD12	1.93	0.50
1:B:855:LEU:HB2	1:B:882:ILE:HG22	1.94	0.50
1:B:1010:LYS:HD2	1:B:1013:LEU:HD13	1.93	0.50
1:J:1557:PHE:CZ	1:J:1562:LYS:HB3	2.47	0.50
1:K:1584:GLU:OE2	1:K:1588:ARG:NH1	2.44	0.50
4:N:158:ASP:HA	4:N:161:PHE:CD2	2.46	0.50
1:E:52:ILE:HG12	1:E:73:MET:SD	2.51	0.50
1:E:206:MET:SD	1:E:243:PHE:HB2	2.51	0.50
1:E:418:PHE:HA	1:E:421:LEU:HD12	1.93	0.50
1:E:612:HIS:HA	1:E:615:GLN:OE1	2.11	0.50
3:C:440:LEU:CD1	3:C:445:LYS:HG3	2.41	0.50
3:C:549:ILE:HG22	3:C:562:CYS:SG	2.51	0.50
3:C:597:ASP:H	3:C:625:ARG:NH2	2.05	0.50
3:C:615:GLN:HA	3:C:618:GLU:OE1	2.11	0.50
3:C:635:ASP:CG	3:C:638:ARG:HD3	2.31	0.50
3:C:676:ARG:HA	3:C:679:LEU:HG	1.93	0.50
1:M:789:LEU:HD11	1:M:793:ARG:NH2	2.25	0.50
1:A:1478:GLN:OE1	1:A:1478:GLN:N	2.34	0.50
1:B:1136:SER:O	1:B:1140:VAL:HG23	2.10	0.50
4:D:109:GLU:O	4:D:112:LYS:HG3	2.11	0.50
1:L:1442:VAL:HG23	1:L:1444:GLN:HB2	1.94	0.50
1:H:652:VAL:HG13	1:H:688:LYS:HE3	1.93	0.50
1:H:666:CYS:O	1:H:670:MET:HG3	2.12	0.50
1:E:574:ARG:HB2	1:E:575:PRO:HD3	1.93	0.50
3:C:524:ILE:HG23	3:C:526:PRO:O	2.10	0.50
3:C:816:ILE:HG12	3:C:829:ILE:HG21	1.93	0.50
1:M:802:ILE:HA	1:M:805:GLN:HE21	1.75	0.50
1:M:830:LYS:O	1:M:834:LEU:HG	2.11	0.50
1:M:1058:ILE:O	1:M:1062:ASN:N	2.45	0.50
1:A:1596:MET:O	1:A:1600:ILE:HG13	2.11	0.50
1:B:956:TRP:HE3	1:B:960:LEU:HD11	1.77	0.50
4:O:100:PRO:HG2	4:O:102:SER:HB3	1.94	0.50
1:L:1314:MET:SD	1:L:1315:GLY:N	2.84	0.50
1:L:1330:GLN:CD	1:L:1330:GLN:H	2.15	0.50
1:L:1358:TRP:CD1	1:L:1361:LEU:HD12	2.45	0.50
1:H:774:LEU:O	1:H:778:CYS:HB3	2.12	0.50
1:E:257:GLN:O	1:E:279:TYR:OH	2.13	0.50
1:E:370:ALA:HB1	1:E:374:GLN:NE2	2.25	0.50
1:E:412:SER:O	1:E:416:GLN:HG3	2.12	0.50
3:C:486:ASN:O	3:C:510:TYR:OH	2.24	0.50
3:C:514:TRP:CH2	3:C:532:PHE:HB2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:207:LYS:HE2	4:D:212:VAL:N	2.27	0.50
4:O:103:ILE:HA	4:O:106:TRP:NE1	2.27	0.50
1:K:1567:GLY:O	1:K:1570:LEU:HG	2.11	0.50
1:L:1245:ARG:C	1:L:1248:ASN:HD21	2.15	0.50
1:L:1334:GLU:HA	1:L:1337:GLU:OE1	2.12	0.50
1:H:668:ARG:NH1	1:H:668:ARG:O	2.39	0.50
1:E:218:PHE:HE1	1:E:231:ILE:HG12	1.76	0.50
1:E:338:ILE:HA	1:E:342:LEU:HD12	1.94	0.50
1:E:439:VAL:HG13	1:E:444:ARG:HD2	1.92	0.50
3:C:387:ALA:HB3	3:C:391:ILE:HG22	1.94	0.50
3:C:495:THR:HA	3:C:532:PHE:HZ	1.76	0.50
1:M:1074:LYS:HG2	1:M:1075:PHE:CD1	2.47	0.50
1:A:1494:SER:OG	1:A:1498:ARG:NH1	2.41	0.50
1:B:1079:THR:OG1	1:B:1080:SER:N	2.45	0.50
4:D:131:LYS:HA	4:D:134:LYS:HG2	1.94	0.50
3:C:661:GLU:O	3:C:664:LEU:HD13	2.12	0.50
3:C:774:LEU:HD12	3:C:778:CYS:HB2	1.94	0.50
1:M:855:LEU:H	1:M:856:LYS:HZ2	1.58	0.50
1:M:979:LEU:HD23	1:M:1011:ILE:HD11	1.94	0.50
1:B:971:ILE:O	1:B:974:VAL:HG22	2.10	0.50
1:L:1284:GLU:O	1:L:1287:ILE:HB	2.12	0.50
1:E:291:THR:O	1:E:293:ILE:HG13	2.12	0.50
1:E:655:PHE:O	1:E:659:SER:OG	2.21	0.50
1:E:690:HIS:O	1:E:692:GLN:HG3	2.12	0.50
2:F:747:LEU:N	1:M:720:ASN:HA	2.26	0.50
3:C:554:MET:HA	3:C:559:ILE:CG1	2.39	0.50
3:C:610:ARG:O	3:C:613:ILE:HG12	2.11	0.50
3:C:611:ALA:O	3:C:615:GLN:HG3	2.12	0.50
3:C:622:LEU:O	3:C:625:ARG:N	2.45	0.50
3:C:689:TYR:O	3:C:692:GLN:HG2	2.11	0.50
1:A:1345:ILE:HG13	1:A:1368:TYR:CZ	2.47	0.50
1:A:1358:TRP:O	1:A:1362:VAL:HG23	2.11	0.50
1:A:1431:ASP:OD2	1:A:1434:ARG:HD3	2.11	0.50
1:B:842:THR:O	1:B:846:VAL:HG13	2.11	0.50
1:B:1177:LEU:HB2	1:B:1186:LEU:HD22	1.94	0.50
1:B:1185:GLU:OE1	1:B:1185:GLU:N	2.29	0.50
4:O:133:LYS:HB2	4:O:134:LYS:NZ	2.27	0.50
1:K:1596:MET:HA	1:K:1599:PHE:CD2	2.47	0.50
1:L:1115:GLN:HB3	1:L:1120:MET:O	2.12	0.50
1:L:1153:LEU:O	1:L:1157:LEU:HG	2.12	0.50
1:L:1236:GLU:OE2	1:L:1239:ALA:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1430:LEU:HD12	1:L:1431:ASP:N	2.26	0.50
1:E:104:MET:SD	1:E:138:PRO:HG3	2.51	0.50
1:E:648:PRO:HB2	1:E:653:ASN:HD21	1.77	0.50
3:C:662:ASP:HA	3:C:664:LEU:HD13	1.94	0.50
3:C:696:GLN:HA	3:C:699:ILE:HG12	1.93	0.50
1:A:1326:LYS:HG3	1:A:1327:PHE:CD1	2.47	0.50
1:A:1620:ARG:NH1	1:J:1620:ARG:HG3	2.26	0.50
1:B:901:ASP:OD2	1:B:904:VAL:N	2.35	0.50
1:B:954:GLU:OE2	1:B:954:GLU:N	2.34	0.50
1:J:1575:ASP:N	1:J:1575:ASP:OD1	2.43	0.50
1:L:1270:GLN:HE22	1:L:1305:ALA:H	1.60	0.50
1:E:129:HIS:CG	1:E:141:MET:HG3	2.46	0.49
1:E:201:PHE:HD1	1:E:233:VAL:HG21	1.77	0.49
1:E:690:HIS:HB2	1:E:692:GLN:HG2	1.93	0.49
3:C:614:ALA:O	3:C:629:HIS:CD2	2.65	0.49
1:M:623:LEU:O	1:M:627:LEU:HG	2.12	0.49
1:A:1565:CYS:HA	4:D:195:VAL:HG23	1.93	0.49
1:B:1150:TRP:CE2	1:B:1179:LYS:HG2	2.47	0.49
1:B:1154:VAL:HG21	1:B:1182:ARG:NH1	2.27	0.49
1:L:1375:ILE:O	1:L:1379:MET:HG2	2.12	0.49
4:I:147:VAL:HA	4:I:150:ASN:HD21	1.76	0.49
4:N:147:VAL:HA	4:N:150:ASN:HD21	1.77	0.49
4:N:192:TRP:HB3	4:N:224:GLN:CA	2.42	0.49
1:E:41:ARG:HA	1:E:50:VAL:HA	1.94	0.49
1:E:650:TRP:HB3	1:E:654:TYR:CE2	2.46	0.49
2:F:746:ALA:HB2	1:M:721:PHE:CG	2.46	0.49
3:C:435:LEU:HG	3:C:451:TRP:CE3	2.47	0.49
3:C:436:CYS:SG	3:C:466:LEU:HD12	2.52	0.49
3:C:581:GLN:HE22	3:C:607:HIS:HB2	1.78	0.49
3:C:610:ARG:HG3	3:C:632:ASP:HB3	1.93	0.49
3:C:670:MET:HE3	3:C:679:LEU:HD23	1.94	0.49
3:C:728:HIS:O	3:C:732:ILE:HG13	2.12	0.49
3:C:804:VAL:CG2	3:C:812:LEU:HD22	2.39	0.49
1:M:593:PRO:O	1:M:625:ARG:NH1	2.45	0.49
1:M:695:THR:OG1	1:M:697:SER:OG	2.14	0.49
1:M:954:GLU:OE1	1:M:954:GLU:N	2.34	0.49
1:M:971:ILE:O	1:M:975:VAL:HG22	2.11	0.49
1:A:1526:GLU:O	1:A:1529:LYS:HB2	2.12	0.49
1:B:1070:ALA:HA	1:B:1073:ARG:CZ	2.42	0.49
1:L:1170:GLU:O	1:L:1174:ILE:HG23	2.12	0.49
1:L:1324:TYR:HD2	1:L:1332:MET:HB3	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:166:LEU:HD11	1:E:181:MET:HB3	1.94	0.49
1:E:641:VAL:HA	1:E:644:HIS:CD2	2.46	0.49
3:C:520:ASN:O	3:C:524:ILE:HB	2.13	0.49
3:C:654:TYR:N	3:C:654:TYR:CD1	2.72	0.49
1:A:1433:THR:HA	1:A:1436:VAL:HG22	1.93	0.49
1:A:1619:LEU:HA	1:A:1622:GLU:HG3	1.94	0.49
1:J:1469:ASN:O	1:J:1473:THR:HG23	2.12	0.49
1:J:1604:LYS:O	1:J:1608:THR:HG23	2.13	0.49
1:L:1402:GLU:HA	1:L:1405:TYR:CD2	2.47	0.49
1:H:857:LEU:HD23	1:H:857:LEU:H	1.77	0.49
1:E:476:LEU:HD12	1:E:496:GLY:HA3	1.94	0.49
3:C:434:GLU:O	3:C:438:PRO:HD2	2.13	0.49
3:C:567:LEU:O	3:C:571:LYS:HG3	2.13	0.49
3:C:676:ARG:HA	3:C:679:LEU:HD11	1.94	0.49
1:M:827:ASP:HA	1:M:830:LYS:HD2	1.94	0.49
1:M:904:VAL:O	1:M:907:LYS:HG3	2.13	0.49
1:B:909:CYS:HA	1:B:912:ARG:HH11	1.77	0.49
1:H:671:LEU:HA	1:H:674:ASN:HB2	1.95	0.49
1:E:218:PHE:CZ	1:E:229:HIS:HB2	2.47	0.49
1:E:276:ILE:HD13	1:E:303:ILE:HD12	1.94	0.49
1:E:387:ALA:CB	1:E:392:LEU:H	2.26	0.49
1:E:451:TRP:O	1:E:455:ASP:N	2.46	0.49
1:E:671:LEU:HD12	1:E:698:LEU:HD13	1.95	0.49
1:B:1176:ALA:O	1:B:1180:THR:HG22	2.13	0.49
1:L:1025:GLN:O	1:L:1029:ILE:N	2.35	0.49
1:L:1365:TYR:O	1:L:1369:GLU:N	2.45	0.49
1:H:635:ASP:O	1:H:638:ARG:HD3	2.13	0.49
1:H:726:ASP:O	1:H:730:LYS:HG2	2.12	0.49
1:E:49:GLN:HG2	1:E:65:PRO:HA	1.95	0.49
1:E:395:PRO:O	1:E:399:ARG:HG3	2.12	0.49
3:C:461:GLU:HB2	3:C:488:VAL:HG11	1.94	0.49
3:C:794:ASN:OD1	3:C:795:ASN:N	2.40	0.49
3:C:812:LEU:O	3:C:816:ILE:HG13	2.12	0.49
1:M:964:ASN:HD21	1:M:966:TYR:HB2	1.77	0.49
1:M:1030:LEU:O	1:M:1034:LYS:HG2	2.12	0.49
1:A:1267:ARG:HA	1:A:1270:GLN:CD	2.33	0.49
1:A:1326:LYS:O	4:D:106:TRP:NE1	2.46	0.49
1:A:1411:TYR:HB3	1:A:1419:LEU:HB2	1.94	0.49
1:B:848:GLU:O	1:B:852:ARG:NH1	2.45	0.49
1:B:1041:MET:HA	1:B:1044:ILE:HD12	1.94	0.49
1:B:1107:VAL:HA	1:B:1110:GLN:HG2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1171:THR:HG22	1:B:1197:HIS:H	1.77	0.49
1:L:973:GLN:O	1:L:977:THR:HG23	2.12	0.49
1:L:1111:LEU:O	1:L:1115:GLN:NE2	2.33	0.49
1:H:811:ARG:O	1:H:815:VAL:HG23	2.13	0.49
1:E:226:GLY:C	1:E:250:VAL:H	2.16	0.49
3:C:429:LYS:HA	3:C:458:GLU:HG3	1.95	0.49
3:C:706:LYS:C	3:C:706:LYS:HD3	2.33	0.49
3:C:808:ASN:ND2	3:C:811:ARG:HE	2.10	0.49
1:B:985:PRO:HD3	1:B:1018:PHE:HZ	1.77	0.49
4:D:151:LYS:O	4:D:155:ARG:NH1	2.45	0.49
4:D:159:LYS:HA	4:D:162:TYR:CD2	2.48	0.49
4:O:113:ARG:NH2	4:O:116:GLU:HB3	2.27	0.49
1:L:1096:TYR:HB2	1:L:1111:LEU:HD21	1.95	0.49
1:L:1149:ASN:OD1	1:L:1153:LEU:HD11	2.12	0.49
1:L:1326:LYS:HD3	1:L:1326:LYS:HA	1.56	0.49
1:L:1371:TYR:O	1:L:1375:ILE:HG12	2.13	0.49
1:E:394:THR:OG1	1:E:397:THR:HG23	2.12	0.49
1:E:472:PRO:O	1:E:476:LEU:HG	2.13	0.49
1:E:615:GLN:O	1:E:618:GLU:HB2	2.13	0.49
3:C:401:PHE:HZ	3:C:416:GLN:HG2	1.77	0.49
3:C:474:LEU:O	3:C:478:VAL:HG23	2.13	0.49
3:C:490:GLN:OE1	3:C:504:TYR:HB3	2.13	0.49
3:C:534:GLN:HB2	3:C:565:PHE:CA	2.42	0.49
3:C:562:CYS:O	3:C:566:LEU:HG	2.13	0.49
3:C:658:LEU:HB2	3:C:688:LYS:NZ	2.28	0.49
1:M:876:HIS:CG	1:M:899:TYR:HB2	2.48	0.49
1:M:930:LEU:HG	1:M:943:LEU:HD11	1.95	0.49
1:A:1306:ALA:O	1:A:1309:LEU:HG	2.13	0.49
1:A:1580:ASP:N	1:A:1580:ASP:OD1	2.45	0.49
1:A:1605:GLU:HG2	1:A:1609:LYS:HE2	1.93	0.49
1:A:1609:LYS:HA	1:A:1612:LYS:HE3	1.95	0.49
4:D:110:GLN:O	4:D:114:LEU:HG	2.12	0.49
1:J:1563:ARG:NH1	1:J:1593:ASP:OD2	2.31	0.49
1:K:1532:SER:O	1:K:1537:ALA:N	2.45	0.49
1:E:50:VAL:O	1:E:64:ARG:N	2.40	0.49
1:E:263:ALA:O	1:E:275:LEU:HD12	2.13	0.49
1:E:272:VAL:HB	1:E:284:LEU:HD11	1.94	0.49
1:E:347:LEU:HD23	1:E:350:ARG:HD2	1.95	0.49
1:E:709:GLU:HB3	1:E:713:TYR:CE2	2.48	0.49
3:C:393:ARG:NH1	3:C:435:LEU:HD22	2.28	0.49
3:C:510:TYR:HD2	3:C:513:ASP:N	2.08	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:756:PRO:HG3	3:C:781:PHE:CZ	2.47	0.49
3:C:854:ARG:CG	3:C:856:LYS:HZ3	2.23	0.49
1:M:696:GLN:O	1:M:699:ILE:HG12	2.13	0.49
1:M:816:ILE:HA	1:M:819:LEU:HG	1.94	0.49
1:B:1253:TRP:HE3	1:B:1272:CYS:HB3	1.77	0.49
4:O:122:LYS:HA	4:O:125:GLU:HG2	1.94	0.49
1:J:1622:GLU:HA	1:J:1625:GLN:HG2	1.95	0.49
1:K:1513:TYR:HA	1:K:1516:LYS:NZ	2.27	0.49
1:K:1527:LEU:HD12	1:K:1530:LYS:HB2	1.93	0.49
1:L:1238:GLN:O	1:L:1241:VAL:HG22	2.12	0.49
1:E:90:ILE:O	1:E:100:LYS:N	2.43	0.49
1:E:630:PHE:CG	1:E:639:ALA:HB2	2.47	0.49
1:E:707:SER:O	1:E:711:LEU:HG	2.12	0.49
3:C:517:LEU:HD11	3:C:532:PHE:CD2	2.48	0.49
3:C:534:GLN:HB2	3:C:565:PHE:CG	2.47	0.49
3:C:545:ASP:CG	3:C:548:GLN:HB2	2.33	0.49
3:C:729:PHE:CE1	3:C:758:ARG:HG3	2.47	0.49
3:C:745:GLU:HB3	3:C:773:PRO:HG3	1.94	0.49
3:C:782:ASP:HA	3:C:784:VAL:HG13	1.95	0.49
1:M:675:ILE:HG23	1:M:676:ARG:NH2	2.28	0.49
1:M:683:VAL:HG21	1:M:710:GLY:HA3	1.94	0.49
1:A:1411:TYR:HB2	1:A:1419:LEU:HD22	1.95	0.49
1:A:1605:GLU:O	1:A:1609:LYS:HG2	2.13	0.49
1:B:816:ILE:HG23	1:B:839:GLN:NE2	2.28	0.49
1:B:1137:TYR:O	1:B:1141:VAL:HG23	2.13	0.49
1:L:945:ARG:O	1:L:949:ARG:N	2.46	0.49
1:E:40:ILE:N	1:E:51:VAL:O	2.33	0.48
1:E:49:GLN:CG	1:E:65:PRO:HA	2.43	0.48
1:E:173:GLN:HG2	1:E:174:GLN:HG3	1.95	0.48
1:E:211:GLU:HB2	1:E:237:PRO:HG2	1.95	0.48
3:C:490:GLN:CB	3:C:513:ASP:HB2	2.41	0.48
3:C:528:GLN:HG2	3:C:558:LEU:HD12	1.95	0.48
1:M:840:PHE:CZ	1:M:842:THR:HA	2.48	0.48
1:A:1537:ALA:O	1:A:1541:ALA:N	2.28	0.48
1:B:942:SER:HA	1:B:945:ARG:HD2	1.95	0.48
1:B:1092:LEU:HD21	1:B:1115:GLN:HE22	1.78	0.48
1:B:1148:GLY:HA2	1:B:1150:TRP:CZ3	2.48	0.48
1:L:1236:GLU:OE1	1:L:1240:ALA:N	2.46	0.48
1:H:771:GLN:HB2	1:H:773:PRO:HD2	1.94	0.48
1:E:122:VAL:HG13	1:E:127:VAL:HG22	1.96	0.48
1:E:386:ASN:C	1:E:393:ARG:HH21	2.16	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:484:VAL:HG12	1:E:504:TYR:HE2	1.76	0.48
1:E:543:LEU:HB2	1:E:546:ILE:HG13	1.95	0.48
1:E:571:LYS:HA	1:E:603:GLN:HE22	1.78	0.48
3:C:623:LEU:HD23	3:C:626:ALA:HB3	1.94	0.48
3:C:706:LYS:O	3:C:707:SER:OG	2.31	0.48
1:A:1389:GLY:O	1:A:1392:LYS:HB2	2.12	0.48
1:B:1021:HIS:HB3	1:B:1049:ASN:OD1	2.12	0.48
1:B:1166:GLU:OE2	1:B:1168:TYR:N	2.29	0.48
1:J:1588:ARG:NH2	4:N:221:SER:HB2	2.25	0.48
1:L:927:ASP:CG	1:L:928:LEU:H	2.16	0.48
1:E:338:ILE:HB	1:E:348:ALA:HB2	1.94	0.48
1:E:567:LEU:HD21	1:E:599:ILE:HG12	1.94	0.48
3:C:627:LEU:HA	3:C:630:PHE:HD2	1.78	0.48
3:C:706:LYS:NZ	3:C:708:PHE:HA	2.29	0.48
3:C:793:ARG:NH2	1:B:1221:VAL:CG1	2.76	0.48
3:C:794:ASN:CG	3:C:795:ASN:H	2.15	0.48
1:J:1526:GLU:OE1	1:J:1530:LYS:NZ	2.43	0.48
1:J:1597:PRO:C	4:I:214:ARG:HH21	2.17	0.48
1:K:1419:LEU:O	1:K:1423:LEU:HG	2.14	0.48
1:L:1115:GLN:O	1:L:1120:MET:N	2.47	0.48
1:L:1144:ALA:CA	1:L:1149:ASN:HD21	2.26	0.48
1:L:1242:ASP:HA	1:L:1245:ARG:NH2	2.27	0.48
1:E:243:PHE:CZ	1:E:246:LYS:HG2	2.49	0.48
1:E:339:THR:O	1:E:343:GLN:HA	2.13	0.48
1:E:351:MET:O	1:E:355:ASN:HB2	2.13	0.48
1:E:522:MET:HG3	1:E:549:ILE:HA	1.94	0.48
1:E:552:VAL:HA	1:E:555:GLU:OE1	2.13	0.48
3:C:392:LEU:HD23	3:C:397:THR:HB	1.95	0.48
3:C:429:LYS:HD3	3:C:458:GLU:CG	2.39	0.48
3:C:510:TYR:CD2	3:C:512:PRO:HB2	2.48	0.48
1:M:577:GLU:O	1:M:581:GLN:HG2	2.14	0.48
1:M:952:ASP:HB3	1:M:955:LEU:HD23	1.96	0.48
1:B:858:LEU:HB3	1:B:861:TRP:HE3	1.78	0.48
1:J:1492:ASN:HD22	1:J:1514:LEU:HB2	1.77	0.48
1:J:1579:PRO:O	1:K:1603:MET:HE1	2.12	0.48
1:K:1558:LEU:HD23	1:K:1563:ARG:HB3	1.95	0.48
1:L:1225:GLY:O	1:L:1229:SER:N	2.28	0.48
1:H:810:SER:O	1:H:813:PRO:HD2	2.13	0.48
1:E:267:SER:HB3	1:E:274:PHE:HE2	1.78	0.48
3:C:392:LEU:HD13	3:C:401:PHE:CE2	2.48	0.48
3:C:436:CYS:SG	3:C:457:LEU:HD11	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:599:ILE:HG22	3:C:604:MET:CB	2.35	0.48
3:C:709:GLU:O	3:C:713:TYR:HD2	1.97	0.48
3:C:755:ASP:H	3:C:758:ARG:HH21	1.61	0.48
1:A:1586:ALA:O	1:A:1591:ILE:N	2.29	0.48
1:B:1103:ASN:HA	1:B:1108:TRP:CZ2	2.42	0.48
1:B:1223:ASN:N	1:B:1227:LEU:HD23	2.28	0.48
1:B:1260:CYS:HB2	1:B:1269:ALA:HB2	1.96	0.48
4:D:148:GLU:HA	4:D:151:LYS:HE2	1.95	0.48
1:L:981:GLU:OE2	1:L:984:ASP:N	2.31	0.48
1:H:701:LEU:O	1:H:704:SER:OG	2.23	0.48
4:N:201:PHE:CE2	4:N:203:PRO:HG3	2.48	0.48
1:E:266:ILE:HG12	1:E:273:VAL:HG13	1.95	0.48
1:E:502:VAL:HG23	1:E:540:GLU:HG3	1.95	0.48
1:E:527:ASP:HA	1:E:561:GLN:NE2	2.29	0.48
1:E:603:GLN:HB3	1:E:607:HIS:HB2	1.95	0.48
1:E:605:PHE:HE1	1:E:633:LEU:HG	1.78	0.48
3:C:450:LYS:HB3	3:C:454:GLU:OE1	2.14	0.48
3:C:610:ARG:NH2	3:C:632:ASP:OD1	2.47	0.48
3:C:617:CYS:SG	3:C:626:ALA:HA	2.53	0.48
3:C:665:GLU:HA	3:C:668:ARG:HH21	1.78	0.48
1:M:788:VAL:HA	1:M:791:LEU:HB2	1.95	0.48
1:A:1547:THR:OG1	1:A:1548:GLU:N	2.46	0.48
1:A:1554:LEU:HA	1:A:1557:PHE:HB3	1.96	0.48
1:A:1571:PHE:HD1	4:D:214:ARG:CZ	2.26	0.48
1:B:1198:ILE:C	1:B:1200:GLN:H	2.17	0.48
1:J:1509:ARG:HG2	1:J:1510:ILE:HD13	1.96	0.48
1:J:1555:GLN:HA	1:J:1558:LEU:HD12	1.95	0.48
1:L:1451:TYR:O	1:L:1454:SER:OG	2.26	0.48
1:H:741:ILE:O	1:H:745:GLU:HG3	2.14	0.48
2:F:834:ARG:HB3	2:F:835:GLN:OE1	2.13	0.48
3:C:468:LYS:HE2	3:C:488:VAL:O	2.13	0.48
3:C:472:PRO:HG2	3:C:494:GLU:N	2.28	0.48
3:C:473:THR:CG2	3:C:497:GLN:H	2.27	0.48
3:C:837:ARG:CZ	3:C:840:PHE:HB2	2.44	0.48
3:C:841:SER:OG	3:C:844:GLU:HG2	2.13	0.48
3:C:859:LEU:N	3:C:860:PRO:HD2	2.29	0.48
1:B:973:GLN:O	1:B:977:THR:OG1	2.19	0.48
1:B:1067:GLU:O	1:B:1071:ILE:HG13	2.13	0.48
4:D:215:LEU:HD12	4:D:215:LEU:H	1.78	0.48
1:J:1536:ASP:HA	1:J:1539:GLN:HB3	1.95	0.48
1:E:62:ILE:HG23	1:E:64:ARG:CZ	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:112:LYS:NZ	1:E:156:TYR:O	2.34	0.48
1:E:152:GLN:N	1:E:170:ILE:O	2.42	0.48
1:E:265:GLN:HB2	1:E:315:ILE:HD12	1.96	0.48
1:E:309:HIS:ND1	1:E:326:SER:OG	2.47	0.48
1:E:605:PHE:HB3	1:E:610:ARG:HE	1.79	0.48
1:E:668:ARG:NH2	1:E:694:SER:OG	2.47	0.48
2:F:746:ALA:CB	1:M:721:PHE:N	2.71	0.48
3:C:498:VAL:HA	3:C:532:PHE:CE1	2.49	0.48
3:C:558:LEU:O	3:C:561:GLN:N	2.46	0.48
3:C:577:GLU:HG3	3:C:580:LEU:H	1.79	0.48
1:M:1006:GLU:O	1:M:1010:LYS:HG3	2.13	0.48
1:M:1059:ALA:HB1	1:M:1064:LEU:HD12	1.94	0.48
1:A:1267:ARG:O	1:A:1270:GLN:HB2	2.13	0.48
1:A:1300:ILE:O	1:A:1303:LEU:HB3	2.13	0.48
1:A:1377:THR:HA	1:A:1380:ASN:OD1	2.14	0.48
1:A:1615:ALA:O	1:A:1619:LEU:HD23	2.14	0.48
1:B:1025:GLN:HA	1:B:1028:LEU:HB3	1.95	0.48
1:B:1032:ALA:HB1	1:B:1040:VAL:HG12	1.94	0.48
1:B:1148:GLY:HA2	1:B:1150:TRP:HZ3	1.78	0.48
1:K:1579:PRO:O	1:K:1583:LEU:HG	2.14	0.48
1:L:1040:VAL:HA	1:L:1043:TYR:CD2	2.49	0.48
1:L:1152:GLU:N	1:L:1152:GLU:OE1	2.46	0.48
1:L:1199:GLN:HE22	1:L:1221:VAL:HG11	1.79	0.48
1:H:857:LEU:O	1:H:860:PRO:HD2	2.13	0.48
1:E:38:ILE:O	1:E:53:ILE:N	2.43	0.48
1:E:197:HIS:HB3	1:E:261:PRO:O	2.14	0.48
1:E:349:LEU:HG	1:E:363:LEU:HD13	1.96	0.48
1:E:682:CYS:HA	1:E:714:PHE:CE2	2.48	0.48
3:C:393:ARG:NH1	3:C:427:LEU:HB2	2.28	0.48
3:C:501:ILE:HD12	3:C:532:PHE:CE1	2.48	0.48
3:C:553:PHE:CE1	3:C:561:GLN:HB2	2.49	0.48
3:C:597:ASP:O	3:C:600:LEU:HB3	2.14	0.48
3:C:610:ARG:HH22	3:C:629:HIS:CA	2.27	0.48
1:M:749:ARG:O	1:M:752:ASN:ND2	2.28	0.48
1:M:812:LEU:O	1:M:815:VAL:HG22	2.14	0.48
1:M:897:ASN:OD1	1:M:899:TYR:N	2.47	0.48
1:M:933:VAL:O	1:M:936:GLU:HG2	2.14	0.48
1:B:934:CYS:SG	1:B:935:ASN:N	2.86	0.48
1:L:1105:PRO:HA	1:L:1108:TRP:CD1	2.37	0.48
1:L:1176:ALA:O	1:L:1179:LYS:HB2	2.14	0.48
1:H:819:LEU:HB3	1:H:824:CYS:SG	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:306:THR:HA	1:E:317:GLY:CA	2.43	0.48
3:C:473:THR:HG21	3:C:497:GLN:H	1.79	0.48
3:C:540:GLU:HG2	3:C:569:ALA:C	2.34	0.48
3:C:610:ARG:NH2	3:C:629:HIS:HA	2.29	0.48
3:C:778:CYS:O	3:C:782:ASP:N	2.46	0.48
1:M:604:MET:HG3	1:M:608:TYR:CD2	2.49	0.48
1:M:983:GLN:NE2	1:B:890:PRO:HA	2.29	0.48
1:M:1021:HIS:O	1:M:1025:GLN:N	2.34	0.48
1:A:1365:TYR:CZ	1:A:1373:ASN:HB2	2.49	0.48
1:L:1176:ALA:O	1:L:1180:THR:HG22	2.14	0.48
1:L:1215:LYS:HG2	1:L:1216:LEU:HD23	1.96	0.48
1:L:1296:PHE:O	1:L:1300:ILE:HG12	2.14	0.48
1:E:625:ARG:O	1:E:629:HIS:HD2	1.97	0.47
3:C:506:LYS:HZ3	3:C:538:GLN:HE21	1.62	0.47
3:C:509:GLY:HA2	3:C:510:TYR:HA	1.54	0.47
3:C:537:VAL:HB	3:C:569:ALA:HB2	1.96	0.47
1:M:663:SER:HA	1:M:666:CYS:HB3	1.96	0.47
1:M:791:LEU:HB3	1:M:796:LEU:HG	1.96	0.47
1:K:1460:ASN:HB3	1:K:1463:VAL:HG12	1.95	0.47
1:L:1117:GLN:HB2	1:L:1118:LYS:HZ3	1.77	0.47
1:L:1248:ASN:HA	1:L:1253:TRP:CZ2	2.48	0.47
1:H:768:LEU:HG	1:H:770:ASP:OD1	2.14	0.47
1:E:22:PRO:HA	1:E:25:ILE:HD12	1.96	0.47
1:E:155:ASN:OD1	1:E:156:TYR:N	2.46	0.47
1:E:426:GLN:HG3	1:E:455:ASP:O	2.15	0.47
3:C:476:LEU:CB	3:C:500:LYS:HE3	2.44	0.47
3:C:675:ILE:HG21	3:C:677:GLN:HE21	1.79	0.47
1:M:1007:LEU:HA	1:M:1010:LYS:NZ	2.29	0.47
1:A:1343:VAL:HG13	1:A:1348:VAL:HG11	1.95	0.47
1:A:1528:CYS:HA	1:A:1531:ASP:HB2	1.95	0.47
1:K:1504:LEU:O	1:K:1508:ARG:HG2	2.14	0.47
1:K:1554:LEU:HB3	1:K:1566:PHE:CZ	2.47	0.47
1:K:1575:ASP:HA	4:N:210:LYS:HZ3	1.79	0.47
1:H:749:ARG:O	1:H:780:ARG:NH2	2.47	0.47
1:H:849:VAL:HG11	1:H:858:LEU:HD22	1.96	0.47
1:E:80:ILE:O	1:E:91:PHE:N	2.41	0.47
1:E:274:PHE:CD1	1:E:284:LEU:HD13	2.48	0.47
1:E:372:PHE:CZ	1:E:380:ALA:HB1	2.48	0.47
1:E:594:GLN:HA	1:E:625:ARG:NH2	2.29	0.47
2:F:718:VAL:CG1	1:M:723:GLN:HG3	2.30	0.47
3:C:360:ALA:HB2	3:C:363:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:483:ASN:OD1	3:C:483:ASN:N	2.47	0.47
3:C:483:ASN:C	3:C:485:PRO:HD3	2.35	0.47
3:C:554:MET:C	3:C:557:ASN:H	2.17	0.47
1:M:700:GLU:HA	1:M:703:GLU:HG3	1.97	0.47
1:M:789:LEU:O	1:M:793:ARG:HG2	2.14	0.47
1:M:927:ASP:OD1	1:M:946:TYR:OH	2.20	0.47
1:A:1511:ALA:O	1:A:1514:LEU:HG	2.14	0.47
1:K:1538:MET:HG2	1:K:1572:THR:HG21	1.96	0.47
1:H:804:VAL:HG13	1:H:809:PRO:HA	1.96	0.47
1:E:21:ASN:ND2	1:E:23:ALA:HB3	2.30	0.47
1:E:344:ASN:HB3	1:E:347:LEU:HB2	1.96	0.47
1:E:437:ARG:HA	1:E:440:LEU:HD12	1.96	0.47
1:E:508:VAL:HA	1:E:509:GLY:C	2.34	0.47
1:E:545:ASP:OD2	1:E:548:GLN:NE2	2.48	0.47
3:C:524:ILE:HD11	3:C:526:PRO:HB2	1.96	0.47
3:C:543:LEU:HD23	3:C:549:ILE:HD11	1.96	0.47
3:C:608:TYR:CZ	3:C:613:ILE:HG22	2.50	0.47
3:C:635:ASP:OD1	3:C:638:ARG:NH1	2.47	0.47
3:C:765:GLU:HA	3:C:767:LYS:HZ3	1.79	0.47
3:C:782:ASP:OD1	3:C:784:VAL:HG22	2.15	0.47
3:C:793:ARG:NH2	1:B:1221:VAL:HG13	2.29	0.47
1:M:570:LEU:HD11	1:M:584:LEU:HD12	1.95	0.47
1:M:798:LYS:O	1:M:802:ILE:N	2.31	0.47
1:M:889:ASN:HB2	1:M:891:GLU:OE1	2.13	0.47
1:B:1025:GLN:O	1:B:1028:LEU:HB3	2.14	0.47
1:B:1158:GLN:O	1:B:1162:LYS:HG2	2.13	0.47
1:J:1580:ASP:OD1	1:J:1581:VAL:N	2.43	0.47
1:J:1582:VAL:HG21	1:J:1598:TYR:CZ	2.50	0.47
1:K:1462:SER:O	1:K:1465:GLU:HG3	2.15	0.47
1:L:1037:ARG:HB2	1:L:1039:ARG:HE	1.80	0.47
1:L:1213:ALA:O	1:L:1216:LEU:N	2.46	0.47
1:L:1290:TYR:O	1:L:1295:TYR:HB2	2.14	0.47
1:L:1430:LEU:HD12	1:L:1431:ASP:H	1.79	0.47
1:E:70:SER:HB3	1:E:111:TRP:CZ2	2.49	0.47
1:E:83:LYS:HG3	1:E:111:TRP:CE2	2.48	0.47
1:E:108:VAL:HG13	1:E:121:LEU:HB3	1.97	0.47
1:E:129:HIS:O	1:E:139:VAL:N	2.40	0.47
1:E:604:MET:HA	1:E:608:TYR:HB2	1.95	0.47
1:E:648:PRO:HB3	1:E:670:MET:CE	2.44	0.47
2:F:854:ILE:HD13	2:F:935:LEU:CD1	2.44	0.47
3:C:627:LEU:HD23	3:C:630:PHE:CD2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:701:LEU:HA	3:C:701:LEU:HD23	1.64	0.47
3:C:772:LEU:H	3:C:773:PRO:HD3	1.79	0.47
3:C:810:SER:HA	3:C:839:GLN:HG2	1.96	0.47
1:M:825:SER:O	1:M:828:VAL:HG22	2.14	0.47
1:M:848:GLU:HA	1:M:851:LYS:HE3	1.96	0.47
1:A:1328:LYS:HB3	1:A:1331:LYS:HB3	1.97	0.47
1:A:1558:LEU:HA	1:A:1563:ARG:NE	2.22	0.47
1:J:1534:TYR:HA	1:J:1562:LYS:NZ	2.29	0.47
1:L:1420:ASN:ND2	1:L:1448:VAL:HA	2.30	0.47
4:N:125:GLU:HB2	4:N:129:ARG:HH22	1.80	0.47
1:E:8:ARG:N	1:E:328:CYS:O	2.43	0.47
1:E:15:LEU:HG	1:E:322:GLY:O	2.15	0.47
3:C:376:ASN:ND2	3:C:379:GLU:OE2	2.43	0.47
3:C:452:LEU:HD12	3:C:453:LYS:HG3	1.97	0.47
3:C:834:LEU:HG	3:C:860:PRO:HG3	1.96	0.47
1:M:711:LEU:HA	1:M:714:PHE:CB	2.45	0.47
1:M:1042:GLU:C	1:M:1046:ARG:HE	2.17	0.47
1:A:1356:HIS:CE1	4:D:114:LEU:HD13	2.48	0.47
1:A:1405:TYR:HA	1:A:1408:ILE:HG12	1.96	0.47
1:B:1203:ASP:HA	1:B:1206:TYR:CE2	2.50	0.47
1:J:1504:LEU:HD12	1:J:1507:PHE:CE1	2.50	0.47
1:K:1456:GLN:NE2	1:K:1463:VAL:HG22	2.30	0.47
1:L:1388:GLU:O	1:L:1392:LYS:HG3	2.14	0.47
1:E:14:GLN:HG2	1:E:17:ASN:H	1.80	0.47
1:E:166:LEU:HD12	1:E:182:GLN:C	2.35	0.47
1:E:368:PHE:CD2	1:E:392:LEU:HG	2.50	0.47
1:E:395:PRO:HD3	1:E:430:TYR:CG	2.49	0.47
1:E:453:LYS:HG2	1:E:481:ARG:NH2	2.25	0.47
1:E:559:ILE:H	1:E:559:ILE:HD12	1.80	0.47
1:E:650:TRP:HB3	1:E:654:TYR:HE2	1.79	0.47
3:C:383:VAL:O	3:C:387:ALA:HB2	2.14	0.47
3:C:452:LEU:HD13	3:C:478:VAL:CG2	2.44	0.47
3:C:570:LEU:HD11	3:C:581:GLN:HG2	1.95	0.47
3:C:610:ARG:HH22	3:C:629:HIS:HA	1.80	0.47
3:C:614:ALA:CA	3:C:629:HIS:HB2	2.39	0.47
3:C:674:ASN:O	3:C:675:ILE:HD13	2.14	0.47
3:C:752:ASN:CG	3:C:780:ARG:HH21	2.14	0.47
1:M:581:GLN:HB2	1:M:608:TYR:OH	2.15	0.47
1:M:703:GLU:HA	1:M:707:SER:OG	2.14	0.47
1:M:903:ARG:NE	1:M:926:CYS:SG	2.87	0.47
1:M:947:LEU:HB3	1:M:956:TRP:CH2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1021:HIS:HB2	1:M:1025:GLN:HB2	1.96	0.47
1:B:1251:ARG:O	1:B:1255:GLU:HG2	2.14	0.47
1:J:1566:PHE:HA	1:J:1569:CYS:SG	2.55	0.47
1:K:1529:LYS:O	1:K:1533:LEU:HD21	2.15	0.47
1:L:1230:THR:O	1:L:1234:LEU:HB2	2.15	0.47
1:H:809:PRO:HD2	1:H:839:GLN:NE2	2.29	0.47
1:E:25:ILE:HD13	1:E:322:GLY:HA3	1.97	0.47
1:E:163:LYS:HB2	1:E:164:TRP:CZ3	2.50	0.47
1:E:335:ILE:N	1:E:336:PRO:HD2	2.29	0.47
1:E:446:GLN:HA	1:E:449:GLU:CD	2.35	0.47
1:E:511:THR:N	1:E:512:PRO:HD2	2.30	0.47
3:C:464:GLY:O	3:C:468:LYS:HG3	2.15	0.47
3:C:531:GLN:HA	3:C:532:PHE:CD2	2.50	0.47
3:C:594:GLN:HA	3:C:594:GLN:OE1	2.15	0.47
3:C:760:LYS:C	3:C:764:LYS:HE3	2.34	0.47
3:C:762:PHE:CA	3:C:765:GLU:HG2	2.44	0.47
3:C:798:LYS:O	3:C:802:ILE:HG12	2.14	0.47
3:C:800:ILE:O	3:C:804:VAL:HG12	2.15	0.47
3:C:842:THR:O	3:C:846:VAL:HG22	2.15	0.47
1:M:711:LEU:O	1:M:711:LEU:HD23	2.15	0.47
1:M:715:LEU:O	1:M:719:VAL:N	2.42	0.47
1:M:762:PHE:O	1:M:766:ALA:N	2.38	0.47
1:M:879:LEU:HA	1:M:882:ILE:HG12	1.97	0.47
1:M:891:GLU:HA	1:M:894:LEU:HD12	1.96	0.47
1:M:1070:ALA:O	1:M:1074:LYS:CB	2.63	0.47
1:A:1554:LEU:O	1:A:1558:LEU:HG	2.15	0.47
1:B:967:ARG:HH21	1:B:1000:LEU:HD11	1.80	0.47
1:B:1167:SER:HA	1:B:1170:GLU:OE1	2.15	0.47
4:D:109:GLU:OE1	4:D:113:ARG:NH2	2.34	0.47
1:K:1442:VAL:HG22	1:K:1444:GLN:HG2	1.97	0.47
1:K:1535:LYS:HG2	1:K:1538:MET:HE3	1.95	0.47
1:L:953:PRO:HA	1:L:956:TRP:HB2	1.97	0.47
1:L:1349:LEU:HD23	1:L:1350:ARG:HD2	1.97	0.47
1:E:89:GLN:HA	1:E:101:ALA:HA	1.95	0.47
1:E:146:SER:HA	1:E:149:ALA:HB2	1.96	0.47
1:E:613:ILE:HA	1:E:616:LEU:HG	1.97	0.47
3:C:465:ASP:OD2	3:C:479:TYR:OH	2.32	0.47
3:C:660:VAL:O	3:C:660:VAL:HG13	2.14	0.47
3:C:725:PRO:O	3:C:758:ARG:NH2	2.47	0.47
1:M:805:GLN:HG3	1:M:806:LYS:N	2.30	0.47
1:M:829:ILE:H	1:M:829:ILE:HD12	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:847:ALA:O	1:M:851:LYS:HG3	2.15	0.47
1:A:1603:MET:O	1:A:1607:LEU:HB2	2.15	0.47
1:B:842:THR:O	1:B:845:LEU:HG	2.15	0.47
1:K:1554:LEU:HD21	1:K:1570:LEU:HA	1.97	0.47
1:L:1279:HIS:HB3	1:L:1281:ASP:OD1	2.14	0.47
1:L:1319:GLU:HA	1:L:1322:ILE:HD12	1.95	0.47
1:H:779:ASP:HB2	1:H:811:ARG:CZ	2.44	0.47
1:E:13:LEU:O	1:E:323:GLN:HA	2.14	0.47
3:C:464:GLY:HA3	3:C:479:TYR:CZ	2.50	0.47
3:C:468:LYS:HA	3:C:472:PRO:HA	1.97	0.47
3:C:540:GLU:OE1	3:C:580:LEU:HD22	2.15	0.47
3:C:609:ASP:O	3:C:613:ILE:HG23	2.14	0.47
1:M:711:LEU:HA	1:M:714:PHE:HB2	1.97	0.47
1:A:1260:CYS:O	1:A:1264:LYS:N	2.48	0.47
1:A:1495:LEU:HA	1:A:1498:ARG:HD2	1.97	0.47
4:D:207:LYS:HE3	4:D:212:VAL:HG22	1.96	0.47
1:K:1433:THR:OG1	1:K:1434:ARG:N	2.48	0.47
1:K:1476:ASP:OD1	1:K:1477:TYR:N	2.48	0.47
1:L:1199:GLN:NE2	1:L:1221:VAL:HG11	2.30	0.47
1:E:201:PHE:HA	1:E:216:PHE:HA	1.97	0.46
3:C:532:PHE:O	3:C:536:LEU:CB	2.60	0.46
3:C:610:ARG:NH1	3:C:629:HIS:HA	2.30	0.46
1:A:1347:LYS:HA	1:A:1350:ARG:NH2	2.30	0.46
1:A:1384:ASP:OD1	1:A:1384:ASP:N	2.48	0.46
1:B:858:LEU:HD22	1:B:861:TRP:CE3	2.50	0.46
1:B:1168:TYR:O	1:B:1171:THR:OG1	2.33	0.46
1:L:971:ILE:O	1:L:975:VAL:HG13	2.15	0.46
1:L:1376:ILE:O	1:L:1380:ASN:ND2	2.49	0.46
4:N:196:ALA:O	4:N:200:ASP:HB2	2.15	0.46
2:F:752:ASP:O	2:F:808:LYS:HE2	2.14	0.46
2:F:899:ILE:HD12	2:F:899:ILE:N	2.28	0.46
3:C:437:ARG:HB3	3:C:438:PRO:HD3	1.97	0.46
3:C:506:LYS:HD2	3:C:536:LEU:HA	1.97	0.46
3:C:519:ARG:O	3:C:523:ARG:HG2	2.15	0.46
3:C:534:GLN:HB2	3:C:565:PHE:CB	2.44	0.46
3:C:841:SER:O	3:C:844:GLU:HG2	2.14	0.46
1:A:1588:ARG:HH22	4:I:220:MET:C	2.18	0.46
1:B:1010:LYS:HZ1	1:B:1013:LEU:HD22	1.80	0.46
1:B:1222:SER:HB3	1:B:1224:PHE:CZ	2.50	0.46
1:K:1563:ARG:HD2	1:K:1594:PHE:HZ	1.80	0.46
1:K:1619:LEU:O	1:K:1622:GLU:HG3	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1043:TYR:O	1:L:1046:ARG:N	2.45	0.46
1:L:1309:LEU:HD11	1:L:1317:PHE:CE1	2.51	0.46
1:L:1310:GLU:OE1	1:L:1310:GLU:N	2.48	0.46
1:E:7:ILE:HA	1:E:330:GLU:H	1.79	0.46
1:E:113:TRP:HZ3	1:E:117:ASN:C	2.18	0.46
1:E:309:HIS:NE2	1:E:311:ALA:HB3	2.31	0.46
1:E:664:LEU:O	1:E:668:ARG:HG3	2.16	0.46
3:C:392:LEU:HD23	3:C:392:LEU:HA	1.79	0.46
3:C:498:VAL:HG22	3:C:532:PHE:CE1	2.50	0.46
3:C:610:ARG:HH12	3:C:629:HIS:HA	1.80	0.46
1:M:629:HIS:O	1:M:633:LEU:N	2.48	0.46
1:A:1373:ASN:HA	1:A:1376:ILE:HD12	1.97	0.46
1:A:1586:ALA:HB1	1:A:1591:ILE:O	2.15	0.46
1:B:819:LEU:HD11	1:B:829:ILE:HD13	1.97	0.46
1:B:984:ASP:HB2	1:B:986:GLU:OE2	2.15	0.46
1:B:1251:ARG:HA	1:B:1254:LYS:HE2	1.97	0.46
1:J:1469:ASN:HA	1:J:1472:ILE:HD12	1.97	0.46
1:L:995:PHE:HB3	1:L:1005:ILE:HG12	1.96	0.46
1:E:414:LEU:HA	1:E:417:TYR:HD2	1.80	0.46
1:E:658:LEU:HD22	1:E:689:TYR:CZ	2.51	0.46
1:E:702:PHE:HB3	1:E:707:SER:OG	2.15	0.46
2:F:892:LYS:HE3	2:F:898:TRP:CZ2	2.50	0.46
3:C:533:ALA:O	3:C:536:LEU:HB3	2.16	0.46
3:C:676:ARG:HG3	3:C:679:LEU:HD11	1.97	0.46
3:C:802:ILE:HA	3:C:805:GLN:HB3	1.98	0.46
1:M:743:GLU:O	1:M:746:ARG:NE	2.48	0.46
1:M:991:THR:HG22	1:M:995:PHE:CZ	2.51	0.46
1:B:1084:VAL:O	1:B:1088:HIS:HB2	2.15	0.46
1:B:1250:THR:HA	1:B:1253:TRP:CD1	2.37	0.46
1:J:1615:ALA:O	1:J:1619:LEU:HD23	2.15	0.46
1:K:1515:PHE:O	1:K:1519:ASN:N	2.48	0.46
1:L:1023:ASN:HD21	1:L:1027:LEU:HD23	1.81	0.46
1:E:83:LYS:CG	1:E:111:TRP:CZ2	2.99	0.46
1:E:657:SER:HA	1:E:667:LEU:HD22	1.97	0.46
1:E:708:PHE:HA	1:E:711:LEU:HD12	1.97	0.46
3:C:676:ARG:HA	3:C:679:LEU:CD1	2.46	0.46
1:A:1300:ILE:O	1:A:1304:GLU:HG2	2.16	0.46
1:B:864:ALA:HA	1:B:867:HIS:ND1	2.31	0.46
1:B:919:VAL:O	1:B:922:GLU:HB3	2.15	0.46
1:B:1052:ALA:N	1:B:1053:PRO:HD2	2.30	0.46
1:J:1552:GLU:HG2	1:J:1553:LEU:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1477:TYR:HA	1:K:1480:LEU:HB3	1.96	0.46
1:K:1544:SER:O	1:K:1545:LYS:HG2	2.15	0.46
1:K:1555:GLN:HA	1:K:1558:LEU:HD12	1.97	0.46
1:L:947:LEU:HD22	1:L:956:TRP:CD1	2.51	0.46
1:L:1091:ASN:OD1	1:L:1094:ARG:N	2.47	0.46
1:L:1314:MET:HA	1:L:1317:PHE:CD2	2.50	0.46
1:H:798:LYS:O	1:H:802:ILE:HG12	2.16	0.46
1:E:10:GLN:N	1:E:326:SER:O	2.45	0.46
1:E:260:PHE:CD1	1:E:278:LYS:HB2	2.50	0.46
1:E:301:GLU:HG3	1:E:321:LYS:HE2	1.98	0.46
1:E:518:LEU:HD12	1:E:545:ASP:N	2.31	0.46
1:E:658:LEU:HB3	1:E:689:TYR:CE1	2.50	0.46
1:E:676:ARG:HB2	1:E:705:PHE:CD1	2.48	0.46
3:C:480:LEU:HD12	3:C:504:TYR:OH	2.14	0.46
3:C:487:LYS:HA	3:C:510:TYR:OH	2.15	0.46
3:C:780:ARG:HB3	3:C:781:PHE:CD2	2.51	0.46
3:C:813:PRO:O	3:C:816:ILE:HB	2.15	0.46
1:M:1026:ASN:OD1	1:M:1026:ASN:N	2.46	0.46
1:A:1324:TYR:CD2	1:A:1332:MET:HA	2.51	0.46
1:A:1557:PHE:HA	1:A:1560:GLU:OE2	2.15	0.46
4:O:122:LYS:O	4:O:125:GLU:HG2	2.15	0.46
1:J:1585:THR:HG1	1:J:1589:HIS:HD1	1.63	0.46
1:K:1566:PHE:HB3	1:K:1594:PHE:CD2	2.51	0.46
1:L:986:GLU:N	1:L:986:GLU:OE1	2.48	0.46
1:L:1213:ALA:O	1:L:1217:LEU:HG	2.16	0.46
1:L:1434:ARG:HH12	1:L:1438:TYR:N	2.13	0.46
1:H:647:ASN:ND2	1:H:650:TRP:H	2.13	0.46
4:I:192:TRP:HA	4:I:195:VAL:HG12	1.98	0.46
1:E:33:GLU:HG3	1:E:113:TRP:CD1	2.48	0.46
1:E:434:GLU:HG3	1:E:437:ARG:HH11	1.81	0.46
1:E:633:LEU:HB3	1:E:635:ASP:OD2	2.16	0.46
1:E:644:HIS:NE2	1:E:666:CYS:HB3	2.31	0.46
3:C:510:TYR:HE2	3:C:516:PHE:CE2	2.33	0.46
3:C:574:ARG:CG	3:C:575:PRO:HD3	2.44	0.46
3:C:717:SER:HG	3:C:721:PHE:HE2	1.64	0.46
3:C:755:ASP:H	3:C:758:ARG:CZ	2.29	0.46
3:C:798:LYS:HD3	3:C:801:GLU:OE1	2.15	0.46
1:M:658:LEU:HB2	1:M:688:LYS:HZ3	1.79	0.46
1:M:774:LEU:HD23	1:M:775:ILE:H	1.80	0.46
1:M:984:ASP:HB2	1:M:986:GLU:OE1	2.16	0.46
1:A:1314:MET:HB2	1:A:1342:ARG:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:904:VAL:HA	1:B:907:LYS:HG3	1.96	0.46
4:D:216:ARG:HG2	4:D:217:SER:N	2.31	0.46
4:O:155:ARG:O	4:O:155:ARG:HD3	2.16	0.46
1:L:1242:ASP:HA	1:L:1245:ARG:HE	1.81	0.46
1:L:1267:ARG:O	1:L:1271:MET:HG3	2.16	0.46
1:L:1409:GLN:HB2	1:L:1438:TYR:OH	2.16	0.46
1:L:1417:LEU:HG	1:L:1418:LEU:N	2.31	0.46
1:E:21:ASN:HB3	1:E:24:ASN:HD22	1.79	0.46
3:C:398:ILE:CD1	3:C:417:TYR:CZ	2.98	0.46
3:C:439:VAL:HG23	3:C:444:ARG:HG3	1.96	0.46
3:C:448:LEU:HD11	3:C:457:LEU:CD1	2.46	0.46
3:C:502:VAL:HB	3:C:536:LEU:CA	2.46	0.46
3:C:507:LYS:HB3	3:C:507:LYS:HE2	1.61	0.46
1:M:680:GLN:HG3	1:M:684:GLN:HE21	1.81	0.46
1:M:808:ASN:ND2	1:M:810:SER:OG	2.48	0.46
4:D:149:LYS:O	4:D:152:ILE:HG12	2.15	0.46
1:J:1566:PHE:CD2	1:J:1570:LEU:HD23	2.51	0.46
1:K:1502:HIS:HB3	1:K:1507:PHE:HB3	1.96	0.46
1:L:1287:ILE:HG22	1:L:1291:GLN:OE1	2.15	0.46
1:L:1422:LEU:O	1:L:1426:LEU:HD23	2.14	0.46
1:E:1:MET:CE	2:F:896:GLY:O	2.64	0.46
1:E:199:ALA:HB1	1:E:216:PHE:CZ	2.50	0.46
1:E:522:MET:HA	1:E:553:PHE:CZ	2.50	0.46
1:E:627:LEU:HD23	1:E:630:PHE:HD2	1.81	0.46
2:F:860:ASN:CB	2:F:862:ASP:OD1	2.61	0.46
3:C:697:SER:O	3:C:700:GLU:HB2	2.16	0.46
3:C:798:LYS:O	3:C:801:GLU:HB3	2.16	0.46
3:C:825:SER:OG	3:C:826:GLU:N	2.47	0.46
1:M:876:HIS:HA	1:M:879:LEU:HD12	1.97	0.46
1:M:890:PRO:O	1:M:894:LEU:HG	2.16	0.46
1:M:945:ARG:CZ	1:M:949:ARG:HG3	2.46	0.46
1:M:1025:GLN:O	1:M:1029:ILE:N	2.45	0.46
1:A:1296:PHE:O	1:A:1299:LEU:HG	2.16	0.46
1:A:1461:LYS:HZ2	1:A:1489:ASN:C	2.19	0.46
1:K:1370:GLU:HA	1:K:1373:ASN:HB3	1.98	0.46
1:K:1504:LEU:N	1:K:1508:ARG:HH12	2.14	0.46
1:L:1217:LEU:O	1:L:1221:VAL:HG23	2.16	0.46
1:E:129:HIS:CE1	1:E:141:MET:HB2	2.51	0.46
1:E:163:LYS:HB2	1:E:164:TRP:CE3	2.51	0.46
1:E:710:GLY:HA2	1:E:713:TYR:CD2	2.51	0.46
2:F:770:LEU:HD11	2:F:784:VAL:HG11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:465:ASP:CA	3:C:468:LYS:HG3	2.41	0.46
3:C:468:LYS:CB	3:C:492:PHE:HB2	2.40	0.46
3:C:534:GLN:HG3	3:C:568:ASP:OD2	2.16	0.46
3:C:803:TYR:O	3:C:807:VAL:HB	2.16	0.46
1:M:921:TYR:O	1:M:925:GLN:N	2.48	0.46
1:M:939:LEU:HD23	1:M:942:SER:N	2.26	0.46
1:A:1515:PHE:CG	1:A:1524:SER:HB3	2.51	0.46
1:A:1549:LEU:O	1:A:1553:LEU:HG	2.16	0.46
1:B:864:ALA:HA	1:B:867:HIS:CE1	2.51	0.46
1:B:1215:LYS:HG2	1:B:1219:ASN:HD21	1.81	0.46
4:D:154:ASN:HB2	4:D:155:ARG:HH12	1.81	0.46
1:J:1471:PHE:HB3	1:J:1476:ASP:HB3	1.98	0.46
1:K:1493:ILE:O	1:K:1497:GLN:NE2	2.32	0.46
1:E:152:GLN:HB3	1:E:170:ILE:HG13	1.99	0.45
3:C:436:CYS:SG	3:C:448:LEU:HD11	2.56	0.45
3:C:849:VAL:HA	3:C:852:ARG:HB2	1.97	0.45
1:M:615:GLN:O	1:M:619:LYS:HG2	2.16	0.45
1:M:760:LYS:O	1:M:764:LYS:HE3	2.16	0.45
1:M:872:GLU:O	1:M:876:HIS:HD2	1.98	0.45
1:A:1279:HIS:HB3	1:A:1281:ASP:OD1	2.16	0.45
1:B:823:ASP:OD1	1:B:852:ARG:NE	2.39	0.45
4:O:114:LEU:HD23	4:O:117:LEU:HD12	1.98	0.45
1:L:1205:CYS:HA	1:L:1210:MET:HG3	1.98	0.45
1:L:1334:GLU:HG2	1:L:1335:HIS:H	1.81	0.45
1:H:637:LYS:HE2	1:H:638:ARG:HH12	1.81	0.45
1:E:129:HIS:N	1:E:139:VAL:O	2.35	0.45
1:E:167:LEU:N	1:E:182:GLN:O	2.29	0.45
1:E:184:TYR:CE2	1:E:186:VAL:HA	2.50	0.45
1:E:243:PHE:HZ	1:E:246:LYS:HG2	1.81	0.45
1:E:270:HIS:HB2	1:E:272:VAL:HG22	1.99	0.45
1:E:280:GLY:HA3	1:E:299:SER:O	2.17	0.45
1:E:522:MET:HG3	1:E:549:ILE:HG12	1.98	0.45
1:E:664:LEU:HA	1:E:667:LEU:HD12	1.98	0.45
3:C:542:PRO:HG3	3:C:577:GLU:OE2	2.16	0.45
3:C:747:ILE:HA	3:C:750:GLU:HB2	1.98	0.45
1:M:948:VAL:O	1:M:949:ARG:HD2	2.17	0.45
1:M:960:LEU:HA	1:M:967:ARG:HH21	1.81	0.45
1:A:1497:GLN:HA	1:A:1500:GLU:CD	2.37	0.45
1:J:1570:LEU:HD21	1:J:1594:PHE:CD2	2.51	0.45
1:L:1025:GLN:HG3	1:L:1047:LEU:HD11	1.98	0.45
1:L:1177:LEU:O	1:L:1181:ASN:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:689:TYR:O	1:H:692:GLN:HG2	2.15	0.45
1:H:784:VAL:O	1:H:788:VAL:HG22	2.16	0.45
1:E:119:VAL:O	1:E:130:TRP:N	2.32	0.45
3:C:491:CYS:O	3:C:492:PHE:HD1	1.99	0.45
3:C:538:GLN:C	3:C:569:ALA:HA	2.37	0.45
3:C:627:LEU:HB2	3:C:649:GLU:OE2	2.17	0.45
1:M:741:ILE:O	1:M:744:VAL:N	2.43	0.45
1:M:860:PRO:HA	1:M:863:GLU:CD	2.37	0.45
1:M:937:ASN:OD1	1:M:937:ASN:N	2.47	0.45
1:A:1262:ASP:O	1:A:1264:LYS:HE2	2.16	0.45
1:A:1387:LYS:HD3	1:A:1389:GLY:N	2.32	0.45
1:B:1220:ASN:OD1	1:B:1221:VAL:HG23	2.16	0.45
1:H:699:ILE:HG22	1:H:714:PHE:HE2	1.80	0.45
1:E:83:LYS:NZ	1:E:111:TRP:CE2	2.84	0.45
1:E:451:TRP:O	1:E:456:LYS:N	2.49	0.45
1:E:486:ASN:O	1:E:490:GLN:HG3	2.16	0.45
1:E:508:VAL:HG22	1:E:514:TRP:NE1	2.32	0.45
1:E:567:LEU:HD21	1:E:599:ILE:HG23	1.98	0.45
3:C:571:LYS:HA	3:C:603:GLN:HE22	1.81	0.45
3:C:677:GLN:O	3:C:681:ILE:HG12	2.15	0.45
3:C:717:SER:O	3:C:721:PHE:CD2	2.70	0.45
3:C:790:TYR:HA	3:C:793:ARG:HD3	1.97	0.45
3:C:791:LEU:HA	3:C:794:ASN:ND2	2.17	0.45
1:M:680:GLN:O	1:M:684:GLN:HG3	2.16	0.45
1:M:967:ARG:O	1:M:970:LEU:HG	2.16	0.45
1:A:1521:TRP:C	1:A:1522:LYS:HG2	2.37	0.45
1:B:854:ARG:O	1:B:857:LEU:HG	2.16	0.45
1:J:1575:ASP:N	4:I:210:LYS:HD3	2.31	0.45
1:J:1595:ALA:N	1:J:1597:PRO:HD2	2.32	0.45
1:K:1375:ILE:HD13	1:K:1391:PHE:CZ	2.52	0.45
1:L:1008:LEU:HA	1:L:1011:ILE:HG12	1.99	0.45
1:H:738:THR:O	1:H:740:GLN:HG2	2.16	0.45
1:H:757:GLU:O	1:H:760:LYS:HG2	2.17	0.45
1:E:64:ARG:O	1:E:66:ILE:N	2.45	0.45
1:E:230:ILE:O	1:E:246:LYS:N	2.23	0.45
1:E:414:LEU:HD22	1:E:418:PHE:CZ	2.52	0.45
1:E:523:ARG:HH21	1:E:552:VAL:CG2	2.30	0.45
1:E:599:ILE:O	1:E:604:MET:HB2	2.17	0.45
3:C:728:HIS:O	3:C:731:TYR:HB3	2.16	0.45
1:M:612:HIS:CE1	1:M:616:LEU:HD11	2.52	0.45
1:M:650:TRP:CE3	1:M:651:LEU:HB2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:750:GLU:O	1:M:752:ASN:ND2	2.49	0.45
1:M:871:GLU:OE1	1:M:871:GLU:N	2.46	0.45
1:A:1333:ARG:O	1:A:1337:GLU:HG2	2.16	0.45
1:A:1408:ILE:HG22	1:A:1419:LEU:HD11	1.98	0.45
1:A:1433:THR:O	1:A:1436:VAL:HG22	2.17	0.45
1:J:1512:ALA:HA	1:J:1515:PHE:CD2	2.52	0.45
1:K:1477:TYR:O	1:K:1481:ARG:N	2.38	0.45
1:L:1054:ASP:HA	1:L:1057:ASN:HD22	1.81	0.45
1:L:1099:ALA:HB3	1:L:1107:VAL:HG11	1.99	0.45
1:E:91:PHE:CE1	1:E:101:ALA:HB2	2.52	0.45
1:E:266:ILE:HG12	1:E:273:VAL:HG22	1.99	0.45
1:E:284:LEU:N	1:E:294:TYR:O	2.35	0.45
1:E:345:PRO:HB2	1:E:363:LEU:HD21	1.97	0.45
1:E:399:ARG:HA	1:E:402:GLN:OE1	2.17	0.45
1:E:468:LYS:HG3	1:E:475:ALA:CB	2.47	0.45
2:F:718:VAL:CB	1:M:723:GLN:HE21	2.30	0.45
2:F:861:ALA:HB1	2:F:887:LEU:HD21	1.97	0.45
3:C:813:PRO:HG3	3:C:840:PHE:CE1	2.52	0.45
1:M:879:LEU:O	1:M:882:ILE:HG12	2.17	0.45
1:M:955:LEU:O	1:M:958:SER:OG	2.17	0.45
1:A:1288:ASN:HA	1:A:1291:GLN:NE2	2.31	0.45
1:A:1313:HIS:HD2	1:A:1314:MET:SD	2.40	0.45
1:B:826:GLU:HG2	1:B:827:ASP:H	1.82	0.45
1:B:829:ILE:HG13	1:B:833:ILE:HD11	1.99	0.45
1:B:1072:PHE:O	1:B:1076:ASP:N	2.49	0.45
1:B:1251:ARG:N	1:B:1251:ARG:HD2	2.31	0.45
1:J:1581:VAL:O	1:J:1585:THR:HG22	2.17	0.45
1:K:1493:ILE:H	1:K:1493:ILE:HD12	1.82	0.45
1:K:1502:HIS:HB3	1:K:1507:PHE:CB	2.46	0.45
1:L:1324:TYR:CD2	1:L:1332:MET:HB3	2.52	0.45
1:L:1436:VAL:HG21	1:L:1462:SER:OG	2.17	0.45
1:H:671:LEU:O	1:H:674:ASN:HB2	2.17	0.45
1:H:714:PHE:O	1:H:717:SER:OG	2.23	0.45
1:H:772:LEU:HD23	1:H:775:ILE:HD11	1.99	0.45
1:E:88:LEU:N	1:E:102:HIS:O	2.50	0.45
1:E:445:LYS:O	1:E:449:GLU:HG3	2.16	0.45
1:E:685:VAL:O	1:E:689:TYR:HB2	2.17	0.45
3:C:503:LEU:O	3:C:507:LYS:HB3	2.17	0.45
3:C:525:SER:OG	3:C:526:PRO:HD3	2.16	0.45
3:C:723:GLN:HG2	3:C:724:ASP:N	2.31	0.45
1:M:613:ILE:HA	1:M:616:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1326:LYS:HG3	1:A:1327:PHE:HD1	1.81	0.45
1:A:1365:TYR:HD1	1:A:1370:GLU:HB3	1.82	0.45
1:A:1547:THR:HG23	1:A:1548:GLU:HG3	1.99	0.45
4:O:129:ARG:HG3	1:L:1413:GLU:HG3	1.99	0.45
1:K:1506:GLU:OE1	1:K:1509:ARG:NH1	2.49	0.45
1:L:1376:ILE:HD12	1:L:1406:ARG:HH12	1.81	0.45
1:E:69:ASP:N	1:E:83:LYS:O	2.45	0.45
1:E:433:LEU:HD13	1:E:437:ARG:NH2	2.32	0.45
1:E:434:GLU:HG3	1:E:437:ARG:NH1	2.32	0.45
1:E:559:ILE:HA	1:E:562:CYS:SG	2.57	0.45
2:F:891:LEU:CD1	2:F:899:ILE:HB	2.47	0.45
3:C:605:PHE:HE1	3:C:610:ARG:HE	1.63	0.45
3:C:778:CYS:SG	3:C:783:PHE:HB2	2.57	0.45
1:M:1070:ALA:O	1:M:1074:LYS:HB2	2.16	0.45
1:A:1376:ILE:HA	1:A:1406:ARG:NH2	2.31	0.45
1:A:1566:PHE:CD1	1:A:1569:CYS:HB2	2.52	0.45
1:B:1107:VAL:O	1:B:1111:LEU:HG	2.16	0.45
1:K:1481:ARG:NH1	1:K:1510:ILE:HD11	2.32	0.45
1:K:1603:MET:O	1:K:1607:LEU:N	2.37	0.45
1:L:1006:GLU:HG2	1:L:1010:LYS:NZ	2.32	0.45
1:L:1381:HIS:HB3	1:L:1384:ASP:OD2	2.17	0.45
1:E:79:VAL:HG22	1:E:92:ASN:HB2	1.98	0.45
1:E:159:ASP:C	1:E:162:GLN:H	2.19	0.45
1:E:204:PHE:CE2	1:E:206:MET:HA	2.51	0.45
1:E:414:LEU:HA	1:E:414:LEU:HD23	1.80	0.45
1:E:510:TYR:HB3	1:E:512:PRO:HD2	1.99	0.45
1:E:697:SER:HA	1:E:700:GLU:OE1	2.16	0.45
3:C:493:ALA:O	3:C:494:GLU:C	2.55	0.45
3:C:803:TYR:CE1	3:C:807:VAL:HG11	2.52	0.45
1:M:638:ARG:HE	1:H:806:LYS:NZ	2.15	0.45
1:M:728:HIS:O	1:M:731:TYR:HB3	2.17	0.45
1:M:903:ARG:NH1	1:M:929:GLU:OE2	2.50	0.45
1:M:1000:LEU:HB3	1:M:1004:LEU:CB	2.47	0.45
1:M:1020:GLU:O	1:M:1024:LEU:HD12	2.16	0.45
1:A:1400:ASN:HB2	1:A:1402:GLU:OE1	2.16	0.45
1:A:1525:VAL:HA	1:A:1528:CYS:SG	2.57	0.45
1:A:1587:TRP:CH2	1:J:1597:PRO:HD3	2.52	0.45
1:B:1140:VAL:HG21	1:B:1156:TYR:CZ	2.51	0.45
4:D:100:PRO:HG2	4:D:101:GLU:OE2	2.17	0.45
1:J:1512:ALA:O	1:J:1515:PHE:HB2	2.17	0.45
1:K:1372:ASP:OD1	1:K:1373:ASN:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1396:THR:O	1:K:1429:ARG:NH1	2.49	0.45
1:L:1469:ASN:O	1:L:1472:ILE:HB	2.17	0.45
1:E:15:LEU:HD12	1:E:322:GLY:HA2	1.98	0.45
1:E:90:ILE:O	1:E:99:MET:HB3	2.17	0.45
1:E:159:ASP:HB3	1:E:163:LYS:N	2.32	0.45
1:E:462:GLU:O	1:E:466:LEU:HG	2.17	0.45
2:F:716:PRO:HG2	2:F:719:LYS:HD2	1.99	0.45
2:F:899:ILE:N	2:F:899:ILE:CD1	2.80	0.45
3:C:398:ILE:HD11	3:C:402:GLN:NE2	2.32	0.45
3:C:508:VAL:HA	3:C:509:GLY:HA2	1.49	0.45
3:C:579:PRO:HA	3:C:582:THR:HB	1.98	0.45
3:C:603:GLN:NE2	3:C:607:HIS:CE1	2.80	0.45
3:C:627:LEU:HA	3:C:627:LEU:HD23	1.61	0.45
1:A:1380:ASN:O	1:A:1381:HIS:ND1	2.50	0.45
1:A:1478:GLN:O	1:A:1482:THR:HG23	2.16	0.45
1:J:1570:LEU:HD21	1:J:1594:PHE:HD2	1.82	0.45
1:H:786:ASP:N	1:H:786:ASP:OD1	2.46	0.45
1:E:477:SER:O	1:E:480:LEU:HB2	2.17	0.44
1:E:586:GLU:CG	1:E:616:LEU:HD22	2.47	0.44
1:E:699:ILE:HD13	1:E:715:LEU:HD21	1.99	0.44
3:C:421:LEU:O	3:C:425:GLY:N	2.38	0.44
3:C:436:CYS:SG	3:C:448:LEU:HD21	2.57	0.44
3:C:714:PHE:O	3:C:718:ILE:HG13	2.17	0.44
1:M:725:PRO:HA	1:M:728:HIS:CD2	2.52	0.44
1:M:1063:GLU:HG2	1:M:1064:LEU:HD23	1.99	0.44
1:A:1314:MET:O	1:A:1318:THR:HG23	2.17	0.44
1:A:1387:LYS:HD3	1:A:1389:GLY:H	1.82	0.44
1:A:1535:LYS:O	1:A:1538:MET:N	2.49	0.44
1:A:1609:LYS:O	1:A:1612:LYS:HG3	2.17	0.44
1:B:862:LEU:O	1:B:866:ILE:HG12	2.17	0.44
1:B:962:GLU:H	1:B:967:ARG:HH11	1.63	0.44
1:B:1034:LYS:HA	1:B:1034:LYS:HD3	1.85	0.44
1:B:1152:GLU:OE1	1:B:1152:GLU:N	2.50	0.44
4:D:134:LYS:HA	4:D:137:GLU:OE1	2.17	0.44
4:O:118:ASP:O	4:O:121:SER:OG	2.29	0.44
1:K:1513:TYR:HD2	1:K:1516:LYS:HE2	1.81	0.44
1:L:936:GLU:N	1:L:936:GLU:OE2	2.49	0.44
1:L:1209:LYS:HG3	1:L:1211:TYR:OH	2.16	0.44
1:L:1288:ASN:HD22	1:L:1291:GLN:NE2	2.14	0.44
1:L:1388:GLU:H	1:L:1388:GLU:CD	2.20	0.44
1:E:506:LYS:HZ1	1:E:539:ASP:HB3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:594:GLN:H	1:E:594:GLN:HG3	1.47	0.44
2:F:797:MET:HE3	2:F:802:ASN:HB3	1.99	0.44
3:C:585:LEU:HD13	3:C:608:TYR:CE2	2.51	0.44
1:A:1285:GLU:HA	1:A:1288:ASN:HD22	1.81	0.44
1:A:1402:GLU:HA	1:A:1405:TYR:CD2	2.50	0.44
1:A:1557:PHE:HE2	1:A:1566:PHE:HB2	1.82	0.44
1:B:858:LEU:HD22	1:B:861:TRP:CD2	2.52	0.44
1:B:883:TYR:HE2	1:B:893:PHE:CE2	2.34	0.44
1:K:1395:ILE:O	1:K:1429:ARG:NH2	2.51	0.44
1:L:1166:GLU:O	1:L:1195:ASN:ND2	2.49	0.44
1:L:1209:LYS:HA	1:L:1211:TYR:CE1	2.52	0.44
4:I:195:VAL:HA	4:I:198:LEU:HB3	1.97	0.44
1:E:188:ARG:NH1	1:E:234:GLY:HA2	2.31	0.44
1:E:630:PHE:HA	1:E:633:LEU:HD12	1.99	0.44
3:C:506:LYS:HD2	3:C:536:LEU:O	2.17	0.44
3:C:623:LEU:O	3:C:627:LEU:HG	2.17	0.44
3:C:711:LEU:O	3:C:714:PHE:HB3	2.18	0.44
3:C:798:LYS:HA	3:C:798:LYS:HE2	1.98	0.44
3:C:828:VAL:HG13	3:C:829:ILE:H	1.83	0.44
1:M:827:ASP:OD1	1:M:828:VAL:N	2.47	0.44
1:M:906:GLY:HA2	1:M:909:CYS:SG	2.58	0.44
1:A:1248:ASN:ND2	1:B:852:ARG:HA	2.32	0.44
1:A:1509:ARG:HG2	1:A:1510:ILE:HD13	1.98	0.44
1:A:1521:TRP:O	1:A:1522:LYS:HG2	2.17	0.44
1:A:1567:GLY:O	1:A:1570:LEU:HG	2.16	0.44
1:A:1621:LYS:HZ1	1:K:1616:SER:HB2	1.81	0.44
1:B:861:TRP:CH2	1:B:865:ARG:HD2	2.51	0.44
1:B:1115:GLN:HB3	1:B:1120:MET:O	2.17	0.44
1:B:1144:ALA:HA	1:B:1149:ASN:HD21	1.82	0.44
1:B:1212:ASP:H	1:B:1234:LEU:HD11	1.82	0.44
1:B:1221:VAL:O	1:B:1221:VAL:HG12	2.18	0.44
4:D:109:GLU:OE2	4:D:110:GLN:HG3	2.17	0.44
4:O:132:ALA:HA	4:O:135:ASP:OD2	2.16	0.44
1:J:1492:ASN:O	1:J:1496:ALA:N	2.43	0.44
1:K:1452:LEU:HB2	1:K:1453:ARG:NH1	2.32	0.44
1:K:1511:ALA:O	1:K:1514:LEU:HG	2.16	0.44
1:L:1020:GLU:O	1:L:1024:LEU:HD22	2.17	0.44
1:L:1150:TRP:HA	1:L:1153:LEU:HD12	1.99	0.44
1:H:678:ASN:HA	1:H:681:ILE:HD11	1.99	0.44
1:H:829:ILE:O	1:H:833:ILE:HG12	2.17	0.44
1:E:44:VAL:N	1:E:47:GLN:O	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:86:LYS:O	1:E:104:MET:HG2	2.17	0.44
1:E:130:TRP:NE1	1:E:136:SER:O	2.48	0.44
1:E:200:SER:OG	1:E:264:MET:SD	2.61	0.44
1:E:554:MET:C	1:E:557:ASN:H	2.21	0.44
1:E:650:TRP:CZ2	1:E:678:ASN:OD1	2.70	0.44
3:C:494:GLU:O	3:C:495:THR:HG23	2.18	0.44
1:M:576:SER:HB3	1:M:603:GLN:OE1	2.18	0.44
1:M:891:GLU:HA	1:M:894:LEU:HB2	1.98	0.44
1:M:961:LEU:HG	1:M:963:SER:H	1.83	0.44
1:A:1372:ASP:O	1:A:1376:ILE:HG13	2.17	0.44
1:A:1386:TRP:HZ2	1:A:1388:GLU:CD	2.21	0.44
1:B:1039:ARG:HA	1:B:1042:GLU:OE2	2.17	0.44
4:O:107:ARG:HD2	4:O:107:ARG:HA	1.85	0.44
1:J:1500:GLU:O	1:J:1508:ARG:HG2	2.17	0.44
1:J:1549:LEU:HD21	1:J:1553:LEU:HD13	1.99	0.44
1:J:1560:GLU:HG2	1:J:1560:GLU:O	2.17	0.44
1:K:1547:THR:OG1	1:K:1548:GLU:N	2.50	0.44
1:K:1563:ARG:HA	1:K:1566:PHE:HB2	2.00	0.44
1:L:1449:LYS:O	1:L:1453:ARG:HG3	2.17	0.44
1:H:809:PRO:HG2	1:H:839:GLN:H	1.82	0.44
1:H:827:ASP:OD1	1:H:827:ASP:N	2.50	0.44
1:H:840:PHE:HA	1:H:844:GLU:OE2	2.17	0.44
1:E:502:VAL:O	1:E:506:LYS:HG3	2.17	0.44
1:E:615:GLN:HA	1:E:618:GLU:HG3	2.00	0.44
3:C:479:TYR:CB	3:C:489:ILE:HB	2.47	0.44
3:C:724:ASP:HA	3:C:725:PRO:HD2	1.87	0.44
1:M:693:LEU:HB3	1:M:695:THR:HG23	2.00	0.44
1:B:1238:GLN:NE2	1:B:1242:ASP:OD1	2.51	0.44
1:J:1572:THR:O	4:I:210:LYS:NZ	2.31	0.44
1:K:1515:PHE:HB3	1:K:1520:ARG:O	2.18	0.44
1:K:1565:CYS:SG	4:N:195:VAL:HA	2.57	0.44
1:L:1317:PHE:HE2	1:L:1342:ARG:NH1	2.16	0.44
1:L:1402:GLU:HA	1:L:1405:TYR:HD2	1.83	0.44
4:I:209:CYS:SG	4:I:210:LYS:N	2.91	0.44
1:E:285:TYR:HA	1:E:291:THR:O	2.17	0.44
1:E:614:ALA:HA	1:E:633:LEU:HD13	1.99	0.44
1:E:661:GLU:HA	1:E:667:LEU:HD11	1.99	0.44
3:C:401:PHE:HZ	3:C:416:GLN:CG	2.30	0.44
3:C:427:LEU:HD13	3:C:431:GLU:CD	2.38	0.44
3:C:457:LEU:HD13	3:C:463:LEU:HD12	2.00	0.44
3:C:610:ARG:CZ	3:C:613:ILE:HD11	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:614:ALA:HA	3:C:629:HIS:CB	2.41	0.44
3:C:758:ARG:CG	3:C:759:VAL:N	2.81	0.44
1:M:745:GLU:O	1:M:749:ARG:HG2	2.17	0.44
1:M:760:LYS:HG3	1:M:764:LYS:HZ1	1.83	0.44
1:M:891:GLU:HG2	1:M:892:ARG:N	2.33	0.44
1:M:911:LYS:HZ1	1:M:912:ARG:HG3	1.82	0.44
1:A:1311:ARG:HH21	1:B:885:ASP:HA	1.83	0.44
1:B:1029:ILE:HD13	1:B:1055:ILE:HG12	2.00	0.44
4:D:102:SER:HA	4:D:105:LYS:HE2	2.00	0.44
4:D:134:LYS:O	4:D:138:GLU:HG3	2.18	0.44
1:J:1539:GLN:HG2	1:J:1540:TYR:CD1	2.53	0.44
1:J:1613:LEU:O	1:J:1617:GLU:HG3	2.16	0.44
1:L:962:GLU:N	1:L:967:ARG:HH22	2.14	0.44
1:E:349:LEU:HB3	1:E:367:LYS:NZ	2.32	0.44
1:E:467:VAL:HG12	1:E:471:ASP:O	2.18	0.44
3:C:445:LYS:HE3	3:C:470:VAL:HG23	1.99	0.44
3:C:506:LYS:HA	3:C:541:GLU:OE2	2.18	0.44
3:C:610:ARG:HA	3:C:610:ARG:HD2	1.57	0.44
3:C:790:TYR:CZ	3:C:794:ASN:ND2	2.86	0.44
3:C:791:LEU:HA	3:C:791:LEU:HD12	1.45	0.44
1:M:680:GLN:HG3	1:M:684:GLN:NE2	2.33	0.44
1:M:1000:LEU:HB2	1:M:1005:ILE:CG1	2.47	0.44
1:A:1285:GLU:HA	1:A:1288:ASN:ND2	2.33	0.44
1:A:1535:LYS:HA	1:A:1538:MET:HE1	2.00	0.44
1:B:941:LYS:O	1:B:945:ARG:HG3	2.18	0.44
1:B:992:VAL:O	1:B:996:MET:HG2	2.18	0.44
1:B:1009:GLU:OE1	1:B:1031:THR:OG1	2.35	0.44
1:B:1209:LYS:HA	1:B:1211:TYR:CE1	2.53	0.44
1:L:1125:ILE:HD13	1:L:1152:GLU:CG	2.47	0.44
1:L:1415:LYS:O	1:L:1419:LEU:N	2.45	0.44
1:H:658:LEU:O	1:H:663:SER:OG	2.31	0.44
1:H:800:ILE:O	1:H:804:VAL:HG23	2.18	0.44
4:I:219:LEU:HA	4:I:223:LYS:HE3	1.99	0.44
1:E:21:ASN:HD21	1:E:23:ALA:HB3	1.82	0.44
1:E:37:PHE:HA	1:E:54:ASP:HA	1.98	0.44
1:E:78:LYS:O	1:E:93:ILE:HG22	2.18	0.44
1:E:426:GLN:N	1:E:455:ASP:O	2.50	0.44
1:E:508:VAL:CG1	1:E:509:GLY:HA2	2.47	0.44
1:E:719:VAL:O	1:E:722:SER:N	2.50	0.44
3:C:711:LEU:HA	3:C:714:PHE:HB3	2.00	0.44
1:M:630:PHE:CD1	1:M:635:ASP:HB2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1323:LEU:O	1:A:1327:PHE:N	2.49	0.44
1:A:1334:GLU:H	1:A:1334:GLU:CD	2.20	0.44
1:A:1438:TYR:HD1	1:A:1441:LYS:HZ3	1.66	0.44
1:A:1499:LEU:HA	1:A:1502:HIS:HB2	1.99	0.44
1:B:902:SER:HA	1:B:905:VAL:HG22	1.99	0.44
1:B:933:VAL:O	1:B:936:GLU:HB2	2.18	0.44
1:L:992:VAL:O	1:L:995:PHE:HB2	2.17	0.44
1:L:995:PHE:CZ	1:L:1008:LEU:HD13	2.53	0.44
1:L:1043:TYR:HD1	1:L:1046:ARG:HE	1.66	0.44
1:L:1128:TYR:HA	1:L:1131:ALA:HB3	2.00	0.44
1:L:1158:GLN:O	1:L:1161:ARG:HB3	2.18	0.44
1:L:1174:ILE:HG22	1:L:1186:LEU:HD11	2.00	0.44
1:L:1345:ILE:HG13	1:L:1346:PRO:CD	2.48	0.44
4:N:204:LYS:HE2	4:N:204:LYS:HB2	1.91	0.44
3:C:405:PRO:O	3:C:413:PRO:HG3	2.17	0.44
3:C:519:ARG:HG2	3:C:523:ARG:CZ	2.48	0.44
3:C:521:VAL:HA	3:C:524:ILE:CB	2.40	0.44
3:C:610:ARG:HG2	3:C:632:ASP:HB3	2.00	0.44
3:C:712:PHE:HD2	3:C:713:TYR:CE2	2.36	0.44
1:M:570:LEU:CD1	1:M:581:GLN:HB3	2.48	0.44
1:M:667:LEU:HA	1:M:667:LEU:HD23	1.88	0.44
1:M:826:GLU:HB2	1:M:857:LEU:CD2	2.48	0.44
1:A:1286:LEU:HD11	1:A:1290:TYR:HE1	1.83	0.44
1:A:1381:HIS:HB3	1:A:1384:ASP:OD2	2.18	0.44
1:A:1438:TYR:O	1:A:1442:VAL:HG13	2.18	0.44
1:A:1479:ALA:O	1:A:1482:THR:OG1	2.28	0.44
1:B:827:ASP:HA	1:B:830:LYS:NZ	2.33	0.44
1:J:1538:MET:HA	1:J:1541:ALA:HB3	2.00	0.44
1:L:1050:TYR:HH	1:L:1075:PHE:HE1	1.64	0.44
1:L:1097:GLU:HA	1:L:1100:GLU:OE1	2.18	0.44
1:L:1468:ASN:O	1:L:1472:ILE:HG13	2.18	0.44
1:E:13:LEU:HD13	1:E:18:LEU:HD11	1.99	0.43
1:E:147:SER:OG	1:E:193:PRO:HB3	2.18	0.43
1:E:159:ASP:HB3	1:E:163:LYS:H	1.83	0.43
1:E:267:SER:O	1:E:267:SER:OG	2.30	0.43
1:E:391:ILE:HG22	1:E:392:LEU:HD22	2.00	0.43
1:E:392:LEU:C	1:E:397:THR:HG21	2.38	0.43
1:E:395:PRO:O	1:E:398:ILE:N	2.51	0.43
1:E:439:VAL:CG1	1:E:444:ARG:HB2	2.48	0.43
1:E:485:PRO:O	1:E:489:ILE:HD12	2.18	0.43
1:E:641:VAL:O	1:E:645:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:654:TYR:CG	1:E:681:ILE:HG13	2.53	0.43
1:E:709:GLU:HB3	1:E:713:TYR:CZ	2.53	0.43
3:C:540:GLU:H	3:C:575:PRO:CB	2.30	0.43
3:C:610:ARG:HH22	3:C:629:HIS:N	2.16	0.43
3:C:643:THR:HA	3:C:646:LEU:HG	1.99	0.43
3:C:742:LYS:HB2	3:C:743:GLU:OE1	2.18	0.43
1:M:897:ASN:HA	1:M:899:TYR:CE2	2.53	0.43
1:M:1003:GLU:N	1:M:1006:GLU:OE2	2.23	0.43
1:M:1065:PHE:CG	1:M:1066:GLU:N	2.86	0.43
1:A:1547:THR:C	1:A:1548:GLU:HG3	2.39	0.43
1:B:1006:GLU:OE1	1:B:1006:GLU:N	2.51	0.43
1:B:1020:GLU:HG2	1:B:1021:HIS:N	2.33	0.43
1:B:1245:ARG:HA	1:B:1275:HIS:CE1	2.52	0.43
1:K:1446:PRO:HB2	4:N:139:TRP:HE1	1.83	0.43
1:L:1067:GLU:H	1:L:1067:GLU:CD	2.18	0.43
1:L:1082:VAL:HG12	1:L:1095:ALA:HB1	2.00	0.43
1:L:1250:THR:O	1:L:1254:LYS:HG2	2.17	0.43
1:H:764:LYS:HZ3	1:H:787:LEU:HA	1.82	0.43
1:E:74:ASN:ND2	1:E:132:MET:SD	2.90	0.43
1:E:263:ALA:O	1:E:276:ILE:N	2.29	0.43
1:E:429:LYS:O	1:E:433:LEU:HB2	2.17	0.43
1:E:509:GLY:HA2	1:E:510:TYR:HA	1.61	0.43
1:E:587:MET:HA	1:E:591:HIS:CD2	2.53	0.43
3:C:404:VAL:HG13	3:C:413:PRO:HB3	1.99	0.43
3:C:439:VAL:HG23	3:C:444:ARG:CG	2.48	0.43
3:C:623:LEU:HA	3:C:623:LEU:HD23	1.65	0.43
3:C:638:ARG:H	3:C:638:ARG:CD	2.21	0.43
3:C:660:VAL:C	3:C:662:ASP:H	2.22	0.43
3:C:772:LEU:HB2	3:C:775:ILE:CD1	2.48	0.43
3:C:805:GLN:O	3:C:809:PRO:HD3	2.19	0.43
3:C:837:ARG:HH21	3:C:838:GLY:N	2.11	0.43
1:M:718:ILE:HG22	1:M:722:SER:OG	2.18	0.43
1:M:829:ILE:O	1:M:832:LEU:HG	2.18	0.43
1:M:954:GLU:HG2	1:M:955:LEU:HD22	2.00	0.43
1:M:1001:PRO:O	1:M:1004:LEU:HB2	2.17	0.43
1:A:1344:ASN:CG	1:A:1346:PRO:HD2	2.38	0.43
1:A:1411:TYR:CD2	1:A:1419:LEU:HD13	2.52	0.43
1:B:1042:GLU:HA	1:B:1045:ASN:ND2	2.33	0.43
4:D:126:GLN:NE2	4:D:126:GLN:O	2.50	0.43
1:J:1568:ALA:HA	4:I:199:CYS:SG	2.59	0.43
1:J:1621:LYS:O	1:J:1625:GLN:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1456:GLN:HG3	1:K:1487:TYR:CE1	2.54	0.43
1:K:1604:LYS:NZ	4:N:213:SER:H	2.04	0.43
1:L:995:PHE:CE1	1:L:1000:LEU:HD12	2.53	0.43
1:H:757:GLU:CD	1:H:757:GLU:H	2.20	0.43
4:N:191:GLU:O	4:N:195:VAL:HG13	2.17	0.43
1:E:371:LEU:HB3	1:E:376:ASN:HB2	2.00	0.43
3:C:613:ILE:HG13	3:C:614:ALA:N	2.33	0.43
3:C:743:GLU:HG3	3:C:746:ARG:HH12	1.83	0.43
1:A:1470:LEU:O	1:A:1474:GLU:CB	2.65	0.43
1:B:858:LEU:HB3	1:B:862:LEU:HG	1.99	0.43
4:D:126:GLN:NE2	4:D:130:GLU:HG3	2.33	0.43
4:D:142:ARG:HA	4:D:145:GLU:CG	2.48	0.43
1:J:1597:PRO:HB2	4:I:214:ARG:HH21	1.83	0.43
1:J:1602:VAL:O	1:J:1605:GLU:HG2	2.17	0.43
1:L:945:ARG:HA	1:L:948:VAL:HG12	1.99	0.43
1:L:1082:VAL:O	1:L:1086:ILE:HG12	2.17	0.43
1:L:1198:ILE:HG22	1:L:1199:GLN:N	2.33	0.43
1:H:744:VAL:O	1:H:747:ILE:HG12	2.18	0.43
4:N:165:PRO:HG2	4:N:198:LEU:HA	2.00	0.43
4:N:202:ASN:HB2	4:N:204:LYS:NZ	2.33	0.43
1:E:127:VAL:HG12	1:E:129:HIS:CE1	2.53	0.43
1:E:185:SER:HG	1:E:190:VAL:H	1.65	0.43
1:E:299:SER:OG	1:E:301:GLU:O	2.23	0.43
1:E:559:ILE:O	1:E:563:THR:HG23	2.18	0.43
3:C:392:LEU:HD13	3:C:401:PHE:CD2	2.54	0.43
3:C:472:PRO:HG2	3:C:494:GLU:HB2	2.01	0.43
3:C:528:GLN:CD	3:C:558:LEU:HA	2.38	0.43
3:C:531:GLN:HA	3:C:532:PHE:CE2	2.54	0.43
3:C:537:VAL:HB	3:C:569:ALA:CB	2.49	0.43
3:C:662:ASP:C	3:C:664:LEU:N	2.70	0.43
3:C:846:VAL:O	3:C:850:GLU:HB2	2.18	0.43
1:B:833:ILE:HD13	1:B:858:LEU:HD23	1.99	0.43
1:B:1057:ASN:HA	1:B:1060:ILE:HG22	2.00	0.43
1:B:1223:ASN:O	1:B:1227:LEU:N	2.41	0.43
1:J:1595:ALA:O	1:J:1598:TYR:HB3	2.18	0.43
1:L:1231:LEU:O	1:L:1236:GLU:N	2.52	0.43
1:L:1251:ARG:HE	1:L:1254:LYS:NZ	2.16	0.43
1:L:1401:VAL:HG23	1:L:1404:TYR:CD2	2.54	0.43
1:H:777:VAL:HG13	1:H:780:ARG:HD3	1.99	0.43
1:H:840:PHE:HZ	1:H:845:LEU:HD22	1.83	0.43
4:I:158:ASP:HA	4:I:161:PHE:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:57:ASP:OD1	1:E:59:SER:OG	2.35	0.43
1:E:100:LYS:HG3	1:E:130:TRP:CZ2	2.47	0.43
1:E:306:THR:HA	1:E:317:GLY:HA2	1.99	0.43
1:E:460:SER:OG	1:E:463:LEU:HG	2.19	0.43
1:E:508:VAL:HG12	1:E:509:GLY:HA2	1.99	0.43
1:E:680:GLN:O	1:E:683:VAL:HG22	2.19	0.43
3:C:460:SER:N	3:C:463:LEU:HD22	2.33	0.43
3:C:772:LEU:N	3:C:773:PRO:CD	2.81	0.43
1:M:655:PHE:CZ	1:M:659:SER:HB3	2.53	0.43
1:M:734:ALA:HA	1:M:737:LYS:HG2	2.00	0.43
1:M:849:VAL:O	1:M:852:ARG:N	2.52	0.43
1:A:1356:HIS:HB2	1:A:1358:TRP:CH2	2.53	0.43
1:A:1414:PHE:HZ	4:D:129:ARG:HH21	1.66	0.43
1:B:913:ASP:OD1	1:B:915:HIS:ND1	2.44	0.43
1:B:964:ASN:HD21	1:B:966:TYR:HB2	1.84	0.43
1:B:1082:VAL:O	1:B:1086:ILE:HG12	2.18	0.43
1:B:1144:ALA:HA	1:B:1149:ASN:ND2	2.33	0.43
1:K:1444:GLN:HB3	1:K:1447:LEU:HB3	2.00	0.43
1:K:1510:ILE:HA	1:K:1513:TYR:HB3	2.00	0.43
1:K:1596:MET:O	1:K:1600:ILE:HG13	2.19	0.43
1:L:1208:GLU:HB2	1:L:1210:MET:HG2	1.99	0.43
1:H:755:ASP:OD1	1:H:758:ARG:NH2	2.52	0.43
4:N:213:SER:OG	4:N:216:ARG:NH1	2.52	0.43
1:E:402:GLN:CA	1:E:414:LEU:HD21	2.48	0.43
1:E:446:GLN:HA	1:E:449:GLU:OE1	2.18	0.43
3:C:540:GLU:HG3	3:C:575:PRO:O	2.19	0.43
3:C:553:PHE:HB3	3:C:558:LEU:C	2.38	0.43
1:M:635:ASP:HB3	1:M:638:ARG:HD2	2.00	0.43
1:M:855:LEU:N	1:M:856:LYS:HZ2	2.17	0.43
1:A:1378:MET:HE3	1:A:1386:TRP:HA	2.00	0.43
1:A:1527:LEU:HG	1:A:1531:ASP:OD2	2.18	0.43
4:I:202:ASN:N	4:I:202:ASN:OD1	2.51	0.43
4:N:200:ASP:OD1	4:N:224:GLN:NE2	2.51	0.43
1:E:14:GLN:HE21	1:E:16:GLN:HB2	1.84	0.43
1:E:37:PHE:CZ	1:E:73:MET:HB2	2.54	0.43
1:E:349:LEU:CG	1:E:363:LEU:HB3	2.48	0.43
1:E:448:LEU:O	1:E:452:LEU:HG	2.18	0.43
1:E:553:PHE:O	1:E:558:LEU:N	2.31	0.43
1:E:654:TYR:CD2	1:E:681:ILE:HG13	2.53	0.43
3:C:367:LYS:HE2	3:C:383:VAL:HG11	2.01	0.43
3:C:492:PHE:HE1	3:C:519:ARG:NH1	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:686:ALA:C	1:M:688:LYS:H	2.22	0.43
1:A:1314:MET:SD	1:A:1314:MET:N	2.92	0.43
1:B:897:ASN:HB3	1:B:900:TYR:CE1	2.54	0.43
1:B:1134:PRO:HD3	1:B:1163:LYS:HZ2	1.83	0.43
1:J:1484:ILE:HG21	1:J:1495:LEU:HD21	2.01	0.43
1:J:1609:LYS:HA	1:J:1612:LYS:HZ2	1.84	0.43
1:K:1566:PHE:HA	1:K:1569:CYS:SG	2.58	0.43
1:L:1025:GLN:HG3	1:L:1047:LEU:HD21	2.00	0.43
1:L:1106:ALA:O	1:L:1109:SER:OG	2.19	0.43
1:L:1449:LYS:HE3	1:L:1470:LEU:HD21	2.01	0.43
1:E:89:GLN:HG2	1:E:101:ALA:HB1	2.01	0.43
1:E:176:ARG:HD3	1:E:176:ARG:HA	1.71	0.43
1:E:270:HIS:CE1	1:E:331:GLU:HB3	2.54	0.43
1:E:570:LEU:HD22	1:E:581:GLN:HG2	2.01	0.43
3:C:457:LEU:HB3	3:C:463:LEU:CD1	2.49	0.43
3:C:667:LEU:HD12	3:C:668:ARG:N	2.33	0.43
3:C:792:TYR:CD1	3:C:792:TYR:O	2.72	0.43
1:M:786:ASP:HA	1:M:789:LEU:HB3	2.01	0.43
1:M:791:LEU:HB3	1:M:796:LEU:CG	2.49	0.43
1:M:875:THR:O	1:M:879:LEU:HG	2.19	0.43
1:M:981:GLU:CD	1:M:983:GLN:H	2.22	0.43
1:A:1310:GLU:HG3	1:A:1311:ARG:HG3	2.01	0.43
1:A:1333:ARG:HE	1:A:1337:GLU:CD	2.20	0.43
1:A:1390:GLN:O	1:A:1394:ILE:HG12	2.18	0.43
1:A:1540:TYR:HA	1:A:1543:GLU:CG	2.45	0.43
1:A:1561:GLU:HA	1:A:1563:ARG:HD3	2.01	0.43
1:B:866:ILE:HG13	1:B:867:HIS:H	1.84	0.43
1:B:879:LEU:O	1:B:882:ILE:HG12	2.18	0.43
1:B:921:TYR:HE2	1:B:933:VAL:HG11	1.84	0.43
4:D:155:ARG:NE	4:D:155:ARG:HA	2.33	0.43
1:K:1391:PHE:CZ	1:K:1403:LEU:HD21	2.53	0.43
1:K:1401:VAL:HA	1:K:1404:TYR:CE2	2.54	0.43
1:K:1528:CYS:SG	1:K:1532:SER:OG	2.75	0.43
1:K:1553:LEU:O	1:K:1556:TRP:HE3	2.02	0.43
1:K:1598:TYR:O	1:K:1601:GLN:HB3	2.18	0.43
1:L:1334:GLU:O	1:L:1338:LEU:HG	2.19	0.43
1:L:1449:LYS:HA	1:L:1452:LEU:HD12	2.01	0.43
4:I:151:LYS:HB2	4:I:151:LYS:HE3	1.86	0.43
1:E:317:GLY:N	1:E:325:LEU:O	2.27	0.43
1:E:459:CYS:O	1:E:482:ALA:HB2	2.19	0.43
3:C:494:GLU:CA	3:C:520:ASN:HB3	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:511:THR:CG2	3:C:544:ALA:H	2.31	0.43
3:C:538:GLN:H	3:C:538:GLN:HG3	1.59	0.43
3:C:745:GLU:HB3	3:C:773:PRO:HB3	2.01	0.43
3:C:819:LEU:HD12	3:C:824:CYS:HB2	2.00	0.43
3:C:820:LEU:HD23	3:C:852:ARG:CB	2.43	0.43
3:C:820:LEU:HA	3:C:820:LEU:HD12	1.41	0.43
1:M:583:ARG:O	1:M:587:MET:HG3	2.19	0.43
1:M:1069:PHE:HD1	1:M:1072:PHE:HD2	1.66	0.43
1:B:921:TYR:HB3	1:B:926:CYS:HB2	1.99	0.43
1:B:967:ARG:HA	1:B:970:LEU:HD21	2.01	0.43
1:B:995:PHE:HB3	1:B:1005:ILE:HD11	2.00	0.43
1:B:1080:SER:HA	1:B:1083:GLN:HB3	2.00	0.43
4:D:127:GLU:O	4:D:131:LYS:HE3	2.18	0.43
1:L:1251:ARG:HH21	1:L:1254:LYS:HZ3	1.67	0.43
1:H:696:GLN:O	1:H:699:ILE:HG12	2.19	0.43
1:E:83:LYS:HA	1:E:88:LEU:HA	2.00	0.43
1:E:338:ILE:H	1:E:338:ILE:HG13	1.56	0.43
1:E:590:MET:O	1:E:622:LEU:HD11	2.18	0.43
3:C:514:TRP:HH2	3:C:532:PHE:HB2	1.84	0.43
3:C:854:ARG:HA	3:C:856:LYS:HZ3	1.82	0.43
1:M:741:ILE:HA	1:M:744:VAL:HB	2.01	0.43
1:A:1394:ILE:O	1:A:1397:LYS:HE2	2.19	0.43
1:B:1085:LEU:HD21	1:B:1091:ASN:HB3	2.00	0.43
4:I:214:ARG:O	4:I:217:SER:OG	2.23	0.43
1:E:128:TYR:N	1:E:128:TYR:CD1	2.87	0.42
1:E:197:HIS:CE1	1:E:221:ARG:H	2.37	0.42
3:C:777:VAL:HA	3:C:780:ARG:CB	2.47	0.42
3:C:839:GLN:H	3:C:839:GLN:CD	2.23	0.42
1:M:715:LEU:O	1:M:718:ILE:N	2.52	0.42
1:A:1265:GLU:HB3	1:A:1268:LEU:HD13	2.00	0.42
1:A:1344:ASN:HD22	1:A:1347:LYS:HD3	1.83	0.42
1:A:1438:TYR:HA	1:A:1441:LYS:HD3	2.01	0.42
1:A:1535:LYS:HA	1:A:1538:MET:CE	2.49	0.42
1:B:1200:GLN:O	1:B:1204:ARG:HG3	2.20	0.42
1:K:1578:ARG:HA	1:K:1579:PRO:HD3	1.93	0.42
1:K:1585:THR:O	1:K:1588:ARG:HG2	2.19	0.42
1:L:1085:LEU:HG	1:L:1089:ILE:HG12	2.01	0.42
1:H:818:GLY:HA2	1:H:821:ASP:OD1	2.19	0.42
1:H:845:LEU:O	1:H:849:VAL:HG13	2.19	0.42
4:N:213:SER:HB2	4:N:216:ARG:HD3	2.01	0.42
1:E:510:TYR:HB2	1:E:513:ASP:CB	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:518:LEU:HD22	1:E:549:ILE:HD11	2.01	0.42
1:E:534:GLN:HG3	1:E:565:PHE:HD1	1.84	0.42
3:C:472:PRO:HB3	3:C:492:PHE:C	2.39	0.42
3:C:516:PHE:O	3:C:519:ARG:HB3	2.19	0.42
3:C:729:PHE:HE1	3:C:759:VAL:HA	1.83	0.42
3:C:791:LEU:HG	3:C:795:ASN:O	2.20	0.42
3:C:827:ASP:OD1	3:C:827:ASP:N	2.52	0.42
1:A:1419:LEU:HG	1:A:1423:LEU:HD21	2.01	0.42
1:B:829:ILE:O	1:B:832:LEU:N	2.52	0.42
4:D:212:VAL:HG11	4:D:214:ARG:CZ	2.49	0.42
1:L:1070:ALA:HA	1:L:1073:ARG:HE	1.84	0.42
1:L:1377:THR:O	1:L:1381:HIS:N	2.38	0.42
4:I:192:TRP:CE3	4:I:222:LEU:HD22	2.54	0.42
1:E:24:ASN:ND2	1:E:42:GLU:HG3	2.35	0.42
1:E:155:ASN:ND2	1:E:157:ARG:HD3	2.22	0.42
1:E:220:VAL:O	1:E:227:LYS:N	2.48	0.42
1:E:452:LEU:HD22	1:E:459:CYS:HA	2.01	0.42
1:E:495:THR:HA	1:E:532:PHE:CE2	2.55	0.42
1:E:554:MET:SD	1:E:591:HIS:CD2	3.13	0.42
1:E:563:THR:HG22	1:E:588:ASN:HB3	2.01	0.42
1:E:674:ASN:HB3	1:E:681:ILE:HD13	2.01	0.42
3:C:717:SER:OG	3:C:721:PHE:HE2	2.02	0.42
3:C:776:ILE:O	3:C:780:ARG:HB2	2.19	0.42
1:M:623:LEU:HA	1:M:626:ALA:HB3	2.01	0.42
1:M:855:LEU:C	1:M:857:LEU:H	2.22	0.42
1:M:902:SER:HA	1:M:905:VAL:HG22	2.01	0.42
1:A:1466:SER:O	1:A:1470:LEU:HD23	2.20	0.42
1:A:1561:GLU:HG3	1:A:1563:ARG:HH11	1.84	0.42
1:A:1611:ASP:OD2	1:A:1612:LYS:N	2.52	0.42
1:B:829:ILE:O	1:B:832:LEU:HG	2.19	0.42
1:B:848:GLU:O	1:B:852:ARG:HG2	2.20	0.42
1:B:907:LYS:O	1:B:910:GLU:HG2	2.19	0.42
1:B:955:LEU:O	1:B:959:VAL:HG23	2.19	0.42
1:B:995:PHE:O	1:B:1000:LEU:N	2.38	0.42
1:B:1242:ASP:HA	1:B:1245:ARG:HH21	1.84	0.42
4:D:154:ASN:HB2	4:D:155:ARG:NH1	2.33	0.42
1:J:1534:TYR:C	1:J:1536:ASP:H	2.21	0.42
1:J:1535:LYS:HD2	4:I:198:LEU:HG	2.01	0.42
1:J:1617:GLU:O	1:J:1621:LYS:HG2	2.19	0.42
1:K:1397:LYS:HD3	1:K:1397:LYS:HA	1.65	0.42
1:L:1287:ILE:HD11	1:L:1319:GLU:HG3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:771:GLN:OE1	1:H:774:LEU:HG	2.19	0.42
1:E:197:HIS:ND1	1:E:260:PHE:HB2	2.34	0.42
1:E:211:GLU:HB2	1:E:240:ASN:HD21	1.84	0.42
1:E:275:LEU:HB3	1:E:283:HIS:HB2	1.99	0.42
1:E:335:ILE:HA	1:E:338:ILE:HD12	2.00	0.42
1:E:586:GLU:HG3	1:E:616:LEU:HD22	2.00	0.42
2:F:718:VAL:HA	1:M:723:GLN:HE21	1.78	0.42
3:C:610:ARG:NE	3:C:613:ILE:HD11	2.34	0.42
3:C:657:SER:HG	3:C:658:LEU:H	1.66	0.42
3:C:812:LEU:HA	3:C:812:LEU:HD13	1.84	0.42
1:M:702:PHE:CD2	1:M:707:SER:HB2	2.55	0.42
1:M:793:ARG:NH2	1:L:1221:VAL:HA	2.31	0.42
1:M:940:PHE:HB2	1:M:973:GLN:HG3	2.01	0.42
1:M:1006:GLU:O	1:M:1009:GLU:HB2	2.19	0.42
1:A:1284:GLU:HA	1:A:1287:ILE:HG12	1.99	0.42
1:A:1353:GLU:OE2	1:A:1354:GLN:NE2	2.48	0.42
1:A:1426:LEU:HD13	1:A:1430:LEU:HD21	2.00	0.42
1:A:1454:SER:OG	1:A:1455:VAL:N	2.52	0.42
1:A:1497:GLN:HA	1:A:1500:GLU:OE1	2.19	0.42
1:A:1530:LYS:HE2	1:A:1530:LYS:HB2	1.87	0.42
1:B:1209:LYS:HA	1:B:1211:TYR:CZ	2.54	0.42
1:J:1574:TYR:OH	1:J:1601:GLN:HB3	2.20	0.42
1:K:1494:SER:HA	1:K:1497:GLN:HG2	2.01	0.42
1:L:931:ILE:HA	1:L:934:CYS:SG	2.59	0.42
1:L:1323:LEU:HD12	1:L:1327:PHE:CE2	2.54	0.42
1:L:1461:LYS:O	1:L:1464:ASN:HB3	2.19	0.42
1:E:92:ASN:OD1	1:E:94:GLU:HB3	2.19	0.42
1:E:158:THR:HA	1:E:165:LEU:HA	2.00	0.42
1:E:163:LYS:O	1:E:186:VAL:N	2.42	0.42
1:E:166:LEU:HD22	1:E:216:PHE:CZ	2.54	0.42
1:E:395:PRO:HD3	1:E:430:TYR:CD1	2.55	0.42
2:F:905:ILE:HG23	2:F:912:TYR:CE1	2.54	0.42
3:C:741:ILE:C	3:C:743:GLU:N	2.71	0.42
3:C:821:ASP:N	3:C:852:ARG:HH21	2.17	0.42
1:M:803:TYR:CE1	1:M:808:ASN:HB3	2.54	0.42
1:M:884:ILE:HG21	1:M:908:TYR:CE2	2.55	0.42
1:A:1451:TYR:O	1:A:1454:SER:OG	2.13	0.42
1:B:1037:ARG:O	1:B:1040:VAL:HG13	2.19	0.42
1:B:1084:VAL:HA	1:B:1087:GLU:CG	2.49	0.42
1:B:1182:ARG:HB3	1:B:1185:GLU:OE2	2.19	0.42
4:D:120:ALA:O	4:D:123:VAL:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1536:ASP:HA	1:K:1539:GLN:HB3	2.00	0.42
1:H:735:ALA:HB2	1:H:744:VAL:HG21	2.02	0.42
1:E:42:GLU:N	1:E:49:GLN:O	2.31	0.42
1:E:91:PHE:CG	1:E:98:LYS:HA	2.54	0.42
1:E:117:ASN:O	1:E:131:SER:HA	2.20	0.42
1:E:252:PHE:HD1	1:E:259:ASP:HB3	1.84	0.42
1:E:553:PHE:CD1	1:E:558:LEU:HB2	2.54	0.42
1:E:637:LYS:O	1:E:641:VAL:HG23	2.18	0.42
3:C:524:ILE:HG12	3:C:526:PRO:HD2	2.00	0.42
3:C:592:ALA:C	3:C:594:GLN:N	2.72	0.42
3:C:626:ALA:O	3:C:630:PHE:CD2	2.72	0.42
3:C:670:MET:O	3:C:674:ASN:CA	2.68	0.42
3:C:690:HIS:CE1	3:C:694:SER:HB3	2.54	0.42
3:C:733:GLN:HA	3:C:736:CYS:SG	2.59	0.42
3:C:741:ILE:HG13	3:C:742:LYS:H	1.81	0.42
1:M:733:GLN:HE22	1:M:737:LYS:HD3	1.85	0.42
1:M:953:PRO:HA	1:M:956:TRP:CD1	2.54	0.42
1:M:1022:ARG:C	1:M:1024:LEU:H	2.23	0.42
1:A:1389:GLY:HA2	1:A:1392:LYS:HE2	2.01	0.42
1:A:1499:LEU:HB3	1:A:1511:ALA:HB2	2.02	0.42
1:A:1566:PHE:CE2	1:A:1570:LEU:HD23	2.54	0.42
1:B:986:GLU:O	1:B:989:SER:OG	2.31	0.42
1:B:1150:TRP:HD1	1:B:1176:ALA:HB1	1.84	0.42
1:B:1155:LYS:HD2	1:B:1156:TYR:N	2.35	0.42
4:D:103:ILE:HB	4:D:107:ARG:HH11	1.84	0.42
1:J:1592:MET:O	1:J:1596:MET:HG2	2.20	0.42
1:K:1596:MET:HB2	1:K:1597:PRO:HD3	2.00	0.42
1:L:1067:GLU:OE1	1:L:1067:GLU:N	2.39	0.42
1:H:728:HIS:O	1:H:732:ILE:HG13	2.19	0.42
1:H:787:LEU:O	1:H:791:LEU:HD23	2.19	0.42
4:N:201:PHE:CZ	4:N:203:PRO:HG3	2.54	0.42
1:E:349:LEU:HD23	1:E:360:ALA:HB1	2.01	0.42
1:E:515:ILE:HG23	1:E:548:GLN:NE2	2.35	0.42
1:E:530:GLN:HA	1:E:534:GLN:OE1	2.20	0.42
1:E:570:LEU:HD11	1:E:584:LEU:HD13	2.01	0.42
1:E:627:LEU:HD22	1:E:639:ALA:HB1	2.01	0.42
2:F:747:LEU:CD1	1:M:719:VAL:HB	2.38	0.42
3:C:438:PRO:O	3:C:442:GLN:HB2	2.19	0.42
3:C:457:LEU:HD22	3:C:463:LEU:CB	2.48	0.42
3:C:528:GLN:CA	3:C:558:LEU:HG	2.48	0.42
3:C:633:LEU:HA	3:C:633:LEU:HD12	1.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:637:LYS:HB3	3:C:638:ARG:CZ	2.50	0.42
3:C:800:ILE:HD12	3:C:803:TYR:HD2	1.85	0.42
3:C:818:GLY:O	3:C:822:VAL:HG22	2.18	0.42
1:M:646:LEU:HG	1:M:647:ASN:H	1.85	0.42
1:M:650:TRP:HE3	1:M:651:LEU:HB2	1.84	0.42
1:M:808:ASN:HD22	1:M:811:ARG:NH1	2.17	0.42
1:M:812:LEU:HB2	1:M:813:PRO:HD3	2.01	0.42
1:M:1021:HIS:HB2	1:M:1025:GLN:CB	2.50	0.42
1:A:1287:ILE:HG22	1:A:1291:GLN:OE1	2.19	0.42
1:A:1324:TYR:CD1	1:A:1328:LYS:HB2	2.55	0.42
1:A:1434:ARG:HA	1:A:1437:ASN:HD22	1.84	0.42
1:B:928:LEU:O	1:B:932:ASN:ND2	2.53	0.42
1:B:1023:ASN:OD1	1:B:1026:ASN:HB2	2.20	0.42
4:O:126:GLN:HA	4:O:129:ARG:NH1	2.34	0.42
1:K:1437:ASN:O	1:K:1440:SER:OG	2.28	0.42
1:K:1593:ASP:C	1:K:1595:ALA:H	2.22	0.42
1:L:1417:LEU:HG	1:L:1418:LEU:H	1.85	0.42
1:E:219:ALA:HA	1:E:228:LEU:HA	2.00	0.42
1:E:319:ASN:HD21	1:E:323:GLN:CD	2.22	0.42
1:E:349:LEU:HD22	1:E:367:LYS:HZ2	1.85	0.42
1:E:503:LEU:HD22	1:E:507:LYS:NZ	2.35	0.42
1:E:562:CYS:O	1:E:565:PHE:N	2.52	0.42
1:E:612:HIS:O	1:E:616:LEU:HG	2.20	0.42
1:E:623:LEU:CD1	1:E:647:ASN:HB2	2.50	0.42
2:F:746:ALA:CA	1:M:721:PHE:N	2.83	0.42
3:C:432:SER:HB2	3:C:457:LEU:HA	2.01	0.42
3:C:514:TRP:CH2	3:C:533:ALA:N	2.87	0.42
3:C:830:LYS:HZ2	3:C:858:LEU:HB2	1.85	0.42
1:M:986:GLU:O	1:M:989:SER:OG	2.30	0.42
1:A:1365:TYR:O	1:A:1369:GLU:N	2.48	0.42
1:A:1595:ALA:O	1:A:1598:TYR:HB3	2.19	0.42
1:A:1608:THR:HA	1:A:1611:ASP:OD1	2.19	0.42
1:B:886:SER:HG	1:B:888:ASN:ND2	2.14	0.42
1:B:1063:GLU:OE1	1:B:1063:GLU:N	2.50	0.42
4:D:146:GLN:OE1	4:D:149:LYS:HD3	2.20	0.42
4:O:104:ARG:HE	4:O:111:ARG:NH2	2.14	0.42
1:J:1574:TYR:OH	1:J:1602:VAL:HG23	2.20	0.42
1:J:1609:LYS:O	1:J:1612:LYS:HG2	2.20	0.42
1:K:1500:GLU:OE2	1:K:1501:LYS:NZ	2.52	0.42
1:K:1551:GLU:H	1:K:1551:GLU:CD	2.21	0.42
1:L:1111:LEU:C	1:L:1115:GLN:HE21	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1328:LYS:HB3	1:L:1331:LYS:CD	2.48	0.42
1:H:715:LEU:HB3	1:H:719:VAL:HG23	2.01	0.42
1:E:55:MET:O	1:E:58:PRO:HD3	2.20	0.42
1:E:336:PRO:O	1:E:340:ASN:ND2	2.53	0.42
1:E:366:ARG:HA	1:E:369:ASN:ND2	2.33	0.42
1:E:368:PHE:CD1	1:E:392:LEU:HG	2.55	0.42
1:E:401:PHE:HB3	1:E:417:TYR:CE2	2.55	0.42
1:E:522:MET:O	1:E:523:ARG:HG3	2.20	0.42
3:C:368:PHE:CD1	3:C:384:ALA:HB2	2.54	0.42
3:C:426:GLN:HG2	3:C:456:LYS:O	2.18	0.42
3:C:472:PRO:HG2	3:C:494:GLU:CB	2.50	0.42
3:C:723:GLN:OE1	3:C:723:GLN:N	2.43	0.42
1:M:988:VAL:O	1:M:992:VAL:HG13	2.20	0.42
1:M:1048:ASP:N	1:M:1048:ASP:OD1	2.53	0.42
1:B:826:GLU:HG2	1:B:827:ASP:N	2.35	0.42
4:D:155:ARG:O	4:D:159:LYS:HD3	2.20	0.42
4:O:114:LEU:HA	4:O:117:LEU:HD12	2.02	0.42
1:L:1156:TYR:HA	1:L:1159:MET:HE2	2.02	0.42
1:L:1251:ARG:H	1:L:1251:ARG:HG2	1.69	0.42
1:L:1349:LEU:HD23	1:L:1350:ARG:HH11	1.85	0.42
1:L:1451:TYR:CE1	1:L:1455:VAL:HG11	2.55	0.42
1:E:72:ILE:CG1	1:E:81:ALA:HB3	2.47	0.42
1:E:173:GLN:N	1:E:176:ARG:O	2.53	0.42
1:E:227:LYS:HB3	1:E:229:HIS:CE1	2.55	0.42
1:E:265:GLN:HG3	1:E:308:PRO:HA	2.02	0.42
1:E:281:TYR:CD2	1:E:297:ARG:HG3	2.54	0.42
3:C:477:SER:HB2	3:C:481:ARG:HH21	1.84	0.42
3:C:498:VAL:HG12	3:C:502:VAL:CG1	2.50	0.42
3:C:665:GLU:HA	3:C:668:ARG:NH2	2.35	0.42
3:C:740:GLN:O	3:C:743:GLU:HB2	2.20	0.42
3:C:762:PHE:HA	3:C:765:GLU:CD	2.40	0.42
1:M:650:TRP:CE2	1:M:654:TYR:HE2	2.38	0.42
1:M:768:LEU:HG	1:M:770:ASP:OD1	2.20	0.42
1:A:1499:LEU:HA	1:A:1499:LEU:HD23	1.83	0.42
1:A:1584:GLU:OE2	1:A:1588:ARG:NE	2.53	0.42
1:A:1592:MET:O	1:A:1596:MET:N	2.53	0.42
1:A:1604:LYS:HE3	4:D:210:LYS:NZ	2.34	0.42
4:D:222:LEU:HA	4:D:225:THR:HB	2.02	0.42
1:K:1434:ARG:HA	1:K:1437:ASN:ND2	2.34	0.42
1:K:1475:GLU:HG3	1:K:1502:HIS:HE1	1.85	0.42
1:L:1002:ASN:O	1:L:1003:GLU:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1404:TYR:CD1	1:L:1404:TYR:N	2.87	0.42
1:L:1433:THR:O	1:L:1436:VAL:HG22	2.19	0.42
1:L:1435:ALA:HB1	1:L:1439:PHE:CZ	2.55	0.42
1:H:657:SER:OG	1:H:658:LEU:HG	2.20	0.42
1:E:273:VAL:O	1:E:284:LEU:HD12	2.20	0.41
1:E:485:PRO:O	1:E:489:ILE:HB	2.19	0.41
3:C:589:LEU:HD21	3:C:616:LEU:HD22	2.01	0.41
3:C:792:TYR:O	3:C:795:ASN:HA	2.20	0.41
1:M:846:VAL:HA	1:M:849:VAL:HB	2.01	0.41
1:M:986:GLU:OE1	1:M:986:GLU:N	2.53	0.41
1:M:1039:ARG:HA	1:M:1042:GLU:OE1	2.19	0.41
1:A:1404:TYR:CD2	1:A:1404:TYR:N	2.88	0.41
1:B:956:TRP:O	1:B:960:LEU:HG	2.20	0.41
1:B:988:VAL:O	1:B:991:THR:HG22	2.19	0.41
4:O:104:ARG:NE	4:O:111:ARG:HH22	2.12	0.41
1:K:1449:LYS:HG3	1:K:1453:ARG:NH1	2.35	0.41
1:K:1471:PHE:CG	1:K:1480:LEU:HB2	2.55	0.41
1:L:1331:LYS:HA	1:L:1334:GLU:OE2	2.19	0.41
1:L:1334:GLU:HG2	1:L:1335:HIS:N	2.35	0.41
1:H:640:VAL:HB	1:H:670:MET:HG2	2.02	0.41
4:I:159:LYS:HA	4:I:162:TYR:CD2	2.54	0.41
1:E:33:GLU:HB2	1:E:37:PHE:CZ	2.54	0.41
1:E:432:SER:HB3	1:E:458:GLU:H	1.85	0.41
1:E:533:ALA:O	1:E:537:VAL:HG23	2.19	0.41
1:E:627:LEU:HA	1:E:630:PHE:HD2	1.85	0.41
3:C:681:ILE:O	3:C:685:VAL:HG22	2.20	0.41
3:C:693:LEU:HD23	3:C:693:LEU:N	2.36	0.41
3:C:808:ASN:CG	3:C:811:ARG:HE	2.23	0.41
3:C:845:LEU:HD11	3:C:858:LEU:CD2	2.50	0.41
3:C:854:ARG:HA	3:C:856:LYS:NZ	2.34	0.41
3:C:855:LEU:HD23	3:C:855:LEU:O	2.19	0.41
1:M:640:VAL:HG11	1:M:669:ALA:HB3	2.02	0.41
1:M:898:PRO:HD2	1:M:899:TYR:CE2	2.55	0.41
1:M:967:ARG:HA	1:M:970:LEU:CD2	2.50	0.41
1:A:1347:LYS:HG3	1:A:1350:ARG:NH2	2.35	0.41
1:A:1384:ASP:OD1	1:A:1385:ALA:N	2.53	0.41
1:A:1434:ARG:HA	1:A:1437:ASN:ND2	2.35	0.41
1:B:941:LYS:H	1:B:973:GLN:NE2	2.18	0.41
1:B:952:ASP:HB3	1:B:955:LEU:HD13	2.02	0.41
1:B:1002:ASN:O	1:B:1003:GLU:HB2	2.19	0.41
1:B:1085:LEU:HD23	1:B:1086:ILE:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:O:139:TRP:O	4:O:143:GLN:HG2	2.20	0.41
1:K:1386:TRP:CZ3	1:K:1415:LYS:HD3	2.54	0.41
1:K:1426:LEU:O	1:K:1430:LEU:HD12	2.20	0.41
1:L:1281:ASP:OD1	1:L:1281:ASP:N	2.49	0.41
1:L:1319:GLU:HG2	1:L:1323:LEU:HD23	2.02	0.41
1:H:743:GLU:HA	1:H:746:ARG:NE	2.35	0.41
1:H:764:LYS:HA	1:H:767:LYS:NZ	2.35	0.41
1:H:777:VAL:O	1:H:780:ARG:HB3	2.20	0.41
1:H:808:ASN:ND2	1:H:811:ARG:HG3	2.35	0.41
4:N:138:GLU:O	4:N:141:GLN:NE2	2.53	0.41
1:E:32:MET:HB3	1:E:305:VAL:CG1	2.48	0.41
1:E:37:PHE:CE2	1:E:73:MET:HB2	2.54	0.41
1:E:41:ARG:HG3	1:E:50:VAL:HG22	2.02	0.41
1:E:152:GLN:HB3	1:E:170:ILE:CG1	2.50	0.41
1:E:166:LEU:HD11	1:E:181:MET:CB	2.50	0.41
1:E:201:PHE:CD1	1:E:233:VAL:HG21	2.55	0.41
1:E:273:VAL:HG23	1:E:287:LEU:HA	2.01	0.41
1:E:288:GLU:OE1	1:E:354:ARG:HD3	2.19	0.41
1:E:654:TYR:OH	1:E:680:GLN:HB2	2.19	0.41
1:E:698:LEU:HA	1:E:698:LEU:HD23	1.60	0.41
3:C:670:MET:HE1	3:C:675:ILE:O	2.20	0.41
3:C:726:ASP:O	3:C:730:LYS:HG2	2.20	0.41
3:C:864:ALA:HA	3:C:867:HIS:HE1	1.80	0.41
1:M:644:HIS:NE2	1:M:673:ALA:O	2.47	0.41
1:M:968:ARG:HE	1:M:968:ARG:HB3	1.55	0.41
1:M:995:PHE:HB3	1:M:1005:ILE:CD1	2.50	0.41
1:A:1357:LEU:HB3	1:A:1360:GLU:CD	2.40	0.41
1:B:861:TRP:CZ3	1:B:862:LEU:HD23	2.55	0.41
1:B:918:CYS:SG	1:B:919:VAL:N	2.93	0.41
1:B:919:VAL:O	1:B:923:ARG:HG2	2.20	0.41
1:B:1126:ASP:HB2	1:B:1130:LYS:NZ	2.36	0.41
1:B:1152:GLU:O	1:B:1155:LYS:HG3	2.20	0.41
4:D:113:ARG:O	4:D:117:LEU:HG	2.20	0.41
4:D:201:PHE:O	4:D:202:ASN:ND2	2.53	0.41
1:H:659:SER:HA	1:H:663:SER:H	1.86	0.41
1:H:849:VAL:HB	1:H:855:LEU:HA	2.01	0.41
1:E:91:PHE:HE2	1:E:98:LYS:HZ2	1.67	0.41
1:E:286:ASP:HB3	1:E:291:THR:H	1.86	0.41
1:E:301:GLU:HG3	1:E:321:LYS:HG2	2.02	0.41
1:E:350:ARG:O	1:E:354:ARG:HD2	2.20	0.41
1:E:510:TYR:HB2	1:E:513:ASP:OD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:748:GLN:N	1:M:720:ASN:HB3	2.35	0.41
3:C:748:CYS:O	3:C:780:ARG:NH1	2.54	0.41
1:M:699:ILE:HD13	1:M:727:VAL:HG12	2.02	0.41
1:M:808:ASN:HD22	1:M:811:ARG:CZ	2.34	0.41
1:M:911:LYS:NZ	1:M:912:ARG:HG3	2.35	0.41
1:A:1331:LYS:HE3	1:A:1335:HIS:HB2	2.03	0.41
1:A:1332:MET:HG2	1:A:1336:LEU:HD11	2.03	0.41
1:A:1373:ASN:HD22	1:A:1376:ILE:HD12	1.85	0.41
1:B:829:ILE:HG23	1:B:830:LYS:N	2.32	0.41
4:O:151:LYS:HB2	4:O:151:LYS:HE3	1.82	0.41
1:K:1547:THR:C	1:K:1548:GLU:HG3	2.40	0.41
1:L:967:ARG:HA	1:L:967:ARG:HD3	1.78	0.41
1:L:1008:LEU:O	1:L:1012:VAL:HG22	2.19	0.41
1:L:1411:TYR:HB2	1:L:1419:LEU:HG	2.02	0.41
1:H:640:VAL:O	1:H:643:THR:OG1	2.23	0.41
1:H:744:VAL:O	1:H:747:ILE:N	2.53	0.41
1:H:830:LYS:O	1:H:834:LEU:HG	2.19	0.41
4:N:128:TRP:HD1	4:N:131:LYS:HZ1	1.68	0.41
1:E:26:GLY:O	1:E:29:THR:N	2.54	0.41
1:E:181:MET:HB2	1:E:194:ILE:HG12	2.02	0.41
1:E:205:LYS:HA	1:E:212:GLU:HA	2.03	0.41
1:E:369:ASN:OD1	1:E:400:ARG:NH2	2.51	0.41
3:C:686:ALA:C	3:C:688:LYS:H	2.24	0.41
3:C:738:THR:O	3:C:738:THR:OG1	2.38	0.41
3:C:819:LEU:HG	3:C:820:LEU:N	2.34	0.41
1:M:561:GLN:OE1	1:M:561:GLN:N	2.54	0.41
1:M:1071:ILE:HG12	1:M:1074:LYS:HE3	2.02	0.41
1:B:904:VAL:HA	1:B:907:LYS:CG	2.50	0.41
1:B:1126:ASP:HA	1:B:1129:ILE:HB	2.02	0.41
1:K:1398:VAL:HB	1:K:1404:TYR:OH	2.21	0.41
1:L:929:GLU:O	1:L:933:VAL:HG13	2.20	0.41
1:L:1089:ILE:HG13	1:L:1091:ASN:H	1.85	0.41
1:L:1183:LEU:HA	1:L:1186:LEU:HB3	2.02	0.41
1:L:1242:ASP:HA	1:L:1245:ARG:NE	2.35	0.41
1:L:1345:ILE:HG13	1:L:1346:PRO:HD3	2.02	0.41
1:H:764:LYS:NZ	1:H:787:LEU:HA	2.36	0.41
1:E:259:ASP:HB2	1:E:279:TYR:CE2	2.56	0.41
1:E:654:TYR:CD1	1:E:681:ILE:HG13	2.56	0.41
1:E:701:LEU:HG	1:E:701:LEU:H	1.62	0.41
2:F:746:ALA:CA	1:M:721:PHE:H	2.33	0.41
3:C:489:ILE:HD13	3:C:489:ILE:HG21	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:597:ASP:H	3:C:625:ARG:HE	1.68	0.41
3:C:678:ASN:O	3:C:682:CYS:HB2	2.21	0.41
1:M:778:CYS:SG	1:M:787:LEU:HD13	2.60	0.41
1:M:882:ILE:HG13	1:M:883:TYR:CD1	2.55	0.41
1:A:1252:THR:HA	1:A:1255:GLU:OE1	2.20	0.41
1:B:989:SER:HB2	1:B:993:LYS:HE3	2.02	0.41
1:B:1227:LEU:O	1:B:1231:LEU:HD13	2.21	0.41
4:O:118:ASP:O	4:O:122:LYS:HG3	2.20	0.41
1:K:1382:PRO:HB3	1:K:1410:PHE:CZ	2.53	0.41
1:K:1595:ALA:N	1:K:1597:PRO:HD2	2.35	0.41
1:L:1080:SER:HA	1:L:1083:GLN:NE2	2.36	0.41
1:L:1149:ASN:O	1:L:1153:LEU:HG	2.20	0.41
1:L:1226:ARG:O	1:L:1230:THR:HG23	2.21	0.41
1:L:1264:LYS:HA	1:L:1264:LYS:HD3	1.75	0.41
1:L:1292:ASP:OD1	1:L:1292:ASP:N	2.53	0.41
1:L:1397:LYS:HE2	1:L:1397:LYS:HB2	1.86	0.41
1:L:1440:SER:HB3	1:L:1445:LEU:HD11	2.01	0.41
1:H:828:VAL:HA	1:H:831:ASN:HD22	1.86	0.41
1:E:206:MET:SD	1:E:206:MET:N	2.94	0.41
1:E:438:PRO:HA	1:E:441:GLN:OE1	2.21	0.41
1:E:502:VAL:HB	1:E:536:LEU:CD2	2.50	0.41
1:E:554:MET:SD	1:E:591:HIS:CG	3.13	0.41
1:E:630:PHE:CB	1:E:639:ALA:HB2	2.51	0.41
2:F:868:LEU:HB3	2:F:873:VAL:HB	2.03	0.41
3:C:572:ASN:CB	3:C:575:PRO:HG2	2.51	0.41
3:C:614:ALA:CB	3:C:633:LEU:HD22	2.51	0.41
1:M:680:GLN:OE1	1:M:683:VAL:HB	2.20	0.41
1:M:775:ILE:HG13	1:M:776:ILE:N	2.36	0.41
1:M:1064:LEU:HD13	1:M:1067:GLU:HG2	2.01	0.41
1:A:1370:GLU:HG3	1:A:1372:ASP:OD1	2.20	0.41
1:A:1372:ASP:OD1	1:A:1373:ASN:N	2.48	0.41
1:A:1426:LEU:H	1:A:1426:LEU:HG	1.78	0.41
1:A:1620:ARG:HH12	1:J:1621:LYS:HA	1.86	0.41
1:B:844:GLU:OE1	1:B:845:LEU:N	2.54	0.41
1:B:858:LEU:HD13	1:B:861:TRP:CZ3	2.55	0.41
1:B:909:CYS:SG	1:B:917:ALA:HB2	2.61	0.41
1:B:941:LYS:HB3	1:B:977:THR:HG21	2.03	0.41
1:B:1254:LYS:HA	1:B:1257:CYS:HB3	2.03	0.41
1:J:1527:LEU:HA	1:J:1530:LYS:HG3	2.02	0.41
1:J:1610:VAL:HG13	1:J:1611:ASP:OD1	2.21	0.41
1:K:1429:ARG:H	1:K:1429:ARG:HG2	1.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1439:PHE:CG	1:K:1448:VAL:HG11	2.55	0.41
1:K:1471:PHE:HB3	1:K:1480:LEU:HD22	2.03	0.41
1:K:1512:ALA:O	1:K:1515:PHE:HB2	2.21	0.41
1:L:1401:VAL:HA	1:L:1404:TYR:CD2	2.56	0.41
1:H:676:ARG:HD3	1:H:679:LEU:HD13	2.02	0.41
1:E:230:ILE:HG21	1:E:287:LEU:O	2.21	0.41
1:E:349:LEU:CD2	1:E:363:LEU:HB3	2.49	0.41
1:E:453:LYS:HG2	1:E:481:ARG:HH12	1.86	0.41
1:E:472:PRO:HG2	1:E:495:THR:OG1	2.20	0.41
1:E:552:VAL:HA	1:E:555:GLU:CD	2.40	0.41
1:E:589:LEU:HD22	1:E:629:HIS:CE1	2.56	0.41
1:E:648:PRO:HB3	1:E:670:MET:HE1	2.02	0.41
1:E:664:LEU:HD13	1:E:694:SER:HB2	2.03	0.41
3:C:402:GLN:HB3	3:C:442:GLN:HE22	1.86	0.41
3:C:472:PRO:HB3	3:C:492:PHE:O	2.20	0.41
3:C:712:PHE:HD2	3:C:713:TYR:CZ	2.38	0.41
3:C:777:VAL:O	3:C:781:PHE:HD2	2.04	0.41
3:C:821:ASP:OD1	3:C:821:ASP:C	2.59	0.41
1:M:796:LEU:HD23	1:M:796:LEU:HA	1.92	0.41
1:M:811:ARG:O	1:M:815:VAL:HG13	2.21	0.41
1:M:1037:ARG:O	1:M:1040:VAL:HG22	2.21	0.41
1:A:1283:LEU:O	1:A:1286:LEU:HB3	2.20	0.41
1:A:1430:LEU:HB2	1:A:1432:HIS:CD2	2.55	0.41
1:B:929:GLU:O	1:B:933:VAL:HG22	2.20	0.41
1:B:1000:LEU:HD13	1:B:1000:LEU:HA	1.92	0.41
1:B:1114:ALA:HA	1:B:1117:GLN:OE1	2.20	0.41
1:B:1218:TYR:HB3	1:B:1223:ASN:HB2	2.01	0.41
1:J:1493:ILE:H	1:J:1493:ILE:HD12	1.85	0.41
1:J:1504:LEU:HD12	1:J:1507:PHE:CD1	2.56	0.41
1:L:995:PHE:CD1	1:L:1000:LEU:HD12	2.56	0.41
1:L:1115:GLN:HB2	1:L:1124:ALA:HB2	2.03	0.41
1:L:1152:GLU:HA	1:L:1155:LYS:NZ	2.36	0.41
1:H:820:LEU:HD13	1:H:852:ARG:HG2	2.03	0.41
1:H:862:LEU:O	1:H:866:ILE:HG12	2.21	0.41
4:I:155:ARG:HD3	4:I:155:ARG:HA	1.80	0.41
1:E:9:PHE:C	1:E:10:GLN:HG3	2.41	0.41
1:E:21:ASN:O	1:E:25:ILE:N	2.54	0.41
1:E:123:THR:H	1:E:123:THR:HG1	1.64	0.41
1:E:301:GLU:HB3	1:E:320:ARG:HB3	2.02	0.41
1:E:318:VAL:HA	1:E:323:GLN:O	2.20	0.41
1:E:566:LEU:HD13	1:E:584:LEU:HD22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:604:MET:HG3	1:E:613:ILE:HD13	2.02	0.41
1:E:610:ARG:HD3	1:E:633:LEU:O	2.20	0.41
1:E:617:CYS:HB3	1:E:626:ALA:HB1	2.03	0.41
1:E:668:ARG:NE	1:E:694:SER:OG	2.54	0.41
2:F:753:PHE:HA	2:F:808:LYS:O	2.21	0.41
2:F:854:ILE:O	2:F:854:ILE:CG1	2.66	0.41
3:C:574:ARG:CD	3:C:575:PRO:HD3	2.51	0.41
3:C:668:ARG:HB2	3:C:668:ARG:CZ	2.51	0.41
3:C:675:ILE:HG23	3:C:676:ARG:NH2	2.36	0.41
3:C:693:LEU:HG	3:C:695:THR:HG23	2.03	0.41
3:C:757:GLU:HA	3:C:760:LYS:NZ	2.36	0.41
3:C:784:VAL:HA	3:C:787:LEU:CB	2.45	0.41
3:C:834:LEU:HA	3:C:834:LEU:HD23	1.82	0.41
3:C:859:LEU:HA	3:C:862:LEU:HB3	2.03	0.41
1:M:595:VAL:O	1:M:599:ILE:HG13	2.21	0.41
1:M:871:GLU:HA	1:M:876:HIS:NE2	2.36	0.41
1:M:925:GLN:HB3	1:M:950:ARG:NH2	2.29	0.41
1:M:945:ARG:O	1:M:948:VAL:HG22	2.20	0.41
1:A:1391:PHE:HE2	1:A:1422:LEU:HD13	1.86	0.41
1:A:1520:ARG:HG2	1:A:1523:GLN:OE1	2.21	0.41
1:A:1532:SER:OG	1:A:1532:SER:O	2.32	0.41
1:A:1575:ASP:N	1:A:1575:ASP:OD1	2.53	0.41
1:A:1620:ARG:HH22	1:J:1621:LYS:HB3	1.86	0.41
1:A:1621:LYS:O	1:A:1624:GLU:HG3	2.21	0.41
1:B:943:LEU:O	1:B:947:LEU:HG	2.21	0.41
1:B:967:ARG:NH2	1:B:1000:LEU:HD11	2.36	0.41
1:B:995:PHE:HB3	1:B:1000:LEU:HB2	2.03	0.41
1:B:1166:GLU:O	1:B:1170:GLU:HG3	2.21	0.41
4:D:221:SER:O	4:D:222:LEU:HD22	2.21	0.41
4:O:139:TRP:CE2	4:O:143:GLN:HG3	2.56	0.41
1:J:1465:GLU:HA	1:J:1468:ASN:ND2	2.36	0.41
1:J:1475:GLU:OE1	4:I:147:VAL:HG13	2.20	0.41
1:K:1475:GLU:HG3	1:K:1502:HIS:CE1	2.56	0.41
1:K:1504:LEU:HD11	4:N:154:ASN:OD1	2.21	0.41
1:L:1056:ALA:O	1:L:1060:ILE:HG12	2.21	0.41
1:L:1073:ARG:HD2	1:L:1074:LYS:N	2.36	0.41
1:L:1199:GLN:HE22	1:L:1221:VAL:HG21	1.86	0.41
1:L:1461:LYS:N	1:L:1461:LYS:HD2	2.36	0.41
1:H:702:PHE:HE2	1:H:711:LEU:N	2.18	0.41
1:H:747:ILE:HA	1:H:750:GLU:HB2	2.02	0.41
1:H:778:CYS:SG	1:H:783:PHE:HB2	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:8:ARG:O	1:E:327:VAL:HA	2.21	0.41
1:E:228:LEU:HD12	1:E:229:HIS:H	1.85	0.41
1:E:369:ASN:OD1	1:E:400:ARG:NH1	2.53	0.41
1:E:598:ALA:C	1:E:602:ASN:HD22	2.24	0.41
3:C:449:GLU:HA	3:C:452:LEU:HG	2.02	0.41
3:C:467:VAL:O	3:C:470:VAL:N	2.48	0.41
3:C:476:LEU:HB3	3:C:500:LYS:CE	2.51	0.41
3:C:514:TRP:HH2	3:C:533:ALA:N	2.19	0.41
3:C:712:PHE:HZ	3:C:735:ALA:HB2	1.86	0.41
3:C:755:ASP:O	3:C:759:VAL:HG23	2.21	0.41
3:C:760:LYS:HE2	3:C:783:PHE:CD1	2.55	0.41
3:C:828:VAL:HG13	3:C:829:ILE:N	2.36	0.41
1:M:948:VAL:O	1:M:949:ARG:NH1	2.47	0.41
1:M:961:LEU:HD11	1:M:964:ASN:HB2	2.03	0.41
1:A:1376:ILE:CA	1:A:1406:ARG:HH22	2.32	0.41
1:A:1401:VAL:O	1:A:1404:TYR:N	2.53	0.41
1:B:1022:ARG:N	1:B:1024:LEU:HD13	2.36	0.41
1:B:1126:ASP:N	1:B:1126:ASP:OD1	2.54	0.41
1:K:1501:LYS:HA	1:K:1508:ARG:HH21	1.86	0.41
1:K:1592:MET:O	1:K:1596:MET:HG2	2.21	0.41
1:L:1114:ALA:O	1:L:1118:LYS:HE2	2.21	0.41
1:L:1434:ARG:HD2	1:L:1434:ARG:HA	1.71	0.41
1:H:752:ASN:HD21	1:H:780:ARG:HH21	1.69	0.41
1:E:14:GLN:NE2	1:E:16:GLN:HB2	2.36	0.40
1:E:111:TRP:HB2	1:E:121:LEU:HG	2.02	0.40
1:E:124:ASP:O	1:E:144:ARG:NH2	2.54	0.40
1:E:185:SER:N	1:E:190:VAL:O	2.36	0.40
1:E:362:GLU:HB3	1:E:366:ARG:HH21	1.86	0.40
1:E:511:THR:O	1:E:514:TRP:HB2	2.21	0.40
3:C:511:THR:HG21	3:C:544:ALA:N	2.36	0.40
3:C:638:ARG:HA	3:C:641:VAL:HG22	2.02	0.40
3:C:828:VAL:HG13	3:C:829:ILE:HG12	2.03	0.40
3:C:859:LEU:HG	3:C:860:PRO:HD3	2.03	0.40
1:M:714:PHE:O	1:M:718:ILE:HG13	2.21	0.40
1:A:1412:LEU:HD23	1:A:1413:GLU:N	2.36	0.40
1:A:1470:LEU:O	1:A:1474:GLU:HB2	2.21	0.40
1:B:952:ASP:HB2	1:B:955:LEU:HB2	2.02	0.40
1:B:1227:LEU:HD12	1:B:1228:ALA:N	2.36	0.40
4:D:158:ASP:HB3	4:D:162:TYR:CZ	2.56	0.40
1:J:1475:GLU:HG2	1:J:1504:LEU:HD11	2.03	0.40
1:K:1558:LEU:HD21	1:K:1566:PHE:CD2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:988:VAL:O	1:L:991:THR:OG1	2.23	0.40
1:H:649:GLU:OE1	1:H:649:GLU:N	2.54	0.40
1:E:86:LYS:NZ	1:E:106:ASP:HA	2.37	0.40
1:E:86:LYS:O	1:E:103:THR:HA	2.21	0.40
1:E:603:GLN:HB2	1:E:608:TYR:CE2	2.56	0.40
3:C:390:GLY:O	3:C:394:THR:HG23	2.21	0.40
3:C:514:TRP:CH2	3:C:517:LEU:HD22	2.56	0.40
3:C:726:ASP:HA	3:C:758:ARG:NH1	2.34	0.40
3:C:760:LYS:HA	3:C:763:LEU:CG	2.51	0.40
3:C:791:LEU:HD12	3:C:794:ASN:ND2	2.35	0.40
1:M:743:GLU:OE1	1:M:743:GLU:N	2.47	0.40
1:M:826:GLU:O	1:M:830:LYS:HG3	2.21	0.40
1:M:874:ALA:HA	1:M:877:ASN:HD21	1.85	0.40
1:A:1276:ILE:H	1:A:1276:ILE:HD12	1.86	0.40
1:A:1575:ASP:CG	1:A:1576:LEU:HG	2.42	0.40
1:A:1613:LEU:O	1:A:1617:GLU:HG3	2.20	0.40
1:B:1042:GLU:HA	1:B:1045:ASN:HD22	1.85	0.40
1:B:1085:LEU:HD13	1:B:1095:ALA:HB2	2.03	0.40
1:B:1177:LEU:CB	1:B:1186:LEU:HD22	2.51	0.40
1:B:1205:CYS:SG	1:B:1213:ALA:HB3	2.61	0.40
1:B:1251:ARG:O	1:B:1254:LYS:HG2	2.21	0.40
1:J:1563:ARG:HA	1:J:1566:PHE:HB2	2.02	0.40
1:L:967:ARG:O	1:L:971:ILE:HG12	2.21	0.40
1:L:1160:ALA:HA	1:L:1163:LYS:HD3	2.03	0.40
1:L:1166:GLU:CD	1:L:1167:SER:H	2.24	0.40
1:L:1183:LEU:HD12	1:L:1183:LEU:H	1.85	0.40
1:L:1270:GLN:CD	1:L:1305:ALA:HB3	2.41	0.40
1:L:1363:PHE:O	1:L:1366:ASP:HB3	2.21	0.40
1:E:257:GLN:HG2	1:E:258:ASN:ND2	2.36	0.40
1:E:259:ASP:CG	1:E:279:TYR:H	2.23	0.40
1:E:365:ALA:O	1:E:369:ASN:ND2	2.54	0.40
1:E:540:GLU:O	1:E:574:ARG:HD2	2.21	0.40
1:E:585:LEU:HA	1:E:588:ASN:HB2	2.03	0.40
1:E:598:ALA:O	1:E:602:ASN:N	2.54	0.40
1:E:682:CYS:O	1:E:686:ALA:HB3	2.20	0.40
3:C:498:VAL:HG21	3:C:535:MET:HE1	2.04	0.40
3:C:529:GLY:H	3:C:561:GLN:CG	2.32	0.40
3:C:726:ASP:CA	3:C:758:ARG:HH12	2.33	0.40
3:C:758:ARG:HA	3:C:761:ASN:HB3	2.02	0.40
3:C:853:ASN:HB2	3:C:854:ARG:CZ	2.52	0.40
1:M:580:LEU:O	1:M:584:LEU:HG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:944:SER:O	1:M:948:VAL:HG13	2.21	0.40
1:M:1008:LEU:O	1:M:1012:VAL:HG13	2.22	0.40
1:A:1290:TYR:CA	1:A:1295:TYR:HB2	2.51	0.40
1:A:1345:ILE:HG13	1:A:1368:TYR:OH	2.21	0.40
1:A:1350:ARG:HA	1:A:1353:GLU:HG3	2.02	0.40
1:A:1404:TYR:O	1:A:1408:ILE:HG12	2.21	0.40
1:A:1535:LYS:HG2	1:A:1538:MET:HB2	2.04	0.40
1:B:979:LEU:HD12	1:B:979:LEU:H	1.87	0.40
1:B:1113:LYS:HA	1:B:1113:LYS:HD2	1.75	0.40
4:D:139:TRP:HA	4:D:142:ARG:NH1	2.36	0.40
1:J:1515:PHE:CD2	1:J:1523:GLN:HG3	2.57	0.40
1:K:1574:TYR:O	1:K:1577:LEU:HG	2.21	0.40
1:K:1582:VAL:HG11	1:K:1598:TYR:CD2	2.56	0.40
1:K:1604:LYS:HA	1:K:1607:LEU:HB3	2.03	0.40
1:L:1025:GLN:HG2	1:L:1050:TYR:HB3	2.04	0.40
1:L:1199:GLN:HE21	1:L:1223:ASN:ND2	2.08	0.40
1:L:1405:TYR:O	1:L:1408:ILE:HB	2.22	0.40
1:H:674:ASN:HA	1:H:678:ASN:OD1	2.21	0.40
1:H:708:PHE:CE2	1:H:709:GLU:HG2	2.56	0.40
4:I:218:VAL:O	4:I:223:LYS:HB3	2.22	0.40
1:E:83:LYS:HB2	1:E:111:TRP:CZ2	2.56	0.40
1:E:108:VAL:HG22	1:E:128:TYR:OH	2.21	0.40
1:E:578:GLY:HA2	1:E:581:GLN:OE1	2.22	0.40
3:C:471:ASP:OD2	3:C:474:LEU:N	2.32	0.40
3:C:479:TYR:HB2	3:C:489:ILE:CG1	2.52	0.40
3:C:533:ALA:HB3	3:C:565:PHE:CD2	2.56	0.40
3:C:755:ASP:HB3	3:C:758:ARG:HD3	2.03	0.40
3:C:772:LEU:N	3:C:772:LEU:HD23	2.36	0.40
1:M:573:ASN:OD1	1:M:603:GLN:NE2	2.55	0.40
1:M:671:LEU:HD12	1:M:674:ASN:HD22	1.86	0.40
1:M:692:GLN:HG2	1:M:693:LEU:N	2.37	0.40
1:M:939:LEU:HD21	1:M:941:LYS:HB3	2.04	0.40
1:A:1250:THR:H	1:A:1250:THR:HG23	1.68	0.40
1:A:1293:ARG:HB3	1:A:1295:TYR:CZ	2.57	0.40
1:A:1294:GLY:HA2	1:A:1296:PHE:CE2	2.56	0.40
1:A:1432:HIS:O	1:A:1436:VAL:HG13	2.22	0.40
1:A:1554:LEU:HD23	1:A:1566:PHE:HE1	1.85	0.40
1:B:1248:ASN:HA	1:B:1275:HIS:CE1	2.56	0.40
4:D:111:ARG:O	4:D:115:GLN:HG2	2.22	0.40
1:J:1580:ASP:OD1	1:J:1580:ASP:N	2.55	0.40
1:K:1378:MET:HE2	1:K:1378:MET:HB2	1.91	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1262:ASP:OD2	1:L:1289:TYR:OH	2.40	0.40
1:H:709:GLU:HA	1:H:712:PHE:HB3	2.03	0.40
4:N:148:GLU:HA	4:N:151:LYS:HE2	2.04	0.40
1:E:153:ILE:HA	1:E:168:THR:O	2.21	0.40
1:E:272:VAL:HA	1:E:287:LEU:H	1.87	0.40
1:E:436:CYS:SG	1:E:463:LEU:HD22	2.62	0.40
3:C:439:VAL:HG23	3:C:444:ARG:CD	2.51	0.40
3:C:556:TYR:HB3	3:C:558:LEU:CD1	2.39	0.40
3:C:576:SER:HG	3:C:607:HIS:CE1	2.24	0.40
3:C:758:ARG:HG2	3:C:759:VAL:N	2.37	0.40
1:A:1336:LEU:C	1:A:1338:LEU:H	2.25	0.40
1:A:1379:MET:HG3	1:A:1406:ARG:NH2	2.36	0.40
1:B:901:ASP:OD2	1:B:903:ARG:HB2	2.22	0.40
1:B:968:ARG:O	1:B:971:ILE:HG12	2.21	0.40
4:D:104:ARG:O	4:D:107:ARG:HG2	2.22	0.40
4:D:129:ARG:O	4:D:133:LYS:HG3	2.21	0.40
1:L:1262:ASP:O	1:L:1264:LYS:HE2	2.21	0.40
1:L:1387:LYS:HB3	1:L:1390:GLN:OE1	2.22	0.40
1:L:1434:ARG:NH1	1:L:1437:ASN:HB2	2.36	0.40
1:H:723:GLN:HA	1:H:753:CYS:SG	2.61	0.40
1:H:796:LEU:HD23	1:H:796:LEU:HA	1.84	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	377/1630 (23%)	328 (87%)	49 (13%)	0	100	100
1	B	466/1630 (29%)	398 (85%)	67 (14%)	1 (0%)	47	81
1	E	724/1630 (44%)	610 (84%)	114 (16%)	0	100	100
1	H	234/1630 (14%)	204 (87%)	29 (12%)	1 (0%)	34	72

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	J	163/1630 (10%)	145 (89%)	18 (11%)	0	100 100
1	K	255/1630 (16%)	229 (90%)	25 (10%)	1 (0%)	34 72
1	L	546/1630 (34%)	466 (85%)	80 (15%)	0	100 100
1	M	516/1630 (32%)	433 (84%)	83 (16%)	0	100 100
2	F	231/233 (99%)	228 (99%)	3 (1%)	0	100 100
3	C	508/1630 (31%)	424 (84%)	82 (16%)	2 (0%)	34 72
4	D	100/229 (44%)	91 (91%)	9 (9%)	0	100 100
4	I	54/229 (24%)	50 (93%)	4 (7%)	0	100 100
4	N	76/229 (33%)	71 (93%)	5 (7%)	0	100 100
4	O	57/229 (25%)	53 (93%)	4 (7%)	0	100 100
All	All	4307/15819 (27%)	3730 (87%)	572 (13%)	5 (0%)	54 86

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	674	ASN
1	K	1594	PHE
3	C	438	PRO
1	B	855	LEU
1	H	773	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	342/1437 (24%)	338 (99%)	4 (1%)	71 83
1	B	407/1437 (28%)	403 (99%)	4 (1%)	76 86
1	E	629/1437 (44%)	627 (100%)	2 (0%)	92 95
1	H	219/1437 (15%)	219 (100%)	0	100 100
1	J	150/1437 (10%)	149 (99%)	1 (1%)	84 90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	K	236/1437 (16%)	234 (99%)	2 (1%)	81 89
1	L	482/1437 (34%)	477 (99%)	5 (1%)	76 86
1	M	471/1437 (33%)	463 (98%)	8 (2%)	60 78
2	F	204/209 (98%)	196 (96%)	8 (4%)	32 56
3	C	457/1437 (32%)	441 (96%)	16 (4%)	36 59
4	D	96/184 (52%)	95 (99%)	1 (1%)	76 86
4	I	53/184 (29%)	53 (100%)	0	100 100
4	N	74/184 (40%)	74 (100%)	0	100 100
4	O	55/184 (30%)	55 (100%)	0	100 100
All	All	3875/13878 (28%)	3824 (99%)	51 (1%)	70 81

All (51) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	E	128	TYR
1	E	678	ASN
2	F	749	HIS
2	F	834	ARG
2	F	835	GLN
2	F	854	ILE
2	F	869	GLN
2	F	879	ARG
2	F	891	LEU
2	F	899	ILE
3	C	389	LYS
3	C	467	VAL
3	C	495	THR
3	C	513	ASP
3	C	664	LEU
3	C	674	ASN
3	C	676	ARG
3	C	679	LEU
3	C	754	TYR
3	C	761	ASN
3	C	779	ASP
3	C	783	PHE
3	C	786	ASP
3	C	808	ASN
3	C	812	LEU

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Mol	Chain	Res	Type
3	C	819	LEU
1	M	638	ARG
1	M	676	ARG
1	M	762	PHE
1	M	843	ASP
1	M	856	LYS
1	M	907	LYS
1	M	927	ASP
1	M	1022	ARG
1	A	1393	ASP
1	A	1535	LYS
1	A	1563	ARG
1	A	1571	PHE
1	B	812	LEU
1	B	907	LYS
1	B	1155	LYS
1	B	1267	ARG
4	D	112	LYS
1	J	1578	ARG
1	K	1498	ARG
1	K	1604	LYS
1	L	1162	LYS
1	L	1267	ARG
1	L	1314	MET
1	L	1397	LYS
1	L	1443	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (110) such sidechains are listed below:

Mol	Chain	Res	Type
1	E	14	GLN
1	E	24	ASN
1	E	102	HIS
1	E	182	GLN
1	E	192	GLN
1	E	229	HIS
1	E	240	ASN
1	E	258	ASN
1	E	340	ASN
1	E	344	ASN
1	E	486	ASN
1	E	490	GLN

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Mol	Chain	Res	Type
1	E	520	ASN
1	E	531	GLN
1	E	560	GLN
1	E	572	ASN
1	E	602	ASN
1	E	603	GLN
1	E	607	HIS
1	E	653	ASN
1	E	674	ASN
1	E	678	ASN
1	E	720	ASN
2	F	869	GLN
3	C	426	GLN
3	C	538	GLN
3	C	548	GLN
3	C	572	ASN
3	C	603	GLN
3	C	677	GLN
3	C	720	ASN
3	C	771	GLN
3	C	785	HIS
3	C	808	ASN
3	C	831	ASN
3	C	853	ASN
1	M	581	GLN
1	M	588	ASN
1	M	591	HIS
1	M	607	HIS
1	M	642	HIS
1	M	653	ASN
1	M	684	GLN
1	M	720	ASN
1	M	761	ASN
1	M	805	GLN
1	M	808	ASN
1	M	888	ASN
1	M	889	ASN
1	M	964	ASN
1	A	1248	ASN
1	A	1275	HIS
1	A	1313	HIS
1	A	1344	ASN

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Mol	Chain	Res	Type
1	A	1356	HIS
1	A	1381	HIS
1	A	1437	ASN
1	A	1460	ASN
1	A	1469	ASN
1	A	1492	ASN
1	A	1555	GLN
1	A	1601	GLN
1	B	831	ASN
1	B	853	ASN
1	B	888	ASN
1	B	932	ASN
1	B	937	ASN
1	B	1045	ASN
1	B	1057	ASN
1	B	1083	GLN
1	B	1110	GLN
1	B	1142	GLN
1	B	1219	ASN
1	B	1233	HIS
1	B	1238	GLN
1	B	1275	HIS
4	D	150	ASN
4	D	202	ASN
1	J	1559	GLN
1	J	1601	GLN
1	J	1625	GLN
1	K	1373	ASN
1	K	1409	GLN
1	K	1437	ASN
1	K	1444	GLN
1	K	1559	GLN
1	K	1601	GLN
1	L	937	ASN
1	L	976	GLN
1	L	1057	ASN
1	L	1110	GLN
1	L	1149	ASN
1	L	1199	GLN
1	L	1220	ASN
1	L	1238	GLN
1	L	1248	ASN

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Mol	Chain	Res	Type
1	L	1270	GLN
1	L	1275	HIS
1	L	1291	GLN
1	L	1313	HIS
1	L	1458	HIS
1	L	1468	ASN
1	H	677	GLN
1	H	684	GLN
1	H	690	HIS
1	H	761	ASN
1	H	831	ASN
4	I	154	ASN
4	N	146	GLN
4	N	150	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
3	C	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	C	870:CYS	C	871:THR	N	7.18
1	C	659:SER	C	660:VAL	N	3.20

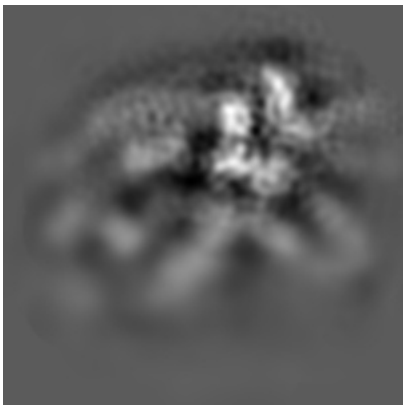
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-10754. These allow visual inspection of the internal detail of the map and identification of artifacts.

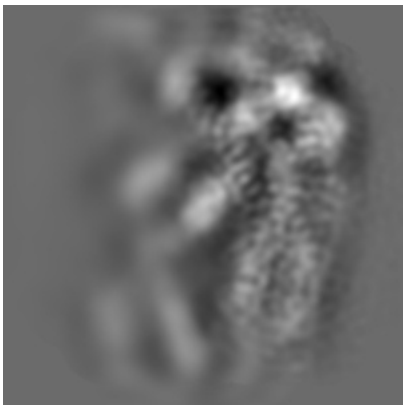
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

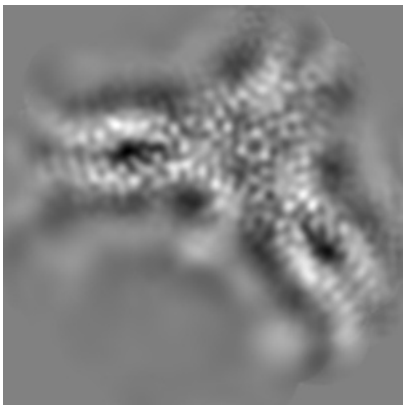
6.1.1 Primary map



X

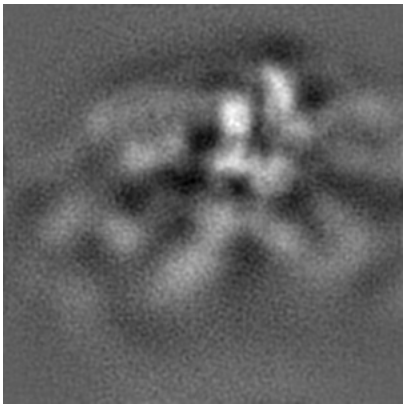


Y

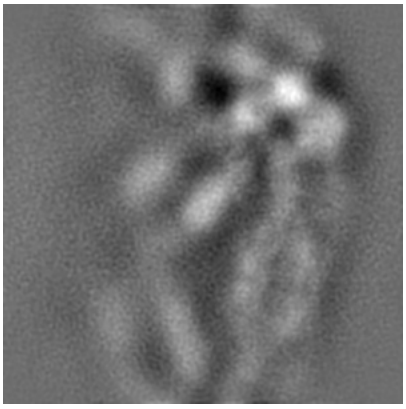


Z

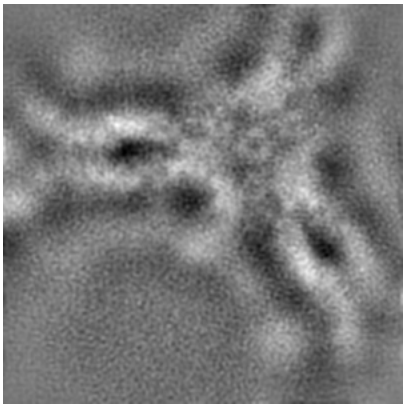
6.1.2 Raw map



X



Y

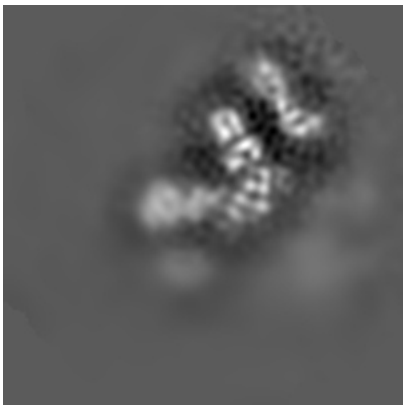


Z

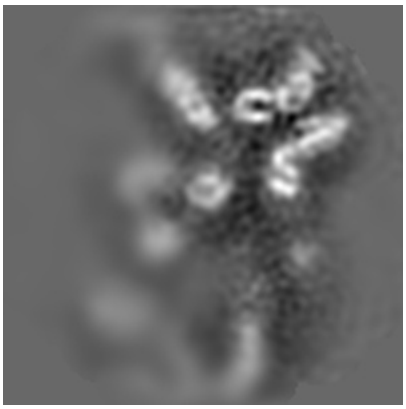
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

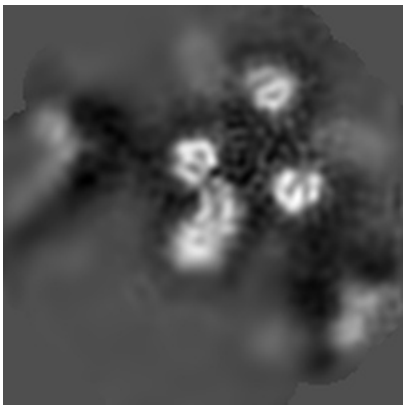
6.2.1 Primary map



X Index: 80

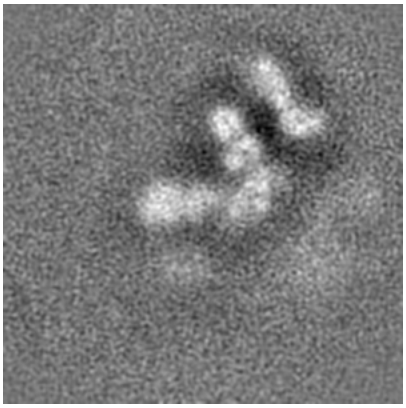


Y Index: 80

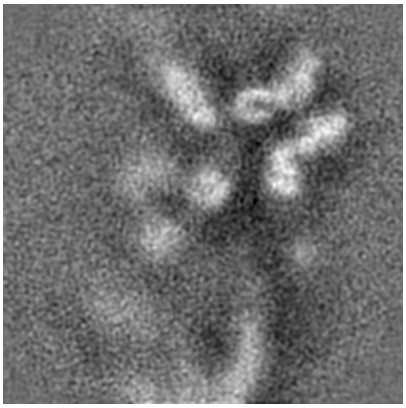


Z Index: 80

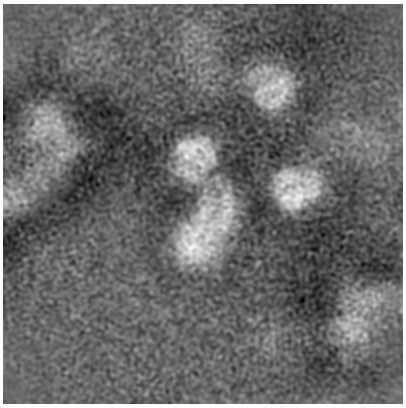
6.2.2 Raw map



X Index: 80



Y Index: 80

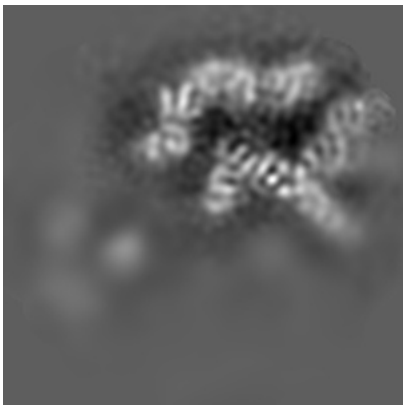


Z Index: 80

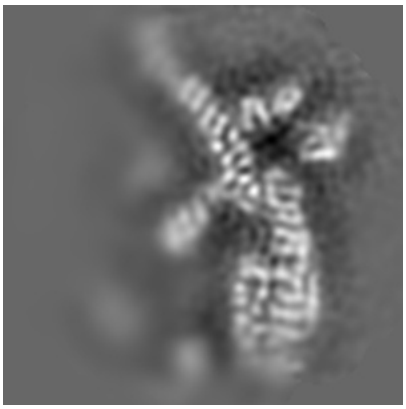
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

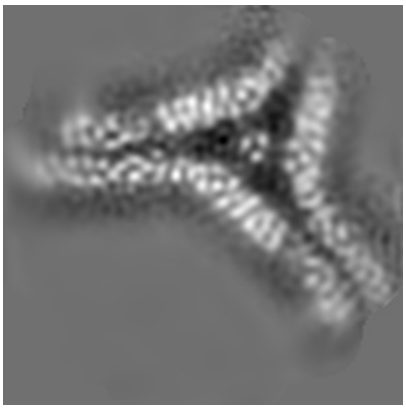
6.3.1 Primary map



X Index: 110

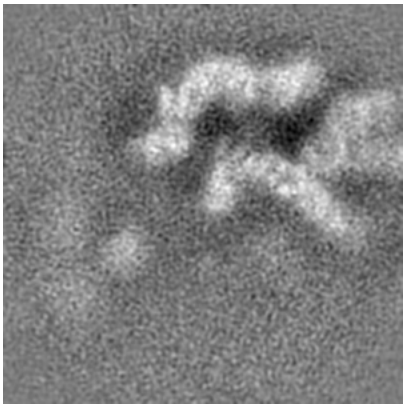


Y Index: 90

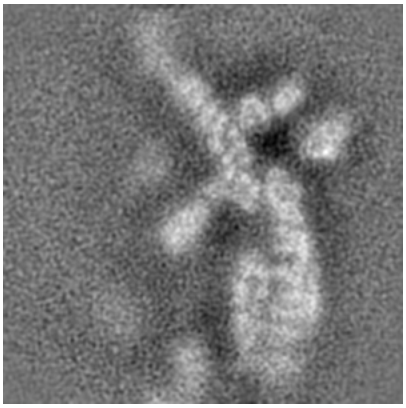


Z Index: 110

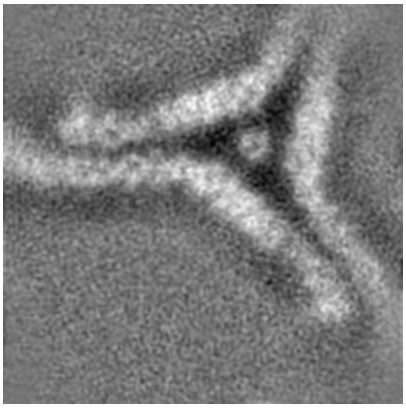
6.3.2 Raw map



X Index: 110



Y Index: 90

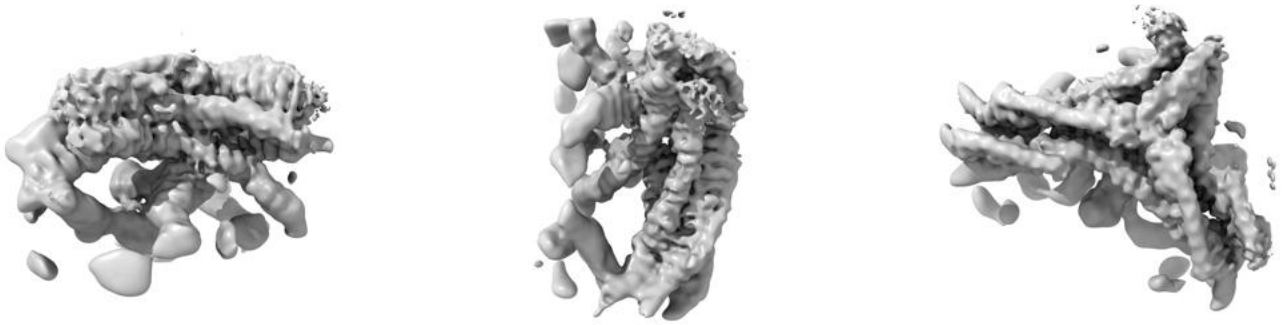


Z Index: 111

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.07. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map

X Y Z

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

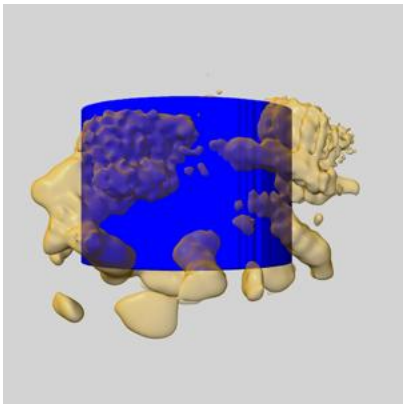
6.5 Mask visualisation (i)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

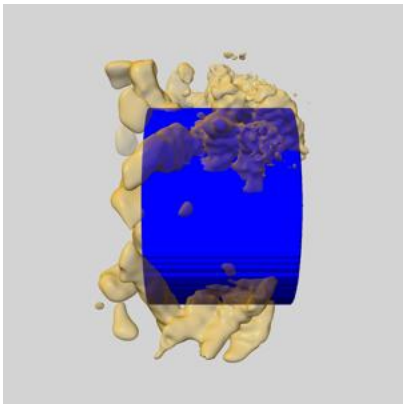
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

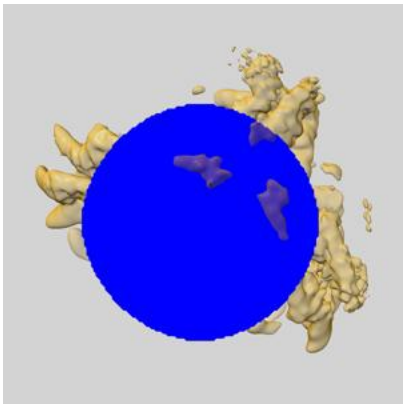
6.5.1 emd_10754_msk_1.map (i)



X



Y

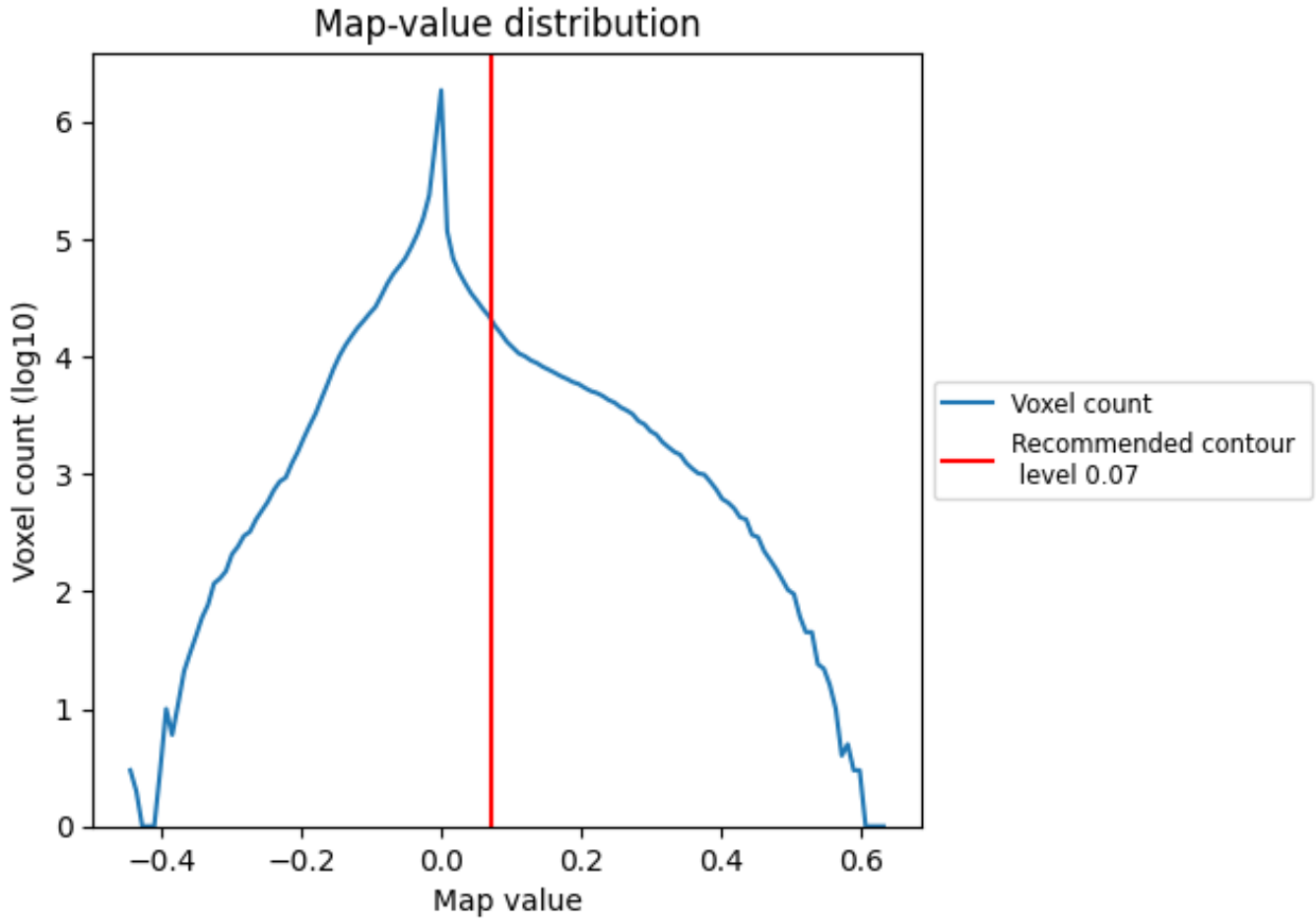


Z

7 Map analysis

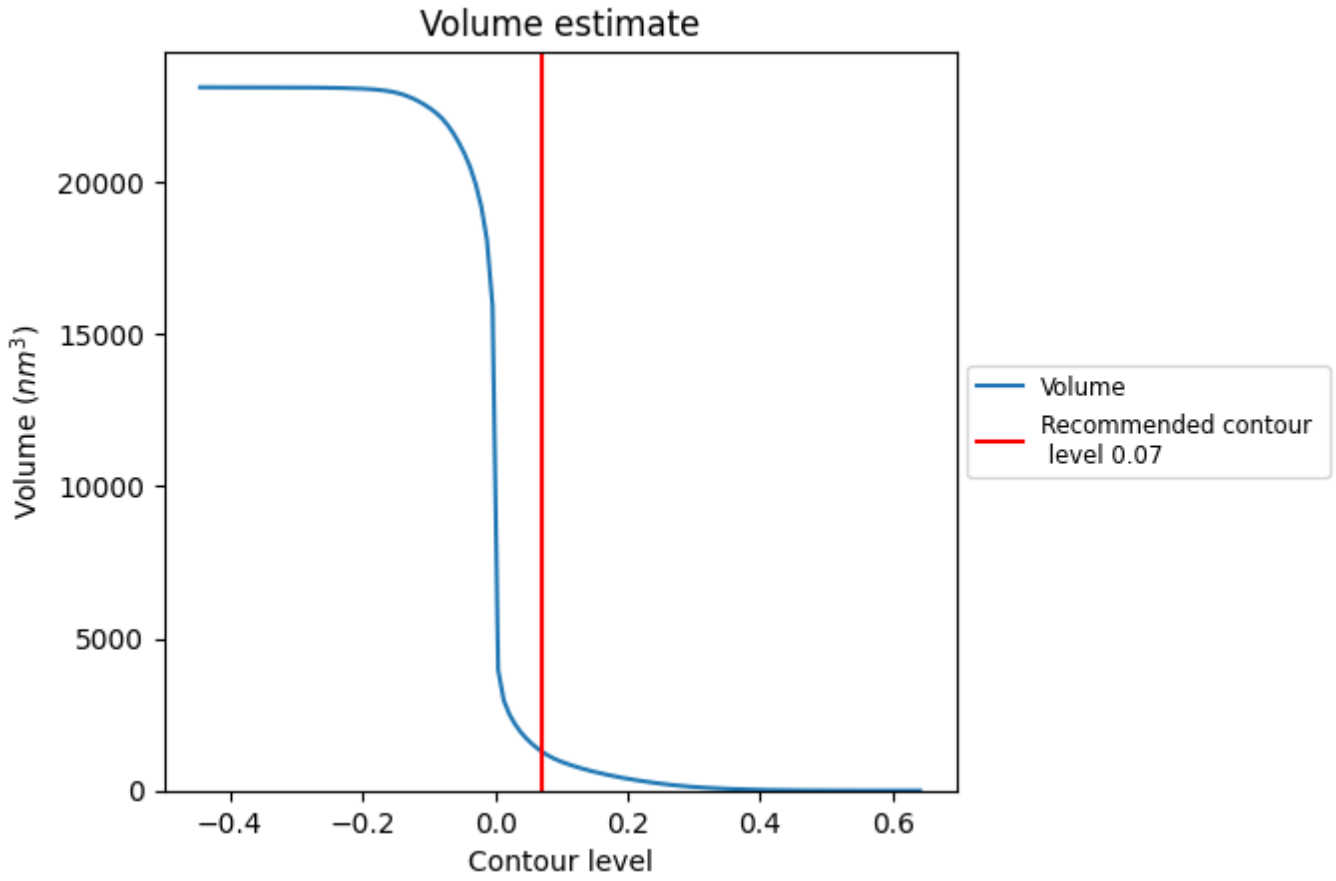
This section contains the results of statistical analysis of the map.

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.

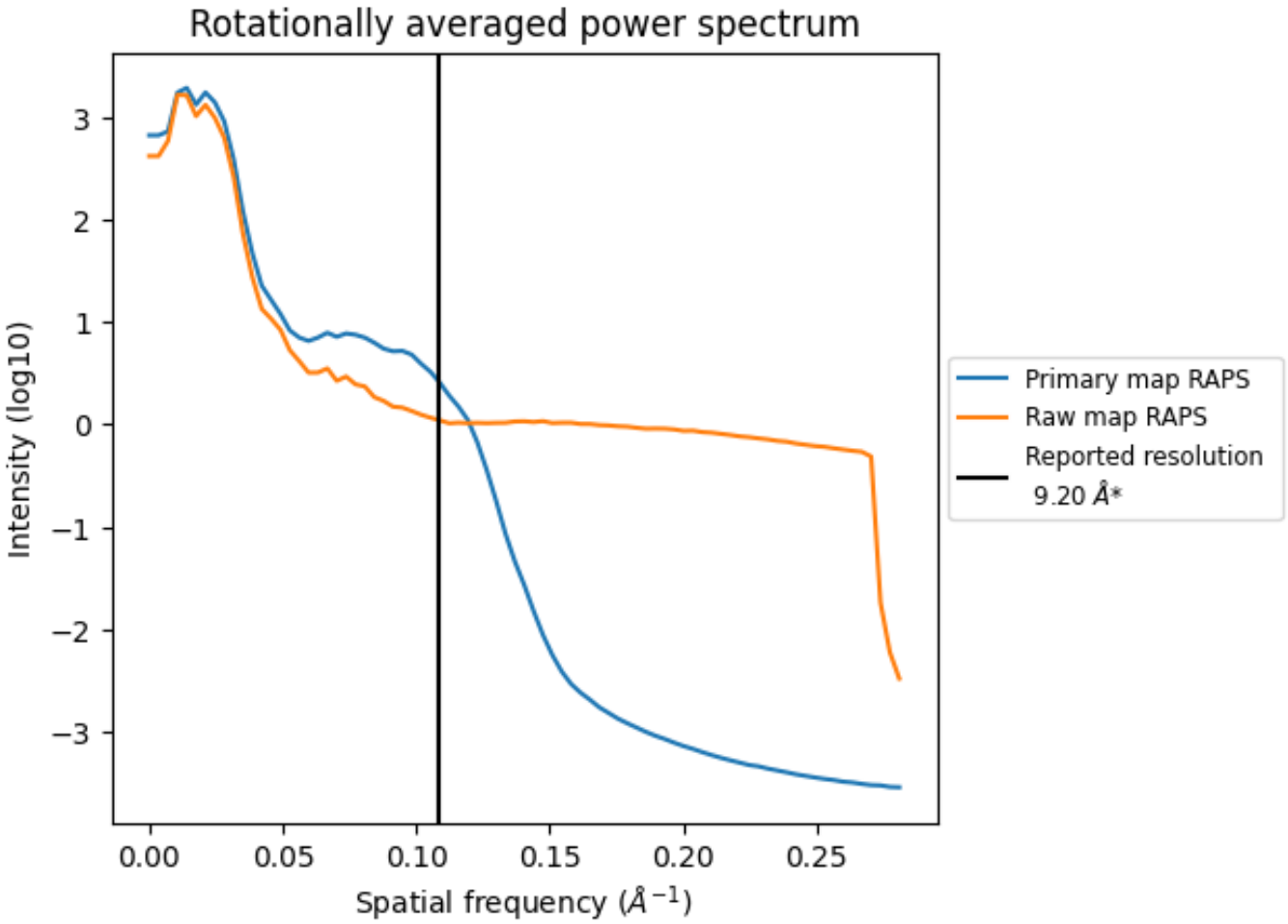
7.2 Volume estimate



The volume at the recommended contour level is 1289 nm^3; this corresponds to an approximate mass of 1164 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)

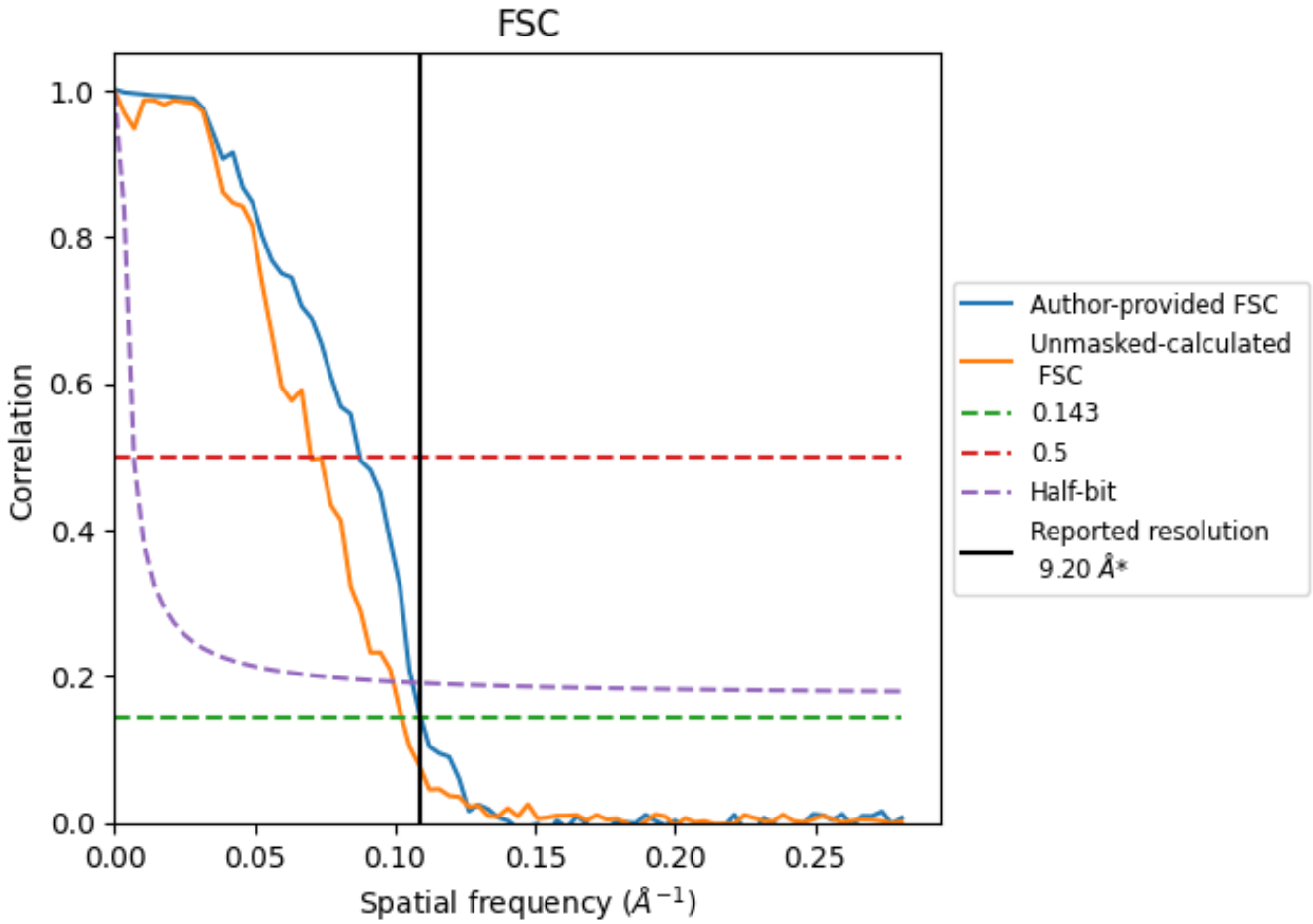


*Reported resolution corresponds to spatial frequency of 0.109 Å^{-1}

8 Fourier-Shell correlation

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

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.109 Å^{-1}

8.2 Resolution estimates (i)

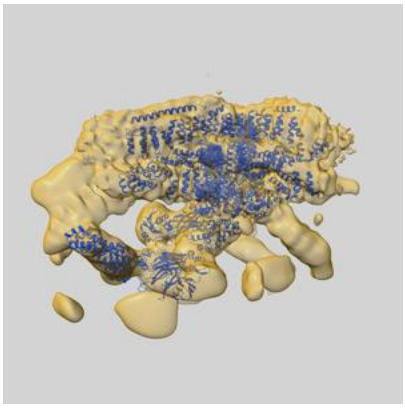
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	9.20	-	-
Author-provided FSC curve	9.14	11.44	9.40
Unmasked-calculated*	9.76	14.27	10.06

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

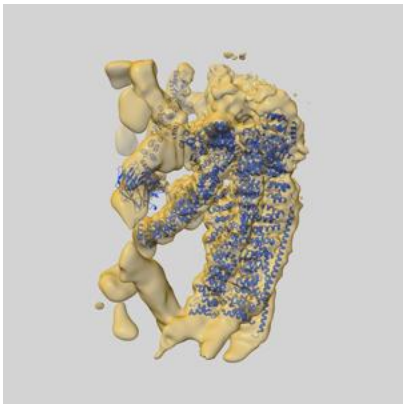
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-10754 and PDB model 6YAI. Per-residue inclusion information can be found in section 3 on page 6.

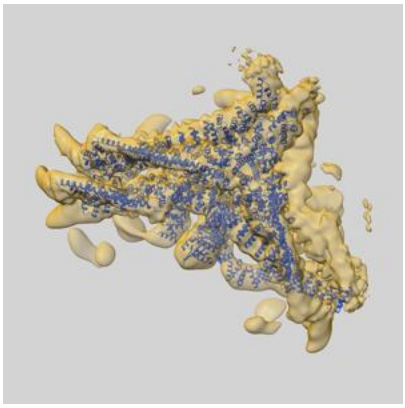
9.1 Map-model overlay



X



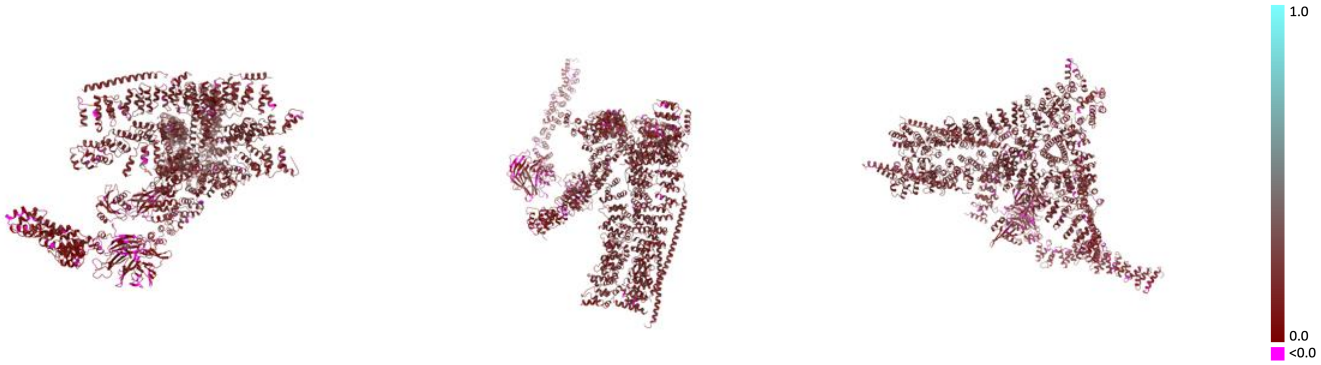
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.07 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

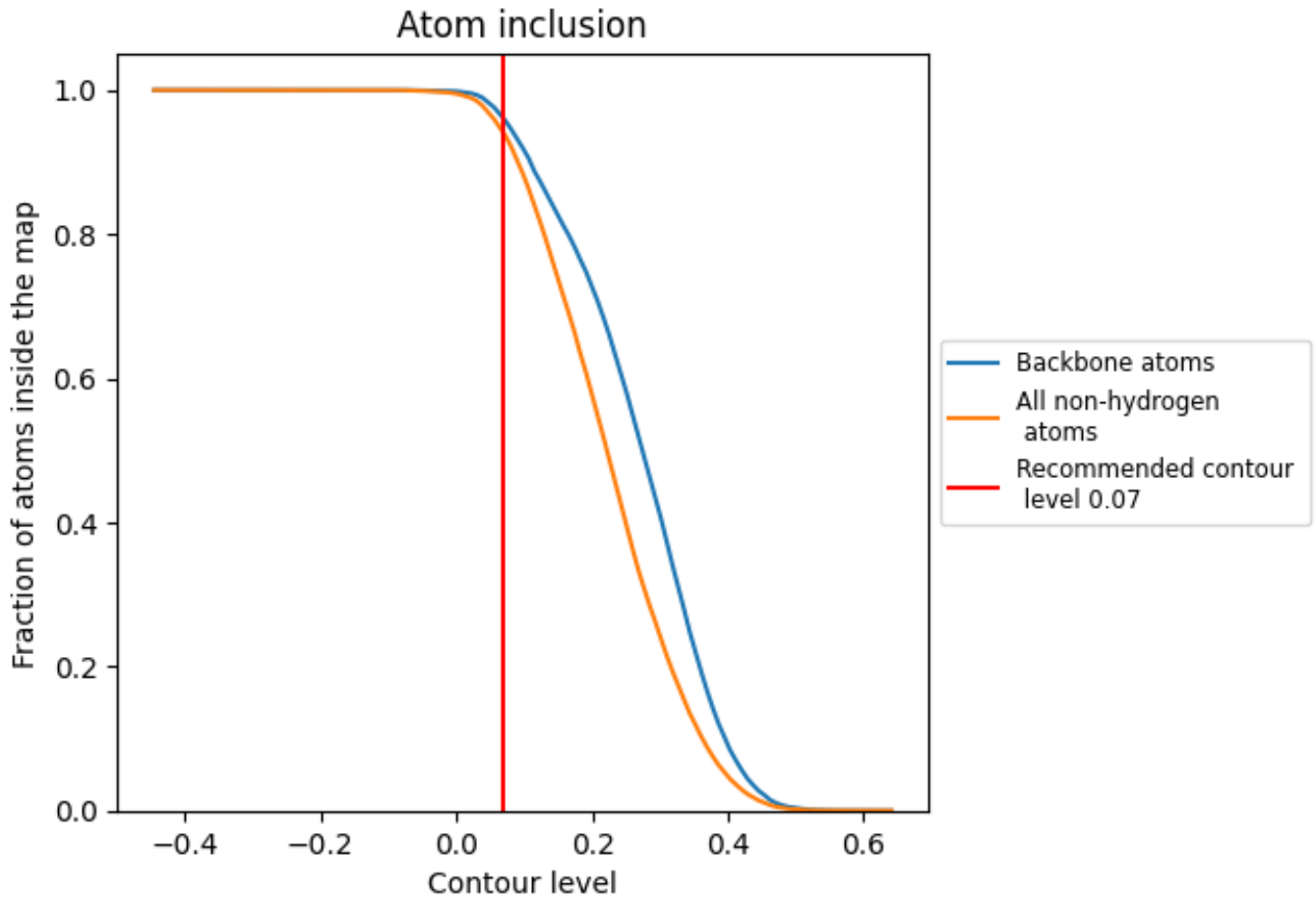
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.07).

9.4 Atom inclusion (i)



At the recommended contour level, 96% of all backbone atoms, 94% 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 (0.07) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9397	0.1710
A	0.9626	0.2040
B	0.9773	0.2040
C	0.9823	0.1750
D	0.9718	0.2210
E	0.7609	0.0710
F	0.9781	0.1190
H	0.9572	0.1940
I	0.9435	0.2100
J	0.9793	0.1790
K	0.9663	0.1740
L	0.9817	0.1980
M	0.9775	0.2010
N	0.9694	0.1920
O	0.9980	0.2210