Full wwPDB EM Validation Report (i)

Apr 2, 2025 – 01:23 am BST

PDB ID	:	5A5B / pdb_00005a5b
EMDB ID	:	EMD-3034
Title	:	Structure of the 26S proteasome-Ubp6 complex
Authors	:	Aufderheide, A.; Beck, F.; Stengel, F.; Hartwig, M.; Schweitzer, A.; Pfeifer, G.; Goldberg, A.L.; Sakata, E.; Baumeister, W.; Foerster, F.
Deposited on	:	2015-06-17
Resolution	:	9.50 Å(reported)
Based on initial models	:	1VJV, 4C43

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

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

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

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

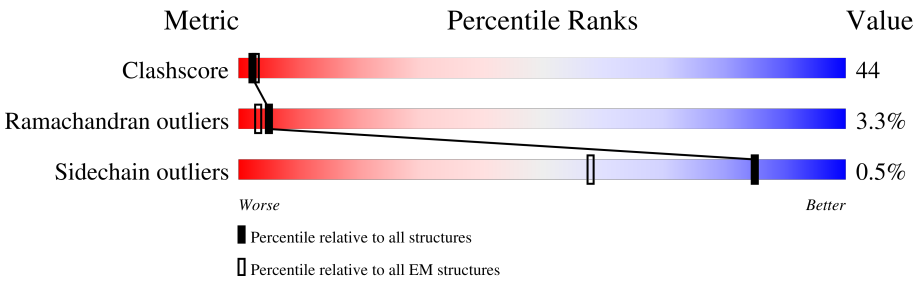
EMDB validation analysis	:	0.0.1.dev117
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.42

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 9.50 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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

Mol	Chain	Length	Quality of chain
1	1	215	60%; 47%, 44%, • 5%
2	2	261	61%; 55%, 26%, 5%, 15%
3	3	205	71%; 65%, 33%, •
4	4	198	59%; 63%, 35%, •
5	5	287	40%; 40%, 31%, •, 26%
6	6	241	49%; 57%, 33%, •, 8%
7	7	266	48%; 48%, 37%, •, 12%
8	8	416	32%; 75%, 13%, 12%

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Mol	Chain	Length	Quality of chain
9	9	76	46% 62% 36%
10	A	252	27% 45% 47%
11	B	250	36% 57% 39%
12	C	258	33% 53% 41% 5%
13	D	254	22% 65% 27% 5%
14	E	260	27% 57% 36% 7%
15	F	234	22% 50% 44% 5%
16	G	288	23% 44% 37% 15%
17	H	467	34% 43% 29% 23%
18	I	437	33% 43% 37% 17%
19	J	405	29% 49% 40% 8%
20	K	428	35% 46% 40% 11%
21	L	437	27% 40% 40% 17%
22	M	434	38% 48% 33% 15%
23	N	945	24% 53% 33% 10%
24	O	393	20% 37% 54% 6%
25	P	445	12% 48% 40% 5% 7%
26	Q	434	18% 53% 43%
27	R	429	20% 46% 43% 5% 7%
28	S	523	25% 39% 26% 33%
29	T	274	27% 49% 42% 8%
30	U	338	31% 37% 31% 5% 25%
31	V	306	24% 38% 38% 19%
32	W	268	25% 29% 35% 7% 26%
33	X	156	37% 35% 40% 6% 19%

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Mol	Chain	Length	Quality of chain
34	Y	89	11% 10% 79%
35	Z	993	33% 41% 36% 5% 18%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
9	GLZ	9	76	-	-	X	-

2 Entry composition (i)

There are 35 unique types of molecules in this entry. The entry contains 83748 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 PROTEASOME COMPONENT PRE3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	1	205	1576	996	261	312	7	0	0

- Molecule 2 is a protein called PROTEASOME COMPONENT PUP1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	2	223	1692	1067	294	324	7	0	0

- Molecule 3 is a protein called PROTEASOME COMPONENT PUP3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	3	204	1581	1010	258	305	8	0	0

- Molecule 4 is a protein called PROTEASOME COMPONENT C11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	4	198	1585	1005	269	305	6	0	0

- Molecule 5 is a protein called PROTEASOME COMPONENT PRE2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	5	212	1646	1045	282	312	7	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
5	33	ARG	LYS	conflict	UNP P30656

- Molecule 6 is a protein called PROTEASOME COMPONENT C5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	6	222	1757	1115	303	335	4	0	0

- Molecule 7 is a protein called PROTEASOME COMPONENT PRE4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	7	233	1824	1154	312	351	7	0	0

- Molecule 8 is a protein called UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 6.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	N	O	S	Se		
8	8	368	3008	1922	500	571	5	10	10	1

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
8	85	MSE	-	expression tag	UNP P43593
8	86	GLY	-	expression tag	UNP P43593
8	87	SER	-	expression tag	UNP P43593
8	88	ASP	-	expression tag	UNP P43593
8	89	LYS	-	expression tag	UNP P43593
8	90	ILE	-	expression tag	UNP P43593
8	91	HIS	-	expression tag	UNP P43593
8	92	HIS	-	expression tag	UNP P43593
8	93	HIS	-	expression tag	UNP P43593
8	94	HIS	-	expression tag	UNP P43593
8	95	HIS	-	expression tag	UNP P43593
8	96	HIS	-	expression tag	UNP P43593
8	500	MSE	-	expression tag	UNP P43593
8	182	VAL	ILE	conflict	UNP P43593

- Molecule 9 is a protein called UBIQUITIN ALDEHYDE.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	9	76	601	378	105	117	1	0	0

- Molecule 10 is a protein called PROTEASOME COMPONENT C7-ALPHA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	A	243	1921	1221	322	370	8	0	0

- Molecule 11 is a protein called PROTEASOME COMPONENT Y7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	B	250	1915	1219	315	377	4	0	0

- Molecule 12 is a protein called PROTEASOME COMPONENT Y13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	C	245	1913	1207	323	380	3	0	0

- Molecule 13 is a protein called PROTEASOME COMPONENT PRE6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	D	242	1899	1186	333	376	4	0	0

- Molecule 14 is a protein called PROTEASOME COMPONENT PUP2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	E	243	1867	1165	315	380	7	0	0

- Molecule 15 is a protein called PROTEASOME COMPONENT PRE5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	F	233	1795	1129	312	350	4	0	0

- Molecule 16 is a protein called PROTEASOME COMPONENT C1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	G	245	1900	1207	331	358	4	0	0

- Molecule 17 is a protein called 26S PROTEASE REGULATORY SUBUNIT 7 HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	H	359	2792	1755	499	523	15	0	0

- Molecule 18 is a protein called 26S PROTEASE REGULATORY SUBUNIT 4 HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
18	I	362	2822	1773	471	563	15	0	0

- Molecule 19 is a protein called 26S PROTEASE REGULATORY SUBUNIT 8 HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
19	J	373	2928	1837	527	547	17	0	0

- Molecule 20 is a protein called 26S PROTEASE REGULATORY SUBUNIT 6B HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
20	K	381	3019	1898	530	581	10	0	0

- Molecule 21 is a protein called 26S PROTEASE SUBUNIT RPT4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	L	361	2853	1798	507	536	12	0	0

- Molecule 22 is a protein called 26S PROTEASE REGULATORY SUBUNIT 6A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	M	367	2866	1799	503	553	11	0	0

- Molecule 23 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	N	849	6562	4174	1099	1261	28	0	0

- Molecule 24 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN9.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	O	387	3182	2047	520	606	9	0	0

- Molecule 25 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	P	415	3401	2166	571	655	9	0	0

- Molecule 26 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
26	Q	431	3471	2205	574	676	16	0	0

- Molecule 27 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
27	R	400	3218	2051	527	630	10	0	0

- Molecule 28 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
28	S	353	2893	1857	482	541	13	0	0

- Molecule 29 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
29	T	272	2235	1432	355	441	7	0	0

- Molecule 30 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
30	U	255	2061	1312	352	391	6	0	0

- Molecule 31 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
31	V	247	1942	1225	328	376	13	0	0

- Molecule 32 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
32	W	197	1534	962	269	300	3	0	0

- Molecule 33 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
33	X	127	1032	664	169	195	4	0	0

- Molecule 34 is a protein called 26S PROTEASOME COMPLEX SUBUNIT SEM1.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
34	Y	19	168	101	30	37	0	0

- Molecule 35 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN1.

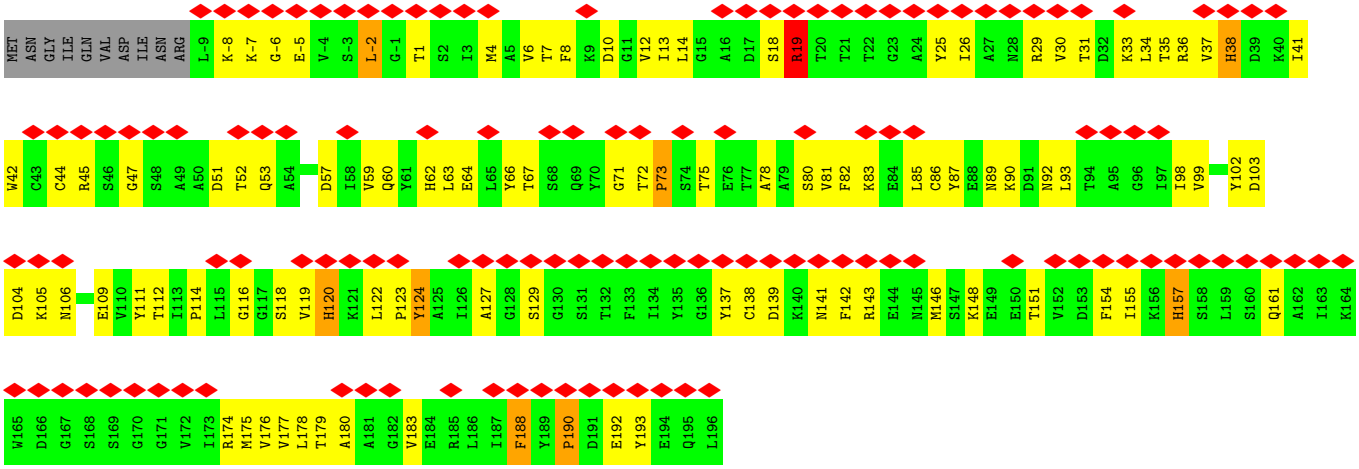
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
35	Z	813	6289	3995	1029	1236	29	0	0

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.

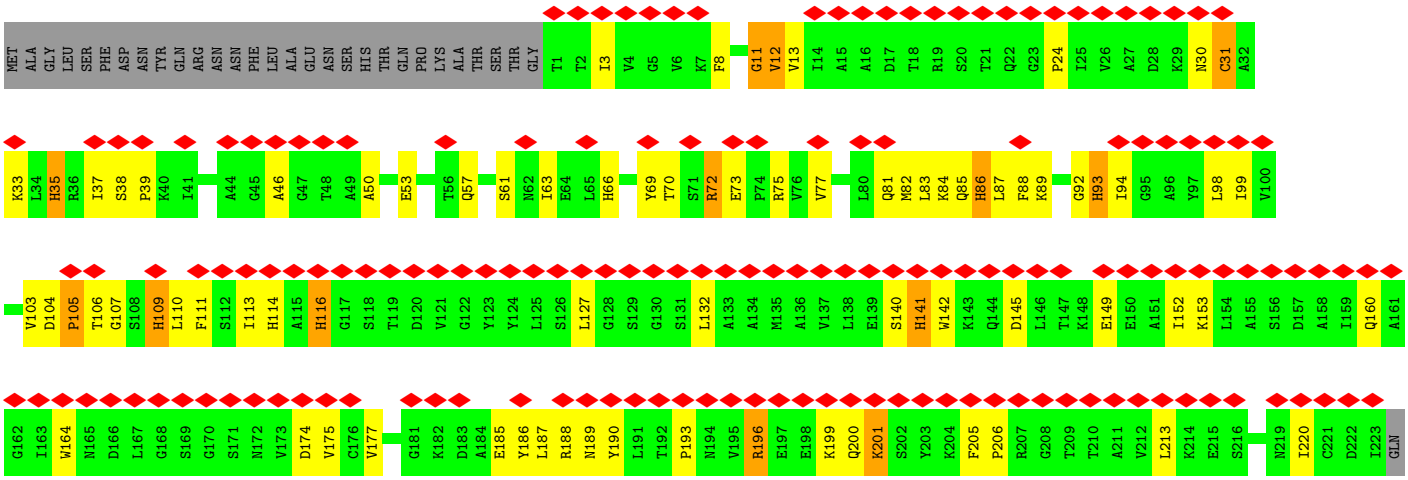
• Molecule 1: PROTEASOME COMPONENT PRE3

Chain 1:



• Molecule 2: PROTEASOME COMPONENT PUP1

Chain 2:



GLU GLU GLN VAL ASP ILE THR ALA

• Molecule 3: PROTEASOME COMPONENT PUP3

Chain 3: 71% 65% 33%

MET S-8 D-7 P-6 S-5 S-4 I-3 N-2 G-1 G1 I2 V3 V4 A5 M6 T7 G8 K9 D10 C11 V12 A13 I14 A15 C16 D17 L18 R19 L20 G21 S22 Q23 S24 L25 G26 V27 S28 N29 K30 F31 E32 K33 I34 F35 H36 Y37 G38 H39 L42 G43 I44 T45 G46 L47 A48 T49 D50 V51 T52

T53 E56 M57 F58 R59 Y60 K61 T62 N63 L64 K68 E69 E70 R71 A72 I73 E74 P75 E76 T77 F78 T79 Q80 L81 S84 S85 E88 R89 R90 F91 G92 P93 Y94 F95 V96 G97 P98 V99 V100 I103 K106 S107 P110 F111 I112 A113 G114 F115 D116 L117 I118 G119 C120

I121 D122 E123 A124 K125 D126 F127 I128 V129 S130 G131 T132 A133 S134 D135 Q136 L137 F138 G139 M140 C141 E142 S143 L144 Y145 E146 P147 N148 L149 E150 P151 E152 D153 L154 F155 E156 T157 I158 S159 Q160 A161 L162 L163 N164 A165 A166 D167 R168 D169 A170 L171 S172 G173 W174 G175 A176 V177 V178 Y179 I180

K188 R189 Y190 L191 K192 M193 R194 Q195 D196

• Molecule 4: PROTEASOME COMPONENT C11

Chain 4: 59% 63% 35%

M-1 D1 I2 I3 L4 G5 I6 R7 V8 S11 V12 I13 L14 A15 S16 S17 K18 A19 V20 T21 R22 G23 I24 S25 V26 L27 K28 D29 S30 D31 D32 K33 T34 R35 Q36 L37 S38 P39 H40 M43 S44 F45 A46 G47 E48 A49 G50 D51 T52 V53 Q54 F55 A56 E57 Y58 I59 Q60

Q64 L65 Y66 R69 E70 D71 Y72 E73 L74 Q77 A78 V79 S80 S81 E86 L87 R95 P96 Y97 Q98 V99 N100 V101 G104 K109 Y116 Q117 I118 D119 Y120 K124 V125 E126 L127 P128 Y129 G130 A131 H132 G133 Y134 S135 G136 F137 Y138 T139 F140 S141 L142 L143 D144 H145

H146 Y147 R148 P149 D150 M151 T152 T153 E154 E155 G156 L157 D158 L159 L160 K161 L162 C163 V164 Q165 E166 L167 E168 K169 R170 M171 P172 M173 D174 F175 K176 G177 V178 I179 V180 K181 I182 V183 D184 Q190 V191 D192 D193 F194 Q195 A196 Q197

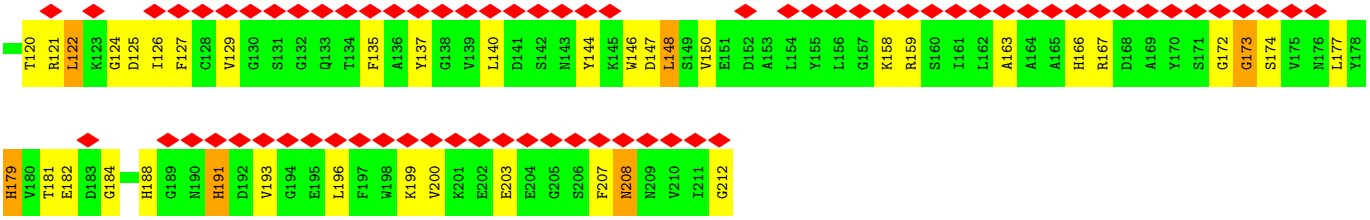
• Molecule 5: PROTEASOME COMPONENT PRE2

Chain 5: 40% 40% 31% 26%

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

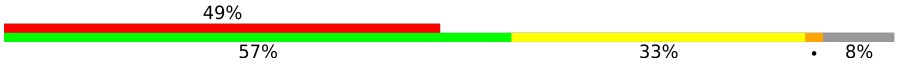
ASP ASP SER ARG ASN PRO ASP CYS LYS ILE LYS ILE ALA HIS GLY T1 T2 T3 L4 A5 F6 R7 F8 Q9 G10 G11 I12 I13 V14 A15 V16 D17 S18 R19 A20 T21 A22 G23 N24 W25 V26 A27 S28 Q29 T30 V31 K32 R33 V34 I35 E36 I37 N38 P39 F40 L41 L42 G43 T44 M45

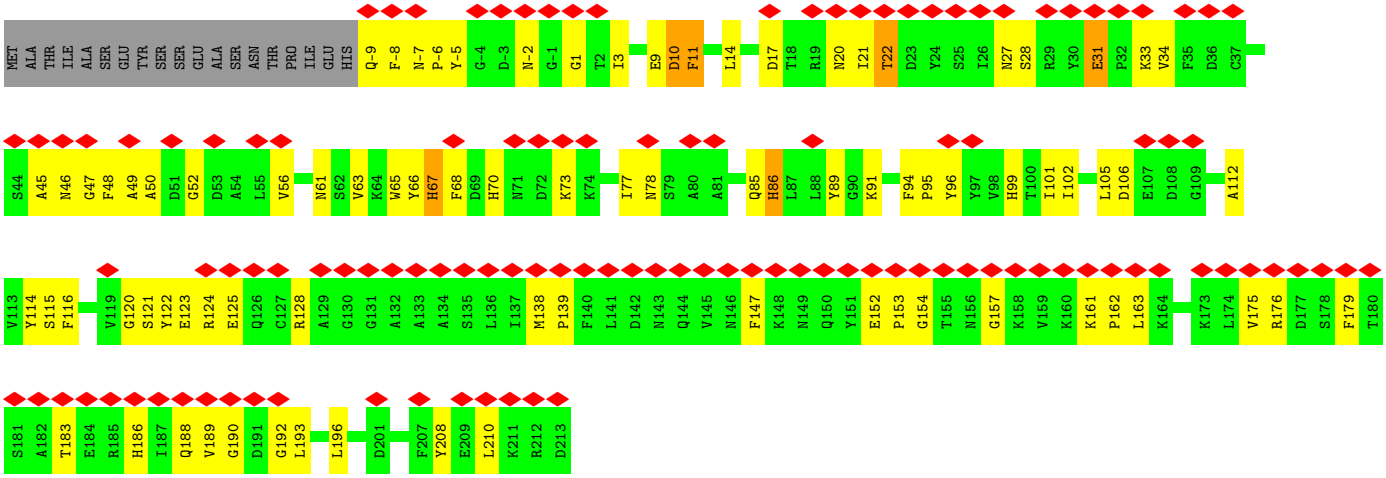
A46 G47 G48 A49 A50 D51 C52 Q53 F54 W55 E56 T57 W58 L59 G60 S61 Q62 C63 R64 L65 H66 E67 L68 R69 E70 K71 E72 R73 I74 S75 V76 A77 S80 L83 L86 V87 G92 A93 G94 L95 S96 M97 I101 Y104 T105 R106 K107 E108 G109 P110 T111 I112 Y113 Y114



- Molecule 6: PROTEASOME COMPONENT C5

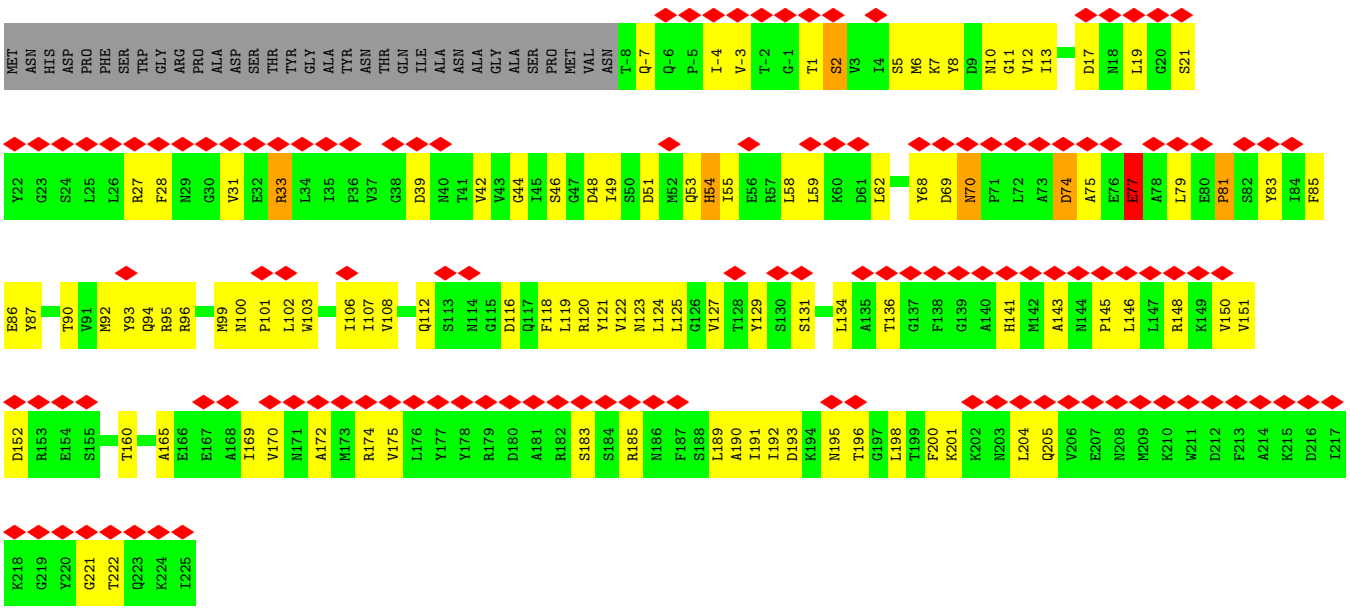
Chain 6:





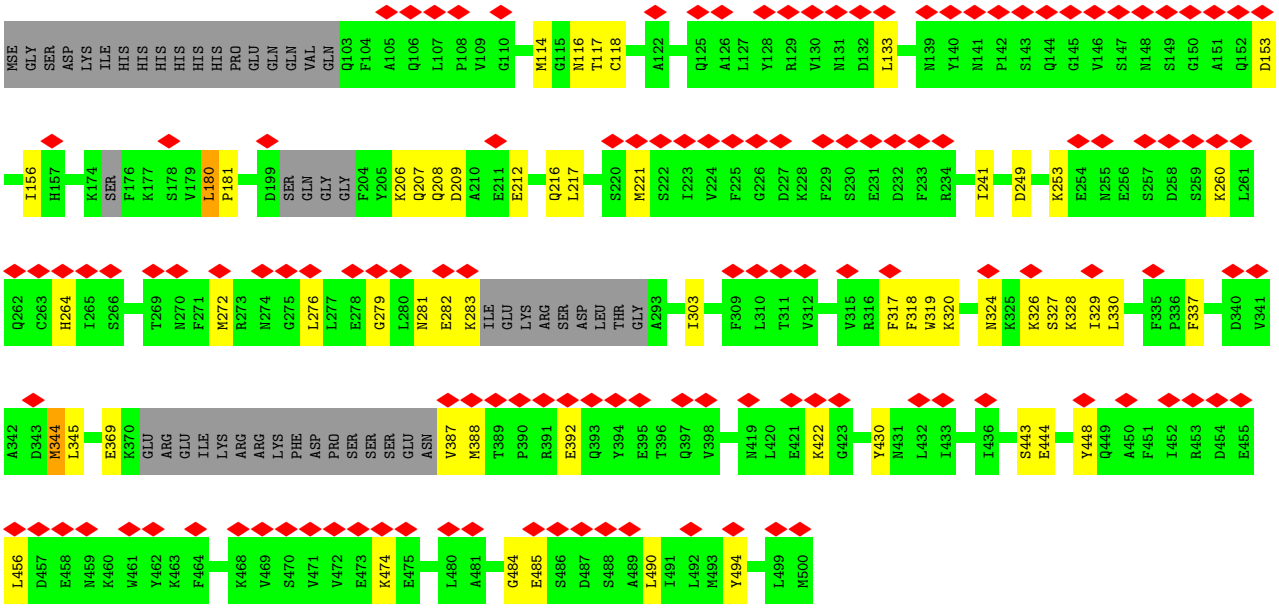
- Molecule 7: PROTEASOME COMPONENT PRE4

Chain 7:



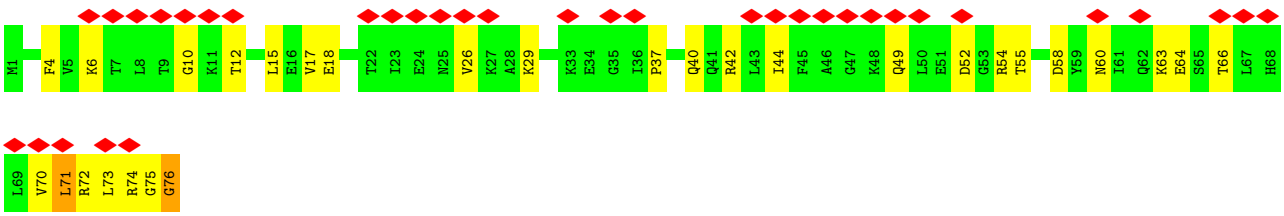
- Molecule 8: UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 6

Chain 8:



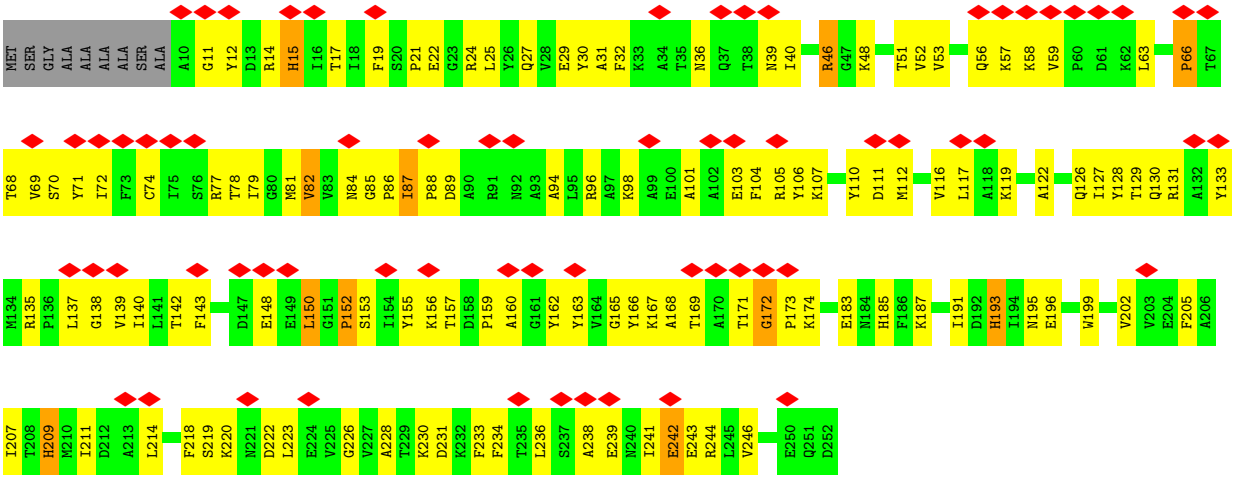
- Molecule 9: UBIQUITIN ALDEHYDE

Chain 9:



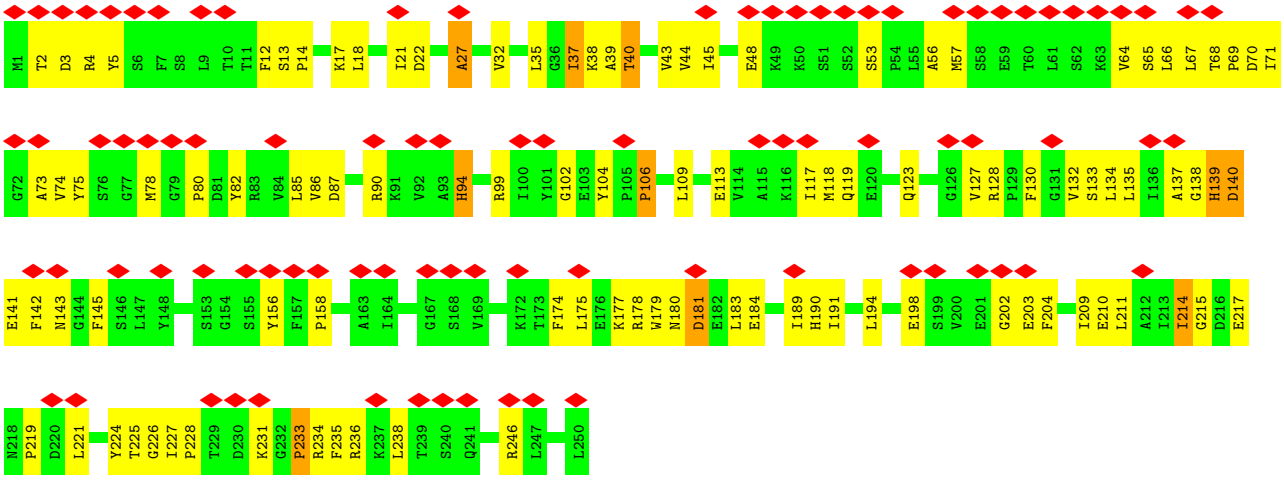
- Molecule 10: PROTEASOME COMPONENT C7-ALPHA

Chain A:



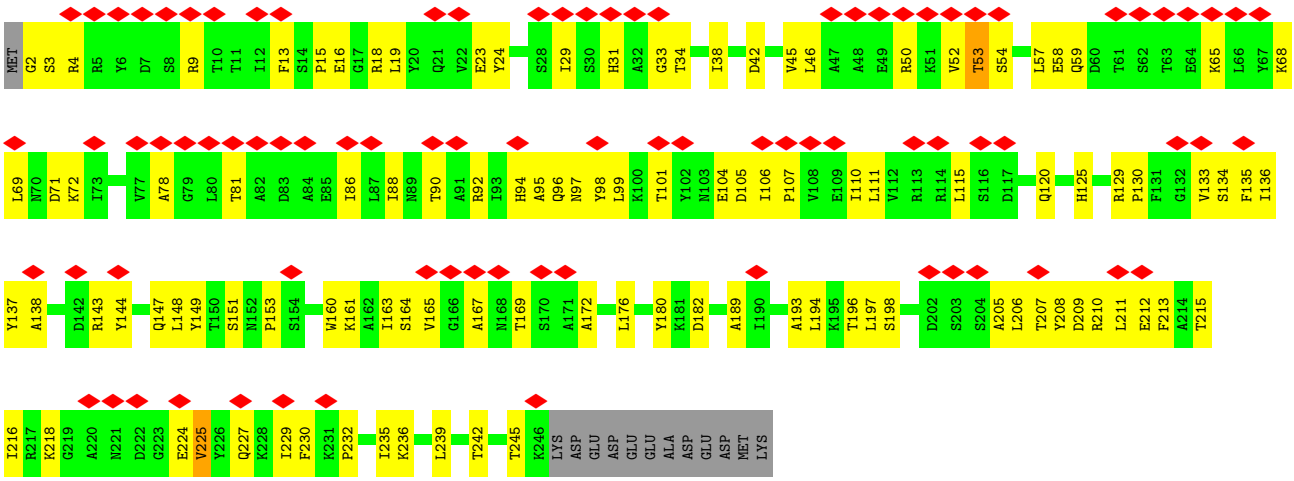
- Molecule 11: PROTEASOME COMPONENT Y7

Chain B: 36% 57% 39% •



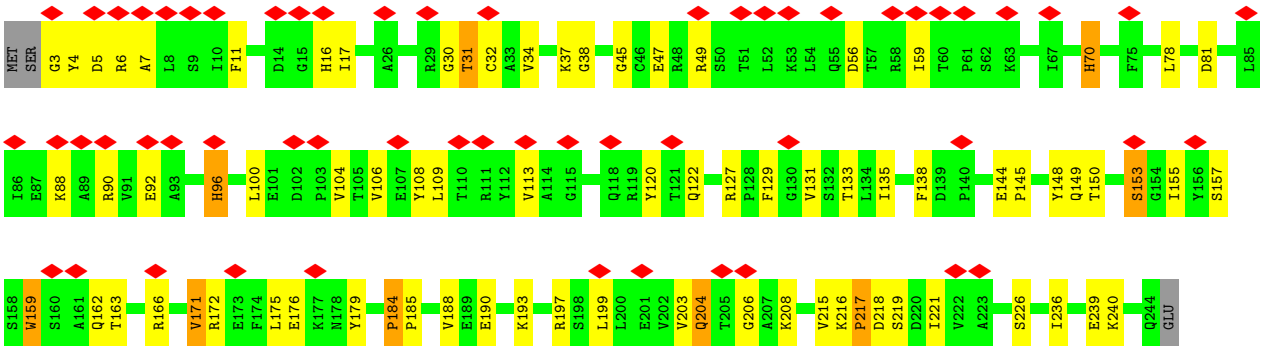
• Molecule 12: PROTEASOME COMPONENT Y13

Chain C: 33% 53% 41% • 5%



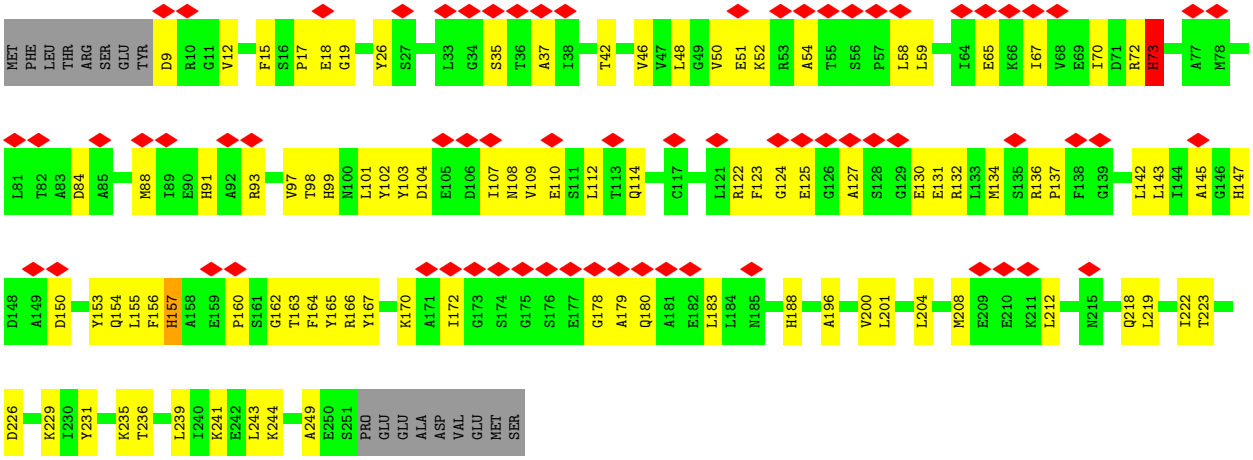
• Molecule 13: PROTEASOME COMPONENT PRE6

Chain D: 22% 65% 27% • 5%



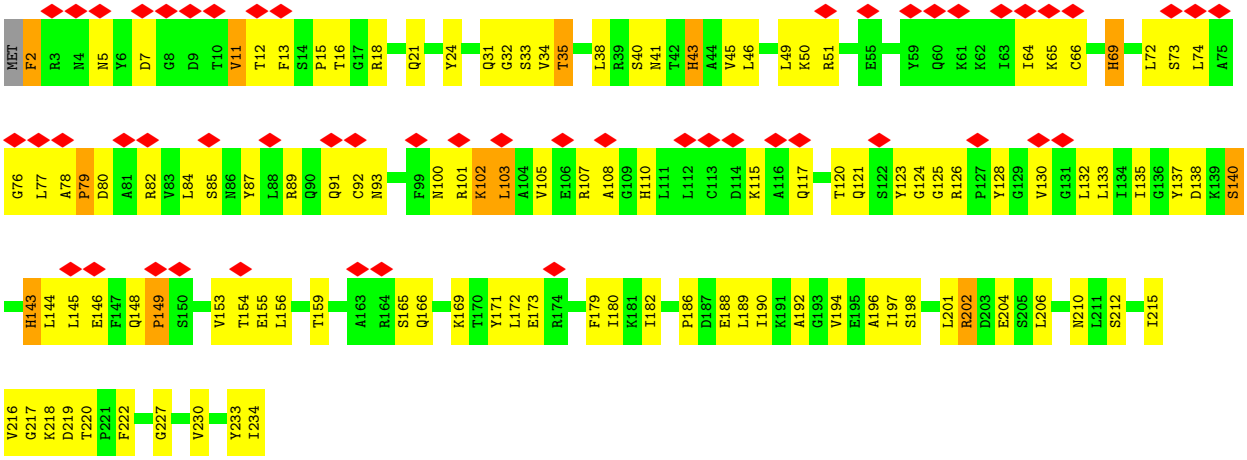
• Molecule 14: PROTEASOME COMPONENT PUP2

Chain E:



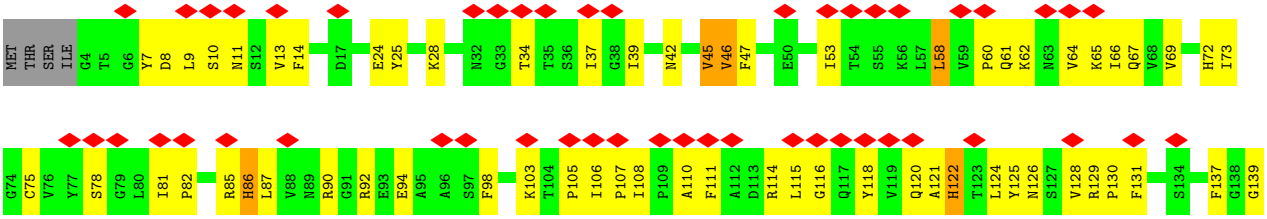
• Molecule 15: PROTEASOME COMPONENT PRE5

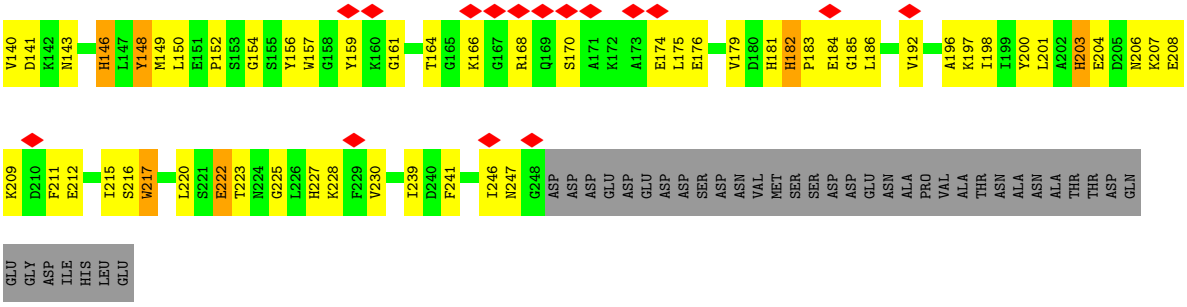
Chain F:



• Molecule 16: PROTEASOME COMPONENT C1

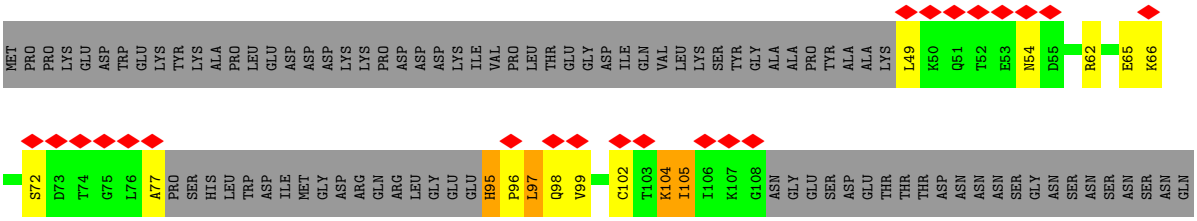
Chain G:

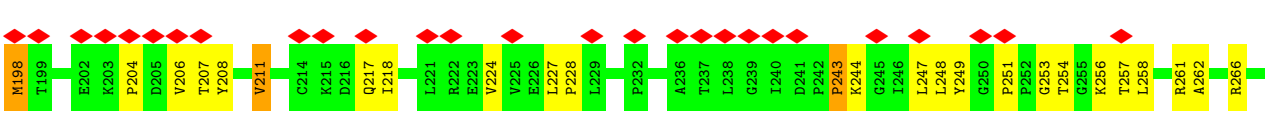


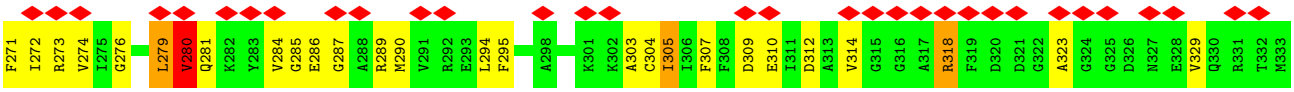


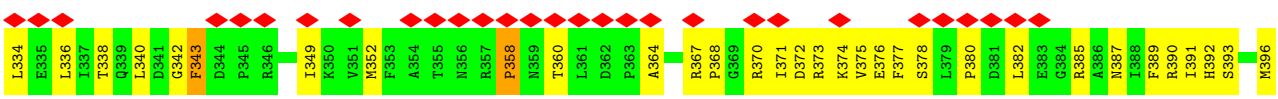
• Molecule 17: 26S PROTEASE REGULATORY SUBUNIT 7 HOMOLOG

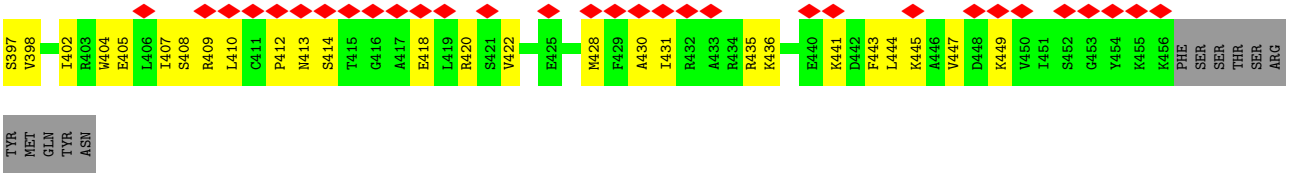
Chain H:





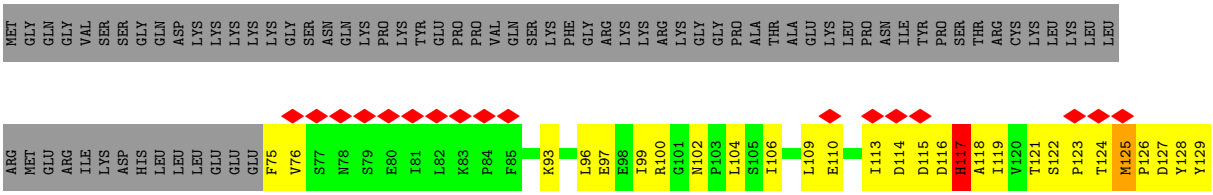


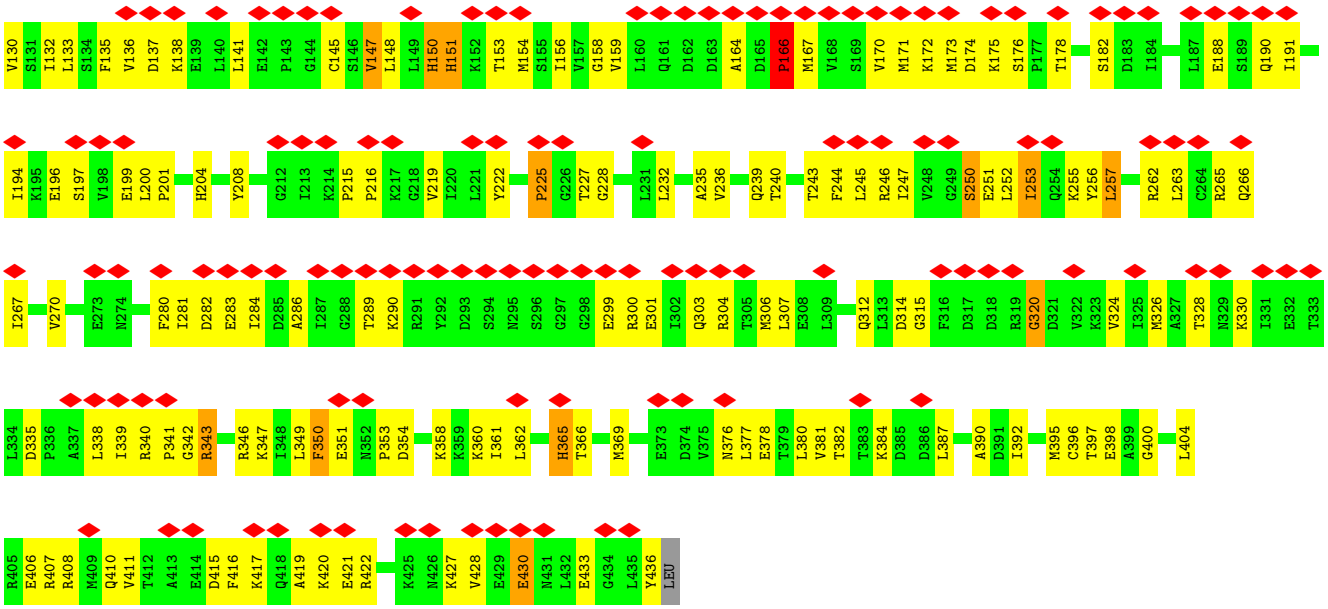




• Molecule 18: 26S PROTEASE REGULATORY SUBUNIT 4 HOMOLOG

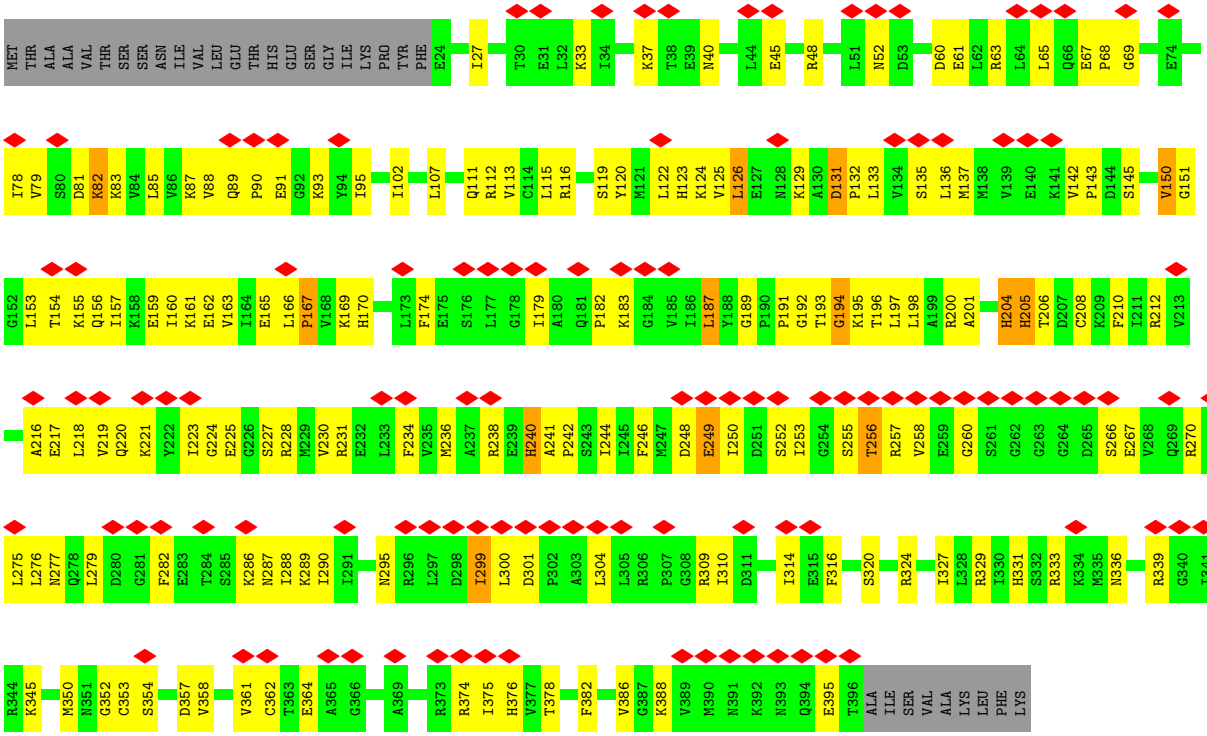
Chain I:





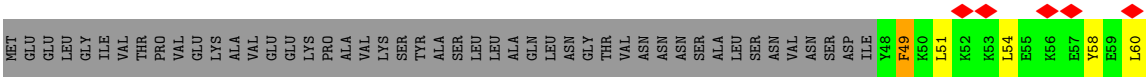
- Molecule 19: 26S PROTEASE REGULATORY SUBUNIT 8 HOMOLOG

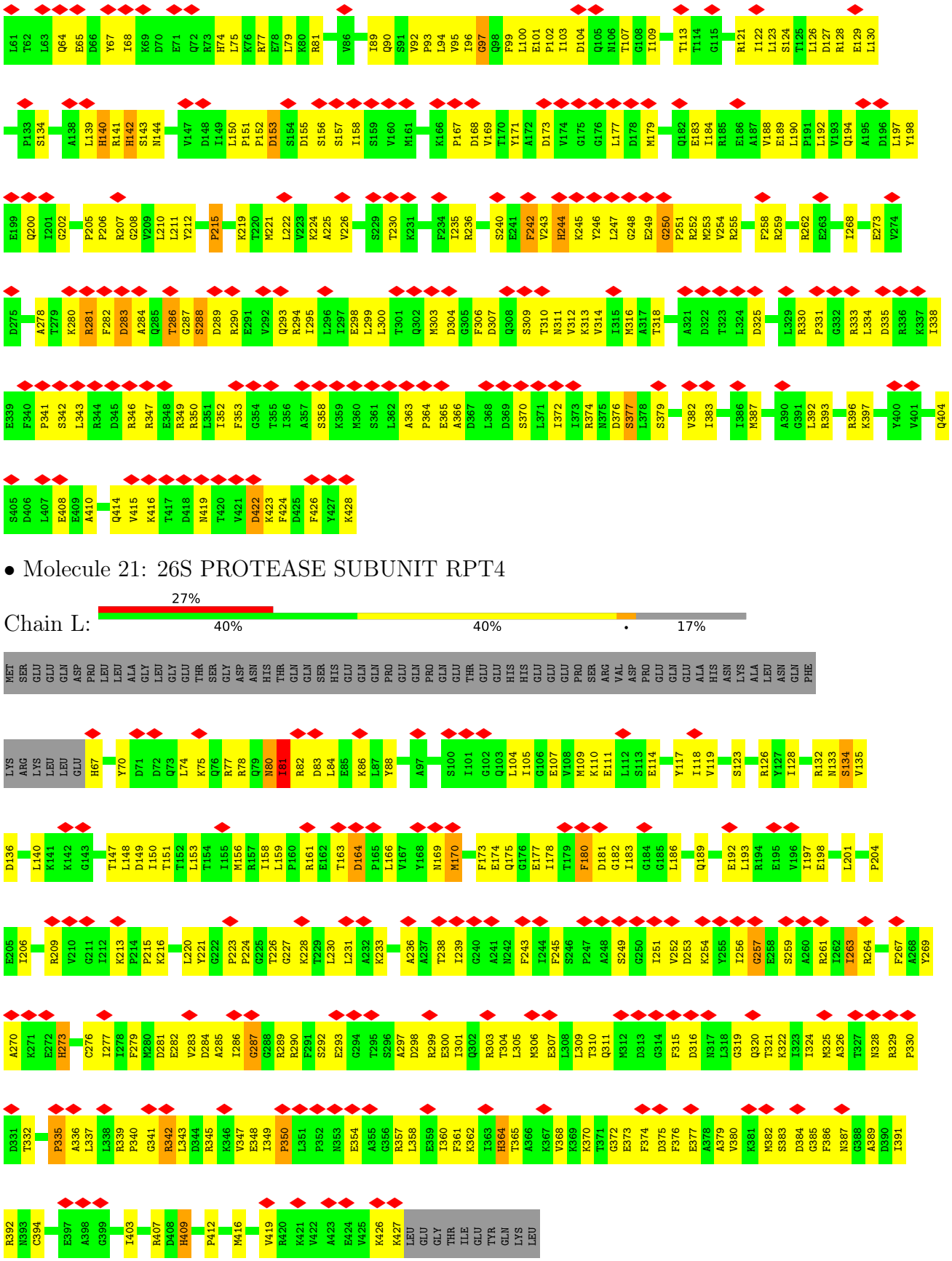
Chain J:



- Molecule 20: 26S PROTEASE REGULATORY SUBUNIT 6B HOMOLOG

Chain K:

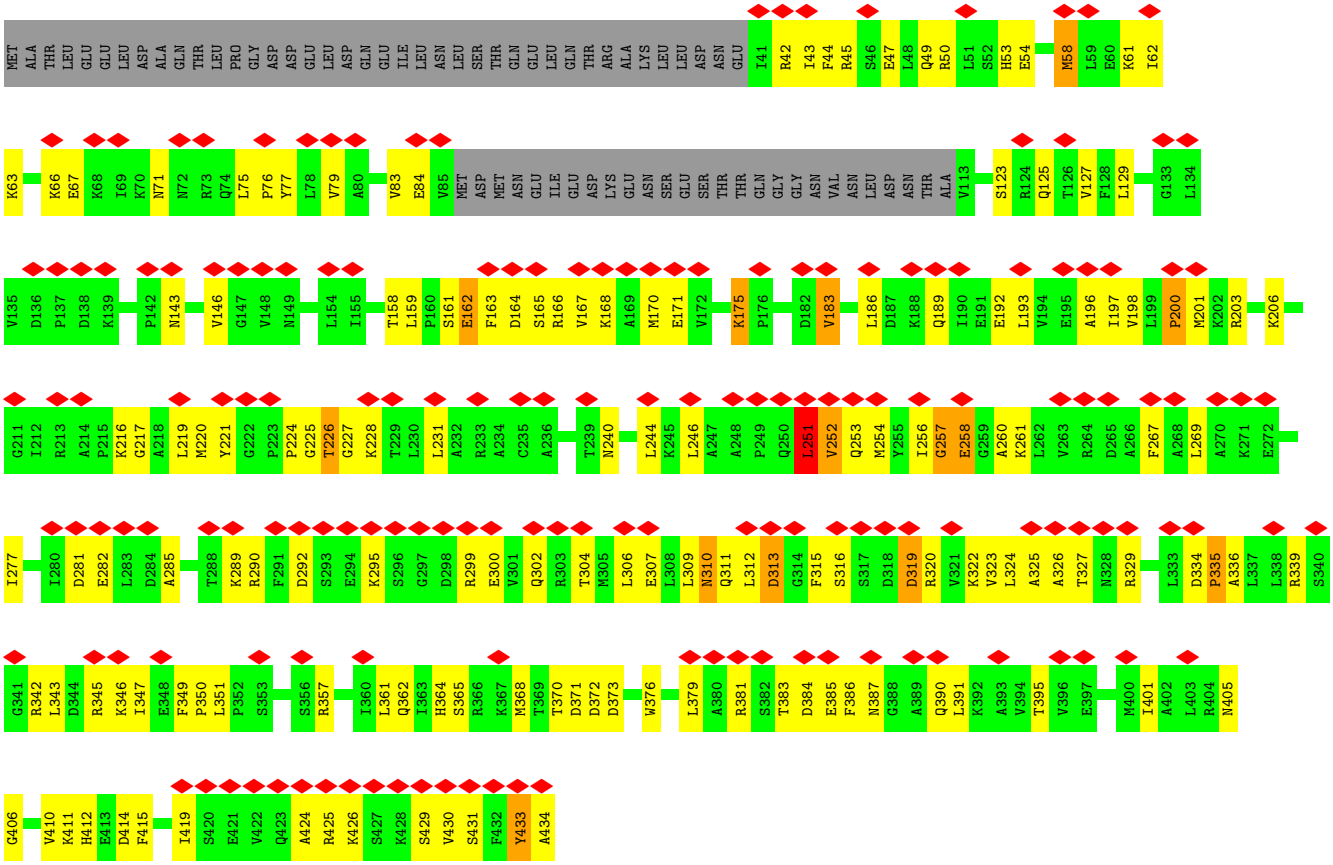




- Molecule 21: 26S PROTEASE SUBUNIT RPT4

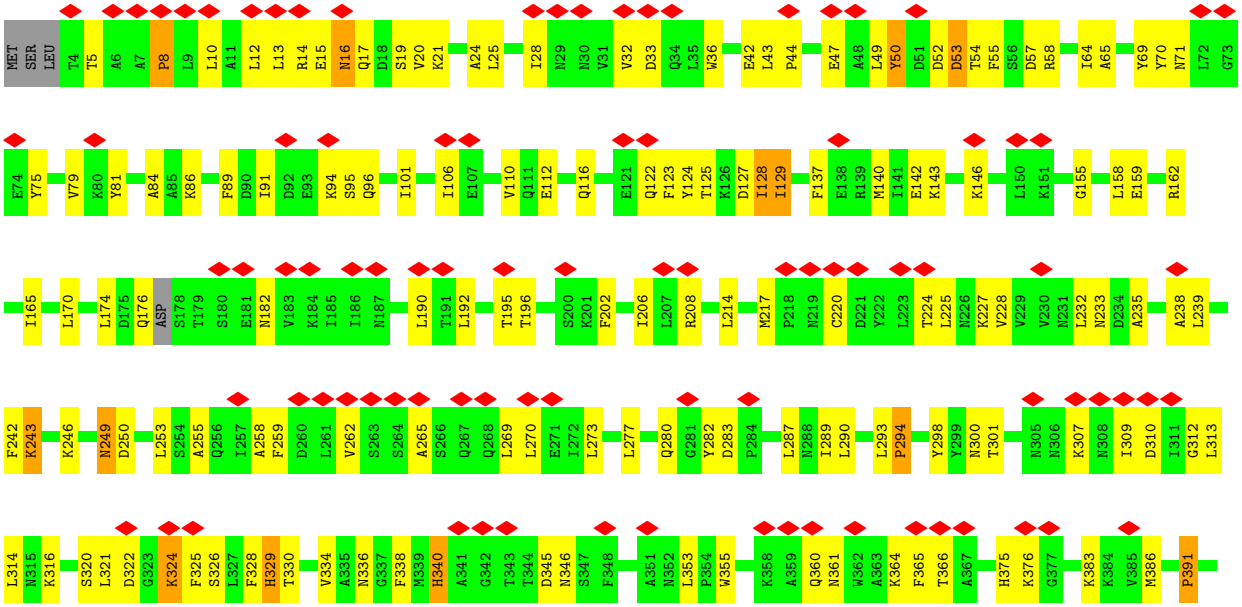
- Molecule 22: 26S PROTEASE REGULATORY SUBUNIT 6A

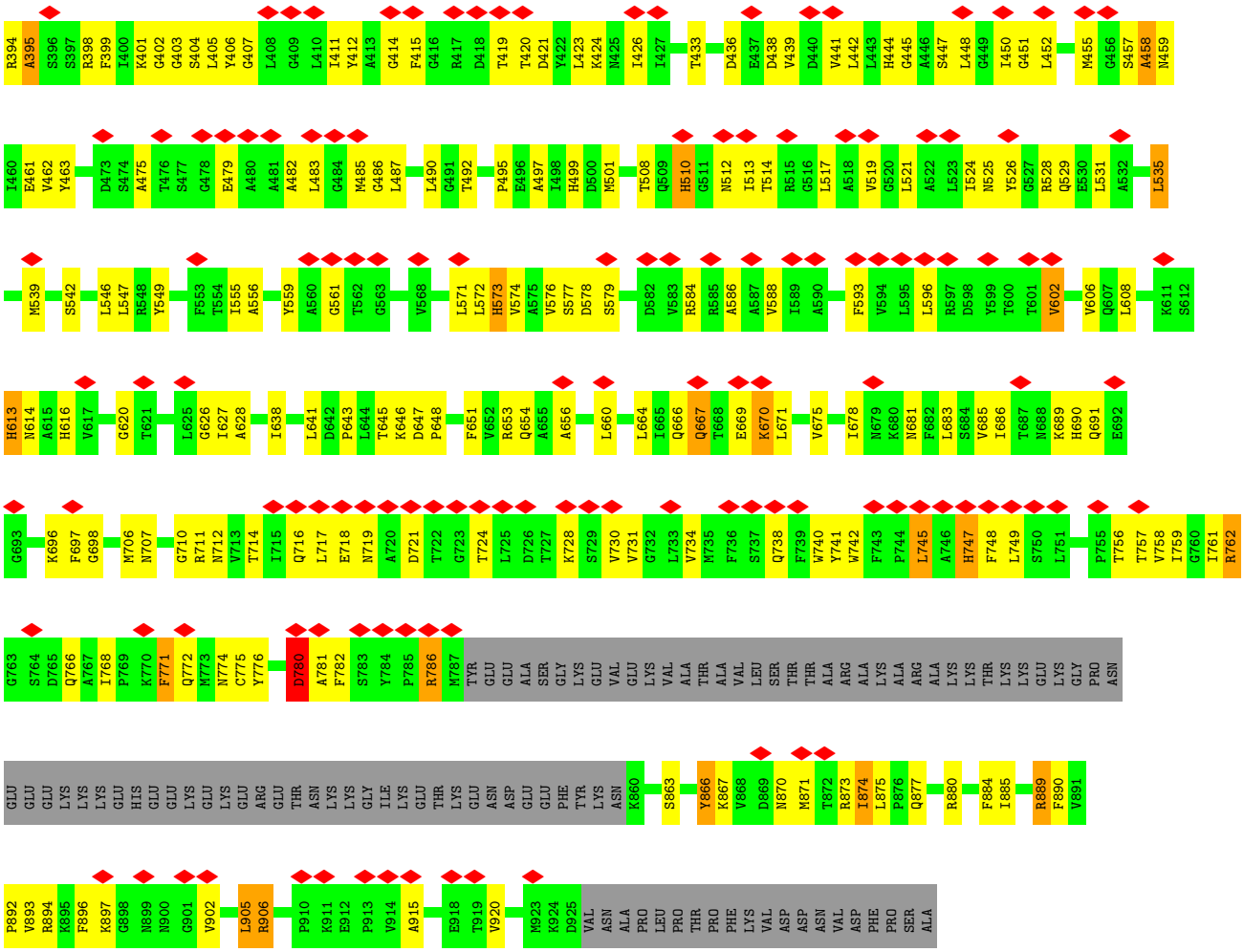
Chain M:



- Molecule 23: 26S PROTEASOME REGULATORY SUBUNIT RPN2

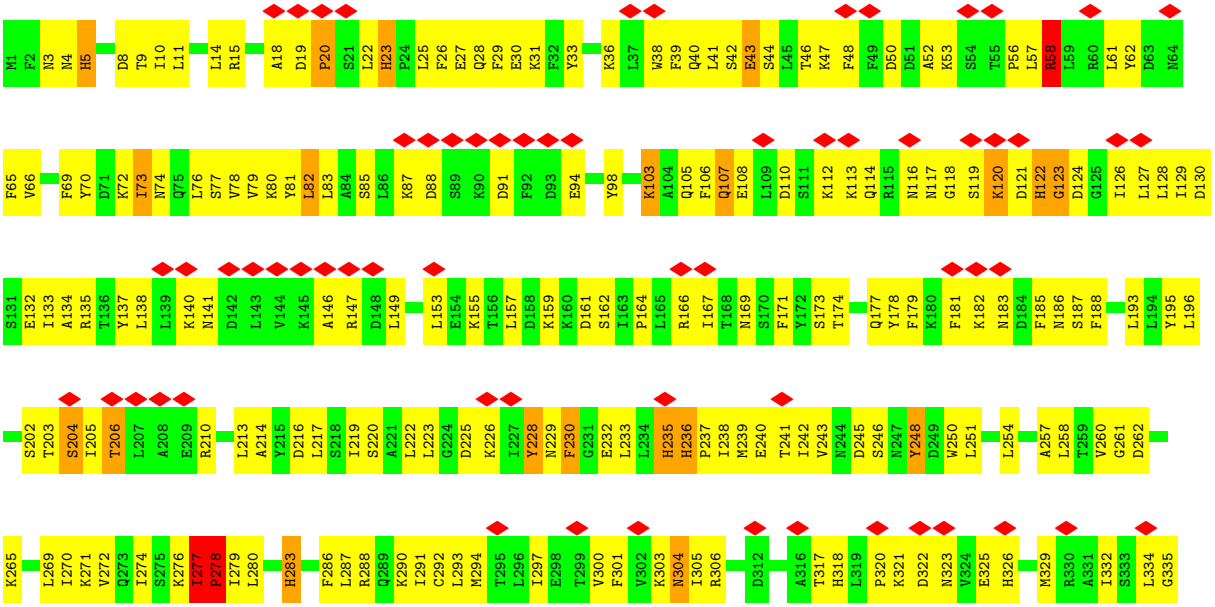
Chain N:

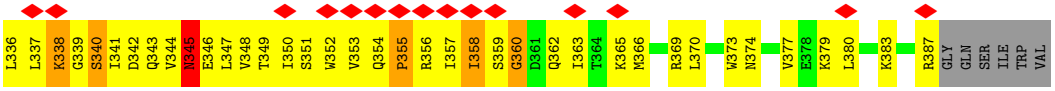




• Molecule 24: 26S PROTEASOME REGULATORY SUBUNIT RPN9

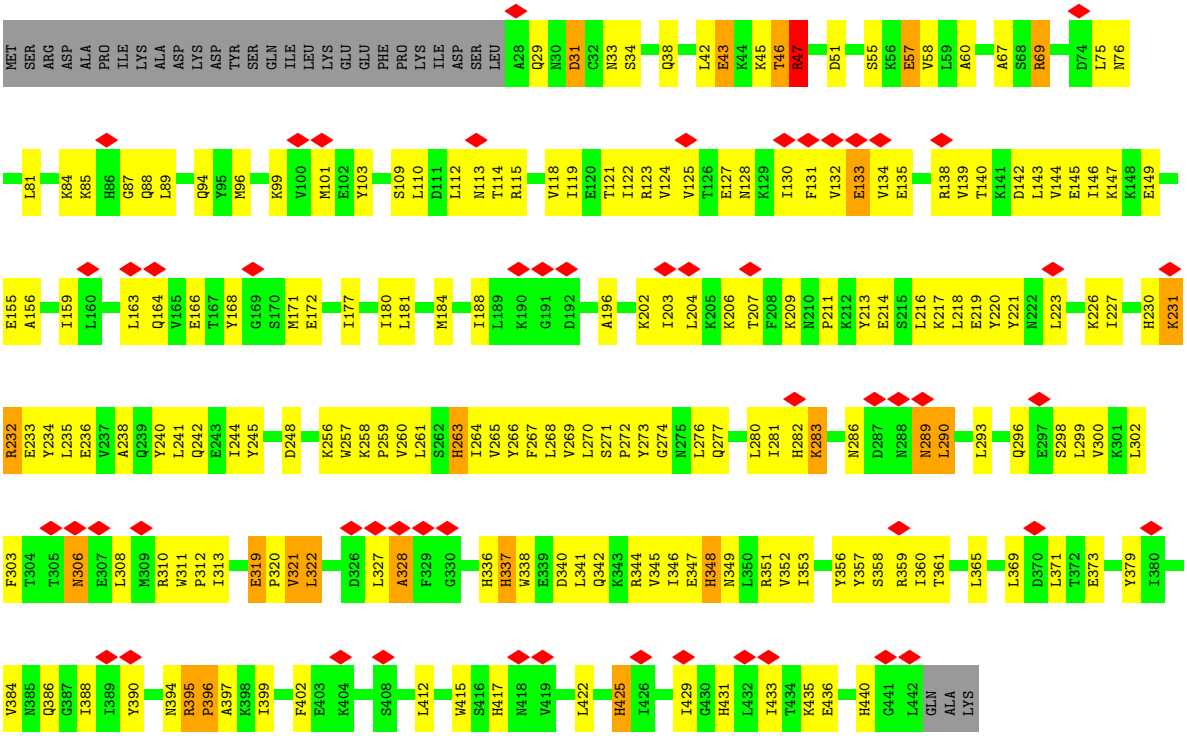
Chain O:





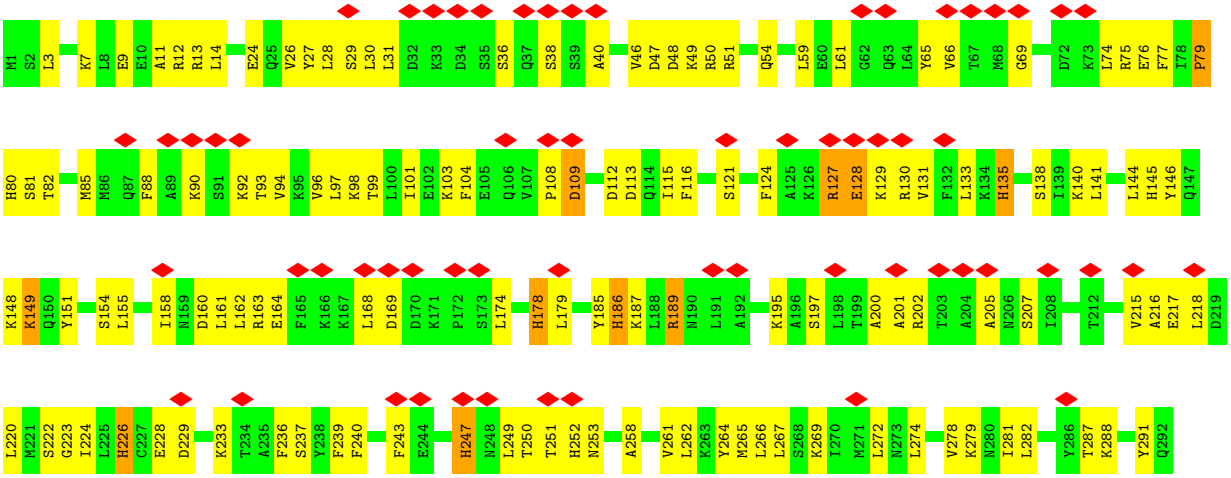
• Molecule 25: 26S PROTEASOME REGULATORY SUBUNIT RPN5

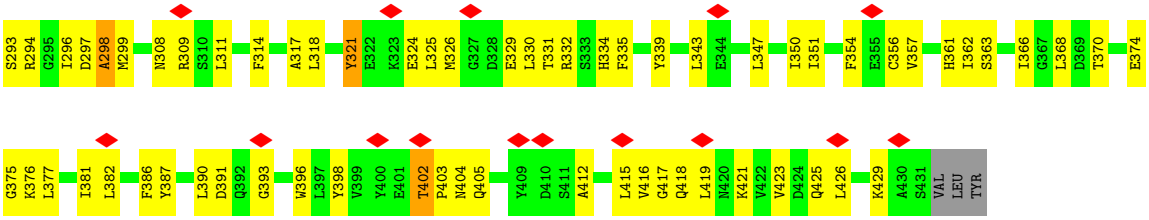
Chain P:



• Molecule 26: 26S PROTEASOME REGULATORY SUBUNIT RPN6

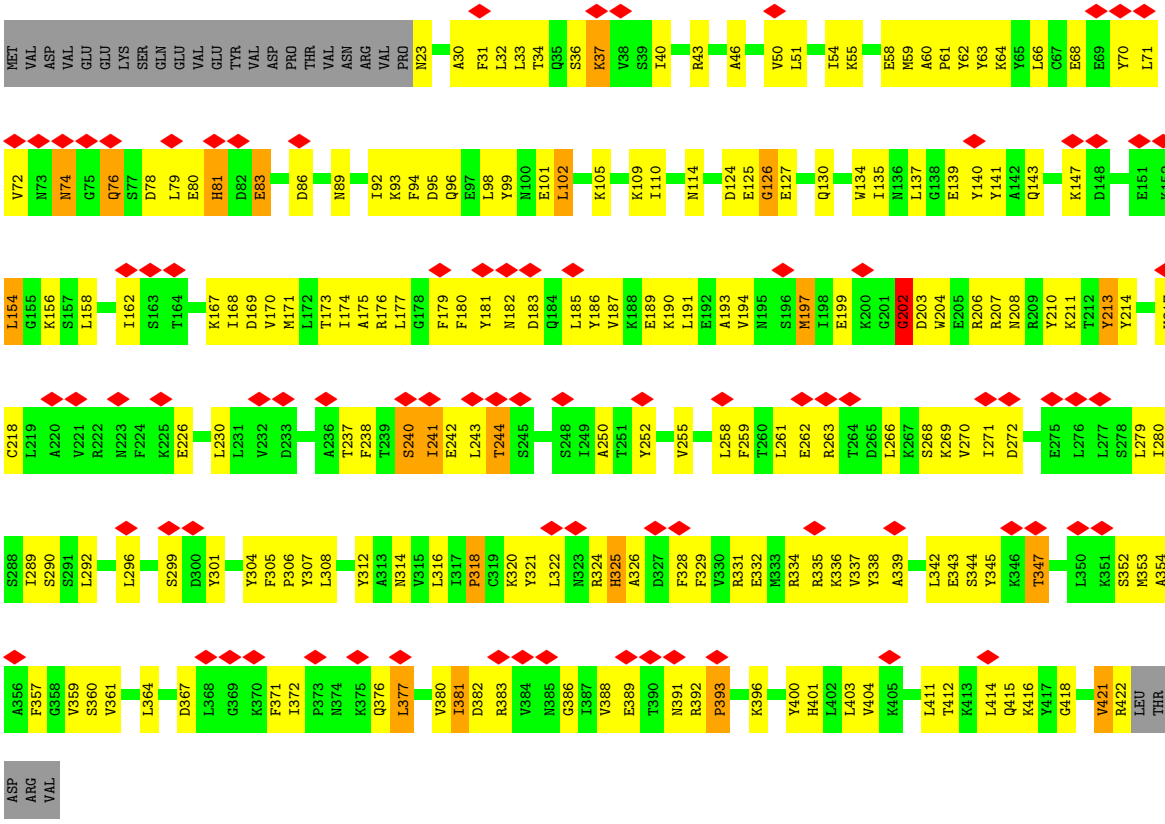
Chain Q:





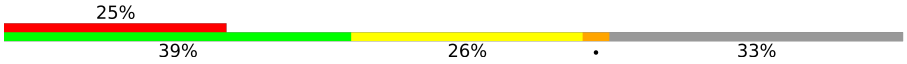
• Molecule 27: 26S PROTEASOME REGULATORY SUBUNIT RPN7

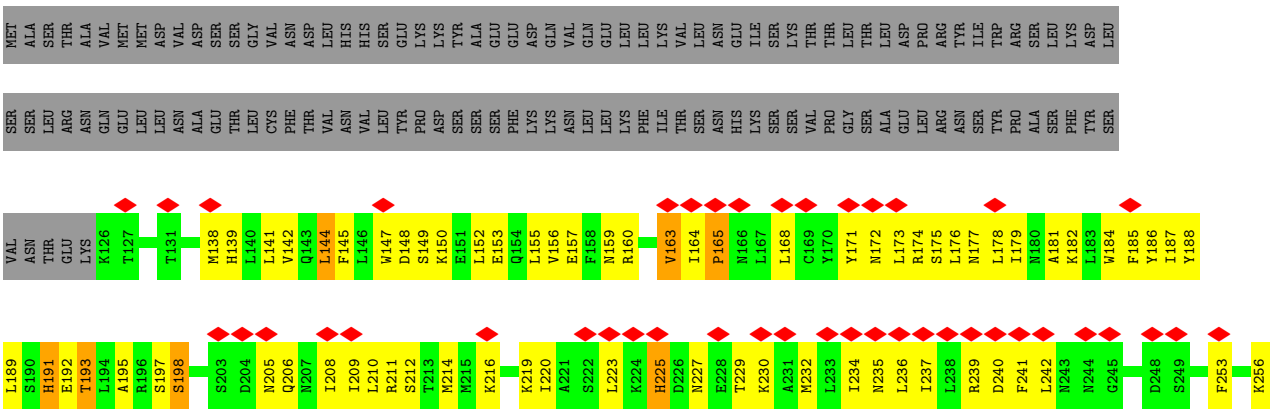
Chain R:

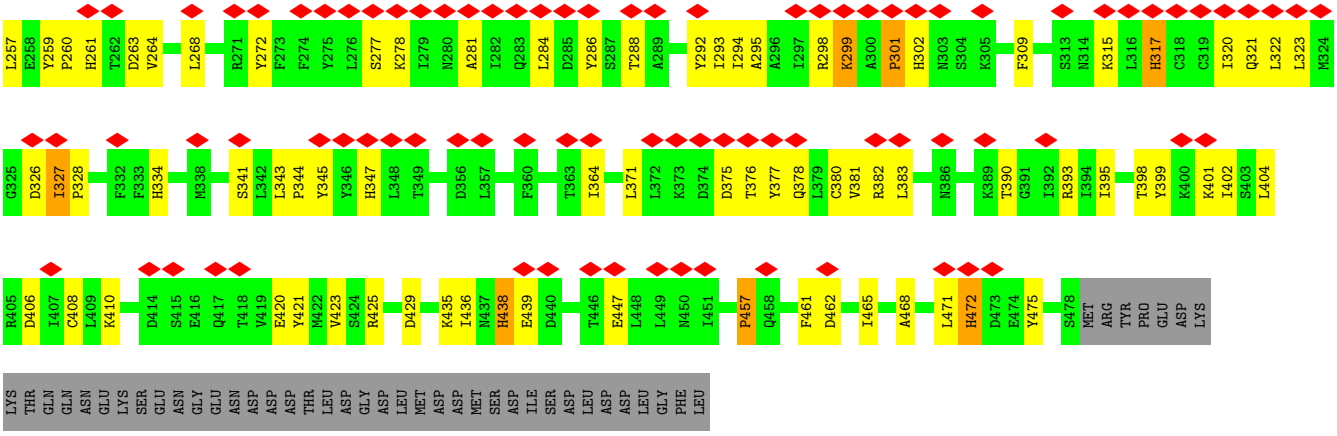


• Molecule 28: 26S PROTEASOME REGULATORY SUBUNIT RPN3

Chain S:

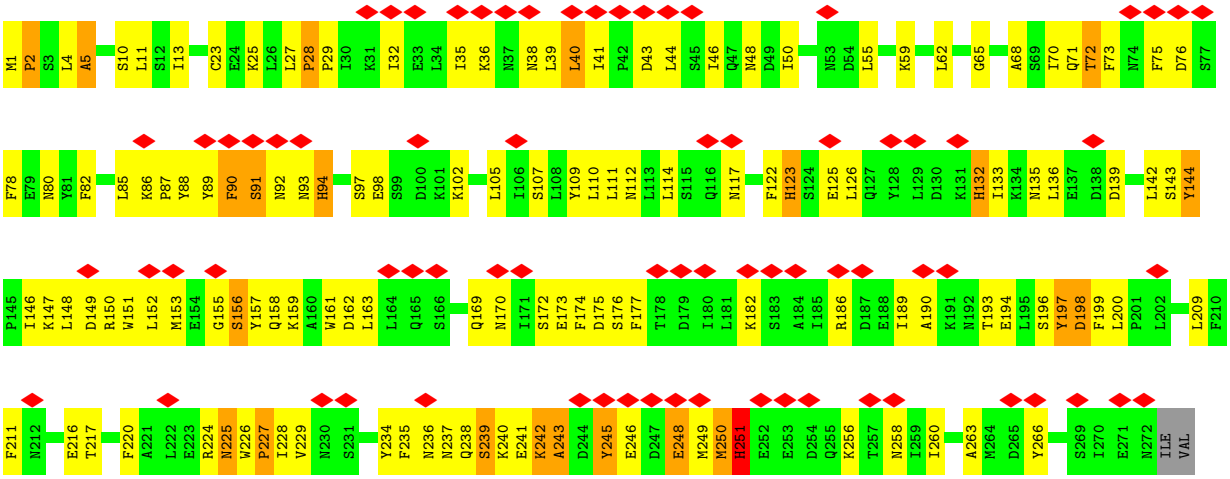






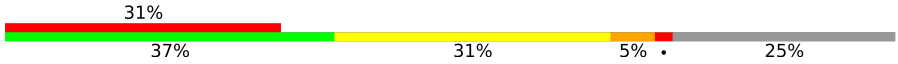
• Molecule 29: 26S PROTEASOME REGULATORY SUBUNIT RPN12

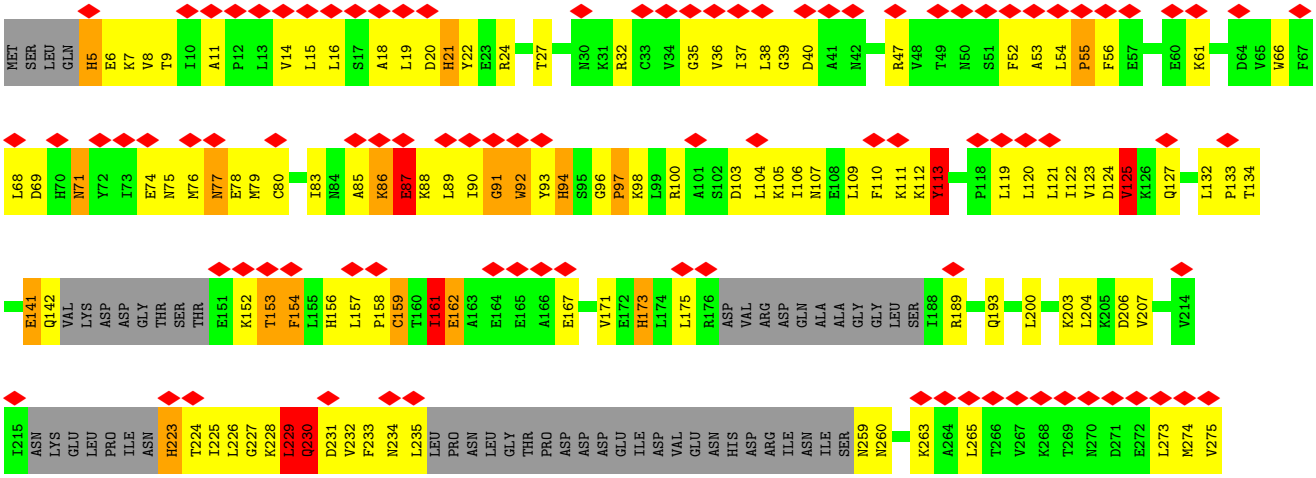
Chain T:

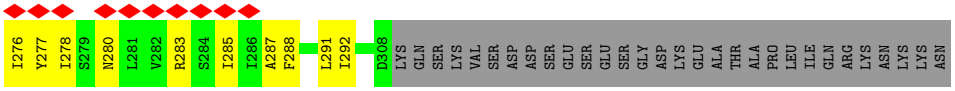


• Molecule 30: 26S PROTEASOME REGULATORY SUBUNIT RPN8

Chain U:

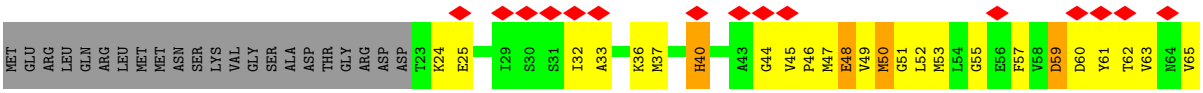


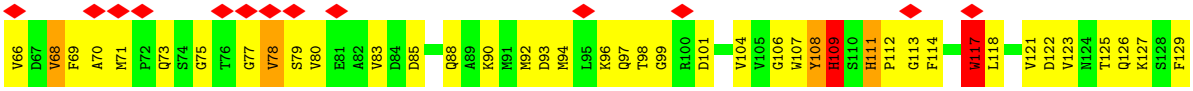


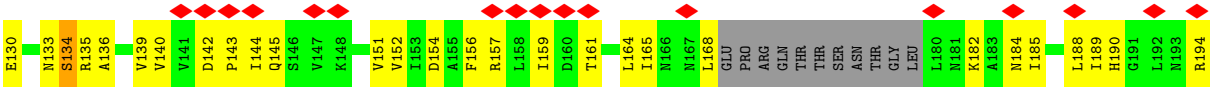


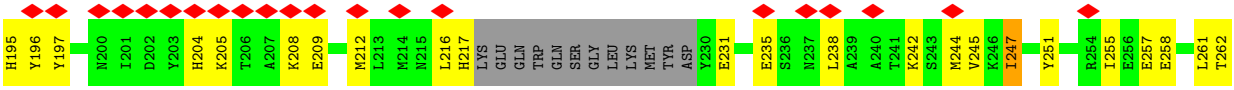
• Molecule 31: 26S PROTEASOME REGULATORY SUBUNIT RPN11

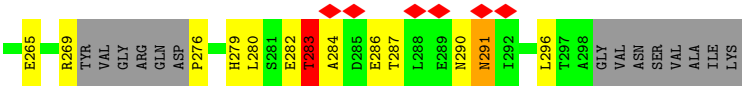
Chain V:





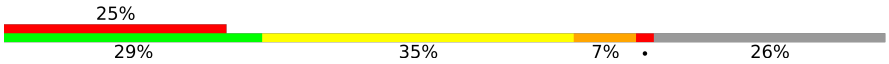


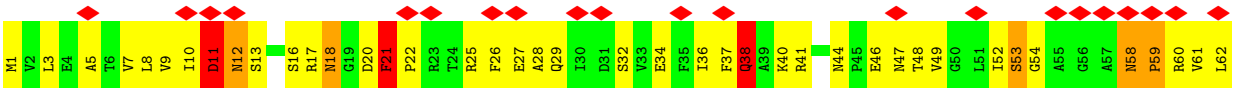


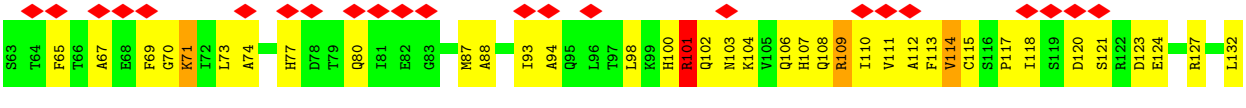


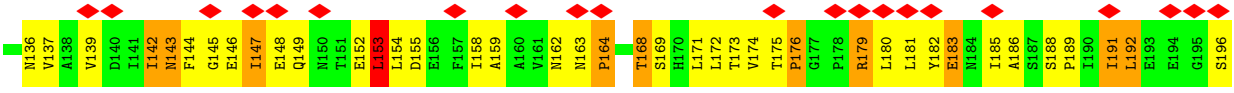
• Molecule 32: 26S PROTEASOME REGULATORY SUBUNIT RPN10

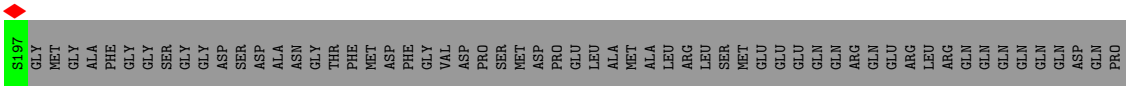
Chain W:





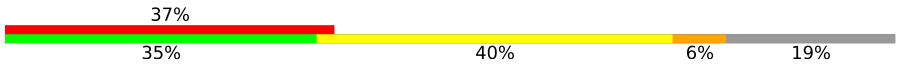


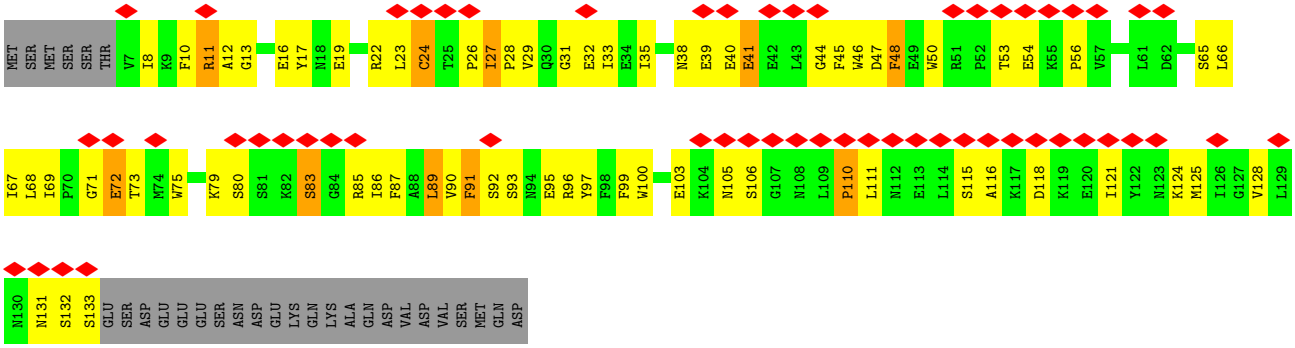




• Molecule 33: 26S PROTEASOME REGULATORY SUBUNIT RPN13

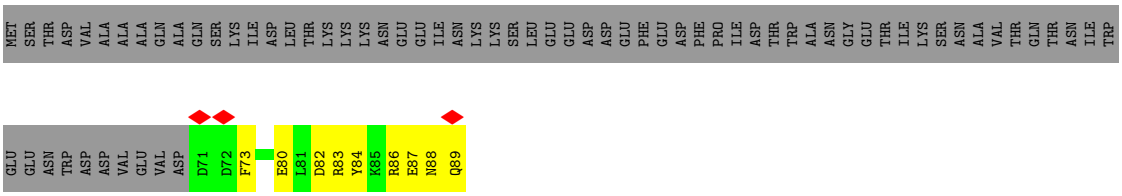
Chain X:





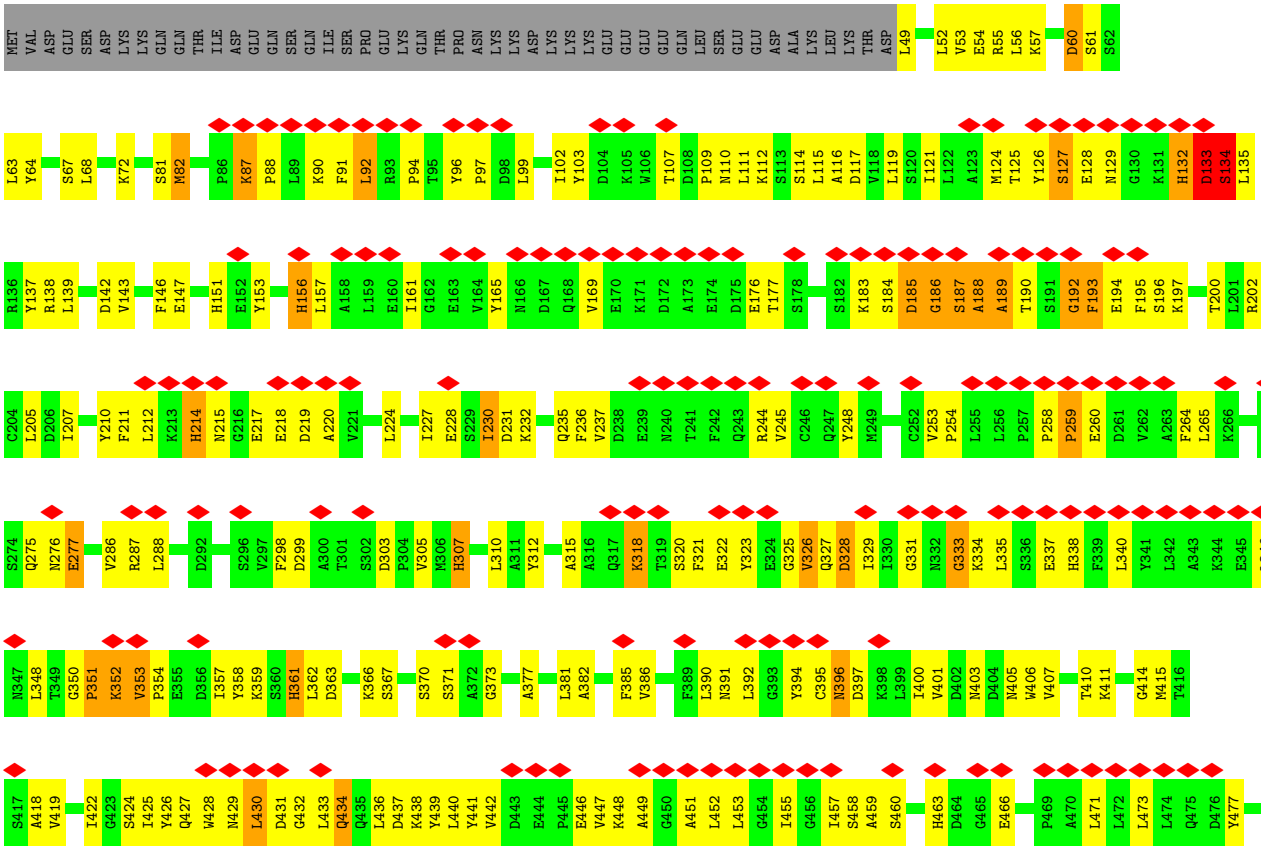
• Molecule 34: 26S PROTEASOME COMPLEX SUBUNIT SEM1

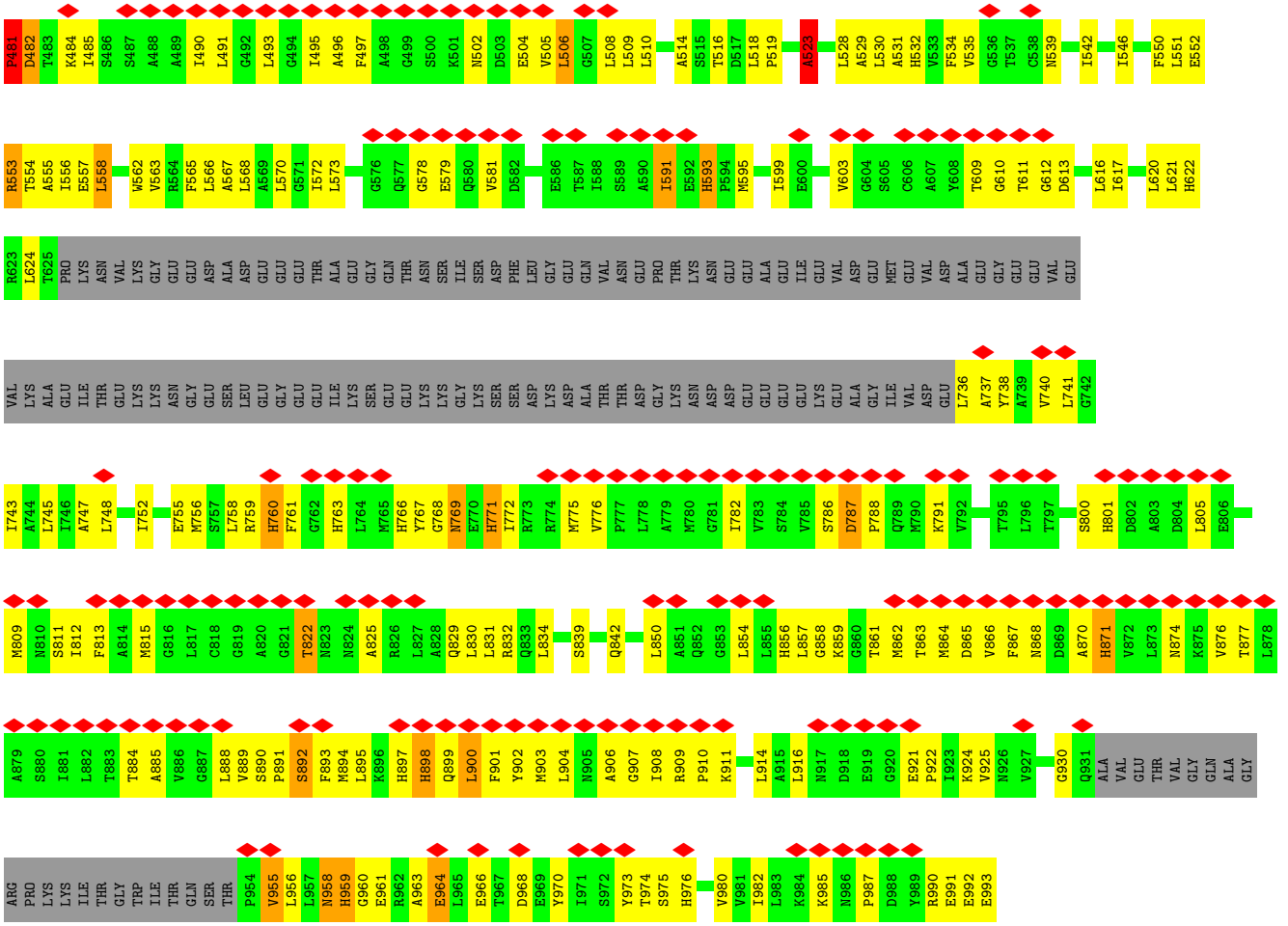
Chain Y:



• Molecule 35: 26S PROTEASOME REGULATORY SUBUNIT RPN1

Chain Z:




P481 D482 T483 K484 I485 S486 S487 A488 A489 I490 L491 G492 L493 G494 I495 A496 F497 A498 G499 S500 K501 N502 D503 E504 V505 L506 G507 L508 L509 L510 A514 S515 T516 D517 L518 P519 A523 L528 A529 L530 A531 H532 V533 F534 V535 G536 T537 C538 N539 I542 I546 F550 L551 E552
R553 T554 A555 I556 E557 L558 W562 V563 R564 F565 L566 A567 L568 A569 L570 G571 T572 L573 G576 Q577 G578 E579 Q580 V581 D582 E586 T587 I588 S589 A590 I591 E592 H593 F594 M595 I599 E600 V603 G604 S605 C606 A607 Y608 T609 G610 T611 G612 D613 L616 I617 L620 L621 H622
R623 L624 T625 PRO LYS ASN VAL LYS GLY GLU GLU ASP ALA ASP GLU GLU GLU THR ALA GLU GLY GLN THR ASN SER ILE SER ASP PHE LEU GLY GLU GLN VAL ASN GLU PRO THR LYS ASN GLU GLU ALA GLU ILE GLU VAL ASP GLU MET GLU VAL ASP ALA GLU GLY GLU GLU VAL GLU
VAL LYS ALA GLU ILE THR GLU LYS LYS ASN GLY GLU SER LEU GLU GLY GLU GLU ILE LYS SER GLU GLU LYS LYS GLY LYS SER SER ASP LYS ASP ALA THR THR ASP GLY LYS ASN ASP ASP GLU GLU GLU GLU LYS GLU ALA GLY ILE VAL ASP GLU L736 A737 Y738 A739 V740 L741 G742
I743 A744 L745 I746 A747 L748 I752 E755 M756 S757 L758 R759 H760 F761 G762 H763 L764 M765 H766 Y767 G768 N769 E770 H771 I772 R773 R774 M775 V776 P777 L778 A779 M780 G781 I782 V783 S784 V785 S786 D787 P788 Q789 M790 K791 V792 T795 L796 T797 S800 H801 D802 A803 D804 L805 E806
M809 N810 S811 I812 F813 A814 M815 G816 L817 C818 G819 A820 G821 T822 N823 N824 A825 R826 L827 A828 Q829 L830 L831 R832 Q833 L834 S839 Q842 L850 A851 Q852 G853 L854 L855 H856 L857 G858 K859 G860 T861 M862 T863 M864 D865 V866 F867 N868 D869 A870 H871 V872 L873 N874 K875 V876 T877 L878
A879 S880 I881 L882 T883 T884 A885 V886 G887 L888 V889 S890 P891 S892 F893 M894 L895 K896 H897 H898 Q899 L900 F901 Y902 M903 L904 N905 A906 G907 I908 R909 P910 K911 L914 A915 L916 N917 D918 E919 G920 E921 P922 I923 K924 V925 N926 V927 G930 Q931 ALA VAL GLU THR VAL GLY GLN ALA GLY
ARG PRO LYS LYS ILE THR GLY TRP ILE THR GLN SER THR P954 V955 L956 L957 N958 H959 G960 E961 R962 A963 E964 L965 E966 T967 D968 E969 Y970 I971 S972 Y973 T974 S975 H976 V980 V981 I982 L983 K984 K985 N986 P987 D988 Y989 R990 E991 E992 E993

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	53000	Depositor
Resolution determination method	FSC	Depositor
CTF correction method	MICROGRAPH	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	45	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	12.581	Depositor
Minimum map value	-11.710	Depositor
Average map value	0.006	Depositor
Map value standard deviation	0.297	Depositor
Recommended contour level	1.17	Depositor
Map size (Å)	557.2, 557.2, 557.2	wwPDB
Map dimensions	280, 280, 280	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.99, 1.99, 1.99	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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	1	1.21	8/1605 (0.5%)	1.20	5/2171 (0.2%)
2	2	1.24	14/1723 (0.8%)	1.25	4/2337 (0.2%)
3	3	1.18	7/1611 (0.4%)	1.17	2/2174 (0.1%)
4	4	1.16	8/1613 (0.5%)	1.22	2/2173 (0.1%)
5	5	1.19	8/1683 (0.5%)	1.22	3/2277 (0.1%)
6	6	1.22	11/1795 (0.6%)	1.18	4/2420 (0.2%)
7	7	1.14	6/1855 (0.3%)	1.14	2/2514 (0.1%)
8	8	0.64	2/3093 (0.1%)	0.75	1/4141 (0.0%)
9	9	0.47	0/603	0.75	1/811 (0.1%)
10	A	1.23	10/1959 (0.5%)	1.21	10/2652 (0.4%)
11	B	1.21	8/1952 (0.4%)	1.21	5/2642 (0.2%)
12	C	1.16	11/1943 (0.6%)	1.19	2/2629 (0.1%)
13	D	1.12	7/1928 (0.4%)	1.13	2/2610 (0.1%)
14	E	1.19	8/1892 (0.4%)	1.14	2/2549 (0.1%)
15	F	1.23	13/1823 (0.7%)	1.16	4/2463 (0.2%)
16	G	1.24	15/1940 (0.8%)	1.22	4/2619 (0.2%)
17	H	1.08	7/2831 (0.2%)	1.28	11/3808 (0.3%)
18	I	1.17	14/2859 (0.5%)	1.20	8/3853 (0.2%)
19	J	1.17	13/2962 (0.4%)	1.15	4/3975 (0.1%)
20	K	1.21	10/3061 (0.3%)	1.37	11/4129 (0.3%)
21	L	1.16	11/2895 (0.4%)	1.14	3/3892 (0.1%)
22	M	1.17	10/2903 (0.3%)	1.24	14/3909 (0.4%)
23	N	1.15	31/6670 (0.5%)	1.21	26/9023 (0.3%)
24	O	0.73	10/3243 (0.3%)	0.95	4/4374 (0.1%)
25	P	1.17	12/3452 (0.3%)	1.20	12/4657 (0.3%)
26	Q	1.11	16/3527 (0.5%)	1.09	7/4748 (0.1%)
27	R	1.05	12/3272 (0.4%)	1.08	4/4412 (0.1%)
28	S	1.08	13/2945 (0.4%)	1.11	2/3976 (0.1%)
29	T	1.04	9/2279 (0.4%)	1.07	3/3077 (0.1%)
30	U	1.82	12/2087 (0.6%)	1.16	11/2811 (0.4%)
31	V	1.20	12/1969 (0.6%)	1.26	16/2652 (0.6%)
32	W	1.40	12/1556 (0.8%)	1.73	16/2108 (0.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
33	X	1.20	4/1058 (0.4%)	1.33	5/1432 (0.3%)
34	Y	0.97	0/169	0.94	0/223
35	Z	1.03	31/6403 (0.5%)	1.12	15/8686 (0.2%)
All	All	1.14	375/85159 (0.4%)	1.17	225/114927 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	1	0	1
6	6	0	1
7	7	0	2
10	A	0	3
13	D	0	1
15	F	0	1
17	H	0	6
19	J	0	1
21	L	0	4
22	M	0	2
23	N	0	7
24	O	0	2
25	P	0	3
26	Q	0	1
27	R	0	2
28	S	0	1
29	T	0	2
30	U	0	6
31	V	0	6
32	W	0	11
33	X	0	3
35	Z	0	7
All	All	0	73

All (375) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	U	230	GLN	N-CA	70.24	2.86	1.46
32	W	38	GLN	C-N	-38.10	0.46	1.34
20	K	242	PHE	C-N	21.53	1.83	1.34
22	M	257	GLY	C-N	20.41	1.80	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	Z	134	SER	N-CA	16.22	1.78	1.46
31	V	99	GLY	C-N	13.69	1.65	1.34
21	L	257	GLY	C-N	13.04	1.64	1.34
31	V	282	GLU	C-N	12.49	1.62	1.34
32	W	154	LEU	C-N	-12.40	1.05	1.34
31	V	291	ASN	C-N	11.42	1.60	1.34
32	W	153	LEU	C-N	9.48	1.55	1.34
15	F	149	PRO	N-CD	9.12	1.60	1.47
29	T	28	PRO	N-CD	8.78	1.60	1.47
10	A	66	PRO	N-CD	8.54	1.59	1.47
4	4	172	PRO	N-CD	8.41	1.59	1.47
29	T	65	GLY	CA-C	-8.22	1.38	1.51
3	3	147	PRO	N-CD	8.14	1.59	1.47
23	N	8	PRO	N-CD	7.85	1.58	1.47
19	J	68	PRO	N-CD	7.79	1.58	1.47
12	C	232	PRO	N-CD	7.75	1.58	1.47
22	M	58	MET	C-N	-7.67	1.16	1.34
10	A	165	GLY	CA-C	-7.64	1.39	1.51
30	U	97	PRO	N-CD	7.43	1.58	1.47
23	N	451	GLY	CA-C	-7.42	1.40	1.51
5	5	94	GLY	CA-C	-7.42	1.40	1.51
18	I	123	PRO	N-CD	7.38	1.58	1.47
31	V	55	GLY	CA-C	-7.37	1.40	1.51
19	J	150	VAL	C-N	7.34	1.46	1.33
23	N	762	ARG	CD-NE	7.32	1.58	1.46
10	A	173	PRO	N-CD	7.29	1.58	1.47
18	I	353	PRO	N-CD	7.28	1.58	1.47
13	D	184	PRO	N-CD	7.25	1.57	1.47
22	M	335	PRO	N-CD	7.24	1.57	1.47
1	1	190	PRO	N-CD	7.21	1.57	1.47
21	L	330	PRO	N-CD	7.14	1.57	1.47
19	J	260	GLY	N-CA	-7.11	1.35	1.46
23	N	643	PRO	N-CD	7.09	1.57	1.47
23	N	561	GLY	CA-C	-7.03	1.40	1.51
30	U	113	TYR	CZ-OH	7.03	1.49	1.37
17	H	358	PRO	N-CD	7.01	1.57	1.47
18	I	166	PRO	N-CD	6.97	1.57	1.47
32	W	53	SER	CA-CB	6.89	1.63	1.52
23	N	391	PRO	N-CD	6.88	1.57	1.47
6	6	153	PRO	N-CD	6.87	1.57	1.47
28	S	457	PRO	N-CD	6.86	1.57	1.47
20	K	97	GLY	CA-C	-6.85	1.40	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	O	278	PRO	N-CD	6.75	1.57	1.47
23	N	648	PRO	N-CD	6.72	1.57	1.47
23	N	44	PRO	N-CD	6.68	1.57	1.47
3	3	151	PRO	N-CD	6.66	1.57	1.47
12	C	15	PRO	N-CD	6.63	1.57	1.47
15	F	2	PHE	N-CA	6.61	1.59	1.46
28	S	165	PRO	N-CD	6.56	1.57	1.47
10	A	152	PRO	N-CD	6.55	1.57	1.47
23	N	906	ARG	CD-NE	6.54	1.57	1.46
35	Z	354	PRO	N-CD	6.54	1.57	1.47
21	L	412	PRO	N-CD	6.52	1.56	1.47
6	6	47	GLY	CA-C	-6.52	1.41	1.51
31	V	143	PRO	N-CD	6.42	1.56	1.47
6	6	162	PRO	N-CD	6.38	1.56	1.47
16	G	130	PRO	N-CD	6.38	1.56	1.47
27	R	306	PRO	N-CD	6.38	1.56	1.47
19	J	187	LEU	CA-C	-6.34	1.36	1.52
32	W	117	PRO	N-CD	6.33	1.56	1.47
20	K	206	PRO	N-CD	6.33	1.56	1.47
12	C	153	PRO	N-CD	6.27	1.56	1.47
16	G	139	GLY	N-CA	-6.26	1.36	1.46
33	X	71	GLY	N-CA	-6.26	1.36	1.46
32	W	22	PRO	N-CD	6.25	1.56	1.47
21	L	335	PRO	N-CD	6.25	1.56	1.47
18	I	145	CYS	N-CA	-6.24	1.33	1.46
16	G	152	PRO	N-CD	6.20	1.56	1.47
16	G	154	GLY	CA-C	-6.20	1.42	1.51
12	C	232	PRO	CA-C	-6.19	1.40	1.52
18	I	341	PRO	N-CD	6.17	1.56	1.47
23	N	294	PRO	N-CD	6.16	1.56	1.47
23	N	444	HIS	CG-CD2	6.15	1.46	1.35
32	W	189	PRO	N-CD	6.14	1.56	1.47
14	E	99	HIS	CG-CD2	6.13	1.46	1.35
2	2	109	HIS	CG-CD2	6.12	1.46	1.35
1	1	62	HIS	CG-CD2	6.12	1.46	1.35
26	Q	178	HIS	CG-CD2	6.11	1.46	1.35
16	G	181	HIS	CG-CD2	6.11	1.46	1.35
4	4	40	HIS	CG-CD2	6.11	1.46	1.35
11	B	139	HIS	CG-CD2	6.11	1.46	1.35
17	H	392	HIS	CG-CD2	6.11	1.46	1.35
35	Z	307	HIS	CG-CD2	6.10	1.46	1.35
19	J	240	HIS	CG-CD2	6.10	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	O	122	HIS	CG-CD2	6.10	1.46	1.35
35	Z	976	HIS	CG-CD2	6.10	1.46	1.35
23	N	510	HIS	CG-CD2	6.10	1.46	1.35
4	4	145	HIS	CG-CD2	6.10	1.46	1.35
15	F	143	HIS	CG-CD2	6.10	1.46	1.35
18	I	150	HIS	CG-CD2	6.10	1.46	1.35
25	P	230	HIS	CG-CD2	6.10	1.46	1.35
28	S	347	HIS	CG-CD2	6.10	1.46	1.35
35	Z	771	HIS	CG-CD2	6.10	1.46	1.35
27	R	325	HIS	CG-CD2	6.10	1.46	1.35
7	7	222	THR	N-CA	-6.09	1.34	1.46
18	I	151	HIS	CG-CD2	6.09	1.46	1.35
28	S	317	HIS	CG-CD2	6.09	1.46	1.35
31	V	204	HIS	CG-CD2	6.09	1.46	1.35
35	Z	871	HIS	CG-CD2	6.09	1.46	1.35
11	B	94	HIS	CG-CD2	6.09	1.46	1.35
25	P	425	HIS	CG-CD2	6.09	1.46	1.35
27	R	318	PRO	N-CD	6.09	1.56	1.47
19	J	331	HIS	CG-CD2	6.09	1.46	1.35
5	5	66	HIS	CG-CD2	6.09	1.46	1.35
10	A	209	HIS	CG-CD2	6.09	1.46	1.35
26	Q	80	HIS	CG-CD2	6.09	1.46	1.35
3	3	39	HIS	CG-CD2	6.08	1.46	1.35
22	M	53	HIS	CG-CD2	6.08	1.46	1.35
24	O	23	HIS	CG-CD2	6.08	1.46	1.35
18	I	204	HIS	CG-CD2	6.08	1.46	1.35
28	S	438	HIS	CG-CD2	6.08	1.46	1.35
29	T	251	HIS	CG-CD2	6.08	1.46	1.35
19	J	170	HIS	CG-CD2	6.08	1.46	1.35
24	O	326	HIS	CG-CD2	6.08	1.46	1.35
21	L	409	HIS	CG-CD2	6.08	1.46	1.35
26	Q	247	HIS	CG-CD2	6.08	1.46	1.35
1	1	157	HIS	CG-CD2	6.08	1.46	1.35
13	D	70	HIS	CG-CD2	6.08	1.46	1.35
13	D	96	HIS	CG-CD2	6.08	1.46	1.35
17	H	95	HIS	CG-CD2	6.08	1.46	1.35
20	K	74	HIS	CG-CD2	6.08	1.46	1.35
25	P	263	HIS	CG-CD2	6.08	1.46	1.35
15	F	43	HIS	CG-CD2	6.07	1.46	1.35
19	J	376	HIS	CG-CD2	6.07	1.46	1.35
30	U	21	HIS	CG-CD2	6.07	1.46	1.35
35	Z	622	HIS	CG-CD2	6.07	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	Z	132	HIS	CG-CD2	6.07	1.46	1.35
4	4	132	HIS	CG-CD2	6.07	1.46	1.35
24	O	235	HIS	CG-CD2	6.07	1.46	1.35
29	T	123	HIS	CG-CD2	6.07	1.46	1.35
31	V	111	HIS	CG-CD2	6.07	1.46	1.35
35	Z	763	HIS	CG-CD2	6.07	1.46	1.35
35	Z	338	HIS	CG-CD2	6.07	1.46	1.35
16	G	122	HIS	CG-CD2	6.07	1.46	1.35
19	J	204	HIS	CG-CD2	6.07	1.46	1.35
23	N	340	HIS	CG-CD2	6.07	1.46	1.35
35	Z	959	HIS	CG-CD2	6.07	1.46	1.35
2	2	116	HIS	CG-CD2	6.07	1.46	1.35
8	8	272	MSE	SE-CE	-6.06	1.59	1.95
10	A	193	HIS	CG-CD2	6.06	1.46	1.35
16	G	227	HIS	CG-CD2	6.06	1.46	1.35
24	O	5	HIS	CG-CD2	6.06	1.46	1.35
1	1	73	PRO	N-CD	6.06	1.56	1.47
6	6	86	HIS	CG-CD2	6.06	1.46	1.35
27	R	217	HIS	CG-CD2	6.06	1.46	1.35
30	U	156	HIS	CG-CD2	6.06	1.46	1.35
29	T	94	HIS	CG-CD2	6.06	1.46	1.35
14	E	91	HIS	CG-CD2	6.06	1.46	1.35
22	M	412	HIS	CG-CD2	6.06	1.46	1.35
24	O	318	HIS	CG-CD2	6.06	1.46	1.35
16	G	182	HIS	CG-CD2	6.06	1.46	1.35
26	Q	361	HIS	CG-CD2	6.06	1.46	1.35
1	1	120	HIS	CG-CD2	6.06	1.46	1.35
3	3	36	HIS	CG-CD2	6.06	1.46	1.35
15	F	108	ALA	C-N	6.06	1.44	1.33
26	Q	334	HIS	CG-CD2	6.06	1.46	1.35
2	2	114	HIS	CG-CD2	6.05	1.46	1.35
22	M	364	HIS	CG-CD2	6.05	1.46	1.35
23	N	616	HIS	CG-CD2	6.05	1.46	1.35
26	Q	145	HIS	CG-CD2	6.05	1.46	1.35
31	V	195	HIS	CG-CD2	6.05	1.46	1.35
35	Z	760	HIS	CG-CD2	6.05	1.46	1.35
23	N	329	HIS	CG-CD2	6.05	1.46	1.35
26	Q	252	HIS	CG-CD2	6.05	1.46	1.35
28	S	139	HIS	CG-CD2	6.05	1.46	1.35
31	V	190	HIS	CG-CD2	6.05	1.46	1.35
35	Z	532	HIS	CG-CD2	6.05	1.46	1.35
16	G	146	HIS	CG-CD2	6.05	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	P	417	HIS	CG-CD2	6.05	1.46	1.35
30	U	173	HIS	CG-CD2	6.05	1.46	1.35
30	U	223	HIS	CG-CD2	6.05	1.46	1.35
2	2	86	HIS	CG-CD2	6.05	1.46	1.35
14	E	188	HIS	CG-CD2	6.05	1.46	1.35
16	G	72	HIS	CG-CD2	6.05	1.46	1.35
26	Q	186	HIS	CG-CD2	6.05	1.46	1.35
19	J	205	HIS	CG-CD2	6.05	1.46	1.35
27	R	401	HIS	CG-CD2	6.05	1.46	1.35
28	S	191	HIS	CG-CD2	6.05	1.46	1.35
30	U	5	HIS	CG-CD2	6.05	1.46	1.35
35	Z	801	HIS	CG-CD2	6.05	1.46	1.35
16	G	203	HIS	CG-CD2	6.04	1.46	1.35
21	L	364	HIS	CG-CD2	6.04	1.46	1.35
14	E	73	HIS	CG-CD2	6.04	1.46	1.35
25	P	336	HIS	CG-CD2	6.04	1.46	1.35
1	1	38	HIS	CG-CD2	6.04	1.46	1.35
14	E	157	HIS	CG-CD2	6.04	1.46	1.35
18	I	117	HIS	CG-CD2	6.04	1.46	1.35
24	O	283	HIS	CG-CD2	6.04	1.46	1.35
26	Q	226	HIS	CG-CD2	6.04	1.46	1.35
35	Z	593	HIS	CG-CD2	6.04	1.46	1.35
35	Z	856	HIS	CG-CD2	6.04	1.46	1.35
2	2	141	HIS	CG-CD2	6.04	1.46	1.35
25	P	440	HIS	CG-CD2	6.04	1.46	1.35
35	Z	898	HIS	CG-CD2	6.04	1.46	1.35
10	A	185	HIS	CG-CD2	6.04	1.46	1.35
13	D	16	HIS	CG-CD2	6.04	1.46	1.35
15	F	69	HIS	CG-CD2	6.04	1.46	1.35
30	U	94	HIS	CG-CD2	6.04	1.46	1.35
32	W	77	HIS	CG-CD2	6.04	1.46	1.35
35	Z	214	HIS	CG-CD2	6.04	1.46	1.35
35	Z	897	HIS	CG-CD2	6.04	1.46	1.35
6	6	186	HIS	CG-CD2	6.04	1.46	1.35
23	N	690	HIS	CG-CD2	6.04	1.46	1.35
26	Q	135	HIS	CG-CD2	6.04	1.46	1.35
28	S	225	HIS	CG-CD2	6.04	1.46	1.35
20	K	244	HIS	CG-CD2	6.03	1.46	1.35
23	N	375	HIS	CG-CD2	6.03	1.46	1.35
23	N	573	HIS	CG-CD2	6.03	1.46	1.35
25	P	431	HIS	CG-CD2	6.03	1.46	1.35
27	R	81	HIS	CG-CD2	6.03	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	K	142	HIS	CG-CD2	6.03	1.46	1.35
23	N	499	HIS	CG-CD2	6.03	1.46	1.35
2	2	66	HIS	CG-CD2	6.03	1.46	1.35
35	Z	97	PRO	N-CD	6.03	1.56	1.47
35	Z	766	HIS	CG-CD2	6.03	1.46	1.35
6	6	70	HIS	CG-CD2	6.03	1.46	1.35
7	7	141	HIS	CG-CD2	6.03	1.46	1.35
5	5	179	HIS	CG-CD2	6.03	1.46	1.35
7	7	44	GLY	CA-C	-6.03	1.42	1.51
10	A	15	HIS	CG-CD2	6.03	1.46	1.35
19	J	123	HIS	CG-CD2	6.03	1.46	1.35
21	L	273	HIS	CG-CD2	6.03	1.46	1.35
2	2	35	HIS	CG-CD2	6.03	1.46	1.35
35	Z	361	HIS	CG-CD2	6.03	1.46	1.35
25	P	337	HIS	CG-CD2	6.02	1.46	1.35
28	S	472	HIS	CG-CD2	6.02	1.46	1.35
14	E	147	HIS	CG-CD2	6.02	1.46	1.35
6	6	67	HIS	CG-CD2	6.02	1.46	1.35
12	C	94	HIS	CG-CD2	6.02	1.46	1.35
21	L	67	HIS	CG-CD2	6.02	1.46	1.35
29	T	132	HIS	CG-CD2	6.02	1.46	1.35
23	N	697	PHE	C-N	6.02	1.43	1.33
35	Z	151	HIS	CG-CD2	6.02	1.46	1.35
35	Z	463	HIS	CG-CD2	6.02	1.46	1.35
32	W	107	HIS	CG-CD2	6.02	1.46	1.35
15	F	110	HIS	CG-CD2	6.01	1.46	1.35
25	P	282	HIS	CG-CD2	6.01	1.46	1.35
20	K	250	GLY	CA-C	6.01	1.61	1.51
2	2	93	HIS	CG-CD2	6.01	1.46	1.35
4	4	146	HIS	CG-CD2	6.01	1.46	1.35
5	5	166	HIS	CG-CD2	6.01	1.46	1.35
23	N	613	HIS	CG-CD2	6.01	1.46	1.35
23	N	747	HIS	CG-CD2	6.01	1.46	1.35
16	G	86	HIS	CG-CD2	6.01	1.46	1.35
24	O	236	HIS	CG-CD2	6.01	1.46	1.35
31	V	217	HIS	CG-CD2	6.00	1.46	1.35
20	K	140	HIS	CG-CD2	6.00	1.46	1.35
25	P	348	HIS	CG-CD2	6.00	1.46	1.35
5	5	188	HIS	CG-CD2	6.00	1.46	1.35
28	S	334	HIS	CG-CD2	6.00	1.46	1.35
11	B	190	HIS	CG-CD2	6.00	1.46	1.35
31	V	40	HIS	CG-CD2	6.00	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	7	54	HIS	CG-CD2	6.00	1.46	1.35
18	I	365	HIS	CG-CD2	5.99	1.46	1.35
6	6	99	HIS	CG-CD2	5.99	1.46	1.35
28	S	302	HIS	CG-CD2	5.99	1.46	1.35
35	Z	156	HIS	CG-CD2	5.99	1.46	1.35
32	W	100	HIS	CG-CD2	5.98	1.46	1.35
12	C	31	HIS	CG-CD2	5.98	1.46	1.35
28	S	261	HIS	CG-CD2	5.97	1.46	1.35
12	C	125	HIS	CG-CD2	5.97	1.45	1.35
18	I	225	PRO	N-CD	5.97	1.56	1.47
23	N	445	GLY	CA-C	-5.95	1.42	1.51
21	L	350	PRO	N-CD	5.95	1.56	1.47
5	5	191	HIS	CG-CD2	5.94	1.45	1.35
25	P	396	PRO	N-CD	5.94	1.56	1.47
35	Z	506	LEU	C-N	5.91	1.43	1.33
17	H	287	GLY	N-CA	-5.89	1.37	1.46
2	2	11	GLY	CA-C	-5.87	1.42	1.51
19	J	167	PRO	N-CD	5.86	1.56	1.47
13	D	206	GLY	N-CA	-5.86	1.37	1.46
27	R	393	PRO	N-CD	5.85	1.56	1.47
35	Z	788	PRO	N-CD	5.85	1.56	1.47
22	M	224	PRO	N-CD	5.80	1.55	1.47
15	F	186	PRO	N-CD	5.77	1.55	1.47
23	N	626	GLY	N-CA	-5.77	1.37	1.46
13	D	159	TRP	N-CA	-5.76	1.34	1.46
17	H	380	PRO	N-CD	5.75	1.55	1.47
27	R	102	LEU	CA-C	-5.75	1.38	1.52
35	Z	930	GLY	CA-C	5.75	1.61	1.51
7	7	81	PRO	N-CD	5.73	1.55	1.47
3	3	26	GLY	CA-C	-5.73	1.42	1.51
22	M	406	GLY	CA-C	-5.73	1.42	1.51
1	1	116	GLY	N-CA	-5.70	1.37	1.46
17	H	243	PRO	N-CD	5.70	1.55	1.47
35	Z	892	SER	N-CA	-5.66	1.35	1.46
10	A	86	PRO	N-CD	5.66	1.55	1.47
26	Q	375	GLY	CA-C	-5.65	1.42	1.51
28	S	301	PRO	N-CD	5.63	1.55	1.47
3	3	75	PRO	N-CD	5.62	1.55	1.47
12	C	2	GLY	CA-C	-5.58	1.43	1.51
20	K	202	GLY	N-CA	-5.57	1.37	1.46
25	P	31	ASP	CA-CB	5.57	1.66	1.53
15	F	77	LEU	N-CA	-5.56	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	2	206	PRO	N-CA	-5.55	1.37	1.47
35	Z	987	PRO	N-CD	5.55	1.55	1.47
30	U	55	PRO	N-CD	5.52	1.55	1.47
26	Q	108	PRO	N-CD	5.51	1.55	1.47
26	Q	69	GLY	CA-C	-5.51	1.43	1.51
7	7	101	PRO	N-CD	5.49	1.55	1.47
3	3	113	ALA	CA-C	-5.48	1.38	1.52
1	1	71	GLY	N-CA	-5.47	1.37	1.46
35	Z	481	PRO	N-CD	5.47	1.55	1.47
12	C	130	PRO	N-CD	5.46	1.55	1.47
6	6	190	GLY	CA-C	-5.45	1.43	1.51
26	Q	127	ARG	C-N	5.44	1.46	1.34
17	H	305	ILE	CA-C	-5.44	1.38	1.52
14	E	42	THR	N-CA	-5.42	1.35	1.46
32	W	188	SER	N-CA	5.40	1.57	1.46
15	F	79	PRO	N-CD	5.39	1.55	1.47
21	L	263	ILE	CA-C	-5.38	1.39	1.52
19	J	194	GLY	CA-C	-5.38	1.43	1.51
18	I	250	SER	N-CA	-5.37	1.35	1.46
30	U	78	GLU	CD-OE2	5.36	1.31	1.25
30	U	39	GLY	CA-C	-5.34	1.43	1.51
4	4	5	GLY	CA-C	-5.34	1.43	1.51
22	M	200	PRO	N-CD	5.34	1.55	1.47
23	N	775	CYS	CA-CB	5.34	1.65	1.53
22	M	350	PRO	N-CD	5.32	1.55	1.47
31	V	286	GLU	CG-CD	-5.32	1.44	1.51
11	B	135	LEU	CA-C	-5.32	1.39	1.52
13	D	217	PRO	N-CD	5.31	1.55	1.47
2	2	24	PRO	N-CD	5.31	1.55	1.47
32	W	77	HIS	CA-C	5.27	1.66	1.52
12	C	15	PRO	CA-C	-5.27	1.42	1.52
33	X	50	TRP	NE1-CE2	-5.26	1.30	1.37
6	6	95	PRO	N-CD	5.25	1.55	1.47
16	G	58	LEU	N-CA	-5.25	1.35	1.46
10	A	138	GLY	N-CA	-5.24	1.38	1.46
11	B	106	PRO	N-CD	5.22	1.55	1.47
8	8	344	MSE	SE-CE	-5.21	1.64	1.95
2	2	206	PRO	N-CD	5.21	1.55	1.47
23	N	462	VAL	N-CA	-5.21	1.35	1.46
15	F	140	SER	C-N	5.20	1.42	1.33
2	2	105	PRO	N-CD	5.20	1.55	1.47
11	B	219	PRO	N-CD	5.19	1.55	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	T	227	PRO	N-CD	5.18	1.55	1.47
2	2	174	ASP	CA-C	-5.18	1.39	1.52
27	R	126	GLY	N-CA	-5.18	1.38	1.46
11	B	37	ILE	N-CA	-5.17	1.36	1.46
23	N	407	GLY	N-CA	-5.17	1.38	1.46
16	G	148	TYR	C-N	5.16	1.46	1.34
15	F	125	GLY	N-CA	-5.15	1.38	1.46
26	Q	79	PRO	N-CD	5.15	1.55	1.47
5	5	39	PRO	N-CD	5.15	1.55	1.47
29	T	2	PRO	N-CD	5.14	1.55	1.47
33	X	91	PHE	N-CA	-5.13	1.36	1.46
26	Q	207	SER	C-N	5.13	1.45	1.34
6	6	11	PHE	N-CA	-5.13	1.36	1.46
12	C	53	THR	CA-C	-5.12	1.39	1.52
18	I	320	GLY	C-N	5.12	1.45	1.34
23	N	646	LYS	N-CA	-5.12	1.36	1.46
4	4	28	LYS	N-CA	-5.12	1.36	1.46
20	K	151	PRO	N-CD	5.11	1.55	1.47
23	N	495	PRO	N-CD	5.10	1.54	1.47
14	E	160	PRO	N-CD	5.09	1.54	1.47
29	T	72	THR	N-CA	-5.09	1.36	1.46
33	X	110	PRO	N-CD	5.09	1.54	1.47
11	B	138	GLY	CA-C	-5.08	1.43	1.51
27	R	61	PRO	N-CD	5.08	1.54	1.47
5	5	11	GLY	CA-C	-5.07	1.43	1.51
16	G	247	ASN	N-CA	-5.07	1.36	1.46
24	O	164	PRO	N-CD	5.07	1.54	1.47
18	I	430	GLU	N-CA	-5.06	1.36	1.46
27	R	189	GLU	C-N	5.05	1.45	1.34
4	4	177	GLY	N-CA	-5.05	1.38	1.46
23	N	461	GLU	N-CA	-5.05	1.36	1.46
21	L	340	PRO	N-CD	5.04	1.54	1.47
23	N	893	VAL	CB-CG2	5.02	1.63	1.52
15	F	217	GLY	CA-C	-5.02	1.43	1.51
27	R	386	GLY	N-CA	-5.00	1.38	1.46

All (225) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	W	154	LEU	O-C-N	34.34	177.64	122.70
20	K	242	PHE	O-C-N	27.34	166.44	122.70
20	K	242	PHE	C-N-CA	-26.79	54.71	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	W	154	LEU	CA-C-N	-25.06	62.07	117.20
23	N	889	ARG	NE-CZ-NH1	23.10	131.85	120.30
22	M	58	MET	O-C-N	-21.08	88.98	122.70
20	K	242	PHE	CA-C-N	-20.60	71.88	117.20
32	W	154	LEU	C-N-CA	-19.93	71.88	121.70
32	W	58	ASN	C-N-CD	-17.05	83.08	120.60
17	H	279	LEU	O-C-N	15.75	147.90	122.70
17	H	187	LEU	C-N-CD	-15.20	87.16	120.60
32	W	153	LEU	O-C-N	-15.17	98.42	122.70
17	H	279	LEU	CA-C-N	-11.09	92.81	117.20
23	N	889	ARG	NE-CZ-NH2	-10.21	115.19	120.30
25	P	69	ARG	NE-CZ-NH1	9.96	125.28	120.30
22	M	257	GLY	O-C-N	-9.68	107.21	122.70
32	W	109	ARG	NH1-CZ-NH2	-9.58	108.86	119.40
32	W	11	ASP	O-C-N	-9.38	107.70	122.70
23	N	890	PHE	CB-CG-CD2	-9.34	114.26	120.80
23	N	776	TYR	CG-CD2-CE2	-9.33	113.84	121.30
23	N	762	ARG	CD-NE-CZ	-9.21	110.70	123.60
32	W	11	ASP	C-N-CA	9.19	144.67	121.70
23	N	780	ASP	CB-CG-OD1	9.17	126.55	118.30
31	V	290	ASN	O-C-N	-8.96	108.37	122.70
21	L	257	GLY	O-C-N	-8.94	108.40	122.70
30	U	229	LEU	C-N-CA	8.78	143.64	121.70
32	W	109	ARG	NE-CZ-NH1	8.60	124.60	120.30
17	H	279	LEU	C-N-CA	-8.39	100.73	121.70
22	M	251	LEU	CA-C-N	-8.00	99.59	117.20
25	P	51	ASP	CB-CG-OD2	-7.99	111.11	118.30
22	M	251	LEU	C-N-CA	-7.91	101.94	121.70
10	A	242	GLU	CA-CB-CG	7.78	130.52	113.40
25	P	47	ARG	NE-CZ-NH1	7.69	124.14	120.30
30	U	113	TYR	CB-CG-CD2	-7.68	116.39	121.00
24	O	345	ASN	C-N-CA	7.27	139.87	121.70
30	U	113	TYR	CB-CG-CD1	7.23	125.34	121.00
30	U	230	GLN	N-CA-C	7.21	130.47	111.00
20	K	54	LEU	C-N-CA	7.12	139.51	121.70
31	V	47	MET	C-N-CA	7.07	139.38	121.70
31	V	282	GLU	O-C-N	7.03	133.95	122.70
28	S	327	ILE	C-N-CD	-7.02	105.15	120.60
25	P	47	ARG	NE-CZ-NH2	-7.01	116.79	120.30
32	W	111	VAL	CA-CB-CG2	7.01	121.42	110.90
18	I	256	TYR	CB-CG-CD1	-6.88	116.88	121.00
35	Z	133	ASP	C-N-CA	6.86	138.84	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	P	69	ARG	NE-CZ-NH2	-6.78	116.91	120.30
31	V	283	THR	C-N-CA	6.77	138.63	121.70
23	N	781	ALA	C-N-CA	6.77	138.63	121.70
32	W	191	ILE	C-N-CA	6.76	138.61	121.70
23	N	776	TYR	CZ-CE2-CD2	6.63	125.77	119.80
31	V	50	MET	C-N-CA	-6.63	108.38	122.30
10	A	246	VAL	CA-CB-CG2	-6.62	100.97	110.90
23	N	906	ARG	NE-CZ-NH1	6.62	123.61	120.30
30	U	78	GLU	O-C-N	-6.58	112.18	122.70
10	A	87	ILE	CA-C-N	6.57	135.50	117.10
31	V	78	VAL	C-N-CA	6.56	138.10	121.70
10	A	242	GLU	CB-CA-C	-6.54	97.31	110.40
17	H	280	VAL	O-C-N	-6.54	112.24	122.70
10	A	11	GLY	N-CA-C	-6.45	96.97	113.10
23	N	762	ARG	NE-CZ-NH1	-6.38	117.11	120.30
17	H	163	VAL	O-C-N	-6.37	112.51	122.70
6	6	22	THR	N-CA-C	-6.36	93.84	111.00
6	6	31	GLU	N-CA-C	-6.30	93.99	111.00
11	B	214	ILE	N-CA-C	-6.29	94.00	111.00
35	Z	92	LEU	O-C-N	6.29	132.77	122.70
33	X	54	GLU	OE1-CD-OE2	-6.26	115.79	123.30
30	U	78	GLU	OE1-CD-OE2	-6.25	115.80	123.30
32	W	111	VAL	O-C-N	-6.24	112.72	122.70
31	V	66	VAL	O-C-N	6.21	132.64	122.70
31	V	283	THR	O-C-N	-6.18	112.82	122.70
17	H	285	GLY	O-C-N	-6.14	112.87	122.70
35	Z	88	PRO	O-C-N	6.14	132.52	122.70
17	H	172	MET	N-CA-C	6.05	127.35	111.00
33	X	56	PRO	O-C-N	-6.05	113.03	122.70
17	H	54	ASN	O-C-N	-6.03	113.05	122.70
31	V	66	VAL	CA-C-N	-6.03	103.94	117.20
15	F	64	ILE	N-CA-C	-6.00	94.80	111.00
23	N	95	SER	N-CA-C	-5.97	94.87	111.00
18	I	147	VAL	N-CA-C	-5.95	94.92	111.00
24	O	206	THR	N-CA-C	-5.94	94.95	111.00
1	1	124	TYR	N-CA-C	-5.94	94.96	111.00
11	B	202	GLY	O-C-N	5.93	132.19	122.70
35	Z	134	SER	N-CA-C	-5.93	95.00	111.00
33	X	83	SER	N-CA-C	-5.92	95.00	111.00
26	Q	321	TYR	O-C-N	5.92	132.17	122.70
20	K	235	ILE	N-CA-C	-5.91	95.04	111.00
19	J	79	VAL	C-N-CA	5.90	136.46	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	2	175	VAL	N-CA-C	-5.89	95.09	111.00
22	M	319	ASP	N-CA-C	-5.89	95.09	111.00
10	A	56	GLN	O-C-N	-5.86	113.32	122.70
23	N	889	ARG	NH1-CZ-NH2	-5.86	112.95	119.40
23	N	905	LEU	CB-CG-CD1	5.85	120.95	111.00
22	M	370	THR	N-CA-C	-5.84	95.23	111.00
25	P	43	GLU	CB-CA-C	5.79	121.99	110.40
30	U	69	ASP	O-C-N	-5.79	113.44	122.70
35	Z	371	SER	N-CA-C	-5.79	95.38	111.00
1	1	19	ARG	N-CA-C	-5.78	95.39	111.00
13	D	153	SER	C-N-CA	5.76	134.40	122.30
2	2	103	VAL	N-CA-C	-5.74	95.51	111.00
31	V	50	MET	CA-CB-CG	5.72	123.03	113.30
22	M	84	GLU	N-CA-C	-5.71	95.57	111.00
30	U	230	GLN	CB-CA-C	-5.71	98.97	110.40
25	P	395	ARG	CA-C-N	5.70	133.07	117.10
35	Z	134	SER	CA-C-N	5.69	129.72	117.20
31	V	48	GLU	N-CA-C	5.69	126.36	111.00
35	Z	776	VAL	CA-C-O	-5.68	108.17	120.10
17	H	188	PRO	N-CA-C	5.65	126.79	112.10
31	V	66	VAL	C-N-CA	-5.65	107.58	121.70
15	F	107	ARG	O-C-N	5.64	131.73	122.70
21	L	257	GLY	CA-C-N	5.63	129.58	117.20
17	H	162	ARG	CA-CB-CG	5.62	125.77	113.40
33	X	89	LEU	N-CA-C	-5.62	95.83	111.00
3	3	99	VAL	N-CA-C	-5.60	95.87	111.00
2	2	12	VAL	N-CA-C	-5.60	95.87	111.00
10	A	226	GLY	N-CA-C	-5.58	99.15	113.10
22	M	58	MET	C-N-CA	5.57	135.64	121.70
32	W	112	ALA	O-C-N	-5.57	113.79	122.70
24	O	19	ASP	CB-CG-OD2	-5.56	113.29	118.30
23	N	250	ASP	N-CA-C	-5.56	95.99	111.00
32	W	53	SER	C-N-CA	5.56	133.97	122.30
26	Q	298	ALA	O-C-N	-5.53	113.84	122.70
10	A	241	ILE	O-C-N	-5.53	113.86	122.70
31	V	282	GLU	CA-C-N	-5.52	105.06	117.20
20	K	318	THR	N-CA-C	-5.51	96.13	111.00
5	5	122	LEU	O-C-N	-5.50	113.90	122.70
23	N	866	TYR	CB-CG-CD1	5.49	124.29	121.00
16	G	246	ILE	N-CA-C	-5.47	96.22	111.00
6	6	45	ALA	N-CA-C	-5.41	96.38	111.00
7	7	160	THR	N-CA-C	-5.40	96.41	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	C	38	ILE	N-CA-C	-5.40	96.41	111.00
4	4	13	ILE	N-CA-C	-5.40	96.42	111.00
11	B	27	ALA	C-N-CA	5.40	135.20	121.70
1	1	47	GLY	N-CA-C	-5.39	99.62	113.10
33	X	54	GLU	CA-CB-CG	5.39	125.26	113.40
20	K	177	LEU	C-N-CA	5.39	135.18	121.70
11	B	140	ASP	N-CA-C	-5.39	96.45	111.00
18	I	343	ARG	N-CA-C	-5.37	96.51	111.00
22	M	61	LYS	N-CA-C	5.36	125.47	111.00
10	A	82	VAL	N-CA-C	-5.36	96.53	111.00
23	N	890	PHE	CB-CG-CD1	5.36	124.55	120.80
22	M	54	GLU	O-C-N	-5.35	114.14	122.70
23	N	867	LYS	N-CA-CB	5.34	120.22	110.60
11	B	210	GLU	N-CA-C	-5.34	96.57	111.00
35	Z	366	LYS	N-CA-C	5.33	125.40	111.00
23	N	874	ILE	N-CA-C	-5.33	96.61	111.00
28	S	150	LYS	C-N-CA	5.32	135.01	121.70
35	Z	134	SER	CA-C-O	-5.32	108.92	120.10
25	P	29	GLN	CG-CD-OE1	5.30	132.21	121.60
23	N	780	ASP	CB-CA-C	5.30	121.00	110.40
31	V	77	GLY	O-C-N	-5.29	114.23	122.70
23	N	602	VAL	CA-C-N	5.29	131.92	117.10
25	P	373	GLU	O-C-N	5.29	131.17	122.70
35	Z	434	GLN	C-N-CA	5.29	134.93	121.70
20	K	250	GLY	CA-C-O	-5.29	111.08	120.60
6	6	192	GLY	O-C-N	5.29	131.16	122.70
26	Q	29	SER	O-C-N	-5.29	114.24	122.70
22	M	310	ASN	O-C-N	5.28	131.15	122.70
21	L	180	PHE	O-C-N	-5.28	114.26	122.70
27	R	154	LEU	CA-C-N	5.28	126.75	116.20
35	Z	968	ASP	N-CA-C	-5.26	96.79	111.00
10	A	72	ILE	N-CA-C	-5.26	96.80	111.00
29	T	227	PRO	O-C-N	5.26	131.11	122.70
23	N	761	ILE	CG1-CB-CG2	-5.26	99.84	111.40
18	I	158	GLY	N-CA-C	-5.25	99.96	113.10
23	N	129	ILE	C-N-CA	5.25	134.83	121.70
29	T	144	TYR	CA-C-N	5.25	131.79	117.10
26	Q	393	GLY	N-CA-C	-5.24	100.00	113.10
19	J	256	THR	N-CA-C	-5.23	96.88	111.00
18	I	253	ILE	O-C-N	-5.23	114.34	122.70
25	P	258	LYS	CA-C-N	5.22	131.72	117.10
26	Q	368	LEU	C-N-CA	5.21	134.73	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	N	780	ASP	CB-CG-OD2	-5.21	113.61	118.30
27	R	347	THR	N-CA-C	-5.20	96.97	111.00
20	K	208	GLY	N-CA-C	-5.19	100.14	113.10
35	Z	591	ILE	O-C-N	-5.18	114.40	122.70
24	O	22	LEU	CB-CG-CD2	5.18	119.80	111.00
19	J	155	LYS	O-C-N	5.15	130.94	122.70
2	2	110	LEU	N-CA-C	-5.15	97.10	111.00
32	W	80	GLN	N-CA-C	-5.14	97.12	111.00
22	M	251	LEU	O-C-N	5.14	130.92	122.70
23	N	243	LYS	O-C-N	5.14	130.92	122.70
27	R	213	TYR	C-N-CA	5.13	134.53	121.70
3	3	21	GLY	O-C-N	5.13	130.91	122.70
23	N	459	ASN	N-CA-C	-5.13	97.14	111.00
5	5	212	GLY	N-CA-C	-5.13	100.27	113.10
4	4	38	SER	N-CA-C	-5.13	97.15	111.00
15	F	102	LYS	C-N-CA	5.12	134.51	121.70
8	8	249	ASP	CB-CG-OD2	5.12	122.91	118.30
18	I	350	PHE	C-N-CA	5.12	134.51	121.70
35	Z	900	LEU	CA-C-N	5.12	128.47	117.20
30	U	77	ASN	CB-CA-C	5.12	120.64	110.40
30	U	71	ASN	CA-CB-CG	5.11	124.65	113.40
18	I	136	VAL	N-CA-C	-5.11	97.21	111.00
35	Z	363	ASP	O-C-N	-5.11	114.53	122.70
9	9	52	ASP	N-CA-C	5.10	124.77	111.00
19	J	244	ILE	N-CA-C	-5.10	97.24	111.00
13	D	171	VAL	O-C-N	-5.09	114.55	122.70
31	V	78	VAL	CA-CB-CG1	5.09	118.54	110.90
16	G	45	VAL	O-C-N	-5.09	114.56	122.70
1	1	188	PHE	N-CA-C	-5.08	97.27	111.00
7	7	77	GLU	O-C-N	-5.08	114.56	122.70
18	I	257	LEU	CB-CG-CD1	-5.08	102.36	111.00
22	M	183	VAL	N-CA-C	-5.08	97.28	111.00
15	F	35	THR	N-CA-C	-5.07	97.30	111.00
25	P	47	ARG	N-CA-CB	5.07	119.72	110.60
12	C	205	ALA	O-C-N	5.07	130.81	122.70
29	T	76	ASP	O-C-N	-5.06	114.60	122.70
20	K	49	PHE	C-N-CA	5.06	134.35	121.70
25	P	46	THR	C-N-CA	5.06	134.35	121.70
32	W	191	ILE	N-CA-CB	5.06	122.43	110.80
35	Z	822	THR	N-CA-C	-5.05	97.35	111.00
27	R	202	GLY	C-N-CA	5.05	134.33	121.70
14	E	19	GLY	O-C-N	5.05	130.78	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	G	46	VAL	N-CA-C	-5.04	97.39	111.00
31	V	47	MET	N-CA-CB	5.04	119.67	110.60
1	1	35	THR	O-C-N	5.03	130.75	122.70
16	G	216	SER	N-CA-C	-5.03	97.41	111.00
14	E	37	ALA	N-CA-C	-5.03	97.42	111.00
5	5	173	GLY	N-CA-C	-5.03	100.53	113.10
22	M	313	ASP	C-N-CA	5.03	132.85	122.30
30	U	87	GLU	N-CA-C	-5.03	97.43	111.00
26	Q	40	ALA	O-C-N	-5.02	114.66	122.70
26	Q	377	LEU	CA-C-O	-5.02	109.55	120.10
20	K	282	PHE	O-C-N	-5.01	114.68	122.70
23	N	535	LEU	O-C-N	-5.01	114.68	122.70

There are no chirality outliers.

All (73) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1	-2	LEU	Peptide
6	6	-9	GLN	Peptide
7	7	100	ASN	Peptide
7	7	33	ARG	Peptide
10	A	172	GLY	Peptide
10	A	46	ARG	Mainchain
10	A	85	GLY	Peptide
13	D	56	ASP	Peptide
15	F	32	GLY	Peptide
17	H	172	MET	Peptide
17	H	182	ASN	Peptide
17	H	188	PRO	Peptide
17	H	192	ASP	Peptide
17	H	204	PRO	Peptide
17	H	280	VAL	Mainchain
19	J	82	LYS	Peptide
21	L	257	GLY	Mainchain
21	L	342	ARG	Mainchain
21	L	80	ASN	Peptide
21	L	81	ILE	Peptide
22	M	251	LEU	Mainchain
22	M	58	MET	Mainchain
23	N	346	ASN	Peptide
23	N	667	GLN	Peptide
23	N	762	ARG	Sidechain

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Mol	Chain	Res	Type	Group
23	N	780	ASP	Peptide
23	N	889	ARG	Sidechain
23	N	892	PRO	Peptide
23	N	906	ARG	Peptide
24	O	123	GLY	Peptide
24	O	277	ILE	Peptide
25	P	319	GLU	Peptide
25	P	45	LYS	Peptide
25	P	47	ARG	Sidechain
26	Q	402	THR	Peptide
27	R	202	GLY	Peptide
27	R	381	ILE	Peptide
28	S	163	VAL	Peptide
29	T	228	ILE	Peptide
29	T	243	ALA	Peptide
30	U	113	TYR	Sidechain
30	U	125	VAL	Peptide
30	U	153	THR	Peptide
30	U	161	ILE	Peptide
30	U	229	LEU	Peptide
30	U	91	GLY	Peptide
31	V	108	TYR	Mainchain
31	V	109	HIS	Sidechain
31	V	117	TRP	Peptide
31	V	216	LEU	Peptide
31	V	283	THR	Mainchain
31	V	46	PRO	Peptide
32	W	109	ARG	Peptide,Sidechain
32	W	13	SER	Peptide
32	W	153	LEU	Mainchain
32	W	168	THR	Peptide
32	W	175	THR	Peptide
32	W	181	LEU	Peptide
32	W	21	PHE	Peptide
32	W	38	GLN	Mainchain
32	W	53	SER	Peptide
32	W	71	LYS	Peptide
33	X	118	ASP	Peptide
33	X	13	GLY	Peptide
33	X	27	ILE	Peptide
35	Z	134	SER	Mainchain
35	Z	328	ASP	Peptide

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Mol	Chain	Res	Type	Group
35	Z	523	ALA	Peptide
35	Z	539	ASN	Peptide
35	Z	60	ASP	Peptide
35	Z	822	THR	Peptide
35	Z	958	ASN	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	1	1576	0	1555	199	0
2	2	1692	0	1699	93	0
3	3	1581	0	1574	102	0
4	4	1585	0	1590	91	0
5	5	1646	0	1595	122	0
6	6	1757	0	1711	86	0
7	7	1824	0	1832	150	0
8	8	3008	0	2929	210	0
9	9	601	0	624	148	0
10	A	1921	0	1909	159	0
11	B	1915	0	1929	144	0
12	C	1913	0	1914	146	0
13	D	1899	0	1908	108	0
14	E	1867	0	1841	161	0
15	F	1795	0	1797	178	0
16	G	1900	0	1888	192	0
17	H	2792	0	2878	342	0
18	I	2822	0	2869	288	0
19	J	2928	0	3054	358	0
20	K	3019	0	3079	411	0
21	L	2853	0	2925	284	0
22	M	2866	0	2936	288	0
23	N	6562	0	6625	481	0
24	O	3182	0	3207	604	0
25	P	3401	0	3483	321	0
26	Q	3471	0	3494	359	0
27	R	3218	0	3216	408	0
28	S	2893	0	2937	244	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	T	2235	0	2206	305	0
30	U	2061	0	2116	376	0
31	V	1942	0	1954	250	0
32	W	1534	0	1538	204	0
33	X	1032	0	1017	182	0
34	Y	168	0	153	17	0
35	Z	6289	0	6233	619	0
All	All	83748	0	84215	7435	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 44.

All (7435) 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)
35:Z:321:PHE:CZ	35:Z:350:GLY:HA2	1.23	1.67
8:8:320:LYS:HE3	17:H:164:SER:CB	1.22	1.66
24:O:373:TRP:CD1	30:U:200:LEU:HD21	1.29	1.65
26:Q:243:PHE:HZ	26:Q:287:THR:CA	1.07	1.64
24:O:373:TRP:HD1	30:U:200:LEU:CD2	1.02	1.61
8:8:444:GLU:CG	9:9:74:ARG:HD2	1.30	1.61
35:Z:321:PHE:CE1	35:Z:350:GLY:HA2	1.26	1.61
26:Q:243:PHE:CZ	26:Q:287:THR:CA	1.79	1.60
8:8:330:LEU:HD12	17:H:166:THR:CG2	1.13	1.60
20:K:200:GLN:CG	27:R:204:TRP:HH2	1.15	1.60
8:8:330:LEU:CD1	17:H:166:THR:HG21	1.25	1.60
24:O:258:LEU:CD2	24:O:287:LEU:HD21	1.25	1.58
19:J:69:GLY:CA	20:K:144:ASN:HD21	1.16	1.58
23:N:399:PHE:CE1	23:N:441:VAL:HG21	1.36	1.58
20:K:200:GLN:CB	27:R:204:TRP:CZ2	1.76	1.57
31:V:117:TRP:HE1	31:V:196:TYR:CB	0.99	1.57
26:Q:14:LEU:CD1	26:Q:26:VAL:HG21	1.33	1.56
29:T:197:TYR:CD2	29:T:235:PHE:CE1	1.90	1.56
18:I:281:ILE:CG2	18:I:284:ILE:HD11	1.35	1.56
21:L:252:VAL:CG1	22:M:256:ILE:CD1	1.80	1.54
29:T:197:TYR:CE2	29:T:235:PHE:CE1	1.92	1.54
20:K:200:GLN:HB3	27:R:204:TRP:CZ2	1.03	1.53
19:J:219:VAL:HB	20:K:281:ARG:CD	1.36	1.52
20:K:200:GLN:HB3	27:R:204:TRP:CH2	1.39	1.52
24:O:306:ARG:HD2	24:O:351:SER:C	1.28	1.52
24:O:79:VAL:CG2	24:O:122:HIS:HA	1.40	1.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:210:ARG:HH21	24:O:242:ILE:CA	1.14	1.51
26:Q:243:PHE:CZ	26:Q:287:THR:HA	1.00	1.51
4:4:66:TYR:CE1	4:4:74:LEU:HD21	1.45	1.50
20:K:200:GLN:CG	27:R:204:TRP:CH2	1.94	1.49
8:8:320:LYS:CE	17:H:164:SER:CB	1.75	1.49
30:U:275:VAL:HG11	31:V:251:TYR:CE1	1.46	1.49
23:N:399:PHE:CE1	23:N:441:VAL:CG2	1.95	1.48
24:O:373:TRP:CD1	30:U:200:LEU:CD2	1.83	1.48
8:8:329:ILE:CA	17:H:163:VAL:CG2	1.88	1.48
29:T:193:THR:HG21	29:T:226:TRP:CH2	1.48	1.48
20:K:364:PRO:HB3	26:Q:247:HIS:CE1	1.45	1.47
23:N:399:PHE:CD1	23:N:441:VAL:HG21	1.47	1.47
8:8:319:TRP:H	9:9:71:LEU:CD2	1.27	1.46
35:Z:321:PHE:CZ	35:Z:350:GLY:CA	1.91	1.46
24:O:277:ILE:CG2	24:O:279:ILE:H	1.27	1.46
24:O:277:ILE:HG21	24:O:279:ILE:CG1	1.44	1.45
35:Z:189:ALA:HB1	35:Z:193:PHE:CB	1.46	1.45
24:O:124:ASP:CG	24:O:127:LEU:HD13	1.34	1.45
18:I:340:ARG:HH12	18:I:343:ARG:CG	1.27	1.45
31:V:118:LEU:CD1	31:V:140:VAL:HB	1.45	1.44
23:N:406:TYR:CE1	23:N:448:LEU:HD13	1.50	1.43
8:8:283:LYS:N	9:9:12:THR:HB	1.22	1.43
24:O:210:ARG:NH2	24:O:242:ILE:CA	1.72	1.43
35:Z:193:PHE:CD2	35:Z:196:SER:HB2	1.49	1.43
10:A:57:LYS:HE2	10:A:69:VAL:CG1	1.43	1.43
20:K:210:LEU:CD2	20:K:212:TYR:CE2	2.00	1.42
20:K:364:PRO:CB	26:Q:247:HIS:CE1	2.02	1.42
29:T:193:THR:CG2	29:T:226:TRP:CH2	2.00	1.42
35:Z:134:SER:N	35:Z:134:SER:CA	1.78	1.42
30:U:275:VAL:HG11	31:V:251:TYR:CZ	1.55	1.41
24:O:153:LEU:CD1	24:O:174:THR:HG21	1.47	1.41
21:L:309:LEU:CD2	21:L:342:ARG:HD3	1.51	1.41
24:O:250:TRP:CZ2	24:O:270:ILE:HG23	1.56	1.41
35:Z:133:ASP:HA	35:Z:137:TYR:CD1	1.56	1.41
21:L:161:ARG:NH2	21:L:261:ARG:HH12	1.04	1.41
26:Q:243:PHE:CE1	26:Q:287:THR:HA	1.52	1.40
20:K:210:LEU:HD21	20:K:212:TYR:CZ	1.55	1.40
24:O:277:ILE:CG2	24:O:279:ILE:HG12	1.52	1.40
8:8:444:GLU:CB	9:9:74:ARG:CD	2.00	1.39
8:8:329:ILE:HA	17:H:163:VAL:CG2	0.92	1.39
8:8:444:GLU:OE1	9:9:74:ARG:CD	1.70	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:425:HIS:CD2	30:U:225:ILE:HG23	1.56	1.39
27:R:422:ARG:NH1	28:S:301:PRO:HB3	1.33	1.39
24:O:80:LYS:HE2	24:O:81:TYR:CZ	1.55	1.39
3:3:59:ARG:NH2	12:C:99:LEU:HD11	1.34	1.38
19:J:69:GLY:N	20:K:144:ASN:ND2	1.69	1.38
16:G:146:HIS:HB3	16:G:148:TYR:CE1	1.57	1.38
20:K:200:GLN:CA	27:R:204:TRP:HZ2	1.37	1.38
8:8:319:TRP:N	9:9:71:LEU:CD2	1.81	1.38
18:I:281:ILE:HG21	18:I:284:ILE:CD1	1.54	1.38
19:J:219:VAL:HG11	20:K:284:ALA:CA	1.52	1.38
32:W:37:PHE:CE1	32:W:49:VAL:HG11	1.59	1.38
1:1:75:THR:HG22	1:1:111:TYR:CD1	1.59	1.37
30:U:189:ARG:HH12	31:V:296:LEU:CD2	1.36	1.37
32:W:5:ALA:HB2	32:W:103:ASN:ND2	1.38	1.37
14:E:157:HIS:CE1	14:E:172:ILE:HG21	1.58	1.37
19:J:69:GLY:CA	20:K:144:ASN:ND2	1.84	1.37
11:B:179:TRP:CD1	11:B:183:LEU:HD13	1.58	1.36
29:T:150:ARG:NH2	29:T:151:TRP:CZ2	1.92	1.36
8:8:444:GLU:HB3	9:9:74:ARG:CD	1.33	1.36
15:F:201:LEU:HD12	15:F:206:LEU:CD1	1.52	1.36
20:K:134:SER:CB	20:K:255:ARG:HH21	1.37	1.36
27:R:308:LEU:HD12	27:R:334:ARG:CZ	1.54	1.36
29:T:1:MET:HB3	29:T:2:PRO:CD	1.55	1.36
29:T:32:ILE:O	29:T:35:ILE:HG22	1.26	1.36
29:T:82:PHE:HE1	29:T:109:TYR:CD2	1.41	1.36
1:1:75:THR:CG2	1:1:111:TYR:HD1	1.37	1.35
23:N:25:LEU:CD1	23:N:57:ASP:HB2	1.54	1.35
27:R:308:LEU:HD12	27:R:334:ARG:NH1	1.08	1.35
8:8:326:LYS:HZ1	9:9:74:ARG:CZ	1.38	1.35
17:H:172:MET:CE	18:I:129:TYR:HD2	1.37	1.35
18:I:174:ASP:OD1	19:J:282:PHE:HB2	1.26	1.35
29:T:82:PHE:CE1	29:T:109:TYR:CD2	2.11	1.35
27:R:308:LEU:HB2	27:R:334:ARG:NH2	1.38	1.34
17:H:172:MET:CE	18:I:129:TYR:CD2	2.09	1.34
28:S:371:LEU:HD13	28:S:380:CYS:SG	1.68	1.34
8:8:116:ASN:HA	9:9:76:GLZ:C	1.53	1.34
27:R:422:ARG:HH12	28:S:301:PRO:CB	1.39	1.34
8:8:212:GLU:OE2	9:9:42:ARG:HD3	1.19	1.33
22:M:257:GLY:C	22:M:258:GLU:N	1.81	1.33
19:J:219:VAL:CB	20:K:281:ARG:HD3	1.57	1.33
29:T:197:TYR:CE2	29:T:235:PHE:CD1	2.14	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:340:ARG:NH1	18:I:343:ARG:CG	1.86	1.33
21:L:180:PHE:CD2	21:L:238:THR:OG1	1.82	1.33
20:K:210:LEU:HD21	20:K:212:TYR:CE2	1.62	1.33
8:8:320:LYS:CE	17:H:164:SER:HB3	0.87	1.33
21:L:161:ARG:HH21	21:L:261:ARG:NH1	1.25	1.33
27:R:308:LEU:CD1	27:R:334:ARG:CZ	2.07	1.33
30:U:275:VAL:CG1	31:V:251:TYR:CE1	2.11	1.33
35:Z:471:LEU:HA	35:Z:497:PHE:CZ	1.63	1.32
20:K:200:GLN:CB	27:R:204:TRP:CH2	1.95	1.32
26:Q:61:LEU:HB3	26:Q:65:TYR:CZ	1.64	1.32
16:G:140:VAL:CG2	16:G:220:LEU:HD21	1.60	1.32
18:I:100:ARG:O	18:I:104:LEU:CD1	1.77	1.32
27:R:208:ASN:ND2	27:R:238:PHE:HD1	1.28	1.32
13:D:96:HIS:CD2	13:D:100:LEU:HD12	1.66	1.31
18:I:175:LYS:O	19:J:282:PHE:CZ	1.83	1.31
11:B:158:PRO:O	12:C:57:LEU:HD12	1.15	1.31
23:N:399:PHE:HE1	23:N:441:VAL:CG2	1.36	1.31
26:Q:135:HIS:ND1	26:Q:161:LEU:HD23	1.44	1.31
21:L:252:VAL:HG12	22:M:256:ILE:CD1	0.83	1.31
27:R:208:ASN:ND2	27:R:238:PHE:CD1	1.99	1.31
29:T:197:TYR:CD1	29:T:198:ASP:N	1.95	1.30
8:8:318:PHE:C	9:9:71:LEU:HD23	1.48	1.30
8:8:444:GLU:OE1	9:9:74:ARG:NE	1.62	1.30
35:Z:318:LYS:NZ	35:Z:459:ALA:O	1.62	1.30
35:Z:924:LYS:HB2	35:Z:959:HIS:CE1	1.64	1.30
8:8:264:HIS:CE1	9:9:10:GLY:HA2	1.64	1.30
8:8:319:TRP:N	9:9:71:LEU:HD23	1.35	1.30
23:N:21:LYS:HG3	23:N:55:PHE:CD2	1.66	1.30
31:V:117:TRP:NE1	31:V:196:TYR:HB3	0.97	1.30
8:8:212:GLU:OE2	9:9:42:ARG:CD	1.80	1.29
17:H:99:VAL:HG22	17:H:173:ARG:NH2	1.45	1.29
24:O:79:VAL:CB	24:O:122:HIS:HA	1.61	1.29
35:Z:610:GLY:CA	35:Z:748:LEU:HD13	1.63	1.29
1:1:122:LEU:HD11	7:7:28:PHE:CE1	1.68	1.29
24:O:76:LEU:HD22	24:O:121:ASP:OD1	1.31	1.29
6:6:91:LYS:HD2	6:6:96:TYR:OH	1.15	1.28
24:O:80:LYS:HE2	24:O:81:TYR:CE2	1.69	1.28
1:1:75:THR:CG2	1:1:111:TYR:CD1	2.12	1.28
21:L:252:VAL:CG1	22:M:256:ILE:HD12	1.41	1.28
24:O:373:TRP:HZ3	30:U:233:PHE:CB	1.45	1.28
24:O:373:TRP:CZ3	30:U:233:PHE:HB3	1.66	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:U:223:HIS:CE1	30:U:224:THR:OG1	1.87	1.28
35:Z:318:LYS:HE2	35:Z:496:ALA:O	1.31	1.28
8:8:329:ILE:CA	17:H:163:VAL:HG21	1.52	1.27
22:M:289:LYS:NZ	22:M:302:GLN:HE22	1.32	1.27
35:Z:321:PHE:CE1	35:Z:350:GLY:CA	2.08	1.27
18:I:340:ARG:NH1	18:I:343:ARG:HG3	0.96	1.27
24:O:306:ARG:HD3	24:O:350:ILE:O	1.18	1.27
18:I:100:ARG:O	18:I:104:LEU:HD11	1.31	1.27
26:Q:14:LEU:CD1	26:Q:26:VAL:CG2	2.13	1.26
22:M:75:LEU:CD1	22:M:77:TYR:CE1	2.18	1.26
25:P:303:PHE:O	25:P:348:HIS:NE2	1.68	1.26
20:K:200:GLN:CD	27:R:204:TRP:HH2	1.38	1.26
10:A:19:PHE:CZ	11:B:128:ARG:NH1	2.04	1.26
17:H:99:VAL:CG2	17:H:173:ARG:HH21	1.48	1.26
30:U:275:VAL:CG1	31:V:251:TYR:HE1	1.45	1.25
11:B:158:PRO:O	12:C:57:LEU:CD1	1.83	1.25
24:O:124:ASP:OD2	24:O:127:LEU:HD13	1.35	1.25
19:J:219:VAL:CG1	20:K:284:ALA:HA	1.64	1.25
20:K:210:LEU:HD21	20:K:212:TYR:OH	1.31	1.25
21:L:309:LEU:HD22	21:L:342:ARG:NE	1.50	1.25
22:M:75:LEU:HD11	22:M:77:TYR:CE1	1.71	1.25
31:V:261:LEU:CD2	31:V:283:THR:HG21	1.64	1.25
14:E:125:GLU:OE1	15:F:123:TYR:CE1	1.90	1.25
20:K:364:PRO:CA	26:Q:247:HIS:CE1	2.20	1.25
19:J:219:VAL:O	20:K:281:ARG:HD2	1.25	1.25
21:L:259:SER:CB	21:L:303:ARG:HH22	1.48	1.25
28:S:256:LYS:O	28:S:259:TYR:CE2	1.90	1.25
29:T:197:TYR:CZ	29:T:235:PHE:HD1	1.53	1.25
19:J:193:THR:HB	19:J:316:PHE:CZ	1.72	1.24
30:U:56:PHE:CD1	30:U:68:LEU:HD21	1.70	1.24
32:W:5:ALA:CB	32:W:103:ASN:HD22	1.48	1.24
19:J:219:VAL:HG21	20:K:284:ALA:CA	1.65	1.24
26:Q:202:ARG:NH2	26:Q:222:SER:OG	1.68	1.24
27:R:308:LEU:CD1	27:R:334:ARG:NH1	1.99	1.24
16:G:140:VAL:HG21	16:G:220:LEU:CD2	1.68	1.24
32:W:21:PHE:CE1	32:W:144:PHE:CZ	2.26	1.24
18:I:252:LEU:N	18:I:253:ILE:N	1.86	1.23
28:S:211:ARG:NH2	28:S:240:ASP:HB3	1.52	1.23
1:1:19:ARG:NH1	1:1:29:ARG:HG3	1.53	1.23
17:H:286:GLU:OE2	17:H:289:ARG:NH2	1.70	1.23
23:N:277:LEU:CD1	23:N:290:LEU:CD1	2.15	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:79:VAL:CG1	24:O:121:ASP:O	1.85	1.23
24:O:118:GLY:O	24:O:166:ARG:CG	1.86	1.23
31:V:117:TRP:CE2	31:V:196:TYR:HB3	1.72	1.23
8:8:264:HIS:ND1	9:9:10:GLY:HA2	1.53	1.23
27:R:175:ALA:O	27:R:179:PHE:HD1	1.19	1.23
3:3:96:VAL:O	3:3:117:LEU:HD12	1.32	1.23
8:8:117:THR:N	9:9:76:GLZ:O	1.70	1.23
20:K:364:PRO:CA	26:Q:247:HIS:HE1	1.49	1.23
27:R:304:TYR:CE1	27:R:308:LEU:HD11	1.72	1.23
22:M:368:MET:SD	22:M:395:THR:CG2	2.26	1.23
24:O:43:GLU:OE2	24:O:44:SER:HB2	1.32	1.23
30:U:21:HIS:CE1	30:U:53:ALA:HB1	1.72	1.23
20:K:349:ARG:NH1	20:K:377:SER:H	1.34	1.22
24:O:79:VAL:HG21	24:O:122:HIS:CA	1.69	1.22
32:W:59:PRO:HG2	32:W:93:ILE:CG1	1.68	1.22
23:N:421:ASP:HA	23:N:424:LYS:NZ	1.53	1.22
22:M:77:TYR:HE2	22:M:159:LEU:CD1	1.52	1.22
24:O:306:ARG:HD2	24:O:351:SER:O	1.35	1.22
27:R:125:GLU:CD	27:R:126:GLY:H	1.44	1.22
35:Z:924:LYS:CB	35:Z:959:HIS:CE1	2.23	1.22
22:M:385:GLU:HB3	22:M:426:LYS:NZ	1.55	1.21
29:T:197:TYR:CD2	29:T:235:PHE:CD1	2.26	1.21
32:W:21:PHE:HE1	32:W:144:PHE:CZ	1.57	1.21
20:K:210:LEU:CD2	20:K:212:TYR:HE2	1.40	1.21
22:M:75:LEU:CG	22:M:77:TYR:CE1	2.23	1.21
17:H:172:MET:HE3	18:I:129:TYR:CD2	1.74	1.21
18:I:175:LYS:O	19:J:282:PHE:CE1	1.94	1.21
31:V:92:MET:HG3	31:V:101:ASP:OD1	1.40	1.21
33:X:75:TRP:CD1	33:X:87:PHE:CE1	2.29	1.21
35:Z:81:SER:O	35:Z:82:MET:HG3	1.37	1.21
8:8:444:GLU:CD	9:9:74:ARG:HD2	1.61	1.21
18:I:400:GLY:HA3	19:J:179:ILE:CG1	1.70	1.21
22:M:289:LYS:HZ2	22:M:302:GLN:NE2	1.38	1.21
29:T:216:GLU:O	29:T:220:PHE:HD1	1.23	1.21
20:K:364:PRO:HA	26:Q:247:HIS:CE1	1.75	1.21
24:O:119:SER:O	24:O:166:ARG:NH1	1.71	1.21
24:O:230:PHE:CE1	24:O:251:LEU:HG	1.74	1.21
25:P:425:HIS:CG	30:U:225:ILE:HG23	1.75	1.21
19:J:60:ASP:OD1	19:J:63:ARG:NH2	1.73	1.20
22:M:75:LEU:HG	22:M:77:TYR:CE1	1.77	1.20
23:N:24:ALA:O	23:N:28:ILE:HG12	1.38	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:189:ALA:CB	35:Z:193:PHE:CB	2.18	1.20
8:8:330:LEU:CD1	17:H:166:THR:CG2	1.96	1.20
27:R:415:GLN:CG	28:S:471:LEU:HD21	1.71	1.20
28:S:157:GLU:OE2	28:S:160:ARG:NH2	1.72	1.20
23:N:25:LEU:HD11	23:N:57:ASP:CB	1.70	1.20
35:Z:237:VAL:HG12	35:Z:245:VAL:CG1	1.71	1.20
35:Z:321:PHE:CZ	35:Z:350:GLY:C	2.16	1.20
8:8:444:GLU:CG	9:9:74:ARG:CD	2.14	1.19
25:P:349:ASN:O	25:P:353:ILE:HG12	1.42	1.19
27:R:137:LEU:CD1	27:R:141:TYR:HE2	1.55	1.19
35:Z:189:ALA:HB1	35:Z:193:PHE:HB2	1.20	1.19
22:M:75:LEU:HG	22:M:77:TYR:CD1	1.74	1.19
24:O:42:SER:O	24:O:46:THR:CB	1.90	1.19
29:T:197:TYR:CZ	29:T:235:PHE:CD1	2.30	1.19
32:W:40:LYS:HE3	32:W:47:ASN:HB3	1.23	1.19
19:J:193:THR:HG21	19:J:316:PHE:CE1	1.75	1.19
20:K:244:HIS:CE1	20:K:250:GLY:HA3	1.76	1.19
35:Z:767:TYR:CD2	35:Z:772:ILE:HG13	1.76	1.19
24:O:62:TYR:CE2	24:O:82:LEU:HD22	1.77	1.19
30:U:273:LEU:HD11	30:U:277:TYR:OH	1.41	1.19
35:Z:429:ASN:O	35:Z:430:LEU:HG	1.41	1.19
20:K:113:THR:HA	20:K:252:ARG:NH1	1.56	1.19
22:M:50:ARG:HB3	32:W:73:LEU:HD13	1.20	1.19
30:U:56:PHE:HD1	30:U:68:LEU:CD2	1.54	1.19
20:K:281:ARG:HH12	20:K:287:GLY:CA	1.55	1.18
23:N:14:ARG:NH2	23:N:42:GLU:OE2	1.73	1.18
16:G:140:VAL:HG21	16:G:220:LEU:HD21	1.20	1.18
19:J:193:THR:CB	19:J:316:PHE:CZ	2.26	1.18
3:3:18:LEU:HD11	3:3:177:VAL:CG1	1.74	1.18
32:W:146:GLU:O	32:W:147:ILE:CG1	1.91	1.18
13:D:203:VAL:O	13:D:204:GLN:OE1	1.62	1.18
21:L:309:LEU:HD22	21:L:342:ARG:CD	1.73	1.18
29:T:89:TYR:OH	29:T:102:LYS:NZ	1.77	1.18
35:Z:471:LEU:HG	35:Z:497:PHE:CE2	1.78	1.18
8:8:212:GLU:OE1	9:9:72:ARG:HD3	1.44	1.17
24:O:373:TRP:CZ3	30:U:233:PHE:CB	2.24	1.17
35:Z:924:LYS:HA	35:Z:959:HIS:ND1	1.57	1.17
24:O:118:GLY:O	24:O:166:ARG:HD3	1.43	1.17
24:O:232:GLU:O	24:O:236:HIS:HB2	1.43	1.17
30:U:189:ARG:NH1	31:V:296:LEU:HD22	1.58	1.17
8:8:208:GLN:N	9:9:75:GLY:O	1.78	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:K:364:PRO:HB3	26:Q:247:HIS:NE2	1.60	1.17
30:U:21:HIS:CE1	30:U:53:ALA:CB	2.26	1.17
35:Z:218:GLU:HB2	35:Z:248:TYR:CZ	1.79	1.17
26:Q:135:HIS:ND1	26:Q:161:LEU:CD2	2.08	1.17
28:S:188:TYR:OH	28:S:210:LEU:HD22	1.45	1.17
29:T:1:MET:CB	29:T:2:PRO:CD	2.22	1.17
35:Z:401:VAL:HG22	35:Z:426:TYR:OH	1.40	1.17
8:8:116:ASN:C	9:9:76:GLZ:O	1.82	1.17
19:J:336:ASN:ND2	27:R:204:TRP:NE1	1.91	1.17
20:K:210:LEU:CG	20:K:212:TYR:CE2	2.28	1.17
24:O:118:GLY:O	24:O:166:ARG:CD	1.93	1.17
26:Q:61:LEU:HB3	26:Q:65:TYR:CE2	1.80	1.17
35:Z:321:PHE:CE2	35:Z:351:PRO:HD3	1.78	1.17
8:8:326:LYS:HZ1	9:9:74:ARG:NH2	1.42	1.16
24:O:42:SER:O	24:O:46:THR:HB	1.43	1.16
24:O:277:ILE:HG21	24:O:279:ILE:CB	1.73	1.16
27:R:422:ARG:HH12	28:S:301:PRO:CG	1.56	1.16
30:U:66:TRP:CZ3	30:U:68:LEU:HG	1.80	1.16
33:X:66:LEU:HD13	33:X:99:PHE:CZ	1.79	1.16
35:Z:924:LYS:CB	35:Z:959:HIS:HE1	1.58	1.16
17:H:280:VAL:HG21	18:I:304:ARG:HD3	1.24	1.16
24:O:258:LEU:CD2	24:O:287:LEU:CD2	2.22	1.16
24:O:306:ARG:CD	24:O:351:SER:C	2.14	1.16
6:6:175:VAL:HG13	6:6:179:PHE:CE2	1.79	1.16
17:H:77:ALA:O	18:I:153:THR:HG22	1.42	1.16
20:K:134:SER:CB	20:K:255:ARG:NH2	2.07	1.16
23:N:329:HIS:CE1	23:N:355:TRP:CE3	2.33	1.16
27:R:353:MET:HE2	27:R:364:LEU:CD2	1.76	1.16
8:8:207:GLN:CA	9:9:75:GLY:O	1.84	1.16
10:A:57:LYS:CE	10:A:69:VAL:HG12	1.75	1.16
19:J:219:VAL:CB	20:K:284:ALA:HA	1.74	1.16
23:N:28:ILE:O	23:N:32:VAL:HG23	1.45	1.16
5:5:135:PHE:CE2	5:5:163:ALA:HB1	1.81	1.16
10:A:131:ARG:NH1	10:A:133:TYR:OH	1.79	1.16
19:J:234:PHE:CZ	19:J:279:LEU:HD21	1.79	1.16
23:N:479:GLU:HB2	23:N:512:ASN:ND2	1.61	1.16
30:U:8:VAL:O	30:U:159:CYS:SG	2.04	1.16
27:R:353:MET:CE	27:R:364:LEU:HD21	1.76	1.15
22:M:50:ARG:CB	32:W:73:LEU:HD13	1.76	1.15
22:M:75:LEU:CD1	22:M:77:TYR:CD1	2.30	1.15
24:O:214:ALA:HB1	24:O:248:TYR:OH	1.43	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:132:VAL:HA	25:P:171:MET:CE	1.76	1.15
27:R:33:LEU:HD21	27:R:92:ILE:HD13	1.27	1.15
33:X:10:PHE:O	33:X:33:ILE:HG22	1.40	1.15
35:Z:401:VAL:CG2	35:Z:426:TYR:OH	1.93	1.15
20:K:49:PHE:CD1	23:N:192:LEU:HD12	1.80	1.15
14:E:165:TYR:HB2	14:E:167:TYR:CE1	1.82	1.15
17:H:206:VAL:HG11	17:H:258:LEU:HD22	1.28	1.15
21:L:309:LEU:CD2	21:L:342:ARG:CD	2.23	1.15
23:N:421:ASP:CA	23:N:424:LYS:HZ3	1.58	1.15
24:O:306:ARG:CD	24:O:350:ILE:O	1.94	1.15
29:T:150:ARG:NH2	29:T:151:TRP:CE2	2.14	1.15
15:F:201:LEU:CD1	15:F:206:LEU:CD1	2.25	1.14
16:G:215:ILE:HG23	16:G:230:VAL:HB	1.26	1.14
17:H:172:MET:HE1	18:I:129:TYR:CD2	1.76	1.14
24:O:185:PHE:CG	24:O:223:LEU:HB3	1.82	1.14
14:E:178:GLY:HA3	17:H:409:ARG:HH22	1.10	1.14
19:J:216:ALA:O	19:J:219:VAL:N	1.78	1.14
23:N:277:LEU:HD11	23:N:290:LEU:HD11	1.16	1.14
24:O:258:LEU:HD22	24:O:287:LEU:CD2	1.77	1.14
30:U:223:HIS:ND1	30:U:224:THR:OG1	1.76	1.14
35:Z:321:PHE:HZ	35:Z:350:GLY:C	1.47	1.14
8:8:253:LYS:NZ	9:9:64:GLU:HB2	1.61	1.14
8:8:283:LYS:N	9:9:12:THR:CB	2.10	1.14
16:G:73:ILE:HG12	16:G:108:ILE:CD1	1.78	1.14
19:J:375:ILE:HD12	27:R:204:TRP:CE3	1.83	1.14
24:O:69:PHE:CD2	24:O:78:VAL:HG22	1.83	1.14
24:O:250:TRP:CE2	24:O:270:ILE:HG23	1.82	1.14
32:W:59:PRO:CG	32:W:93:ILE:HG13	1.76	1.14
20:K:49:PHE:CD1	23:N:192:LEU:CD1	2.30	1.14
27:R:280:ILE:HD12	27:R:289:ILE:HG13	1.22	1.14
13:D:88:LYS:NZ	13:D:120:TYR:OH	1.81	1.14
20:K:134:SER:OG	20:K:255:ARG:NH2	1.79	1.14
24:O:214:ALA:CB	24:O:248:TYR:OH	1.94	1.14
27:R:214:TYR:OH	27:R:226:GLU:HB3	1.47	1.14
33:X:75:TRP:CD1	33:X:87:PHE:CD1	2.35	1.14
17:H:390:ARG:HA	17:H:404:TRP:CZ2	1.82	1.13
24:O:277:ILE:CG2	24:O:279:ILE:N	2.10	1.13
27:R:137:LEU:HD11	27:R:141:TYR:CE2	1.83	1.13
20:K:210:LEU:HG	20:K:212:TYR:CE2	1.83	1.13
23:N:253:LEU:HD22	23:N:894:ARG:HH21	1.12	1.13
30:U:161:ILE:HG22	30:U:162:GLU:N	1.52	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:146:PHE:C	35:Z:210:TYR:OH	1.87	1.13
10:A:57:LYS:CE	10:A:69:VAL:CG1	2.26	1.13
23:N:277:LEU:HB2	23:N:287:LEU:HD21	1.19	1.13
32:W:5:ALA:CB	32:W:103:ASN:ND2	2.09	1.13
27:R:175:ALA:O	27:R:179:PHE:CD1	2.01	1.13
32:W:146:GLU:O	32:W:147:ILE:HG13	0.97	1.13
35:Z:193:PHE:CD2	35:Z:196:SER:CB	2.32	1.13
35:Z:551:LEU:CD1	35:Z:591:ILE:HG22	1.78	1.13
8:8:326:LYS:HZ1	9:9:74:ARG:NE	1.47	1.13
18:I:281:ILE:CG2	18:I:284:ILE:CD1	2.16	1.13
5:5:135:PHE:HE2	5:5:163:ALA:HB1	1.04	1.12
23:N:277:LEU:CD1	23:N:290:LEU:HD12	1.75	1.12
25:P:308:LEU:HD23	25:P:369:LEU:HA	1.28	1.13
26:Q:423:VAL:HG13	27:R:414:LEU:HD11	1.31	1.12
31:V:117:TRP:HZ2	31:V:196:TYR:HA	1.15	1.12
33:X:11:ARG:CB	33:X:103:GLU:HG3	1.79	1.12
17:H:307:PHE:CZ	17:H:309:ASP:OD1	2.02	1.12
19:J:27:ILE:HA	20:K:51:LEU:CD2	1.78	1.12
19:J:219:VAL:CB	20:K:281:ARG:CD	2.19	1.12
19:J:224:GLY:C	19:J:225:GLU:N	2.03	1.12
27:R:308:LEU:CB	27:R:334:ARG:NH2	2.13	1.12
27:R:415:GLN:CG	28:S:471:LEU:CD2	2.28	1.12
30:U:35:GLY:CA	30:U:93:TYR:HB3	1.80	1.12
32:W:120:ASP:C	32:W:121:SER:N	2.02	1.12
23:N:277:LEU:HD12	23:N:290:LEU:CD1	1.79	1.12
25:P:132:VAL:HA	25:P:171:MET:HE2	1.20	1.12
6:6:91:LYS:CD	6:6:96:TYR:OH	1.98	1.12
12:C:160:TRP:CD2	12:C:163:ILE:HD13	1.85	1.12
15:F:105:VAL:HG11	15:F:143:HIS:ND1	1.62	1.12
16:G:73:ILE:HG12	16:G:108:ILE:HD11	1.13	1.12
25:P:234:TYR:HA	25:P:267:PHE:CE2	1.84	1.12
29:T:82:PHE:CE1	29:T:109:TYR:CG	2.09	1.12
31:V:117:TRP:NE1	31:V:196:TYR:CB	1.68	1.12
35:Z:610:GLY:O	35:Z:748:LEU:HD22	1.50	1.12
3:3:96:VAL:O	3:3:117:LEU:CD1	1.98	1.11
8:8:264:HIS:ND1	9:9:10:GLY:CA	2.13	1.11
11:B:179:TRP:HD1	11:B:183:LEU:CD1	1.63	1.11
14:E:109:VAL:HG11	14:E:156:PHE:CD1	1.84	1.11
17:H:206:VAL:HG11	17:H:258:LEU:CD2	1.80	1.11
23:N:399:PHE:CD1	23:N:441:VAL:CG2	2.20	1.11
19:J:193:THR:CB	19:J:316:PHE:CE1	2.33	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:V:261:LEU:HD21	31:V:283:THR:HG21	1.31	1.11
32:W:5:ALA:CB	32:W:103:ASN:HB2	1.78	1.11
3:3:12:VAL:HG22	3:3:103:ILE:HD11	1.26	1.11
24:O:210:ARG:NH2	24:O:242:ILE:HA	0.78	1.11
24:O:230:PHE:HE1	24:O:251:LEU:CG	1.62	1.11
24:O:277:ILE:HG13	24:O:279:ILE:HB	1.22	1.11
24:O:277:ILE:HG22	24:O:279:ILE:H	1.13	1.11
8:8:444:GLU:CD	9:9:74:ARG:CD	2.15	1.11
12:C:160:TRP:CE3	12:C:163:ILE:HD13	1.85	1.11
18:I:75:PHE:HD2	18:I:76:VAL:HG23	1.16	1.11
8:8:282:GLU:C	9:9:12:THR:HB	1.58	1.11
29:T:55:LEU:HG	29:T:59:LYS:HE2	1.19	1.11
8:8:444:GLU:HG2	9:9:74:ARG:HD2	1.28	1.10
19:J:219:VAL:HG11	20:K:284:ALA:HA	1.15	1.10
25:P:245:TYR:HE1	25:P:257:TRP:CZ2	1.67	1.10
18:I:400:GLY:HA3	19:J:179:ILE:CD1	1.80	1.10
19:J:115:LEU:HD21	19:J:120:TYR:HA	1.18	1.10
26:Q:329:GLU:OE1	26:Q:332:ARG:NH2	1.83	1.10
35:Z:312:TYR:OH	35:Z:348:LEU:HA	1.48	1.10
1:1:119:VAL:CG2	16:G:103:LYS:HZ2	1.64	1.10
25:P:302:LEU:HB3	25:P:310:ARG:HE	0.94	1.10
26:Q:46:VAL:HG23	26:Q:50:ARG:HB2	1.29	1.10
27:R:137:LEU:CD1	27:R:141:TYR:CE2	2.33	1.10
28:S:205:ASN:O	28:S:208:ILE:HG22	1.50	1.10
31:V:118:LEU:HD12	31:V:140:VAL:HB	1.24	1.10
6:6:34:VAL:HG12	6:6:196:LEU:HD12	1.31	1.10
17:H:168:ILE:HG22	17:H:169:GLU:N	1.66	1.10
28:S:163:VAL:HG22	28:S:184:TRP:CZ3	1.85	1.10
30:U:66:TRP:CZ3	30:U:68:LEU:CG	2.34	1.10
32:W:143:ASN:HB3	32:W:173:THR:HA	1.31	1.10
17:H:248:LEU:HD22	17:H:377:PHE:HE2	1.03	1.10
24:O:373:TRP:NE1	30:U:200:LEU:HD21	1.65	1.10
26:Q:31:LEU:HG	26:Q:50:ARG:HH21	1.10	1.10
35:Z:87:LYS:HE2	35:Z:90:LYS:HB2	1.34	1.10
4:4:43:MET:HG3	4:4:45:PHE:CZ	1.86	1.09
4:4:80:SER:HB2	4:4:124:LYS:HD2	1.28	1.09
8:8:116:ASN:CA	9:9:76:GLZ:C	2.29	1.09
8:8:318:PHE:HA	9:9:71:LEU:CD2	1.81	1.09
13:D:96:HIS:NE2	13:D:100:LEU:HD12	1.65	1.09
14:E:48:LEU:HD11	14:E:145:ALA:HB3	1.34	1.09
24:O:30:GLU:OE1	24:O:40:GLN:OE1	1.70	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:201:LEU:HD11	14:E:239:LEU:HG	1.33	1.09
17:H:389:PHE:HB3	17:H:404:TRP:CZ3	1.87	1.09
23:N:19:SER:HB3	29:T:35:ILE:CG2	1.81	1.09
26:Q:249:LEU:O	26:Q:250:THR:HG22	1.51	1.09
30:U:92:TRP:HZ3	30:U:106:ILE:HB	1.02	1.09
35:Z:357:ILE:HD11	35:Z:914:LEU:HD13	1.30	1.09
8:8:329:ILE:HA	17:H:163:VAL:HG22	1.29	1.09
8:8:444:GLU:HB3	9:9:74:ARG:HD3	1.12	1.09
19:J:219:VAL:HG11	20:K:284:ALA:C	1.73	1.09
22:M:361:LEU:HB3	22:M:376:TRP:CD2	1.88	1.09
23:N:277:LEU:HD12	23:N:290:LEU:HD12	1.27	1.09
32:W:5:ALA:HB2	32:W:103:ASN:CB	1.83	1.09
1:1:119:VAL:HG21	16:G:103:LYS:HZ2	1.10	1.09
8:8:330:LEU:HD12	17:H:166:THR:HG23	1.13	1.09
10:A:195:ASN:O	10:A:196:GLU:HG2	1.51	1.09
20:K:240:SER:HB2	21:L:306:MET:HE2	1.31	1.09
26:Q:46:VAL:O	26:Q:50:ARG:HG2	1.50	1.09
27:R:415:GLN:HG3	28:S:471:LEU:CD2	1.82	1.09
8:8:329:ILE:CB	17:H:163:VAL:HG21	1.81	1.09
23:N:421:ASP:HA	23:N:424:LYS:HZ3	0.94	1.09
1:1:14:LEU:HD11	1:1:44:CYS:SG	1.92	1.08
16:G:146:HIS:CB	16:G:148:TYR:HE1	1.64	1.08
17:H:99:VAL:CG2	17:H:173:ARG:NH2	2.09	1.08
29:T:35:ILE:HD12	29:T:40:LEU:HD11	1.17	1.08
30:U:161:ILE:CG2	30:U:162:GLU:H	1.65	1.08
2:2:8:PHE:CZ	2:2:11:GLY:HA3	1.88	1.08
11:B:38:LYS:O	11:B:179:TRP:CZ2	2.06	1.08
19:J:27:ILE:CA	20:K:51:LEU:HD21	1.82	1.08
21:L:360:ILE:CG2	21:L:391:ILE:HD13	1.84	1.08
21:L:370:LYS:HB2	21:L:374:PHE:CZ	1.87	1.08
23:N:14:ARG:HH21	23:N:42:GLU:CD	1.56	1.08
24:O:38:TRP:HE3	24:O:53:LYS:HD3	1.10	1.08
29:T:190:ALA:HB2	29:T:224:ARG:CZ	1.83	1.08
30:U:94:HIS:HE1	30:U:96:GLY:HA2	1.12	1.08
32:W:101:ARG:HH12	32:W:104:LYS:HG2	1.17	1.08
17:H:248:LEU:HD22	17:H:377:PHE:CE2	1.87	1.08
19:J:301:ASP:H	19:J:304:LEU:HD12	1.14	1.08
22:M:75:LEU:CG	22:M:77:TYR:CD1	2.36	1.08
23:N:406:TYR:CE1	23:N:448:LEU:CD1	2.35	1.08
24:O:118:GLY:O	24:O:166:ARG:HG2	1.48	1.08
24:O:283:HIS:NE2	24:O:287:LEU:HD12	1.66	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:390:ARG:HA	17:H:404:TRP:CE2	1.88	1.08
19:J:219:VAL:CG2	20:K:284:ALA:HB2	1.82	1.08
24:O:80:LYS:HE2	24:O:81:TYR:OH	1.52	1.08
30:U:92:TRP:CZ3	30:U:106:ILE:HB	1.88	1.08
32:W:25:ARG:HD2	32:W:144:PHE:CE2	1.88	1.08
23:N:277:LEU:CB	23:N:287:LEU:HD21	1.82	1.08
35:Z:189:ALA:HB1	35:Z:193:PHE:HB3	1.16	1.08
35:Z:510:LEU:HD13	35:Z:542:ILE:HG12	1.34	1.08
1:1:75:THR:HG21	1:1:111:TYR:HD1	1.12	1.07
17:H:280:VAL:HG21	18:I:304:ARG:CD	1.84	1.07
19:J:219:VAL:CG1	20:K:284:ALA:CA	2.27	1.07
21:L:150:ILE:HG13	21:L:151:THR:HG23	1.33	1.07
24:O:358:ILE:HG22	24:O:360:GLY:H	1.11	1.07
32:W:7:VAL:HG23	32:W:110:ILE:HD13	1.09	1.07
35:Z:422:ILE:HB	35:Z:426:TYR:CE2	1.88	1.07
35:Z:551:LEU:HD13	35:Z:591:ILE:CG2	1.84	1.07
1:1:8:PHE:CE2	1:1:10:ASP:HB2	1.90	1.07
14:E:231:TYR:HE2	14:E:236:THR:HA	1.08	1.07
19:J:193:THR:CG2	19:J:316:PHE:CE1	2.36	1.07
24:O:69:PHE:HD2	24:O:78:VAL:HG22	0.97	1.07
26:Q:65:TYR:HD2	26:Q:74:LEU:HB2	1.17	1.07
26:Q:272:LEU:HD23	26:Q:274:LEU:HD12	1.34	1.07
29:T:197:TYR:CE2	29:T:235:PHE:HE1	1.46	1.07
29:T:229:VAL:HG22	29:T:234:TYR:HE1	1.19	1.07
11:B:178:ARG:HH12	11:B:194:LEU:CB	1.66	1.07
14:E:231:TYR:CE2	14:E:236:THR:HA	1.88	1.07
23:N:47:GLU:O	23:N:50:TYR:HB3	1.52	1.07
24:O:124:ASP:HB3	24:O:127:LEU:HB2	1.19	1.07
30:U:275:VAL:HG11	31:V:251:TYR:OH	1.53	1.07
32:W:7:VAL:HG23	32:W:110:ILE:CD1	1.84	1.07
1:1:-6:GLY:HA3	2:2:116:HIS:CD2	1.90	1.07
15:F:201:LEU:CD1	15:F:206:LEU:HD12	1.82	1.07
24:O:233:LEU:HA	24:O:236:HIS:HB3	1.34	1.07
27:R:296:LEU:HD13	27:R:337:VAL:HG23	1.32	1.07
31:V:114:PHE:CD1	31:V:118:LEU:O	2.08	1.07
35:Z:610:GLY:HA2	35:Z:748:LEU:HD13	1.30	1.07
17:H:168:ILE:HG22	17:H:169:GLU:H	1.13	1.07
18:I:361:ILE:HG22	18:I:392:ILE:HG21	1.35	1.07
19:J:234:PHE:CE1	19:J:279:LEU:HD21	1.90	1.07
20:K:210:LEU:CD2	20:K:212:TYR:CZ	2.32	1.07
21:L:252:VAL:HG12	22:M:256:ILE:HD11	1.14	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:181:LEU:HD21	25:P:219:GLU:HB3	1.09	1.07
26:Q:160:ASP:OD1	26:Q:163:ARG:NH2	1.87	1.07
26:Q:311:LEU:HD12	26:Q:366:ILE:HG12	1.32	1.07
17:H:198:MET:CE	17:H:272:ILE:HG23	1.84	1.06
21:L:360:ILE:HG21	21:L:391:ILE:CD1	1.85	1.06
20:K:423:LYS:HE2	20:K:424:PHE:CE2	1.90	1.06
24:O:134:ALA:HB1	24:O:153:LEU:HD11	1.36	1.06
25:P:245:TYR:CE1	25:P:257:TRP:NE1	2.23	1.06
26:Q:382:LEU:HD11	27:R:299:SER:HB2	1.32	1.06
32:W:182:TYR:O	32:W:183:GLU:HG3	1.53	1.06
35:Z:358:TYR:HD2	35:Z:428:TRP:NE1	1.50	1.06
35:Z:471:LEU:CA	35:Z:497:PHE:CZ	2.38	1.06
1:1:8:PHE:HE2	1:1:10:ASP:HB2	0.97	1.06
17:H:340:LEU:CD1	17:H:370:ARG:HH11	1.66	1.06
22:M:385:GLU:CB	22:M:426:LYS:NZ	2.18	1.06
24:O:153:LEU:HD13	24:O:174:THR:CG2	1.84	1.06
25:P:234:TYR:HA	25:P:267:PHE:CZ	1.90	1.06
27:R:353:MET:HA	27:R:357:PHE:CD1	1.90	1.06
20:K:68:ILE:HG12	23:N:608:LEU:CD2	1.85	1.06
20:K:281:ARG:HH12	20:K:287:GLY:HA2	1.10	1.06
25:P:241:LEU:O	25:P:244:ILE:HG22	1.52	1.06
32:W:124:GLU:OE2	32:W:127:ARG:NH2	1.87	1.06
4:4:66:TYR:CE1	4:4:74:LEU:CD2	2.38	1.05
6:6:115:SER:OG	6:6:128:ARG:NH1	1.89	1.05
26:Q:14:LEU:HD11	26:Q:26:VAL:CG2	1.80	1.05
6:6:10:ASP:OD1	6:6:11:PHE:HD1	1.38	1.05
8:8:320:LYS:HE2	17:H:164:SER:CB	1.61	1.05
18:I:132:ILE:CD1	18:I:138:LYS:HE2	1.86	1.05
24:O:62:TYR:HE2	24:O:82:LEU:CD2	1.69	1.05
24:O:233:LEU:HD22	24:O:238:ILE:HD11	1.31	1.05
32:W:21:PHE:CZ	32:W:144:PHE:CE1	2.44	1.05
35:Z:237:VAL:HG12	35:Z:245:VAL:HG11	1.36	1.05
8:8:318:PHE:CA	9:9:71:LEU:HD23	1.85	1.05
20:K:210:LEU:HD23	20:K:212:TYR:HE2	1.18	1.05
21:L:252:VAL:HG12	22:M:256:ILE:HD13	1.14	1.05
21:L:365:THR:OG1	21:L:376:PHE:HZ	1.40	1.05
24:O:11:LEU:HB3	24:O:43:GLU:OE1	1.56	1.05
35:Z:189:ALA:CB	35:Z:193:PHE:HB3	1.81	1.05
24:O:232:GLU:O	24:O:236:HIS:CB	2.03	1.05
30:U:283:ARG:HD2	31:V:284:ALA:HA	1.36	1.05
30:U:283:ARG:CD	31:V:284:ALA:HA	1.86	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:X:40:GLU:O	33:X:41:GLU:HG2	1.55	1.05
6:6:175:VAL:CG1	6:6:179:PHE:HE2	1.69	1.05
19:J:329:ARG:HG3	19:J:333:ARG:NH1	1.70	1.05
20:K:254:VAL:HG11	20:K:299:LEU:HD23	1.39	1.05
22:M:77:TYR:CE2	22:M:159:LEU:CD1	2.39	1.05
23:N:19:SER:CB	29:T:35:ILE:HG21	1.87	1.05
24:O:73:ILE:HG23	24:O:74:ASN:H	1.18	1.05
28:S:286:TYR:HE1	28:S:323:LEU:HD13	1.17	1.05
35:Z:400:ILE:CD1	35:Z:418:ALA:HB1	1.86	1.05
8:8:212:GLU:CD	9:9:72:ARG:HD3	1.77	1.04
8:8:326:LYS:NZ	9:9:74:ARG:CZ	2.17	1.04
15:F:155:GLU:OE1	16:G:62:LYS:HB3	1.56	1.04
17:H:449:LYS:HZ2	18:I:346:ARG:NH1	1.54	1.04
19:J:241:ALA:HB1	19:J:287:ASN:HD22	1.20	1.04
35:Z:64:TYR:CE1	35:Z:111:LEU:HB3	1.93	1.04
35:Z:133:ASP:HB3	35:Z:137:TYR:CE2	1.92	1.04
35:Z:138:ARG:HD2	35:Z:157:LEU:HD13	1.39	1.04
5:5:6:PHE:CE1	5:5:13:ILE:HB	1.92	1.04
21:L:259:SER:CB	21:L:303:ARG:NH2	2.20	1.04
29:T:197:TYR:CZ	29:T:199:PHE:HA	1.93	1.04
18:I:121:THR:HA	18:I:127:ASP:OD1	1.56	1.04
23:N:253:LEU:HD22	23:N:894:ARG:NH2	1.69	1.04
24:O:79:VAL:HG21	24:O:122:HIS:HA	1.12	1.04
28:S:163:VAL:CG2	28:S:184:TRP:HZ3	1.69	1.04
33:X:11:ARG:HB3	33:X:103:GLU:HG3	1.40	1.04
19:J:136:LEU:HD22	19:J:217:GLU:HG3	1.35	1.04
30:U:273:LEU:HD11	30:U:277:TYR:CZ	1.93	1.04
8:8:207:GLN:HA	9:9:75:GLY:O	1.54	1.04
23:N:399:PHE:HE1	23:N:441:VAL:HG23	1.10	1.04
24:O:76:LEU:CD2	24:O:121:ASP:OD1	2.04	1.04
31:V:52:LEU:HD11	31:V:107:TRP:CZ3	1.93	1.04
35:Z:471:LEU:CA	35:Z:497:PHE:HZ	1.69	1.04
24:O:38:TRP:CE3	24:O:53:LYS:HD3	1.94	1.03
24:O:79:VAL:CG2	24:O:122:HIS:CA	2.27	1.03
24:O:124:ASP:CG	24:O:127:LEU:CD1	2.26	1.03
24:O:223:LEU:HD11	24:O:277:ILE:HD11	1.33	1.03
28:S:471:LEU:CD1	30:U:288:PHE:CZ	2.40	1.03
29:T:226:TRP:CE2	29:T:235:PHE:HE2	1.75	1.03
33:X:23:LEU:O	33:X:24:CYS:SG	2.16	1.03
8:8:253:LYS:NZ	9:9:64:GLU:CB	2.22	1.03
11:B:4:ARG:HH22	13:D:5:ASP:HB2	1.20	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:208:TYR:CE2	18:I:215:PRO:HB3	1.93	1.03
20:K:49:PHE:HE1	23:N:192:LEU:HG	1.23	1.03
20:K:200:GLN:CB	27:R:204:TRP:HZ2	1.32	1.03
23:N:383:LYS:N	23:N:412:TYR:OH	1.90	1.03
29:T:1:MET:CB	29:T:2:PRO:HD3	1.84	1.03
30:U:275:VAL:HG12	31:V:251:TYR:HE1	1.17	1.03
35:Z:218:GLU:CB	35:Z:248:TYR:CZ	2.40	1.03
3:3:18:LEU:CD1	3:3:177:VAL:HG13	1.88	1.03
3:3:179:TYR:OH	3:3:188:LYS:HE3	1.57	1.03
19:J:27:ILE:HA	20:K:51:LEU:HD21	1.07	1.03
19:J:150:VAL:HG23	19:J:153:LEU:HD11	1.37	1.03
19:J:219:VAL:CG2	20:K:284:ALA:CA	2.37	1.03
20:K:200:GLN:HG2	27:R:204:TRP:CH2	1.82	1.03
20:K:236:ARG:HH21	21:L:310:THR:HG23	1.22	1.03
20:K:423:LYS:HE2	20:K:424:PHE:HE2	1.23	1.03
29:T:229:VAL:HG22	29:T:234:TYR:CE1	1.93	1.03
30:U:223:HIS:ND1	30:U:224:THR:N	2.07	1.03
31:V:118:LEU:CD1	31:V:140:VAL:CB	2.36	1.03
35:Z:551:LEU:CD1	35:Z:591:ILE:CG2	2.36	1.03
19:J:333:ARG:HH12	19:J:343:LEU:HD11	1.20	1.03
26:Q:243:PHE:CZ	26:Q:287:THR:C	2.31	1.03
30:U:152:LYS:HB3	30:U:154:PHE:CZ	1.93	1.03
31:V:117:TRP:CE2	31:V:196:TYR:CB	2.36	1.03
35:Z:102:ILE:HG22	35:Z:112:LYS:HG3	1.38	1.03
12:C:147:GLN:HB3	12:C:149:TYR:HE1	1.23	1.03
23:N:33:ASP:HA	23:N:71:ASN:HD21	1.21	1.03
30:U:189:ARG:HH12	31:V:296:LEU:HD22	0.87	1.03
3:3:89:ARG:O	3:3:94:TYR:CE1	2.12	1.02
6:6:48:PHE:CE2	6:6:50:ALA:HB3	1.94	1.02
14:E:125:GLU:HB3	15:F:123:TYR:HE1	1.17	1.02
17:H:389:PHE:HB3	17:H:404:TRP:CE3	1.93	1.02
18:I:250:SER:O	18:I:253:ILE:HB	1.59	1.02
19:J:219:VAL:CG2	20:K:284:ALA:CB	2.37	1.02
24:O:329:MET:HA	25:P:357:TYR:OH	1.59	1.02
32:W:5:ALA:HB2	32:W:103:ASN:CG	1.78	1.02
35:Z:135:LEU:O	35:Z:139:LEU:HG	1.59	1.02
10:A:57:LYS:HE2	10:A:69:VAL:HG11	1.39	1.02
22:M:361:LEU:HD13	22:M:376:TRP:CE3	1.94	1.02
27:R:415:GLN:HG3	28:S:471:LEU:HD21	1.05	1.02
30:U:66:TRP:O	32:W:93:ILE:HD12	1.56	1.02
18:I:252:LEU:C	18:I:253:ILE:N	2.13	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:339:ILE:HG21	18:I:347:LYS:HE2	1.40	1.02
22:M:289:LYS:NZ	22:M:334:ASP:HB2	1.74	1.02
23:N:782:PHE:CD1	23:N:875:LEU:HD22	1.94	1.02
25:P:181:LEU:HA	25:P:223:LEU:HD11	1.40	1.02
27:R:353:MET:HE3	27:R:364:LEU:HD11	1.40	1.02
1:1:122:LEU:CD1	7:7:28:PHE:CE1	2.42	1.02
8:8:318:PHE:HA	9:9:71:LEU:HD22	1.42	1.02
14:E:241:LYS:HA	14:E:244:LYS:HZ2	1.24	1.02
24:O:80:LYS:CE	24:O:81:TYR:CE2	2.42	1.02
27:R:422:ARG:HH22	28:S:301:PRO:HD3	1.24	1.02
6:6:175:VAL:O	6:6:179:PHE:HD2	1.41	1.01
7:7:86:GLU:HG3	15:F:100:ASN:HB2	1.39	1.01
15:F:78:ALA:N	22:M:433:TYR:OH	1.91	1.01
15:F:201:LEU:HD12	15:F:206:LEU:HD11	1.04	1.01
18:I:174:ASP:OD1	19:J:282:PHE:CB	2.08	1.01
24:O:133:ILE:HG12	24:O:137:TYR:CE2	1.95	1.01
26:Q:7:LYS:HG3	26:Q:30:LEU:HD13	1.39	1.01
27:R:199:GLU:HB3	27:R:206:ARG:NE	1.75	1.01
27:R:320:LYS:HE3	27:R:324:ARG:HD2	1.42	1.01
30:U:56:PHE:HD1	30:U:68:LEU:HD21	0.95	1.01
1:1:-6:GLY:CA	2:2:116:HIS:CD2	2.42	1.01
9:9:15:LEU:HD11	9:9:29:LYS:HB3	1.40	1.01
17:H:96:PRO:HA	17:H:193:PRO:HG2	1.36	1.01
17:H:172:MET:HE2	18:I:129:TYR:HB2	1.38	1.01
20:K:210:LEU:CD2	20:K:212:TYR:OH	2.06	1.01
23:N:28:ILE:O	23:N:32:VAL:CG2	2.09	1.01
24:O:185:PHE:CG	24:O:223:LEU:CB	2.42	1.01
27:R:422:ARG:NH1	28:S:301:PRO:CB	2.08	1.01
35:Z:352:LYS:O	35:Z:353:VAL:HG23	1.60	1.01
8:8:326:LYS:NZ	9:9:74:ARG:NE	2.07	1.01
18:I:132:ILE:HD12	18:I:138:LYS:CE	1.90	1.01
28:S:381:VAL:HG11	29:T:123:HIS:NE2	1.76	1.01
8:8:329:ILE:HA	17:H:163:VAL:HG23	1.05	1.01
8:8:444:GLU:CB	9:9:74:ARG:HD3	1.77	1.01
19:J:219:VAL:HG21	20:K:284:ALA:CB	1.90	1.01
21:L:161:ARG:NH2	21:L:261:ARG:NH1	1.89	1.01
21:L:178:ILE:HD13	21:L:230:LEU:HD22	1.41	1.01
23:N:329:HIS:CE1	23:N:355:TRP:CZ3	2.48	1.01
24:O:153:LEU:CD1	24:O:174:THR:CG2	2.38	1.01
35:Z:786:SER:O	35:Z:787:ASP:CG	1.99	1.01
16:G:197:LYS:HD2	16:G:241:PHE:CE2	1.96	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:99:VAL:HG23	17:H:173:ARG:HH21	1.24	1.01
21:L:221:TYR:CZ	21:L:348:GLU:HB3	1.96	1.01
22:M:50:ARG:CA	32:W:73:LEU:HD13	1.89	1.01
26:Q:51:ARG:HH22	26:Q:92:LYS:HD3	1.16	1.01
26:Q:243:PHE:HZ	26:Q:287:THR:C	1.62	1.01
29:T:209:LEU:HB3	29:T:211:PHE:CE1	1.96	1.01
35:Z:767:TYR:CE2	35:Z:772:ILE:HG13	1.95	1.01
35:Z:924:LYS:CA	35:Z:959:HIS:CE1	2.44	1.01
18:I:100:ARG:O	18:I:104:LEU:HD12	1.59	1.00
18:I:400:GLY:HA3	19:J:179:ILE:HD11	1.38	1.00
23:N:25:LEU:HD11	23:N:57:ASP:HB2	1.05	1.00
29:T:35:ILE:HD12	29:T:40:LEU:CD1	1.91	1.00
6:6:175:VAL:HG13	6:6:179:PHE:HE2	0.87	1.00
14:E:110:GLU:HG3	14:E:164:PHE:HE2	1.23	1.00
17:H:340:LEU:HD12	17:H:370:ARG:HH11	1.26	1.00
21:L:180:PHE:CE2	21:L:238:THR:OG1	2.03	1.00
21:L:221:TYR:OH	21:L:348:GLU:HB3	1.60	1.00
24:O:185:PHE:CB	24:O:223:LEU:HB3	1.91	1.00
24:O:325:GLU:O	24:O:329:MET:HG3	1.61	1.00
24:O:373:TRP:HD1	30:U:200:LEU:HD22	0.86	1.00
26:Q:61:LEU:CB	26:Q:65:TYR:CZ	2.37	1.00
27:R:174:ILE:HB	27:R:190:LYS:HD3	1.42	1.00
8:8:330:LEU:HD13	17:H:166:THR:HG21	1.38	1.00
20:K:364:PRO:CB	26:Q:247:HIS:HE1	1.50	1.00
25:P:221:TYR:CE2	25:P:244:ILE:HB	1.96	1.00
26:Q:31:LEU:HG	26:Q:50:ARG:NH2	1.76	1.00
27:R:415:GLN:HG2	28:S:471:LEU:HD22	1.44	1.00
5:5:8:PHE:CE1	5:5:13:ILE:HG12	1.97	1.00
28:S:436:ILE:HG12	29:T:196:SER:O	1.61	1.00
28:S:371:LEU:CD1	28:S:380:CYS:SG	2.49	1.00
10:A:57:LYS:NZ	10:A:69:VAL:HB	1.77	1.00
8:8:212:GLU:OE2	9:9:42:ARG:NE	1.94	1.00
10:A:220:LYS:HD2	10:A:238:ALA:O	1.62	1.00
20:K:254:VAL:CG1	20:K:299:LEU:HD23	1.91	1.00
22:M:379:LEU:HD22	22:M:415:PHE:CD1	1.97	1.00
24:O:62:TYR:HE2	24:O:82:LEU:HD22	0.84	1.00
25:P:132:VAL:CA	25:P:171:MET:HE2	1.89	1.00
29:T:226:TRP:CE2	29:T:235:PHE:CE2	2.50	1.00
30:U:94:HIS:CE1	30:U:96:GLY:HA2	1.96	1.00
14:E:165:TYR:HB2	14:E:167:TYR:CZ	1.97	0.99
19:J:219:VAL:CG2	20:K:284:ALA:HA	1.91	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:79:VAL:HG12	24:O:121:ASP:O	1.60	0.99
27:R:304:TYR:HE1	27:R:308:LEU:HD11	1.11	0.99
32:W:186:ALA:HA	32:W:192:LEU:HD12	1.44	0.99
11:B:178:ARG:NH1	11:B:194:LEU:HB2	1.76	0.99
24:O:250:TRP:CZ2	24:O:270:ILE:CG2	2.45	0.99
15:F:105:VAL:HG11	15:F:143:HIS:CE1	1.96	0.99
22:M:307:GLU:HG3	22:M:311:GLN:NE2	1.76	0.99
23:N:277:LEU:HB2	23:N:287:LEU:CD2	1.91	0.99
24:O:83:LEU:CD1	24:O:128:LEU:HD22	1.91	0.99
25:P:221:TYR:OH	25:P:240:TYR:O	1.80	0.99
27:R:286:LEU:HD23	27:R:289:ILE:HD11	1.44	0.99
14:E:157:HIS:CE1	14:E:172:ILE:CG2	2.44	0.99
6:6:125:GLU:OE1	6:6:128:ARG:HD3	1.61	0.99
12:C:18:ARG:NH1	12:C:23:GLU:OE2	1.94	0.99
14:E:125:GLU:HB3	15:F:123:TYR:CE1	1.97	0.99
19:J:301:ASP:N	19:J:304:LEU:HD12	1.77	0.99
22:M:385:GLU:HB3	22:M:426:LYS:HZ2	1.24	0.99
30:U:21:HIS:HE1	30:U:53:ALA:HB1	1.21	0.99
35:Z:610:GLY:HA3	35:Z:748:LEU:HD13	1.44	0.99
2:2:109:HIS:HB3	2:2:111:PHE:CE2	1.96	0.99
2:2:109:HIS:HB3	2:2:111:PHE:HE2	1.23	0.99
24:O:79:VAL:HB	24:O:122:HIS:HA	1.44	0.99
26:Q:174:LEU:HD11	26:Q:178:HIS:NE2	1.76	0.99
35:Z:610:GLY:HA2	35:Z:748:LEU:CD1	1.91	0.99
1:1:122:LEU:HD11	7:7:28:PHE:CD1	1.96	0.99
21:L:132:ARG:NH2	21:L:156:MET:HG3	1.76	0.99
23:N:399:PHE:CD1	23:N:441:VAL:CB	2.44	0.99
25:P:425:HIS:CD2	30:U:225:ILE:CG2	2.45	0.99
31:V:80:VAL:HG23	31:V:125:THR:HA	1.45	0.99
32:W:21:PHE:CE1	32:W:144:PHE:CE1	2.51	0.99
1:1:122:LEU:HD21	7:7:28:PHE:HD1	1.26	0.99
29:T:216:GLU:O	29:T:220:PHE:CD1	2.15	0.99
31:V:161:THR:HA	31:V:189:ILE:HD11	1.45	0.99
8:8:283:LYS:C	9:9:12:THR:O	2.01	0.99
25:P:140:THR:HG21	25:P:163:LEU:HD22	1.41	0.99
1:1:19:ARG:NH1	1:1:29:ARG:CG	2.24	0.99
14:E:125:GLU:CB	15:F:123:TYR:HE1	1.75	0.99
14:E:201:LEU:CD1	14:E:239:LEU:HG	1.93	0.99
22:M:170:MET:HB3	22:M:244:LEU:HD11	1.42	0.99
24:O:250:TRP:NE1	24:O:270:ILE:HA	1.77	0.99
33:X:46:TRP:HB2	33:X:68:LEU:HD13	1.45	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:189:ALA:CB	35:Z:193:PHE:HB2	1.90	0.99
27:R:305:PHE:HA	27:R:334:ARG:HH12	1.23	0.98
30:U:275:VAL:CG1	31:V:251:TYR:OH	2.10	0.98
33:X:12:ALA:HB3	33:X:33:ILE:HB	1.44	0.98
1:1:45:ARG:NH2	1:1:53:GLN:N	2.10	0.98
20:K:200:GLN:CD	27:R:204:TRP:CH2	2.23	0.98
24:O:277:ILE:HG22	24:O:278:PRO:N	1.74	0.98
24:O:365:LYS:HB3	24:O:369:ARG:HH12	1.26	0.98
32:W:5:ALA:HB2	32:W:103:ASN:HD22	0.91	0.98
10:A:57:LYS:HE2	10:A:69:VAL:HG12	1.02	0.98
25:P:135:GLU:HG2	25:P:138:ARG:NH2	1.78	0.98
26:Q:243:PHE:HE1	26:Q:287:THR:HG22	1.28	0.98
30:U:66:TRP:HZ3	30:U:68:LEU:CG	1.74	0.98
20:K:49:PHE:CE1	23:N:192:LEU:HG	1.98	0.98
25:P:132:VAL:CA	25:P:171:MET:CE	2.31	0.98
25:P:302:LEU:HB3	25:P:310:ARG:NE	1.77	0.98
35:Z:471:LEU:HA	35:Z:497:PHE:HZ	0.81	0.98
18:I:400:GLY:CA	19:J:179:ILE:HD11	1.92	0.98
25:P:245:TYR:HE1	25:P:257:TRP:CE2	1.81	0.98
21:L:365:THR:OG1	21:L:376:PHE:CZ	2.11	0.98
27:R:263:ARG:HH11	27:R:296:LEU:HG	1.29	0.98
29:T:71:GLN:NE2	29:T:173:GLU:OE2	1.95	0.98
17:H:172:MET:HE1	18:I:129:TYR:HD2	0.84	0.98
24:O:230:PHE:HE1	24:O:251:LEU:HG	0.84	0.98
17:H:77:ALA:O	18:I:153:THR:CG2	2.12	0.98
25:P:234:TYR:CD2	25:P:267:PHE:CE1	2.52	0.98
2:2:82:MET:O	2:2:86:HIS:HD2	1.47	0.98
19:J:219:VAL:HG22	20:K:284:ALA:HB2	1.44	0.98
24:O:219:ILE:O	24:O:223:LEU:HD13	1.63	0.98
24:O:306:ARG:HB3	24:O:350:ILE:O	1.63	0.98
18:I:408:ARG:NH1	18:I:410:GLN:O	1.96	0.98
19:J:67:GLU:HG2	19:J:69:GLY:H	1.27	0.98
30:U:275:VAL:CG1	31:V:251:TYR:CZ	2.43	0.98
35:Z:551:LEU:HA	35:Z:593:HIS:NE2	1.78	0.98
1:1:83:LYS:HD3	1:1:119:VAL:HG23	1.42	0.97
8:8:253:LYS:HZ2	9:9:64:GLU:CB	1.75	0.97
14:E:241:LYS:HA	14:E:244:LYS:NZ	1.78	0.97
26:Q:51:ARG:NH2	26:Q:92:LYS:HD3	1.79	0.97
28:S:286:TYR:CZ	28:S:323:LEU:HB3	1.99	0.97
21:L:253:ASP:C	22:M:256:ILE:HG13	1.85	0.97
25:P:245:TYR:CE1	25:P:257:TRP:CZ2	2.51	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:320:LYS:CE	27:R:324:ARG:HD2	1.93	0.97
30:U:66:TRP:CE3	30:U:68:LEU:HG	1.99	0.97
35:Z:133:ASP:HA	35:Z:137:TYR:CE1	1.99	0.97
35:Z:392:LEU:HD12	35:Z:424:SER:O	1.63	0.97
35:Z:857:LEU:HD13	35:Z:908:ILE:HG13	1.44	0.97
19:J:40:ASN:HB3	20:K:65:GLU:OE2	1.64	0.97
23:N:14:ARG:HB2	29:T:80:ASN:HD21	1.29	0.97
24:O:79:VAL:HG12	24:O:118:GLY:HA2	1.42	0.97
23:N:21:LYS:HE3	23:N:55:PHE:CZ	2.00	0.97
24:O:356:ARG:HH21	24:O:362:GLN:HG3	1.27	0.97
31:V:261:LEU:HD11	31:V:283:THR:CG2	1.94	0.97
34:Y:80:GLU:OE2	34:Y:83:ARG:NH2	1.97	0.97
17:H:271:PHE:HZ	17:H:307:PHE:HD2	1.00	0.97
26:Q:314:PHE:CE2	26:Q:339:TYR:CD1	2.50	0.97
29:T:193:THR:CB	29:T:226:TRP:HH2	1.77	0.97
21:L:269:TYR:CE2	21:L:273:HIS:CE1	2.52	0.97
26:Q:331:THR:HG22	26:Q:335:PHE:CE2	1.99	0.97
1:1:66:TYR:CE2	1:1:73:PRO:HA	2.00	0.97
11:B:178:ARG:HH12	11:B:194:LEU:HB2	1.26	0.97
19:J:219:VAL:C	20:K:281:ARG:HD2	1.83	0.97
23:N:277:LEU:HD11	23:N:290:LEU:CD1	1.84	0.97
35:Z:133:ASP:HA	35:Z:137:TYR:CG	1.98	0.97
11:B:4:ARG:HG2	15:F:123:TYR:OH	1.64	0.97
15:F:143:HIS:HE1	15:F:145:LEU:HB2	1.29	0.97
17:H:307:PHE:CE2	17:H:309:ASP:OD1	2.18	0.97
35:Z:321:PHE:HE1	35:Z:350:GLY:HA2	1.20	0.97
28:S:286:TYR:CE1	28:S:323:LEU:HD13	2.00	0.97
30:U:283:ARG:HD2	31:V:284:ALA:CA	1.93	0.97
35:Z:146:PHE:O	35:Z:210:TYR:CZ	2.18	0.97
21:L:309:LEU:HD23	21:L:342:ARG:HD3	1.42	0.97
25:P:196:ALA:HB1	25:P:227:ILE:HD11	1.47	0.97
28:S:471:LEU:HD12	30:U:288:PHE:CZ	1.99	0.97
35:Z:147:GLU:N	35:Z:210:TYR:OH	1.97	0.97
6:6:91:LYS:HD2	6:6:96:TYR:HH	1.25	0.96
8:8:319:TRP:H	9:9:71:LEU:HD21	0.83	0.96
19:J:167:PRO:HA	19:J:174:PHE:CE1	1.99	0.96
35:Z:889:VAL:HG12	35:Z:894:MET:CE	1.94	0.96
3:3:89:ARG:O	3:3:94:TYR:HE1	1.44	0.96
8:8:212:GLU:OE2	9:9:72:ARG:CG	2.12	0.96
15:F:105:VAL:CG1	15:F:143:HIS:CE1	2.48	0.96
20:K:281:ARG:NH1	20:K:287:GLY:HA2	1.80	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:L:252:VAL:CB	22:M:256:ILE:HD12	1.82	0.96
24:O:258:LEU:HD23	24:O:287:LEU:HD21	1.46	0.96
8:8:318:PHE:CA	9:9:71:LEU:CD2	2.42	0.96
20:K:200:GLN:CA	27:R:204:TRP:CZ2	2.27	0.96
23:N:325:PHE:CA	31:V:182:LYS:HG2	1.95	0.96
26:Q:51:ARG:NH2	26:Q:92:LYS:HB3	1.79	0.96
12:C:149:TYR:OH	13:D:59:ILE:HB	1.64	0.96
15:F:65:LYS:HD3	15:F:222:PHE:CE2	2.01	0.96
23:N:25:LEU:CD1	23:N:57:ASP:CB	2.35	0.96
33:X:66:LEU:HD13	33:X:99:PHE:HZ	1.29	0.96
35:Z:758:LEU:HD22	35:Z:791:LYS:HD3	1.44	0.96
8:8:133:LEU:HD11	8:8:221[B]:MSE:HE2	1.47	0.96
35:Z:551:LEU:HG	35:Z:593:HIS:NE2	1.80	0.96
35:Z:889:VAL:HG12	35:Z:894:MET:HE1	1.44	0.96
23:N:21:LYS:CG	23:N:55:PHE:CD2	2.48	0.96
35:Z:189:ALA:HB3	35:Z:193:PHE:HD2	1.31	0.96
14:E:88:MET:HE2	14:E:142:LEU:CD1	1.96	0.96
25:P:349:ASN:O	25:P:353:ILE:CG1	2.13	0.96
26:Q:46:VAL:O	26:Q:50:ARG:CG	2.14	0.96
27:R:137:LEU:HD11	27:R:141:TYR:HE2	1.22	0.96
31:V:261:LEU:CD1	31:V:283:THR:HG21	1.95	0.96
32:W:37:PHE:CZ	32:W:49:VAL:HG11	2.01	0.96
20:K:240:SER:H	21:L:306:MET:HE1	1.31	0.95
8:8:212:GLU:CD	9:9:42:ARG:HD3	1.86	0.95
8:8:327:SER:OG	17:H:164:SER:HB2	1.65	0.95
17:H:449:LYS:NZ	18:I:346:ARG:NH1	2.12	0.95
27:R:308:LEU:HB2	27:R:334:ARG:HH22	1.17	0.95
28:S:211:ARG:HH21	28:S:240:ASP:HB3	1.21	0.95
29:T:62:LEU:CD1	29:T:88:TYR:CE2	2.50	0.95
33:X:66:LEU:HD13	33:X:99:PHE:CE1	2.00	0.95
22:M:50:ARG:CA	32:W:73:LEU:CD1	2.43	0.95
1:1:45:ARG:HH21	1:1:53:GLN:N	1.62	0.95
1:1:119:VAL:HB	16:G:103:LYS:NZ	1.82	0.95
1:1:124:TYR:OH	1:1:139:ASP:OD1	1.81	0.95
19:J:193:THR:OG1	19:J:316:PHE:CZ	2.18	0.95
24:O:66:VAL:CG1	24:O:106:PHE:CE1	2.49	0.95
29:T:82:PHE:CE1	29:T:109:TYR:CE2	2.42	0.95
35:Z:321:PHE:HZ	35:Z:350:GLY:CA	1.49	0.95
23:N:325:PHE:HA	31:V:182:LYS:HG2	1.45	0.95
24:O:185:PHE:HE2	24:O:219:ILE:HG22	1.29	0.95
24:O:373:TRP:CD1	30:U:200:LEU:HD22	1.75	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:197:TYR:CG	29:T:235:PHE:CD1	2.54	0.95
29:T:216:GLU:HG2	29:T:220:PHE:CE1	2.01	0.95
3:3:18:LEU:HD11	3:3:177:VAL:HG13	0.99	0.95
30:U:92:TRP:HD1	30:U:119:LEU:O	1.48	0.95
35:Z:218:GLU:CB	35:Z:248:TYR:OH	2.13	0.95
24:O:134:ALA:CB	24:O:153:LEU:HD11	1.94	0.95
24:O:300:VAL:HG12	24:O:301:PHE:CD2	2.01	0.95
4:4:26:VAL:HG11	4:4:29:ASP:HB3	1.46	0.95
8:8:319:TRP:N	9:9:71:LEU:HD21	1.61	0.95
15:F:166:GLN:HA	22:M:381:ARG:NH2	1.82	0.95
22:M:50:ARG:HA	32:W:73:LEU:HD12	1.46	0.95
21:L:259:SER:HB2	21:L:303:ARG:NH1	1.82	0.95
21:L:360:ILE:HG23	21:L:391:ILE:HD13	1.46	0.95
29:T:193:THR:CG2	29:T:226:TRP:HH2	1.63	0.95
31:V:57:PHE:HB2	31:V:62:THR:O	1.65	0.95
33:X:75:TRP:HD1	33:X:87:PHE:CD1	1.77	0.95
13:D:203:VAL:C	13:D:204:GLN:OE1	2.05	0.94
35:Z:103:TYR:CD1	35:Z:116:ALA:HB2	2.01	0.94
4:4:36:GLN:HE21	4:4:39:PRO:HA	1.32	0.94
8:8:207:GLN:C	9:9:75:GLY:O	2.05	0.94
8:8:326:LYS:NZ	9:9:74:ARG:NH2	2.13	0.94
23:N:233:ASN:OD1	23:N:269:LEU:HD22	1.67	0.94
23:N:399:PHE:HD1	23:N:441:VAL:HG11	1.29	0.94
33:X:75:TRP:CZ2	33:X:125:MET:HG3	2.02	0.94
35:Z:305:VAL:HG13	35:Z:982:ILE:HG12	1.45	0.94
19:J:193:THR:HB	19:J:316:PHE:HZ	1.24	0.94
13:D:138:PHE:HE1	13:D:215:VAL:HG12	1.26	0.94
35:Z:189:ALA:HB3	35:Z:193:PHE:CD2	2.02	0.94
1:1:119:VAL:CB	16:G:103:LYS:NZ	2.30	0.94
18:I:190:GLN:OE1	18:I:349:LEU:HD12	1.68	0.94
30:U:92:TRP:HZ3	30:U:106:ILE:CB	1.79	0.94
31:V:114:PHE:HD1	31:V:118:LEU:O	1.50	0.94
32:W:7:VAL:CG2	32:W:110:ILE:HD13	1.97	0.94
10:A:52:VAL:HG21	10:A:202:VAL:HG12	1.47	0.94
19:J:115:LEU:CD2	19:J:120:TYR:HA	1.97	0.94
19:J:167:PRO:N	19:J:174:PHE:CE1	2.36	0.94
24:O:277:ILE:HB	24:O:279:ILE:N	1.83	0.94
29:T:197:TYR:CE1	29:T:235:PHE:HD1	1.85	0.94
32:W:120:ASP:O	32:W:121:SER:N	1.99	0.94
35:Z:510:LEU:HD11	35:Z:542:ILE:HA	1.50	0.94
20:K:158:ILE:HG23	21:L:256:ILE:HG23	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:6:175:VAL:CG1	6:6:179:PHE:CE2	2.48	0.94
14:E:109:VAL:CG1	14:E:156:PHE:CD1	2.51	0.94
14:E:110:GLU:HG3	14:E:164:PHE:CE2	2.03	0.94
14:E:165:TYR:CB	14:E:167:TYR:CE1	2.51	0.94
17:H:174:VAL:HG13	17:H:183:ILE:HG13	1.48	0.94
24:O:223:LEU:CD1	24:O:277:ILE:HD11	1.97	0.94
24:O:341:ILE:HD11	24:O:348:VAL:HG22	1.48	0.94
27:R:137:LEU:CG	27:R:141:TYR:HE2	1.81	0.94
27:R:263:ARG:NH1	27:R:296:LEU:O	2.00	0.94
28:S:157:GLU:CD	28:S:160:ARG:HH21	1.70	0.94
29:T:193:THR:HG21	29:T:226:TRP:CZ3	2.02	0.94
29:T:197:TYR:HD1	29:T:198:ASP:H	0.97	0.94
29:T:226:TRP:HD1	29:T:241:GLU:OE1	1.50	0.94
30:U:66:TRP:CZ3	30:U:68:LEU:HD12	2.02	0.94
33:X:66:LEU:HD11	33:X:97:TYR:HB2	1.48	0.94
35:Z:102:ILE:HG12	35:Z:107:THR:OG1	1.66	0.94
35:Z:312:TYR:OH	35:Z:348:LEU:CA	2.14	0.94
23:N:214:LEU:HD12	23:N:217:MET:CE	1.96	0.94
23:N:324:LYS:HG3	23:N:325:PHE:CD1	2.02	0.94
29:T:245:TYR:HE2	29:T:251:HIS:HE2	1.15	0.94
35:Z:491:LEU:CD1	35:Z:900:LEU:HD12	1.97	0.94
35:Z:609:THR:HG23	35:Z:745:LEU:HD22	1.48	0.94
35:Z:767:TYR:HD2	35:Z:772:ILE:HG13	1.29	0.94
5:5:8:PHE:CZ	5:5:13:ILE:HD11	2.02	0.94
8:8:444:GLU:OE1	9:9:74:ARG:HD3	1.67	0.94
19:J:69:GLY:HA2	20:K:144:ASN:HD21	0.79	0.94
25:P:245:TYR:CE1	25:P:257:TRP:CE2	2.55	0.94
26:Q:314:PHE:CD2	26:Q:339:TYR:CD1	2.56	0.94
32:W:172:LEU:HD22	32:W:185:ILE:HA	1.49	0.94
33:X:75:TRP:HA	33:X:87:PHE:HE1	1.33	0.94
35:Z:56:LEU:HD22	35:Z:115:LEU:HD13	1.49	0.94
22:M:75:LEU:HD12	22:M:77:TYR:CD1	2.02	0.93
24:O:124:ASP:OD1	24:O:127:LEU:N	2.01	0.93
27:R:33:LEU:CD2	27:R:92:ILE:HD13	1.98	0.93
27:R:308:LEU:HD13	27:R:334:ARG:CZ	1.94	0.93
28:S:188:TYR:CZ	28:S:210:LEU:HD13	2.03	0.93
29:T:35:ILE:CD1	29:T:40:LEU:HD11	1.98	0.93
30:U:66:TRP:CZ3	30:U:68:LEU:CD1	2.50	0.93
35:Z:867:PHE:HE2	35:Z:871:HIS:HD1	1.10	0.93
1:1:1:THR:HG22	1:1:129:SER:H	1.32	0.93
1:1:19:ARG:NH1	1:1:29:ARG:HA	1.82	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:45:ARG:HH22	1:1:53:GLN:HB2	1.32	0.93
15:F:31:GLN:HA	22:M:430:VAL:CG1	1.98	0.93
13:D:159:TRP:CZ3	14:E:59:LEU:HD13	2.03	0.93
14:E:157:HIS:HE1	14:E:172:ILE:HG21	1.24	0.93
19:J:136:LEU:CD2	19:J:217:GLU:HG3	1.98	0.93
24:O:258:LEU:HD21	24:O:287:LEU:HD21	1.51	0.93
26:Q:331:THR:CG2	26:Q:335:PHE:HE2	1.81	0.93
29:T:28:PRO:HB2	29:T:29:PRO:HD3	1.49	0.93
35:Z:146:PHE:O	35:Z:210:TYR:OH	1.85	0.93
8:8:329:ILE:HA	17:H:163:VAL:HG21	0.94	0.93
18:I:228:GLY:HA3	18:I:350:PHE:CE1	2.04	0.93
8:8:212:GLU:OE2	9:9:72:ARG:HG3	1.67	0.93
16:G:182:HIS:CE1	16:G:186:LEU:HD12	2.04	0.93
19:J:69:GLY:HA2	20:K:144:ASN:ND2	1.59	0.93
19:J:336:ASN:ND2	27:R:204:TRP:CD1	2.36	0.93
24:O:11:LEU:HD22	24:O:15:ARG:HH12	1.30	0.93
24:O:210:ARG:HH22	24:O:242:ILE:HA	1.19	0.93
24:O:258:LEU:HD22	24:O:287:LEU:HD21	0.94	0.93
27:R:259:PHE:CD2	27:R:329:PHE:CE1	2.56	0.93
30:U:189:ARG:NH1	31:V:296:LEU:CD2	2.22	0.93
35:Z:193:PHE:HD2	35:Z:196:SER:HB2	1.33	0.93
35:Z:924:LYS:CA	35:Z:959:HIS:ND1	2.31	0.93
6:6:34:VAL:CG1	6:6:196:LEU:HD12	1.98	0.93
20:K:349:ARG:NH1	20:K:377:SER:N	2.16	0.93
24:O:50:ASP:HA	24:O:53:LYS:NZ	1.84	0.93
35:Z:318:LYS:CE	35:Z:496:ALA:O	2.16	0.93
11:B:139:HIS:CE1	11:B:145:PHE:CE2	2.57	0.93
18:I:132:ILE:HG12	18:I:156:ILE:HD12	1.49	0.93
19:J:193:THR:HG21	19:J:316:PHE:HE1	1.27	0.93
19:J:219:VAL:HG21	20:K:284:ALA:N	1.84	0.93
32:W:5:ALA:HB2	32:W:103:ASN:HB2	1.44	0.93
14:E:88:MET:CE	14:E:142:LEU:CD1	2.47	0.93
15:F:201:LEU:HD12	15:F:206:LEU:HD12	1.46	0.93
17:H:271:PHE:HZ	17:H:307:PHE:CD2	1.87	0.93
22:M:390:GLN:NE2	22:M:425:ARG:HB3	1.84	0.93
25:P:302:LEU:HB2	25:P:310:ARG:HH21	1.34	0.93
35:Z:506:LEU:HG	35:Z:530:LEU:HD11	1.51	0.93
7:7:8:TYR:CZ	7:7:11:GLY:HA3	2.04	0.93
17:H:261:ARG:NH2	17:H:273:ARG:NH2	2.16	0.93
24:O:69:PHE:HD2	24:O:78:VAL:CG2	1.82	0.93
29:T:209:LEU:HD13	29:T:211:PHE:CZ	2.04	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:K:68:ILE:HG12	23:N:608:LEU:HD23	1.50	0.92
26:Q:51:ARG:HD2	26:Q:96:VAL:HG21	1.51	0.92
31:V:117:TRP:CZ2	31:V:196:TYR:HA	2.04	0.92
35:Z:325:GLY:O	35:Z:326:VAL:HG22	1.69	0.92
10:A:77:ARG:HG3	10:A:78:THR:HG23	1.48	0.92
15:F:201:LEU:CD1	15:F:206:LEU:HD11	1.92	0.92
26:Q:85:MET:HE2	26:Q:93:THR:HA	1.51	0.92
30:U:21:HIS:CE1	30:U:53:ALA:HB2	2.04	0.92
26:Q:135:HIS:HB3	26:Q:161:LEU:HD22	1.51	0.92
18:I:380:LEU:HA	18:I:420:LYS:HZ3	1.33	0.92
24:O:47:LYS:HZ1	24:O:65:PHE:HE2	1.03	0.92
30:U:18:ALA:HB1	30:U:93:TYR:OH	1.69	0.92
30:U:40:ASP:HB3	30:U:47:ARG:NH2	1.84	0.92
33:X:41:GLU:HB2	33:X:45:PHE:H	1.33	0.92
20:K:49:PHE:CE1	23:N:192:LEU:CG	2.52	0.92
21:L:370:LYS:HD2	21:L:374:PHE:CE1	2.04	0.92
26:Q:65:TYR:HB2	26:Q:74:LEU:HD22	1.51	0.92
28:S:175:SER:HB2	28:S:229:THR:OG1	1.68	0.92
29:T:197:TYR:CE1	29:T:235:PHE:CD1	2.57	0.92
30:U:35:GLY:N	30:U:93:TYR:HB3	1.84	0.92
30:U:40:ASP:HB3	30:U:47:ARG:HH21	1.31	0.92
35:Z:81:SER:O	35:Z:82:MET:CG	2.16	0.92
21:L:259:SER:HB3	21:L:303:ARG:HH22	1.35	0.92
22:M:385:GLU:CB	22:M:426:LYS:HZ3	1.79	0.92
26:Q:299:MET:CE	26:Q:335:PHE:HZ	1.83	0.92
33:X:11:ARG:HB2	33:X:103:GLU:HG3	1.49	0.92
16:G:140:VAL:HG11	16:G:220:LEU:HG	1.51	0.92
19:J:167:PRO:CA	19:J:174:PHE:CE1	2.51	0.92
25:P:286:ASN:C	25:P:293:LEU:HD11	1.91	0.92
28:S:191:HIS:NE2	28:S:206:GLN:HG3	1.85	0.92
28:S:425:ARG:NH1	29:T:155:GLY:HA2	1.83	0.92
29:T:197:TYR:CZ	29:T:199:PHE:CA	2.52	0.92
33:X:10:PHE:CE2	33:X:103:GLU:OE2	2.23	0.92
1:1:19:ARG:HH12	1:1:29:ARG:CG	1.82	0.92
7:7:107:ILE:HD11	7:7:136:THR:HG23	1.50	0.92
10:A:162:TYR:CZ	20:K:428:LYS:HB2	2.05	0.92
20:K:353:PHE:CD1	20:K:387:MET:SD	2.63	0.92
24:O:277:ILE:CG1	24:O:279:ILE:HB	2.00	0.92
29:T:193:THR:CB	29:T:226:TRP:CH2	2.51	0.92
30:U:66:TRP:CH2	30:U:68:LEU:HD12	2.04	0.92
33:X:41:GLU:CB	33:X:45:PHE:H	1.82	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:75:PHE:CD2	18:I:76:VAL:HG23	2.05	0.92
20:K:68:ILE:CD1	23:N:608:LEU:HD21	1.99	0.92
26:Q:47:ASP:CA	26:Q:50:ARG:HB3	1.99	0.91
26:Q:174:LEU:HD11	26:Q:178:HIS:HE2	1.34	0.91
27:R:422:ARG:NH2	28:S:301:PRO:HD3	1.85	0.91
31:V:118:LEU:HD13	31:V:140:VAL:HB	1.52	0.91
26:Q:14:LEU:HD12	26:Q:26:VAL:HG21	1.51	0.91
27:R:312:TYR:HA	27:R:316:LEU:HD12	1.50	0.91
28:S:256:LYS:O	28:S:259:TYR:HE2	1.51	0.91
32:W:25:ARG:NH2	32:W:115:CYS:SG	2.43	0.91
23:N:19:SER:HB3	29:T:35:ILE:HG21	1.44	0.91
23:N:43:LEU:HD21	23:N:69:TYR:CE1	2.05	0.91
29:T:216:GLU:CG	29:T:220:PHE:CE1	2.54	0.91
29:T:241:GLU:HA	29:T:246:GLU:HB2	1.52	0.91
35:Z:924:LYS:HB2	35:Z:959:HIS:HE1	0.76	0.91
17:H:172:MET:CE	18:I:129:TYR:HB2	2.00	0.91
18:I:361:ILE:HG22	18:I:392:ILE:CG2	1.99	0.91
19:J:167:PRO:CD	19:J:174:PHE:CZ	2.54	0.91
24:O:277:ILE:HG21	24:O:279:ILE:H	1.31	0.91
26:Q:331:THR:CG2	26:Q:335:PHE:CE2	2.53	0.91
30:U:16:LEU:HD22	31:V:209:GLU:OE2	1.68	0.91
32:W:182:TYR:O	32:W:183:GLU:CG	2.17	0.91
21:L:253:ASP:CA	22:M:256:ILE:HG13	2.01	0.91
28:S:188:TYR:CE2	28:S:210:LEU:HD13	2.05	0.91
31:V:114:PHE:H	31:V:118:LEU:HD23	1.36	0.91
32:W:32:SER:O	32:W:36:ILE:HG12	1.71	0.91
4:4:26:VAL:CG1	4:4:28:LYS:O	2.18	0.91
22:M:365:SER:HB3	22:M:376:TRP:HZ2	1.33	0.91
24:O:66:VAL:HG12	24:O:106:PHE:CE1	2.06	0.91
26:Q:135:HIS:CB	26:Q:161:LEU:HD22	2.01	0.91
27:R:280:ILE:HD12	27:R:289:ILE:CG1	2.01	0.91
12:C:160:TRP:CZ3	12:C:163:ILE:HD13	2.05	0.91
24:O:250:TRP:CH2	24:O:270:ILE:HG23	2.05	0.91
26:Q:14:LEU:HD11	26:Q:26:VAL:HG21	0.92	0.91
27:R:31:PHE:CZ	27:R:182:ASN:ND2	2.39	0.91
30:U:5:HIS:ND1	30:U:6:GLU:N	2.19	0.91
30:U:94:HIS:CE1	30:U:96:GLY:CA	2.53	0.91
33:X:46:TRP:CZ2	33:X:132:SER:HA	2.06	0.91
22:M:289:LYS:NZ	22:M:302:GLN:NE2	2.07	0.91
23:N:277:LEU:CD1	23:N:290:LEU:HD11	1.85	0.91
35:Z:400:ILE:HD11	35:Z:418:ALA:HB1	1.52	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:19:ARG:HH12	1:1:29:ARG:HG3	1.21	0.91
16:G:182:HIS:CG	16:G:186:LEU:HG	2.05	0.91
19:J:166:LEU:C	19:J:174:PHE:CE1	2.43	0.91
21:L:309:LEU:HD22	21:L:342:ARG:HE	1.33	0.91
22:M:50:ARG:HB3	32:W:73:LEU:CD1	2.00	0.91
24:O:69:PHE:CD2	24:O:78:VAL:CG2	2.53	0.91
35:Z:358:TYR:HD2	35:Z:428:TRP:HE1	0.91	0.91
16:G:53:ILE:HD11	16:G:212:GLU:HB2	1.53	0.90
24:O:233:LEU:HD23	24:O:236:HIS:ND1	1.86	0.90
24:O:365:LYS:HB3	24:O:369:ARG:NH1	1.86	0.90
26:Q:269:LYS:NZ	26:Q:281:ILE:HD11	1.85	0.90
6:6:115:SER:CB	6:6:128:ARG:NH1	2.34	0.90
24:O:202:SER:O	24:O:203:THR:HG22	1.70	0.90
8:8:320:LYS:HE2	17:H:164:SER:HB3	0.92	0.90
29:T:193:THR:HG22	29:T:226:TRP:CH2	2.06	0.90
30:U:283:ARG:HH22	31:V:283:THR:HG22	1.34	0.90
3:3:-2:ASN:O	3:3:19:ARG:NH1	2.04	0.90
16:G:7:TYR:CE1	16:G:13:VAL:HG23	2.06	0.90
17:H:105:ILE:HG22	17:H:105:ILE:O	1.70	0.90
17:H:251:PRO:O	17:H:254:THR:HG23	1.70	0.90
20:K:49:PHE:CE1	23:N:192:LEU:HD12	2.06	0.90
24:O:103:LYS:O	24:O:129:ILE:CG1	2.19	0.90
24:O:133:ILE:CG1	24:O:137:TYR:CE2	2.54	0.90
26:Q:47:ASP:N	26:Q:50:ARG:HB3	1.86	0.90
30:U:152:LYS:CB	30:U:154:PHE:CZ	2.51	0.90
31:V:261:LEU:CD1	31:V:283:THR:CG2	2.48	0.90
32:W:9:VAL:O	32:W:113:PHE:HD2	1.52	0.90
1:1:176:VAL:HG13	1:1:183:VAL:CG1	2.00	0.90
3:3:59:ARG:HH21	12:C:99:LEU:HD11	1.37	0.90
20:K:210:LEU:HD11	20:K:212:TYR:CZ	2.07	0.90
20:K:364:PRO:CB	26:Q:247:HIS:NE2	2.26	0.90
24:O:79:VAL:CG1	24:O:118:GLY:HA2	2.02	0.90
27:R:171:MET:CE	27:R:206:ARG:HG3	2.00	0.90
35:Z:357:ILE:HG23	35:Z:960:GLY:O	1.72	0.90
4:4:95:ARG:HE	5:5:92:GLY:HA3	1.37	0.90
15:F:145:LEU:HD21	15:F:153:VAL:HG13	1.54	0.90
16:G:166:LYS:HZ2	16:G:206:ASN:HA	1.37	0.90
16:G:204:GLU:HA	16:G:207:LYS:HE2	1.52	0.90
27:R:241:ILE:HG22	27:R:242:GLU:HG3	1.52	0.90
29:T:216:GLU:CG	29:T:220:PHE:HE1	1.84	0.90
12:C:149:TYR:CE1	13:D:59:ILE:HD12	2.07	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:48:LEU:HD11	14:E:145:ALA:CB	2.00	0.90
24:O:277:ILE:HG21	24:O:279:ILE:HG12	0.90	0.90
24:O:293:LEU:O	24:O:297:ILE:HG13	1.70	0.90
29:T:89:TYR:CZ	29:T:102:LYS:NZ	2.40	0.90
29:T:226:TRP:HA	29:T:241:GLU:OE1	1.72	0.90
30:U:152:LYS:CB	30:U:154:PHE:CE1	2.32	0.90
32:W:132:LEU:HD22	32:W:137:VAL:HG11	1.52	0.90
1:1:8:PHE:HE2	1:1:10:ASP:CB	1.85	0.90
7:7:-3:VAL:HG11	7:7:49:ILE:HB	1.53	0.90
11:B:178:ARG:NH1	11:B:194:LEU:CB	2.34	0.90
23:N:406:TYR:HE1	23:N:448:LEU:HD13	1.12	0.90
24:O:358:ILE:HG22	24:O:359:SER:N	1.83	0.90
29:T:216:GLU:HG3	29:T:220:PHE:HE1	1.33	0.90
33:X:41:GLU:CG	33:X:45:PHE:HB2	2.02	0.90
15:F:120:THR:O	16:G:129:ARG:NH2	2.04	0.90
20:K:346:ARG:HE	20:K:372:ILE:HG21	1.37	0.90
31:V:53:MET:CE	31:V:65:VAL:HG11	2.02	0.90
31:V:154:ASP:HB3	31:V:156:PHE:CE1	2.06	0.90
32:W:21:PHE:HE1	32:W:144:PHE:HZ	1.15	0.90
15:F:153:VAL:HB	16:G:85:ARG:HH12	1.37	0.89
17:H:271:PHE:CZ	17:H:307:PHE:HD2	1.89	0.89
21:L:227:GLY:H	22:M:339:ARG:NH2	1.69	0.89
21:L:362:LYS:HA	21:L:376:PHE:CZ	2.07	0.89
12:C:160:TRP:CE2	12:C:163:ILE:HD13	2.06	0.89
16:G:94:GLU:OE2	16:G:118:TYR:OH	1.90	0.89
20:K:113:THR:CA	20:K:252:ARG:NH1	2.34	0.89
23:N:399:PHE:HD1	23:N:441:VAL:CG1	1.85	0.89
24:O:4:ASN:HB2	24:O:39:PHE:HD1	1.36	0.89
24:O:124:ASP:OD2	24:O:127:LEU:CD1	2.20	0.89
31:V:117:TRP:NE1	31:V:196:TYR:HB2	1.82	0.89
21:L:362:LYS:HA	21:L:376:PHE:CE2	2.08	0.89
24:O:73:ILE:HG23	24:O:74:ASN:N	1.88	0.89
27:R:415:GLN:HG2	28:S:471:LEU:CD2	2.00	0.89
33:X:40:GLU:O	33:X:41:GLU:CG	2.19	0.89
34:Y:88:ASN:O	34:Y:89:GLN:HB3	1.70	0.89
35:Z:103:TYR:O	35:Z:112:LYS:NZ	2.06	0.89
35:Z:133:ASP:HB2	35:Z:137:TYR:CD2	2.07	0.89
27:R:190:LYS:HB2	27:R:213:TYR:OH	1.73	0.89
30:U:38:LEU:HB2	30:U:88:LYS:O	1.72	0.89
31:V:126:GLN:NE2	31:V:130:GLU:OE2	2.04	0.89
33:X:10:PHE:O	33:X:33:ILE:CG2	2.20	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:348:LEU:HD11	35:Z:921:GLU:HG2	1.54	0.89
27:R:94:PHE:CZ	27:R:99:TYR:CZ	2.61	0.89
30:U:283:ARG:CZ	31:V:284:ALA:HA	2.01	0.89
18:I:106:ILE:CD1	19:J:85:LEU:HD22	2.02	0.89
18:I:400:GLY:HA3	19:J:179:ILE:HG13	1.53	0.89
21:L:227:GLY:N	22:M:339:ARG:NH2	2.18	0.89
25:P:181:LEU:CD2	25:P:219:GLU:HB3	2.00	0.89
29:T:226:TRP:CZ2	29:T:235:PHE:HE2	1.89	0.89
30:U:273:LEU:CD1	30:U:277:TYR:CZ	2.55	0.89
35:Z:218:GLU:HB2	35:Z:248:TYR:OH	1.68	0.89
6:6:175:VAL:O	6:6:179:PHE:CD2	2.25	0.89
7:7:121:TYR:HE2	7:7:136:THR:HG22	1.36	0.89
20:K:347:ARG:NH1	26:Q:205:ALA:CB	2.36	0.89
22:M:50:ARG:HA	32:W:73:LEU:CD1	2.02	0.89
30:U:161:ILE:CG2	30:U:162:GLU:N	2.27	0.89
19:J:69:GLY:H	20:K:144:ASN:ND2	1.69	0.89
19:J:136:LEU:HD22	19:J:217:GLU:CG	2.01	0.89
23:N:421:ASP:OD1	23:N:424:LYS:NZ	2.05	0.89
27:R:208:ASN:HD22	27:R:238:PHE:HD1	0.98	0.89
30:U:5:HIS:CG	30:U:6:GLU:H	1.91	0.89
13:D:138:PHE:CE1	13:D:215:VAL:HG12	2.08	0.89
17:H:261:ARG:NH2	18:I:315:GLY:O	2.05	0.89
19:J:301:ASP:HB2	19:J:304:LEU:HG	1.54	0.89
20:K:358:SER:OG	26:Q:240:PHE:CE1	2.26	0.89
23:N:70:TYR:HE2	28:S:219:LYS:HE2	1.36	0.89
24:O:205:ILE:HD12	24:O:210:ARG:HD2	1.54	0.89
35:Z:193:PHE:CE2	35:Z:196:SER:HA	2.08	0.89
8:8:212:GLU:OE1	9:9:72:ARG:CD	2.20	0.88
19:J:193:THR:CG2	19:J:316:PHE:HE1	1.79	0.88
3:3:155:PHE:CE1	3:3:189:ARG:HD2	2.08	0.88
23:N:579:SER:HA	23:N:584:ARG:NH2	1.88	0.88
30:U:94:HIS:HE1	30:U:96:GLY:CA	1.85	0.88
32:W:180:LEU:HA	32:W:183:GLU:OE1	1.71	0.88
17:H:206:VAL:CG1	17:H:258:LEU:HD22	2.02	0.88
18:I:339:ILE:HD13	18:I:347:LYS:HE2	1.56	0.88
22:M:75:LEU:CG	22:M:77:TYR:HE1	1.84	0.88
25:P:273:TYR:OH	25:P:386:GLN:OE1	1.90	0.88
30:U:283:ARG:NH1	31:V:284:ALA:HA	1.88	0.88
23:N:666:GLN:HG3	23:N:873:ARG:HH21	1.35	0.88
24:O:370:LEU:HD13	30:U:204:LEU:HA	1.53	0.88
35:Z:358:TYR:CD2	35:Z:428:TRP:NE1	2.38	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:868:ASN:HD21	35:Z:870:ALA:HB3	1.36	0.88
3:3:-2:ASN:C	3:3:19:ARG:NH1	2.26	0.88
19:J:336:ASN:ND2	27:R:204:TRP:HE1	1.60	0.88
20:K:200:GLN:O	27:R:204:TRP:NE1	2.07	0.88
26:Q:162:LEU:HD11	26:Q:178:HIS:HE2	1.36	0.88
27:R:191:LEU:HB2	27:R:213:TYR:HE2	1.37	0.88
19:J:167:PRO:N	19:J:174:PHE:CZ	2.42	0.88
20:K:248:GLY:HA2	20:K:251:PRO:HG2	1.56	0.88
22:M:410:VAL:HG13	22:M:414:ASP:CB	2.02	0.88
24:O:277:ILE:CB	24:O:279:ILE:N	2.36	0.88
7:7:8:TYR:CE2	7:7:10:ASN:OD1	2.26	0.88
16:G:140:VAL:CB	16:G:220:LEU:HD21	2.02	0.88
20:K:281:ARG:HH12	20:K:287:GLY:N	1.71	0.88
22:M:368:MET:SD	22:M:395:THR:HG22	2.12	0.88
25:P:135:GLU:HG2	25:P:138:ARG:HH21	1.38	0.88
28:S:286:TYR:CE1	28:S:323:LEU:HB3	2.09	0.88
33:X:68:LEU:HD11	33:X:128:VAL:HB	1.52	0.88
8:8:320:LYS:HE3	17:H:164:SER:OG	1.73	0.88
10:A:162:TYR:CE2	20:K:428:LYS:HB2	2.08	0.88
16:G:121:ALA:O	16:G:125:TYR:HD1	1.56	0.88
19:J:167:PRO:HG3	19:J:174:PHE:CE2	2.09	0.88
20:K:347:ARG:NH1	26:Q:205:ALA:HB3	1.87	0.88
22:M:361:LEU:HB3	22:M:376:TRP:CE2	2.09	0.88
6:6:14:LEU:HD23	6:6:34:VAL:HG13	1.55	0.88
21:L:111:GLU:HG2	21:L:117:TYR:CD2	2.08	0.88
26:Q:82:THR:O	26:Q:85:MET:HG2	1.73	0.88
32:W:21:PHE:CZ	32:W:144:PHE:CZ	2.61	0.88
35:Z:133:ASP:CB	35:Z:137:TYR:CD2	2.57	0.88
8:8:253:LYS:HZ1	9:9:64:GLU:HB2	1.36	0.88
22:M:77:TYR:CE2	22:M:159:LEU:HD11	2.07	0.88
22:M:289:LYS:HZ3	22:M:334:ASP:HB2	1.36	0.88
23:N:602:VAL:O	23:N:606:VAL:HG22	1.74	0.88
29:T:1:MET:HB3	29:T:2:PRO:HD3	0.91	0.88
29:T:62:LEU:HD12	29:T:88:TYR:CE2	2.09	0.88
35:Z:237:VAL:HG12	35:Z:245:VAL:HG12	1.56	0.88
22:M:50:ARG:CB	32:W:73:LEU:CD1	2.52	0.87
32:W:71:LYS:HA	32:W:74:ALA:HB3	1.57	0.87
1:1:66:TYR:HE2	1:1:73:PRO:HA	1.37	0.87
23:N:479:GLU:CB	23:N:512:ASN:HD21	1.87	0.87
24:O:3:ASN:HB2	24:O:39:PHE:CZ	2.09	0.87
27:R:422:ARG:HH12	28:S:301:PRO:HG3	1.37	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:64:TYR:CE1	35:Z:68:LEU:HD11	2.09	0.87
35:Z:359:LYS:NZ	35:Z:429:ASN:HD22	1.72	0.87
35:Z:401:VAL:HG22	35:Z:426:TYR:HH	1.29	0.87
35:Z:493:LEU:CD1	35:Z:497:PHE:CD2	2.57	0.87
18:I:366:THR:HG21	18:I:377:LEU:HD21	1.55	0.87
21:L:259:SER:CB	21:L:303:ARG:HH12	1.88	0.87
30:U:66:TRP:HZ3	30:U:68:LEU:CB	1.87	0.87
10:A:81:MET:SD	10:A:143:PHE:CE2	2.67	0.87
17:H:66:LYS:HG2	18:I:99:ILE:HD13	1.56	0.87
22:M:368:MET:SD	22:M:395:THR:HG21	2.15	0.87
28:S:145:PHE:O	28:S:149:SER:OG	1.91	0.87
32:W:5:ALA:HB3	32:W:103:ASN:HB2	1.57	0.87
20:K:155:ASP:O	21:L:126:ARG:CZ	2.23	0.87
23:N:579:SER:HA	23:N:584:ARG:CZ	2.04	0.87
27:R:353:MET:CE	27:R:364:LEU:HD11	2.04	0.87
24:O:185:PHE:CE2	24:O:219:ILE:HG22	2.09	0.87
24:O:373:TRP:HZ3	30:U:233:PHE:HB3	0.73	0.87
30:U:5:HIS:HD1	30:U:6:GLU:H	1.20	0.87
35:Z:133:ASP:CA	35:Z:137:TYR:CD1	2.52	0.87
10:A:130:GLN:HB3	11:B:127:VAL:HG23	1.57	0.87
15:F:166:GLN:CA	22:M:381:ARG:NH2	2.37	0.87
18:I:100:ARG:C	18:I:104:LEU:HD11	1.96	0.87
20:K:169:VAL:H	21:L:315:PHE:HE1	1.23	0.87
21:L:259:SER:HB2	21:L:303:ARG:HH12	1.35	0.87
24:O:25:LEU:O	24:O:29:PHE:CG	2.28	0.87
27:R:125:GLU:CD	27:R:126:GLY:N	2.29	0.87
32:W:147:ILE:O	32:W:147:ILE:HG22	1.74	0.87
17:H:253:GLY:HA2	18:I:314:ASP:OD1	1.74	0.87
22:M:410:VAL:HG13	22:M:414:ASP:HB2	1.55	0.87
24:O:153:LEU:HD13	24:O:174:THR:HG21	0.88	0.87
24:O:188:PHE:CD2	24:O:220:SER:HB3	2.09	0.87
29:T:55:LEU:CG	29:T:59:LYS:HE2	2.05	0.87
35:Z:55:ARG:NH1	35:Z:63:LEU:HD22	1.89	0.87
35:Z:244:ARG:O	35:Z:248:TYR:HD1	1.58	0.87
35:Z:321:PHE:CE2	35:Z:351:PRO:CD	2.58	0.87
10:A:220:LYS:HD3	10:A:242:GLU:HB2	1.55	0.86
18:I:132:ILE:HD12	18:I:138:LYS:HE2	0.94	0.86
19:J:115:LEU:HB2	19:J:122:LEU:HD23	1.57	0.86
24:O:80:LYS:CE	24:O:81:TYR:CZ	2.51	0.86
25:P:203:ILE:CG2	25:P:220:TYR:CE1	2.58	0.86
25:P:369:LEU:HB3	25:P:371:LEU:HD12	1.55	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:65:TYR:CD2	26:Q:74:LEU:HB2	2.08	0.86
32:W:168:THR:HG22	32:W:169:SER:HB3	1.57	0.86
1:1:119:VAL:CB	16:G:103:LYS:HZ2	1.88	0.86
17:H:155:PHE:HE1	22:M:77:TYR:N	1.73	0.86
24:O:66:VAL:HG12	24:O:106:PHE:HE1	1.39	0.86
27:R:171:MET:SD	27:R:194:VAL:HG21	2.14	0.86
31:V:52:LEU:CD1	31:V:107:TRP:CZ3	2.56	0.86
33:X:66:LEU:CD1	33:X:99:PHE:CZ	2.58	0.86
2:2:82:MET:O	2:2:86:HIS:CD2	2.28	0.86
4:4:43:MET:CG	4:4:45:PHE:CZ	2.58	0.86
12:C:42:ASP:HA	12:C:218:LYS:HZ3	1.38	0.86
18:I:400:GLY:N	19:J:179:ILE:HD11	1.90	0.86
23:N:399:PHE:HD1	23:N:441:VAL:HG21	1.36	0.86
23:N:479:GLU:HB2	23:N:512:ASN:HD21	1.34	0.86
28:S:163:VAL:CG2	28:S:184:TRP:CZ3	2.50	0.86
30:U:152:LYS:HB3	30:U:154:PHE:CE1	2.06	0.86
33:X:46:TRP:HZ2	33:X:132:SER:CA	1.86	0.86
2:2:8:PHE:CE1	2:2:12:VAL:N	2.42	0.86
6:6:116:PHE:CE2	6:6:122:TYR:HB3	2.11	0.86
14:E:125:GLU:OE1	15:F:123:TYR:CD1	2.27	0.86
17:H:198:MET:HE2	17:H:272:ILE:HG23	1.56	0.86
19:J:166:LEU:C	19:J:174:PHE:HE1	1.77	0.86
22:M:163:PHE:CE1	22:M:261:LYS:HG2	2.10	0.86
29:T:155:GLY:O	29:T:156:SER:CB	2.23	0.86
3:3:26:GLY:HA3	3:3:174:TRP:CZ2	2.09	0.86
11:B:27:ALA:CB	20:K:426:PHE:HE1	1.88	0.86
13:D:11:PHE:CZ	14:E:137:PRO:HD2	2.10	0.86
19:J:193:THR:HB	19:J:316:PHE:CE1	2.02	0.86
20:K:210:LEU:HD21	20:K:212:TYR:HH	1.37	0.86
23:N:714:THR:HG23	23:N:756:THR:OG1	1.75	0.86
28:S:256:LYS:O	28:S:259:TYR:CZ	2.27	0.86
28:S:436:ILE:HD12	28:S:438:HIS:NE2	1.91	0.86
30:U:19:LEU:HD12	30:U:127:GLN:CD	1.94	0.86
32:W:21:PHE:CG	32:W:25:ARG:HA	2.10	0.86
15:F:179:PHE:HE1	15:F:188:GLU:OE2	1.59	0.86
20:K:49:PHE:HE1	23:N:192:LEU:CG	1.88	0.86
22:M:77:TYR:CE2	22:M:159:LEU:HD13	2.10	0.86
22:M:385:GLU:CB	22:M:426:LYS:HZ2	1.85	0.86
23:N:202:PHE:CE2	23:N:206:ILE:HD11	2.11	0.86
30:U:283:ARG:NH1	31:V:284:ALA:N	2.24	0.86
32:W:21:PHE:HZ	32:W:144:PHE:CE1	1.93	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:W:59:PRO:HB2	32:W:93:ILE:HG21	1.55	0.86
32:W:143:ASN:CB	32:W:173:THR:HA	2.05	0.86
33:X:85:ARG:NH2	33:X:116:ALA:H	1.72	0.86
4:4:66:TYR:HE1	4:4:74:LEU:HD21	1.29	0.86
8:8:329:ILE:CG1	17:H:163:VAL:HG21	2.05	0.86
19:J:115:LEU:HD21	19:J:120:TYR:CA	2.04	0.86
23:N:365:PHE:CZ	23:N:406:TYR:HB2	2.10	0.86
20:K:68:ILE:CG1	23:N:608:LEU:CD2	2.54	0.86
20:K:210:LEU:CG	20:K:212:TYR:CZ	2.56	0.86
23:N:514:THR:HG22	23:N:546:LEU:HD13	1.57	0.86
30:U:16:LEU:CD2	31:V:209:GLU:HG2	2.05	0.86
32:W:37:PHE:HE1	32:W:49:VAL:HG11	1.36	0.86
33:X:17:TYR:CE1	33:X:19:GLU:OE1	2.29	0.86
20:K:95:VAL:HG13	20:K:139:LEU:HB2	1.58	0.86
21:L:426:LYS:HG3	21:L:427:LYS:H	1.40	0.86
22:M:77:TYR:HE2	22:M:159:LEU:HD13	1.39	0.86
23:N:479:GLU:HB2	23:N:512:ASN:CG	1.95	0.86
7:7:150:VAL:HG12	7:7:151:VAL:HG23	1.58	0.86
12:C:239:LEU:HB3	12:C:245:THR:HG22	1.55	0.86
16:G:140:VAL:HG21	16:G:220:LEU:HD23	1.57	0.86
24:O:306:ARG:HG3	24:O:351:SER:HA	1.56	0.86
24:O:370:LEU:HD11	30:U:207:VAL:HG21	1.58	0.86
24:O:79:VAL:CB	24:O:121:ASP:O	2.23	0.85
26:Q:314:PHE:CD2	26:Q:339:TYR:HD1	1.94	0.85
28:S:211:ARG:CZ	28:S:240:ASP:HB3	2.04	0.85
30:U:92:TRP:CD1	30:U:119:LEU:O	2.28	0.85
17:H:146:VAL:HG12	17:H:155:PHE:HB3	1.57	0.85
17:H:271:PHE:HE1	17:H:273:ARG:HB2	1.39	0.85
19:J:115:LEU:HD12	19:J:122:LEU:CD2	2.06	0.85
22:M:203:ARG:HB3	22:M:206:LYS:HD2	1.54	0.85
24:O:42:SER:OG	24:O:50:ASP:HB2	1.75	0.85
25:P:245:TYR:CD1	25:P:257:TRP:NE1	2.40	0.85
35:Z:419:VAL:O	35:Z:422:ILE:HG12	1.75	0.85
8:8:212:GLU:OE2	9:9:72:ARG:CD	2.24	0.85
18:I:222:TYR:CZ	18:I:349:LEU:HA	2.11	0.85
20:K:113:THR:HA	20:K:252:ARG:HH12	1.40	0.85
24:O:214:ALA:HB3	24:O:248:TYR:OH	1.75	0.85
29:T:250:MET:O	29:T:251:HIS:CD2	2.29	0.85
13:D:96:HIS:CD2	13:D:100:LEU:CD1	2.58	0.85
21:L:111:GLU:HG2	21:L:117:TYR:HD2	1.41	0.85
26:Q:174:LEU:CD1	26:Q:178:HIS:NE2	2.38	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:202:ARG:HH21	26:Q:222:SER:CB	1.89	0.85
29:T:59:LYS:HD2	29:T:97:SER:O	1.75	0.85
29:T:224:ARG:O	29:T:225:ASN:CB	2.25	0.85
30:U:104:LEU:HB2	30:U:152:LYS:HG2	1.58	0.85
18:I:252:LEU:CA	18:I:253:ILE:N	2.38	0.85
19:J:219:VAL:HB	20:K:281:ARG:NE	1.90	0.85
26:Q:311:LEU:CD1	26:Q:366:ILE:HG12	2.05	0.85
32:W:59:PRO:HG2	32:W:93:ILE:HG13	0.88	0.85
14:E:165:TYR:HB2	14:E:167:TYR:OH	1.75	0.85
19:J:241:ALA:HB1	19:J:287:ASN:ND2	1.91	0.85
21:L:132:ARG:HH22	21:L:156:MET:HG3	1.38	0.85
33:X:16:GLU:HB3	33:X:27:ILE:HB	1.56	0.85
4:4:43:MET:SD	4:4:45:PHE:HZ	1.98	0.85
6:6:10:ASP:OD1	6:6:11:PHE:CD1	2.28	0.85
8:8:253:LYS:HZ2	9:9:64:GLU:HB3	1.40	0.85
15:F:65:LYS:HD3	15:F:222:PHE:HE2	1.42	0.85
25:P:308:LEU:HD23	25:P:369:LEU:HD23	1.59	0.85
30:U:161:ILE:HG22	30:U:162:GLU:H	0.75	0.85
35:Z:286:VAL:O	35:Z:287:ARG:HB3	1.74	0.85
35:Z:550:PHE:CD1	35:Z:562:TRP:CZ3	2.64	0.85
29:T:197:TYR:OH	29:T:199:PHE:HA	1.75	0.85
35:Z:133:ASP:CB	35:Z:137:TYR:CE2	2.58	0.85
35:Z:737:ALA:HB1	35:Z:775:MET:SD	2.17	0.85
18:I:340:ARG:CZ	18:I:343:ARG:HG3	2.03	0.85
19:J:234:PHE:CZ	19:J:279:LEU:CD2	2.58	0.85
24:O:42:SER:O	24:O:46:THR:CG2	2.24	0.85
24:O:358:ILE:CG2	24:O:359:SER:N	2.39	0.85
25:P:311:TRP:HH2	25:P:338:TRP:HE1	1.23	0.85
26:Q:46:VAL:O	26:Q:50:ARG:CB	2.24	0.85
28:S:230:LYS:NZ	28:S:256:LYS:HE3	1.91	0.85
31:V:261:LEU:HD21	31:V:283:THR:CG2	2.06	0.85
14:E:178:GLY:HA3	17:H:409:ARG:NH2	1.92	0.85
20:K:244:HIS:CE1	20:K:250:GLY:CA	2.60	0.85
30:U:19:LEU:CD1	30:U:127:GLN:OE1	2.25	0.85
31:V:165:ILE:HG21	31:V:189:ILE:HG21	1.58	0.85
20:K:158:ILE:CG2	21:L:256:ILE:HG23	2.06	0.84
20:K:200:GLN:C	27:R:204:TRP:HZ2	1.78	0.84
24:O:26:PHE:HA	24:O:61:LEU:HD21	1.56	0.84
24:O:79:VAL:CB	24:O:122:HIS:CA	2.52	0.84
25:P:207:THR:OG1	25:P:217:LYS:NZ	2.09	0.84
27:R:320:LYS:HE3	27:R:324:ARG:CD	2.06	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:225:ASN:HD22	29:T:241:GLU:HA	1.40	0.84
1:1:66:TYR:HE2	1:1:73:PRO:CA	1.90	0.84
18:I:281:ILE:HG22	18:I:284:ILE:CD1	2.06	0.84
18:I:400:GLY:H	19:J:179:ILE:HD11	1.40	0.84
32:W:37:PHE:CE1	32:W:49:VAL:CG1	2.55	0.84
33:X:35:ILE:CG1	33:X:124:LYS:HE2	2.05	0.84
33:X:41:GLU:HG3	33:X:45:PHE:HB2	1.60	0.84
13:D:78:LEU:HD23	18:I:436:TYR:HE1	1.42	0.84
20:K:392:LEU:HG	20:K:396:ARG:NH1	1.92	0.84
30:U:56:PHE:CD1	30:U:68:LEU:CD2	2.45	0.84
31:V:238:LEU:HD11	31:V:242:LYS:HE3	1.59	0.84
11:B:139:HIS:ND1	11:B:145:PHE:CE2	2.45	0.84
19:J:69:GLY:N	20:K:144:ASN:HD22	1.72	0.84
24:O:277:ILE:CB	24:O:279:ILE:H	1.88	0.84
26:Q:14:LEU:HD13	26:Q:26:VAL:CG2	2.05	0.84
26:Q:382:LEU:HD11	27:R:299:SER:CB	2.08	0.84
35:Z:55:ARG:CZ	35:Z:63:LEU:HD22	2.07	0.84
10:A:104:PHE:CE2	10:A:110:TYR:O	2.31	0.84
18:I:244:PHE:HE1	18:I:246:ARG:HG2	1.42	0.84
26:Q:146:TYR:CD1	26:Q:151:TYR:HE1	1.95	0.84
30:U:92:TRP:CE3	30:U:110:PHE:CE2	2.65	0.84
11:B:66:LEU:HD12	11:B:71:ILE:O	1.77	0.84
20:K:49:PHE:CE1	23:N:192:LEU:CD1	2.60	0.84
26:Q:130:ARG:NH2	26:Q:133:LEU:HD12	1.93	0.84
26:Q:250:THR:HG23	26:Q:251:THR:N	1.93	0.84
35:Z:805:LEU:HB3	35:Z:893:PHE:CE1	2.13	0.84
1:1:176:VAL:CG1	1:1:183:VAL:CG1	2.56	0.84
8:8:320:LYS:HE3	17:H:164:SER:CA	2.06	0.84
10:A:119:LYS:HG2	10:A:163:TYR:CE2	2.13	0.84
14:E:201:LEU:HD11	14:E:239:LEU:CG	2.06	0.84
17:H:284:VAL:CG1	22:M:252:VAL:HG12	2.08	0.84
22:M:75:LEU:HD11	22:M:77:TYR:CZ	2.11	0.84
22:M:368:MET:SD	22:M:395:THR:HG23	2.15	0.84
23:N:399:PHE:CD1	23:N:441:VAL:HG11	2.11	0.84
23:N:490:LEU:HD21	23:N:526:TYR:CD2	2.13	0.84
26:Q:46:VAL:HG23	26:Q:50:ARG:CB	2.08	0.84
14:E:88:MET:HE2	14:E:142:LEU:HD11	1.60	0.84
27:R:308:LEU:HD12	27:R:334:ARG:HH12	1.38	0.84
14:E:88:MET:CE	14:E:142:LEU:HD11	2.07	0.84
14:E:157:HIS:CD2	14:E:170:LYS:NZ	2.46	0.84
24:O:25:LEU:O	24:O:29:PHE:CD2	2.31	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:342:LEU:HG	27:R:392:ARG:HH21	1.41	0.84
17:H:261:ARG:HH22	17:H:273:ARG:NH2	1.74	0.83
23:N:21:LYS:CE	23:N:55:PHE:CE2	2.61	0.83
24:O:124:ASP:CB	24:O:127:LEU:HB2	2.07	0.83
24:O:223:LEU:HD11	24:O:277:ILE:CD1	2.07	0.83
24:O:233:LEU:CD2	24:O:236:HIS:ND1	2.41	0.83
25:P:134:VAL:CG2	25:P:138:ARG:HH12	1.90	0.83
7:7:95:ARG:NH1	7:7:102:LEU:HD13	1.93	0.83
13:D:70:HIS:HD2	13:D:138:PHE:O	1.62	0.83
23:N:782:PHE:CD1	23:N:875:LEU:CD2	2.61	0.83
24:O:105:GLN:HA	24:O:108:GLU:OE2	1.78	0.83
35:Z:72:LYS:HE2	35:Z:117:ASP:OD2	1.77	0.83
1:1:19:ARG:NH1	1:1:29:ARG:CB	2.40	0.83
8:8:212:GLU:OE2	9:9:72:ARG:HD3	1.78	0.83
17:H:155:PHE:HE1	22:M:77:TYR:H	1.24	0.83
27:R:171:MET:HE2	27:R:206:ARG:HG3	1.59	0.83
35:Z:400:ILE:HD12	35:Z:418:ALA:HB1	1.58	0.83
7:7:55:ILE:HD11	7:7:102:LEU:HD21	1.59	0.83
20:K:188:VAL:HA	20:K:313:LYS:NZ	1.92	0.83
24:O:124:ASP:HB3	24:O:127:LEU:CB	2.07	0.83
24:O:306:ARG:HD2	24:O:352:TRP:N	1.93	0.83
25:P:221:TYR:HE2	25:P:244:ILE:HB	1.43	0.83
29:T:197:TYR:CE1	29:T:198:ASP:C	2.52	0.83
35:Z:55:ARG:HD3	35:Z:63:LEU:HB3	1.58	0.83
7:7:107:ILE:CD1	7:7:136:THR:HG23	2.07	0.83
21:L:370:LYS:HB2	21:L:374:PHE:HZ	1.38	0.83
25:P:308:LEU:CD2	25:P:369:LEU:HD23	2.09	0.83
32:W:146:GLU:C	32:W:147:ILE:HG13	1.98	0.83
32:W:172:LEU:CD2	32:W:185:ILE:HA	2.07	0.83
7:7:13:ILE:CG2	7:7:169:ILE:HG13	2.08	0.83
14:E:231:TYR:CE2	14:E:236:THR:CA	2.62	0.83
27:R:280:ILE:CD1	27:R:289:ILE:HG13	2.05	0.83
30:U:189:ARG:HH12	31:V:296:LEU:HD23	1.38	0.83
20:K:113:THR:CA	20:K:252:ARG:HH12	1.92	0.83
24:O:306:ARG:CG	24:O:352:TRP:N	2.42	0.83
27:R:208:ASN:HD21	27:R:238:PHE:HB2	1.42	0.83
28:S:471:LEU:HD12	30:U:288:PHE:HZ	1.38	0.83
3:3:59:ARG:NH2	12:C:99:LEU:CD1	2.31	0.83
4:4:66:TYR:CD1	4:4:74:LEU:HD11	2.13	0.83
5:5:6:PHE:CZ	5:5:13:ILE:HB	2.13	0.83
8:8:444:GLU:CB	9:9:74:ARG:HD2	1.77	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:358:LYS:HZ1	18:I:387:LEU:H	1.23	0.83
19:J:375:ILE:O	27:R:204:TRP:CD1	2.32	0.83
29:T:197:TYR:CD1	29:T:235:PHE:CD1	2.66	0.83
32:W:186:ALA:O	32:W:192:LEU:HB2	1.79	0.83
8:8:212:GLU:HG2	9:9:42:ARG:NH1	1.94	0.83
18:I:244:PHE:CE1	18:I:246:ARG:HG2	2.14	0.83
24:O:79:VAL:HG11	24:O:121:ASP:O	1.79	0.83
24:O:83:LEU:HD11	24:O:128:LEU:HD22	1.59	0.83
26:Q:85:MET:CE	26:Q:93:THR:HA	2.08	0.83
29:T:193:THR:CG2	29:T:226:TRP:CZ2	2.62	0.83
35:Z:260:GLU:HG2	35:Z:611:THR:HG21	1.60	0.83
29:T:197:TYR:HE2	29:T:235:PHE:HE1	1.26	0.83
19:J:183:LYS:HA	19:J:286:LYS:HE3	1.61	0.82
25:P:134:VAL:HG23	25:P:138:ARG:HH12	1.43	0.82
28:S:176:LEU:HD11	28:S:179:ILE:HB	1.61	0.82
29:T:1:MET:CB	29:T:2:PRO:HD2	2.09	0.82
35:Z:924:LYS:HA	35:Z:959:HIS:CE1	2.09	0.82
5:5:135:PHE:HE2	5:5:163:ALA:CB	1.90	0.82
8:8:116:ASN:C	9:9:76:GLZ:C	2.44	0.82
17:H:167:ASP:HB3	17:H:186:PRO:HG2	1.60	0.82
17:H:172:MET:HE3	18:I:129:TYR:CG	2.14	0.82
18:I:106:ILE:HD11	19:J:85:LEU:HD22	1.57	0.82
23:N:514:THR:HG22	23:N:546:LEU:CD1	2.09	0.82
24:O:130:ASP:O	24:O:133:ILE:HG22	1.79	0.82
26:Q:299:MET:CE	26:Q:335:PHE:CZ	2.62	0.82
30:U:92:TRP:CE2	30:U:120:LEU:HD13	2.13	0.82
33:X:8:ILE:CG2	33:X:124:LYS:HD2	2.08	0.82
15:F:166:GLN:HB3	22:M:381:ARG:CZ	2.09	0.82
18:I:262:ARG:HB3	19:J:223:ILE:HD12	1.60	0.82
20:K:254:VAL:HG13	20:K:258:PHE:HE1	1.41	0.82
24:O:79:VAL:HB	24:O:122:HIS:CA	2.10	0.82
24:O:358:ILE:HG22	24:O:360:GLY:N	1.92	0.82
12:C:160:TRP:CZ3	12:C:163:ILE:CD1	2.62	0.82
13:D:96:HIS:NE2	13:D:100:LEU:CD1	2.42	0.82
19:J:219:VAL:O	20:K:281:ARG:CD	2.19	0.82
19:J:219:VAL:HG21	20:K:284:ALA:HB2	1.53	0.82
22:M:313:ASP:HA	22:M:316:SER:OG	1.79	0.82
26:Q:46:VAL:C	26:Q:50:ARG:CB	2.47	0.82
27:R:31:PHE:HZ	27:R:182:ASN:ND2	1.74	0.82
31:V:258:GLU:HA	31:V:261:LEU:HD12	1.60	0.82
12:C:29:ILE:HD13	12:C:134:SER:HB3	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:198:SER:HB3	15:F:206:LEU:HD22	1.60	0.82
25:P:196:ALA:HB1	25:P:227:ILE:CD1	2.08	0.82
25:P:234:TYR:CE2	25:P:267:PHE:CE1	2.67	0.82
31:V:113:GLY:HA2	31:V:118:LEU:HD22	1.59	0.82
33:X:17:TYR:HE1	33:X:19:GLU:OE1	1.62	0.82
35:Z:491:LEU:HD11	35:Z:900:LEU:CD1	2.09	0.82
12:C:42:ASP:HA	12:C:218:LYS:NZ	1.94	0.82
19:J:37:LYS:HE3	20:K:58:TYR:CZ	2.15	0.82
20:K:347:ARG:NE	26:Q:215:VAL:HG13	1.94	0.82
22:M:163:PHE:CD1	22:M:261:LYS:HE3	2.14	0.82
25:P:234:TYR:CD2	25:P:267:PHE:CD1	2.68	0.82
25:P:241:LEU:O	25:P:244:ILE:CG2	2.27	0.82
28:S:421:TYR:CD2	29:T:157:TYR:HB2	2.13	0.82
29:T:23:CYS:O	29:T:27:LEU:HG	1.79	0.82
30:U:223:HIS:ND1	30:U:224:THR:CB	2.42	0.82
31:V:114:PHE:CE1	31:V:118:LEU:O	2.31	0.82
35:Z:491:LEU:HD13	35:Z:900:LEU:HD12	1.60	0.82
14:E:88:MET:CE	14:E:142:LEU:HD12	2.08	0.82
23:N:277:LEU:CB	23:N:287:LEU:CD2	2.54	0.82
27:R:308:LEU:HD13	27:R:334:ARG:NE	1.93	0.82
29:T:197:TYR:CE2	29:T:200:LEU:N	2.47	0.82
32:W:5:ALA:CB	32:W:103:ASN:CB	2.50	0.82
7:7:-3:VAL:CG1	7:7:49:ILE:HB	2.09	0.82
8:8:282:GLU:OE1	9:9:12:THR:HG23	1.79	0.82
15:F:105:VAL:HG11	15:F:143:HIS:HD1	1.45	0.82
26:Q:382:LEU:CD1	27:R:299:SER:HB2	2.09	0.82
35:Z:446:GLU:HG3	35:Z:484:LYS:HZ2	1.42	0.82
35:Z:535:VAL:HG23	35:Z:572:ILE:O	1.80	0.82
14:E:165:TYR:HB2	14:E:167:TYR:HE1	1.41	0.82
23:N:365:PHE:HZ	23:N:406:TYR:HB2	1.44	0.82
24:O:137:TYR:HB3	24:O:149:LEU:HD11	1.61	0.82
35:Z:397:ASP:HB3	35:Z:425:ILE:HD13	1.61	0.82
1:1:137:TYR:CZ	1:1:157:HIS:HD2	1.96	0.82
15:F:65:LYS:CD	15:F:222:PHE:CE2	2.62	0.82
20:K:49:PHE:HD1	23:N:192:LEU:CD1	1.91	0.82
23:N:21:LYS:CE	23:N:55:PHE:CZ	2.62	0.82
24:O:341:ILE:HG13	24:O:348:VAL:HA	1.60	0.82
35:Z:218:GLU:HB2	35:Z:248:TYR:CE2	2.15	0.82
35:Z:471:LEU:HG	35:Z:497:PHE:CZ	2.15	0.82
24:O:80:LYS:CE	24:O:81:TYR:OH	2.28	0.81
25:P:76:ASN:HD21	25:P:118:VAL:HG21	1.43	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:270:LEU:HD22	25:P:340:ASP:HB2	1.62	0.81
26:Q:186:HIS:O	26:Q:189:ARG:NH2	2.12	0.81
28:S:471:LEU:HD13	30:U:288:PHE:CZ	2.12	0.81
33:X:66:LEU:CD1	33:X:99:PHE:HZ	1.91	0.81
35:Z:422:ILE:HB	35:Z:426:TYR:HE2	1.45	0.81
1:1:19:ARG:NH2	1:1:26:ILE:HG21	1.95	0.81
22:M:357:ARG:NH2	22:M:386:PHE:H	1.78	0.81
25:P:184:MET:SD	25:P:223:LEU:HD13	2.19	0.81
25:P:234:TYR:CE2	25:P:267:PHE:CD1	2.68	0.81
11:B:139:HIS:ND1	11:B:145:PHE:CZ	2.48	0.81
21:L:178:ILE:CD1	21:L:230:LEU:HD22	2.09	0.81
21:L:227:GLY:N	22:M:339:ARG:HH21	1.76	0.81
26:Q:7:LYS:HG3	26:Q:30:LEU:CD1	2.10	0.81
27:R:58:GLU:OE2	27:R:105:LYS:HB3	1.80	0.81
28:S:435:LYS:NZ	29:T:238:GLN:OE1	2.14	0.81
30:U:94:HIS:CE1	30:U:96:GLY:H	1.97	0.81
30:U:283:ARG:NH1	31:V:284:ALA:CA	2.43	0.81
35:Z:493:LEU:HD12	35:Z:497:PHE:CD2	2.16	0.81
10:A:84:ASN:ND2	10:A:171:THR:HG21	1.95	0.81
27:R:63:TYR:OH	27:R:92:ILE:O	1.97	0.81
28:S:341:SER:O	28:S:344:PRO:HG2	1.80	0.81
19:J:142:VAL:HG13	19:J:204:HIS:CE1	2.16	0.81
21:L:309:LEU:HD21	21:L:342:ARG:HD3	1.62	0.81
22:M:62:ILE:HG13	22:M:66:LYS:HE3	1.63	0.81
27:R:94:PHE:HE2	27:R:96:GLN:HG2	1.45	0.81
27:R:422:ARG:NH1	28:S:301:PRO:CG	2.39	0.81
35:Z:530:LEU:HD12	35:Z:534:PHE:CD2	2.16	0.81
24:O:15:ARG:HD3	24:O:72:LYS:O	1.80	0.81
27:R:33:LEU:HD12	27:R:43:ARG:HG3	1.62	0.81
12:C:106:ILE:HD13	12:C:111:LEU:HB2	1.62	0.81
15:F:65:LYS:CD	15:F:222:PHE:CD2	2.63	0.81
22:M:289:LYS:HZ2	22:M:302:GLN:HE22	0.86	0.81
25:P:140:THR:HG21	25:P:163:LEU:CD2	2.10	0.81
28:S:421:TYR:HD2	29:T:157:TYR:HB2	1.45	0.81
30:U:283:ARG:NE	31:V:284:ALA:HA	1.96	0.81
3:3:26:GLY:HA3	3:3:174:TRP:CE2	2.16	0.81
5:5:6:PHE:CZ	5:5:13:ILE:HG13	2.16	0.81
8:8:212:GLU:CD	9:9:72:ARG:CD	2.49	0.81
8:8:320:LYS:NZ	17:H:164:SER:HB3	1.95	0.81
10:A:39:ASN:HD21	10:A:58:LYS:HD2	1.45	0.81
16:G:122:HIS:CD2	16:G:128:VAL:HG11	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:308:LEU:CD2	25:P:369:LEU:CD2	2.59	0.81
27:R:396:LYS:HG2	27:R:400:TYR:CE2	2.16	0.81
28:S:230:LYS:CE	28:S:256:LYS:HE3	2.11	0.81
30:U:92:TRP:CZ3	30:U:106:ILE:CG2	2.63	0.81
32:W:20:ASP:O	32:W:21:PHE:HB2	1.81	0.81
12:C:213:PHE:HD2	12:C:230:PHE:CD2	1.99	0.81
23:N:124:TYR:HB2	23:N:162:ARG:HG3	1.63	0.81
24:O:38:TRP:HE3	24:O:53:LYS:CD	1.91	0.81
30:U:109:LEU:HD11	32:W:58:ASN:O	1.81	0.81
35:Z:103:TYR:CD1	35:Z:116:ALA:CB	2.63	0.81
35:Z:147:GLU:HA	35:Z:210:TYR:CE1	2.16	0.81
2:2:8:PHE:CZ	2:2:11:GLY:CA	2.65	0.80
10:A:52:VAL:CG2	10:A:202:VAL:HG12	2.11	0.80
23:N:70:TYR:CE2	28:S:219:LYS:HE2	2.16	0.80
24:O:356:ARG:NH2	24:O:362:GLN:HG3	1.95	0.80
26:Q:24:GLU:OE2	26:Q:77:PHE:HE2	1.63	0.80
35:Z:193:PHE:CG	35:Z:196:SER:HB2	2.15	0.80
11:B:178:ARG:HH12	11:B:194:LEU:HB3	1.45	0.80
17:H:251:PRO:O	17:H:254:THR:CG2	2.29	0.80
20:K:392:LEU:HG	20:K:396:ARG:HH12	1.44	0.80
25:P:245:TYR:HE1	25:P:257:TRP:HZ2	1.29	0.80
26:Q:27:TYR:OH	26:Q:54:GLN:HG3	1.81	0.80
30:U:223:HIS:CE1	30:U:224:THR:CB	2.64	0.80
35:Z:218:GLU:HB3	35:Z:248:TYR:OH	1.81	0.80
29:T:241:GLU:HA	29:T:246:GLU:CB	2.10	0.80
20:K:346:ARG:NE	20:K:372:ILE:HG21	1.97	0.80
24:O:119:SER:HB2	24:O:166:ARG:HD3	1.63	0.80
24:O:188:PHE:HZ	24:O:216:ASP:HB3	1.46	0.80
25:P:234:TYR:CD2	25:P:267:PHE:CZ	2.69	0.80
26:Q:202:ARG:NH2	26:Q:222:SER:CB	2.44	0.80
26:Q:243:PHE:CE1	26:Q:287:THR:HG22	2.15	0.80
30:U:19:LEU:HD12	30:U:127:GLN:OE1	1.82	0.80
24:O:80:LYS:CD	24:O:81:TYR:CE2	2.64	0.80
25:P:303:PHE:O	25:P:348:HIS:CD2	2.33	0.80
25:P:395:ARG:HE	26:Q:357:VAL:HA	1.45	0.80
30:U:92:TRP:HE3	30:U:110:PHE:CE2	1.99	0.80
3:3:42:LEU:HD22	3:3:78:PHE:HZ	1.46	0.80
16:G:166:LYS:NZ	16:G:206:ASN:OD1	2.14	0.80
21:L:370:LYS:CB	21:L:374:PHE:CZ	2.64	0.80
24:O:338:LYS:O	24:O:350:ILE:HG23	1.81	0.80
26:Q:151:TYR:CZ	26:Q:187:LYS:HG3	2.17	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:208:ASN:ND2	27:R:238:PHE:HB2	1.97	0.80
28:S:398:THR:N	28:S:447:GLU:OE1	2.13	0.80
35:Z:318:LYS:HZ3	35:Z:459:ALA:C	1.81	0.80
9:9:15:LEU:HD11	9:9:29:LYS:CB	2.12	0.80
15:F:143:HIS:CE1	15:F:145:LEU:HB2	2.16	0.80
24:O:103:LYS:O	24:O:129:ILE:HG13	1.81	0.80
29:T:190:ALA:CB	29:T:224:ARG:CZ	2.60	0.80
35:Z:438:LYS:O	35:Z:442:VAL:HG23	1.81	0.80
17:H:175:GLY:CA	17:H:183:ILE:HB	2.12	0.80
19:J:166:LEU:O	19:J:174:PHE:HE1	1.63	0.80
23:N:190:LEU:HD11	23:N:228:VAL:HG23	1.63	0.80
26:Q:249:LEU:O	26:Q:250:THR:CG2	2.29	0.80
33:X:75:TRP:HD1	33:X:87:PHE:CE1	1.85	0.80
8:8:116:ASN:CA	9:9:76:GLZ:O	2.26	0.80
25:P:281:ILE:HG13	25:P:300:VAL:HG21	1.64	0.80
26:Q:90:LYS:HD3	26:Q:129:LYS:NZ	1.96	0.80
26:Q:272:LEU:HD23	26:Q:274:LEU:CD1	2.09	0.80
27:R:421:VAL:O	27:R:422:ARG:CB	2.30	0.80
27:R:422:ARG:HH22	28:S:301:PRO:CD	1.94	0.80
32:W:5:ALA:CA	32:W:103:ASN:HD22	1.94	0.80
35:Z:970:TYR:OH	35:Z:992:GLU:O	1.99	0.80
10:A:174:LYS:CD	10:A:214:LEU:HG	2.12	0.80
16:G:223:THR:HG23	16:G:228:LYS:HD2	1.63	0.80
18:I:339:ILE:HG21	18:I:347:LYS:CE	2.11	0.80
18:I:361:ILE:CG2	18:I:392:ILE:HG21	2.11	0.80
24:O:196:LEU:HB2	24:O:213:LEU:HD21	1.64	0.80
30:U:100:ARG:O	30:U:152:LYS:HD3	1.81	0.80
32:W:1:MET:N	32:W:44:ASN:HD21	1.80	0.80
35:Z:805:LEU:HD22	35:Z:893:PHE:CE1	2.17	0.80
1:1:19:ARG:NH1	1:1:29:ARG:CA	2.45	0.79
10:A:174:LYS:HD2	10:A:214:LEU:HG	1.62	0.79
10:A:195:ASN:O	10:A:196:GLU:CG	2.30	0.79
17:H:318:ARG:NH1	17:H:364:ALA:CB	2.45	0.79
23:N:320:SER:CB	23:N:686:ILE:HG22	2.11	0.79
24:O:344:VAL:HG21	25:P:361:THR:HG22	1.62	0.79
1:1:176:VAL:CG1	1:1:183:VAL:HG13	2.10	0.79
11:B:32:VAL:HG11	11:B:48:GLU:HB2	1.62	0.79
20:K:184:ILE:HD12	20:K:222:LEU:HD13	1.64	0.79
23:N:33:ASP:HA	23:N:71:ASN:ND2	1.96	0.79
24:O:79:VAL:HB	24:O:121:ASP:O	1.82	0.79
26:Q:46:VAL:O	26:Q:47:ASP:OD1	2.00	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:61:LYS:NZ	3:3:85:SER:HB3	1.97	0.79
16:G:140:VAL:HB	16:G:220:LEU:HD11	1.64	0.79
17:H:271:PHE:CE1	17:H:273:ARG:HB2	2.17	0.79
23:N:24:ALA:O	23:N:28:ILE:CG1	2.27	0.79
23:N:326:SER:N	31:V:182:LYS:HG3	1.97	0.79
35:Z:147:GLU:HA	35:Z:210:TYR:OH	1.82	0.79
17:H:334:LEU:HD23	22:M:282:GLU:HG2	1.65	0.79
18:I:75:PHE:HD2	18:I:76:VAL:CG2	1.94	0.79
22:M:379:LEU:HD22	22:M:415:PHE:HD1	1.47	0.79
23:N:596:LEU:CD1	23:N:717:LEU:HD22	2.12	0.79
24:O:280:LEU:HA	24:O:283:HIS:HB3	1.62	0.79
25:P:234:TYR:CA	25:P:267:PHE:CE2	2.65	0.79
15:F:145:LEU:HD11	15:F:153:VAL:CG1	2.12	0.79
15:F:198:SER:HA	15:F:206:LEU:HD11	1.64	0.79
20:K:240:SER:HB2	21:L:306:MET:CE	2.10	0.79
24:O:344:VAL:HB	25:P:361:THR:HG23	1.63	0.79
26:Q:59:LEU:HD13	26:Q:103:LYS:HD2	1.62	0.79
29:T:226:TRP:CD1	29:T:241:GLU:OE1	2.36	0.79
35:Z:147:GLU:CA	35:Z:210:TYR:OH	2.31	0.79
1:1:190:PRO:HA	1:1:193:TYR:HE1	1.47	0.79
7:7:-4:ILE:HG13	7:7:-3:VAL:HG23	1.63	0.79
7:7:145:PRO:HA	7:7:148:ARG:HE	1.48	0.79
23:N:25:LEU:HD13	23:N:57:ASP:HB2	1.60	0.79
23:N:112:GLU:O	23:N:116:GLN:HG2	1.83	0.79
25:P:308:LEU:HD23	25:P:369:LEU:CA	2.12	0.79
30:U:127:GLN:OE1	31:V:208:LYS:HB3	1.83	0.79
1:1:122:LEU:HD21	7:7:28:PHE:CD1	2.17	0.79
8:8:116:ASN:HB3	9:9:76:GLZ:HA1	1.64	0.79
23:N:19:SER:HB3	29:T:35:ILE:HG23	1.63	0.79
24:O:387:ARG:NH2	29:T:258:ASN:HB3	1.97	0.79
27:R:31:PHE:HZ	27:R:182:ASN:HD22	1.29	0.79
27:R:320:LYS:CD	27:R:324:ARG:HD2	2.13	0.79
29:T:62:LEU:HD12	29:T:88:TYR:HE2	1.46	0.79
1:1:45:ARG:NH2	1:1:53:GLN:CA	2.45	0.79
17:H:105:ILE:HG21	17:H:145:TYR:O	1.82	0.79
21:L:173:PHE:CZ	21:L:177:GLU:HB3	2.17	0.79
21:L:379:ALA:HA	21:L:382:MET:HE2	1.64	0.79
24:O:377:VAL:HG13	30:U:193:GLN:NE2	1.96	0.79
28:S:188:TYR:CZ	28:S:210:LEU:HD22	2.18	0.79
32:W:25:ARG:CD	32:W:144:PHE:CE2	2.64	0.79
19:J:169:LYS:NZ	19:J:206:THR:HA	1.97	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:J:208:CYS:SG	19:J:242:PRO:HB2	2.22	0.79
24:O:42:SER:C	24:O:46:THR:HB	2.02	0.79
24:O:277:ILE:HG22	24:O:278:PRO:CD	2.13	0.79
25:P:302:LEU:CB	25:P:310:ARG:HE	1.86	0.79
26:Q:297:ASP:HB3	26:Q:321:TYR:OH	1.83	0.79
29:T:62:LEU:CD1	29:T:88:TYR:HE2	1.95	0.79
33:X:85:ARG:HH21	33:X:115:SER:CA	1.96	0.79
7:7:93:TYR:HD1	7:7:96:ARG:HE	1.30	0.79
12:C:149:TYR:CZ	13:D:59:ILE:HB	2.18	0.79
18:I:244:PHE:CE1	18:I:246:ARG:CZ	2.65	0.79
21:L:132:ARG:NH2	21:L:156:MET:CG	2.46	0.79
22:M:361:LEU:HD13	22:M:376:TRP:HE3	1.45	0.79
24:O:340:SER:HB3	25:P:358:SER:HB2	1.63	0.79
10:A:19:PHE:CE1	11:B:128:ARG:NH1	2.51	0.78
17:H:175:GLY:C	17:H:183:ILE:HB	2.02	0.78
20:K:168:ASP:N	21:L:315:PHE:CE1	2.52	0.78
24:O:28:GLN:O	24:O:31:LYS:HB3	1.83	0.78
24:O:344:VAL:O	24:O:345:ASN:CG	2.22	0.78
26:Q:7:LYS:CG	26:Q:30:LEU:HD13	2.12	0.78
27:R:130:GLN:O	27:R:134:TRP:CD1	2.36	0.78
31:V:112:PRO:HB2	31:V:114:PHE:CE1	2.18	0.78
33:X:17:TYR:HE1	33:X:19:GLU:CD	1.86	0.78
35:Z:64:TYR:OH	35:Z:115:LEU:HB2	1.82	0.78
1:1:80:SER:HB2	16:G:103:LYS:HG3	1.64	0.78
17:H:431:ILE:CG2	18:I:196:GLU:OE2	2.31	0.78
24:O:373:TRP:CZ3	30:U:233:PHE:CG	2.70	0.78
30:U:32:ARG:NH2	30:U:56:PHE:HZ	1.79	0.78
35:Z:218:GLU:HG2	35:Z:219:ASP:N	1.98	0.78
4:4:69:ARG:HG3	13:D:90:ARG:NH1	1.99	0.78
8:8:116:ASN:C	9:9:76:GLZ:CA	2.52	0.78
17:H:249:TYR:CZ	17:H:376:GLU:HA	2.18	0.78
20:K:123:LEU:HD12	20:K:126:LEU:CD1	2.13	0.78
22:M:75:LEU:HG	22:M:77:TYR:HD1	1.39	0.78
31:V:57:PHE:CB	31:V:63:VAL:HA	2.13	0.78
31:V:117:TRP:HZ2	31:V:196:TYR:CA	1.94	0.78
23:N:421:ASP:CA	23:N:424:LYS:NZ	2.28	0.78
24:O:43:GLU:CD	24:O:44:SER:HB2	2.02	0.78
35:Z:321:PHE:CD2	35:Z:351:PRO:HD3	2.17	0.78
17:H:431:ILE:HG21	18:I:196:GLU:OE2	1.84	0.78
19:J:169:LYS:CE	19:J:206:THR:HA	2.14	0.78
19:J:169:LYS:HE2	19:J:206:THR:HA	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:J:219:VAL:HG21	20:K:284:ALA:HA	1.51	0.78
23:N:508:THR:HG21	23:N:513:ILE:CG2	2.12	0.78
28:S:421:TYR:CZ	29:T:158:GLN:HB2	2.19	0.78
29:T:82:PHE:HA	29:T:109:TYR:OH	1.83	0.78
30:U:66:TRP:CZ2	30:U:109:LEU:HD12	2.18	0.78
7:7:8:TYR:CZ	7:7:11:GLY:CA	2.67	0.78
8:8:443:SER:OG	9:9:72:ARG:C	2.13	0.78
12:C:180:TYR:CE2	12:C:182:ASP:HA	2.18	0.78
14:E:201:LEU:HB3	14:E:243:LEU:HD22	1.66	0.78
17:H:340:LEU:HD11	17:H:370:ARG:HH11	1.47	0.78
20:K:240:SER:H	21:L:306:MET:CE	1.96	0.78
22:M:77:TYR:HE2	22:M:159:LEU:HD11	1.40	0.78
24:O:4:ASN:HB2	24:O:39:PHE:CD1	2.18	0.78
24:O:233:LEU:HD23	24:O:236:HIS:CG	2.18	0.78
29:T:70:ILE:HG21	29:T:173:GLU:HB3	1.66	0.78
29:T:190:ALA:HB2	29:T:224:ARG:NE	1.97	0.78
35:Z:471:LEU:CB	35:Z:497:PHE:CZ	2.67	0.78
35:Z:610:GLY:O	35:Z:748:LEU:CD2	2.32	0.78
19:J:375:ILE:HD12	27:R:204:TRP:HE3	1.45	0.78
24:O:277:ILE:HG23	24:O:279:ILE:HG12	1.65	0.78
7:7:121:TYR:CE2	7:7:136:THR:HG22	2.18	0.78
10:A:104:PHE:HE2	10:A:111:ASP:O	1.65	0.78
17:H:312:ASP:HA	17:H:360:THR:HG21	1.66	0.78
24:O:306:ARG:CD	24:O:352:TRP:N	2.47	0.78
29:T:193:THR:HG22	29:T:226:TRP:CZ2	2.18	0.78
31:V:117:TRP:CZ2	31:V:196:TYR:CB	2.66	0.78
31:V:231:GLU:O	31:V:235:GLU:CB	2.32	0.78
33:X:46:TRP:CZ2	33:X:132:SER:CA	2.65	0.78
35:Z:985:LYS:HB2	35:Z:991:GLU:OE2	1.83	0.78
1:1:-6:GLY:HA2	2:2:116:HIS:CD2	2.19	0.78
15:F:78:ALA:N	22:M:433:TYR:HH	1.79	0.78
17:H:249:TYR:OH	17:H:376:GLU:HB3	1.84	0.78
17:H:340:LEU:CD1	17:H:370:ARG:NH1	2.47	0.78
31:V:118:LEU:HD11	31:V:140:VAL:HB	1.59	0.78
35:Z:786:SER:O	35:Z:787:ASP:OD2	2.00	0.78
3:3:12:VAL:HG22	3:3:103:ILE:CD1	2.10	0.78
13:D:159:TRP:CE3	14:E:59:LEU:HD13	2.19	0.78
20:K:254:VAL:HG11	20:K:299:LEU:CD2	2.12	0.78
26:Q:405:GLN:O	27:R:396:LYS:HD3	1.84	0.78
29:T:193:THR:HB	29:T:226:TRP:CH2	2.19	0.78
30:U:92:TRP:CE3	30:U:110:PHE:CD2	2.72	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:75:THR:HB	1:1:111:TYR:CE1	2.19	0.77
1:1:122:LEU:CD1	7:7:28:PHE:HE1	1.97	0.77
10:A:220:LYS:CD	10:A:238:ALA:O	2.32	0.77
22:M:252:VAL:HG21	22:M:285:ALA:HB1	1.67	0.77
27:R:94:PHE:CE2	27:R:95:ASP:O	2.38	0.77
29:T:197:TYR:CE2	29:T:199:PHE:C	2.58	0.77
32:W:21:PHE:CB	32:W:25:ARG:HA	2.14	0.77
33:X:95:GLU:HB3	33:X:97:TYR:CE1	2.19	0.77
35:Z:218:GLU:HG2	35:Z:219:ASP:H	1.46	0.77
2:2:87:LEU:CD2	2:2:94:ILE:HD11	2.15	0.77
4:4:26:VAL:CG1	4:4:29:ASP:HB3	2.14	0.77
4:4:43:MET:HG3	4:4:45:PHE:CE2	2.18	0.77
16:G:182:HIS:CD2	16:G:186:LEU:HD11	2.19	0.77
17:H:183:ILE:HG22	17:H:183:ILE:O	1.83	0.77
19:J:167:PRO:HA	19:J:174:PHE:CD1	2.18	0.77
20:K:346:ARG:NH2	20:K:372:ILE:HD13	1.99	0.77
20:K:393:ARG:NH2	20:K:414:GLN:OE1	2.17	0.77
20:K:423:LYS:HG2	20:K:424:PHE:CD2	2.18	0.77
23:N:406:TYR:CD1	23:N:448:LEU:CD1	2.66	0.77
24:O:277:ILE:HG21	24:O:279:ILE:CA	2.13	0.77
26:Q:272:LEU:CD2	26:Q:274:LEU:HD12	2.14	0.77
28:S:181:ALA:O	28:S:236:LEU:HD21	1.85	0.77
30:U:223:HIS:CG	30:U:224:THR:H	2.02	0.77
35:Z:758:LEU:CD2	35:Z:791:LYS:HD3	2.14	0.77
8:8:329:ILE:HG12	17:H:163:VAL:HG21	1.66	0.77
16:G:73:ILE:CG1	16:G:108:ILE:CD1	2.61	0.77
27:R:208:ASN:HD21	27:R:238:PHE:CB	1.96	0.77
30:U:107:ASN:ND2	30:U:111:LYS:HE3	1.99	0.77
30:U:223:HIS:CE1	30:U:224:THR:HG1	1.85	0.77
35:Z:570:LEU:HD12	35:Z:599:ILE:HG21	1.66	0.77
5:5:55:TRP:HE1	6:6:89:TYR:HH	1.28	0.77
17:H:420:ARG:HD2	18:I:343:ARG:HH12	1.49	0.77
23:N:479:GLU:CB	23:N:512:ASN:ND2	2.42	0.77
24:O:210:ARG:CZ	24:O:242:ILE:HA	2.02	0.77
24:O:306:ARG:CB	24:O:350:ILE:O	2.33	0.77
29:T:155:GLY:O	29:T:156:SER:HB2	1.84	0.77
31:V:57:PHE:HB3	31:V:63:VAL:HA	1.66	0.77
16:G:73:ILE:CD1	16:G:108:ILE:HD13	2.14	0.77
21:L:236:ALA:HB2	21:L:277:ILE:HD12	1.64	0.77
22:M:221:TYR:HE1	22:M:346:LYS:CG	1.97	0.77
27:R:191:LEU:HB2	27:R:213:TYR:CE2	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:112:ASN:HA	29:T:177:PHE:HE2	1.50	0.77
30:U:92:TRP:CZ2	30:U:120:LEU:HD13	2.20	0.77
32:W:180:LEU:HD23	32:W:183:GLU:OE1	1.83	0.77
35:Z:518:LEU:HD22	35:Z:562:TRP:HB2	1.64	0.77
16:G:42:ASN:HD21	16:G:183:PRO:HG2	1.49	0.77
22:M:361:LEU:HB3	22:M:376:TRP:CE3	2.19	0.77
24:O:250:TRP:CD1	24:O:270:ILE:HA	2.18	0.77
25:P:241:LEU:C	25:P:244:ILE:HG22	2.04	0.77
35:Z:359:LYS:HZ2	35:Z:429:ASN:HD22	1.29	0.77
1:1:-8:LYS:HE2	2:2:88:PHE:CE1	2.19	0.77
15:F:76:GLY:O	22:M:433:TYR:CE2	2.36	0.77
18:I:250:SER:O	18:I:253:ILE:CB	2.30	0.77
20:K:90:GLN:HE22	20:K:143:SER:CB	1.97	0.77
20:K:236:ARG:NH2	21:L:310:THR:HG23	1.97	0.77
29:T:240:LYS:HA	29:T:245:TYR:HB3	1.66	0.77
32:W:182:TYR:O	32:W:183:GLU:CB	2.32	0.77
33:X:35:ILE:HG13	33:X:124:LYS:HE2	1.66	0.77
10:A:46:ARG:HE	10:A:152:PRO:HB2	1.50	0.77
14:E:109:VAL:HB	14:E:156:PHE:CE1	2.19	0.77
16:G:196:ALA:O	16:G:200:TYR:CD2	2.38	0.77
17:H:253:GLY:CA	18:I:314:ASP:OD1	2.33	0.77
25:P:245:TYR:CE1	25:P:257:TRP:HZ2	2.03	0.77
35:Z:361:HIS:NE2	35:Z:861:THR:HB	1.99	0.77
35:Z:429:ASN:O	35:Z:430:LEU:CG	2.31	0.77
7:7:13:ILE:HG21	7:7:169:ILE:HG13	1.66	0.77
14:E:157:HIS:CD2	14:E:170:LYS:HZ3	2.03	0.77
14:E:165:TYR:CB	14:E:167:TYR:CZ	2.67	0.77
24:O:66:VAL:CG1	24:O:106:PHE:HE1	1.91	0.77
32:W:168:THR:HG22	32:W:169:SER:CB	2.15	0.77
4:4:149:PRO:O	4:4:150:ASP:HB2	1.85	0.77
5:5:6:PHE:CZ	5:5:13:ILE:CG1	2.68	0.77
8:8:330:LEU:HD12	17:H:166:THR:CB	2.14	0.77
20:K:155:ASP:O	21:L:126:ARG:NH2	2.18	0.77
22:M:385:GLU:HB3	22:M:426:LYS:HZ3	1.37	0.77
25:P:135:GLU:CG	25:P:138:ARG:NH2	2.47	0.77
29:T:93:ASN:ND2	29:T:94:HIS:HD2	1.81	0.77
7:7:85:PHE:CE2	7:7:120:ARG:HD3	2.20	0.76
18:I:175:LYS:O	19:J:282:PHE:CE2	2.37	0.76
20:K:168:ASP:HB2	21:L:315:PHE:CD1	2.18	0.76
24:O:342:ASP:OD1	25:P:358:SER:HB3	1.84	0.76
26:Q:99:THR:CG2	26:Q:103:LYS:HE2	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:331:THR:HG22	26:Q:335:PHE:HE2	1.45	0.76
27:R:214:TYR:CE2	27:R:230:LEU:HD12	2.20	0.76
28:S:230:LYS:NZ	28:S:256:LYS:CE	2.47	0.76
28:S:471:LEU:HB3	30:U:288:PHE:CE1	2.20	0.76
33:X:66:LEU:CD1	33:X:97:TYR:HB2	2.14	0.76
35:Z:60:ASP:OD1	35:Z:63:LEU:HD12	1.85	0.76
17:H:172:MET:CE	18:I:129:TYR:CG	2.68	0.76
18:I:281:ILE:HG22	18:I:284:ILE:HG13	1.67	0.76
26:Q:51:ARG:HH21	26:Q:92:LYS:HB3	1.50	0.76
27:R:354:ALA:HB2	27:R:364:LEU:HD23	1.68	0.76
31:V:53:MET:HE3	31:V:65:VAL:HG11	1.66	0.76
35:Z:103:TYR:HA	35:Z:112:LYS:HG2	1.66	0.76
35:Z:452:LEU:HD11	35:Z:485:ILE:HG23	1.67	0.76
35:Z:857:LEU:HD23	35:Z:858:GLY:N	1.99	0.76
5:5:32:LYS:HD2	5:5:45:MET:HE1	1.65	0.76
8:8:448:TYR:OH	9:9:73:LEU:O	2.01	0.76
11:B:224:TYR:OH	11:B:228:PRO:HA	1.84	0.76
21:L:259:SER:HB2	21:L:303:ARG:CZ	2.16	0.76
23:N:70:TYR:HE2	28:S:219:LYS:CE	1.98	0.76
26:Q:222:SER:O	26:Q:226:HIS:CD2	2.37	0.76
29:T:211:PHE:HD2	29:T:217:THR:HG1	1.33	0.76
29:T:250:MET:O	29:T:251:HIS:CG	2.38	0.76
30:U:35:GLY:C	30:U:93:TYR:HB3	2.04	0.76
1:1:19:ARG:HH11	1:1:29:ARG:HA	1.47	0.76
14:E:98:THR:O	14:E:102:TYR:HD1	1.67	0.76
20:K:104:ASP:OD1	20:K:107:THR:HB	1.85	0.76
26:Q:47:ASP:HA	26:Q:50:ARG:HB3	1.68	0.76
29:T:229:VAL:CG2	29:T:234:TYR:HE1	1.96	0.76
30:U:11:ALA:HB3	30:U:14:VAL:HG23	1.68	0.76
1:1:137:TYR:CZ	1:1:157:HIS:CD2	2.74	0.76
15:F:38:LEU:HG	15:F:189:LEU:HD11	1.66	0.76
20:K:281:ARG:NH1	20:K:287:GLY:CA	2.40	0.76
23:N:265:ALA:HB1	23:N:269:LEU:HD23	1.67	0.76
31:V:261:LEU:CG	31:V:283:THR:HG21	2.15	0.76
33:X:8:ILE:HG21	33:X:124:LYS:HD2	1.65	0.76
11:B:119:GLN:HG3	11:B:123:GLN:HE21	1.48	0.76
17:H:248:LEU:CD2	17:H:377:PHE:HE2	1.94	0.76
18:I:358:LYS:NZ	18:I:387:LEU:H	1.84	0.76
22:M:390:GLN:HE21	22:M:425:ARG:HB3	1.48	0.76
30:U:66:TRP:O	32:W:93:ILE:CD1	2.33	0.76
32:W:36:ILE:HD11	32:W:182:TYR:HB2	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:8:PHE:CZ	5:5:13:ILE:CD1	2.67	0.76
10:A:135:ARG:NE	16:G:124:LEU:HD23	2.01	0.76
10:A:191:ILE:HD12	10:A:193:HIS:O	1.86	0.76
11:B:32:VAL:CG1	11:B:48:GLU:HB2	2.15	0.76
13:D:37:LYS:HG2	13:D:38:GLY:O	1.85	0.76
23:N:21:LYS:HE3	23:N:55:PHE:CE2	2.19	0.76
23:N:325:PHE:HA	31:V:182:LYS:CG	2.15	0.76
23:N:452:LEU:HD21	23:N:748:PHE:HE1	1.49	0.76
24:O:233:LEU:CD2	24:O:236:HIS:CE1	2.68	0.76
25:P:131:PHE:CE1	25:P:166:GLU:HB3	2.21	0.76
25:P:311:TRP:HH2	25:P:338:TRP:NE1	1.83	0.76
28:S:211:ARG:HH21	28:S:240:ASP:CB	1.98	0.76
29:T:62:LEU:HD11	29:T:88:TYR:CE2	2.20	0.76
30:U:66:TRP:CH2	30:U:109:LEU:HD12	2.20	0.76
30:U:223:HIS:CG	30:U:224:THR:N	2.53	0.76
35:Z:190:THR:H	35:Z:193:PHE:HB3	1.49	0.76
35:Z:767:TYR:CE2	35:Z:772:ILE:CG1	2.68	0.76
12:C:13:PHE:CZ	13:D:127:ARG:NH1	2.54	0.76
18:I:251:GLU:C	18:I:253:ILE:N	2.38	0.76
19:J:375:ILE:O	27:R:204:TRP:NE1	2.19	0.76
24:O:103:LYS:HA	24:O:129:ILE:HD11	1.68	0.76
26:Q:46:VAL:C	26:Q:50:ARG:HB3	2.05	0.76
29:T:224:ARG:O	29:T:225:ASN:CG	2.24	0.76
33:X:45:PHE:CZ	33:X:69:ILE:HG12	2.20	0.76
35:Z:551:LEU:HG	35:Z:593:HIS:CE1	2.21	0.76
1:1:66:TYR:CE2	1:1:73:PRO:CA	2.67	0.76
15:F:201:LEU:HD22	15:F:204:GLU:HB2	1.68	0.76
23:N:21:LYS:HE3	23:N:55:PHE:CE1	2.21	0.76
25:P:213:TYR:HE2	25:P:217:LYS:HE3	1.50	0.76
31:V:154:ASP:HB3	31:V:156:PHE:HE1	1.50	0.76
33:X:100:TRP:HZ2	33:X:110:PRO:HG3	1.51	0.76
18:I:243:THR:CG2	18:I:245:LEU:HD21	2.15	0.76
20:K:155:ASP:OD1	20:K:156:SER:N	2.16	0.76
21:L:253:ASP:CA	22:M:256:ILE:HG21	2.06	0.76
23:N:10:LEU:HD22	23:N:42:GLU:HG3	1.66	0.76
24:O:47:LYS:NZ	24:O:65:PHE:HE2	1.81	0.76
25:P:263:HIS:CE1	25:P:327:LEU:HB2	2.21	0.76
31:V:118:LEU:HD13	31:V:140:VAL:CG1	2.16	0.76
11:B:179:TRP:CD1	11:B:183:LEU:CD1	2.51	0.75
22:M:62:ILE:CG1	22:M:66:LYS:HE3	2.17	0.75
26:Q:243:PHE:CE1	26:Q:287:THR:CB	2.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:32:ILE:O	29:T:35:ILE:CG2	2.22	0.75
18:I:281:ILE:HG22	18:I:284:ILE:CG1	2.15	0.75
25:P:101:MET:SD	25:P:139:VAL:HG13	2.26	0.75
28:S:163:VAL:HG21	28:S:184:TRP:HZ3	1.50	0.75
35:Z:321:PHE:CZ	35:Z:351:PRO:CD	2.69	0.75
17:H:410:LEU:HD11	17:H:444:LEU:HD22	1.68	0.75
23:N:555:ILE:HG23	23:N:559:TYR:CD2	2.20	0.75
23:N:666:GLN:HG3	23:N:873:ARG:NH2	2.02	0.75
26:Q:146:TYR:CE1	26:Q:151:TYR:CE1	2.73	0.75
20:K:49:PHE:CD1	23:N:192:LEU:HD11	2.22	0.75
21:L:132:ARG:HH21	21:L:149:ASP:CG	1.90	0.75
26:Q:99:THR:HG23	26:Q:103:LYS:HE2	1.68	0.75
26:Q:146:TYR:CE1	26:Q:151:TYR:HE1	2.03	0.75
27:R:411:LEU:HD13	30:U:285:ILE:HG12	1.67	0.75
31:V:261:LEU:HD22	31:V:283:THR:HG21	1.67	0.75
1:1:75:THR:HG21	1:1:111:TYR:CD1	2.03	0.75
8:8:209:ASP:OD2	9:9:72:ARG:HA	1.86	0.75
11:B:4:ARG:NH1	13:D:3:GLY:HA3	2.00	0.75
12:C:193:ALA:O	12:C:197:LEU:HG	1.86	0.75
21:L:192:GLU:OE1	21:L:347:VAL:HG13	1.86	0.75
23:N:75:TYR:O	23:N:79:VAL:HG23	1.87	0.75
24:O:277:ILE:CG2	24:O:279:ILE:CB	2.60	0.75
27:R:36:SER:O	27:R:43:ARG:NH2	2.18	0.75
27:R:422:ARG:HH11	28:S:301:PRO:HB3	1.49	0.75
32:W:44:ASN:HB2	32:W:47:ASN:ND2	2.02	0.75
3:3:44:ILE:HG12	3:3:98:PRO:HB3	1.67	0.75
7:7:190:ALA:HB2	7:7:200:PHE:CD2	2.22	0.75
8:8:283:LYS:H	9:9:12:THR:HB	1.46	0.75
17:H:261:ARG:NH2	17:H:273:ARG:HH22	1.83	0.75
21:L:325:MET:SD	21:L:343:LEU:HD11	2.27	0.75
22:M:307:GLU:HG3	22:M:311:GLN:HE21	1.49	0.75
24:O:166:ARG:HH21	24:O:169:ASN:HB3	1.52	0.75
7:7:7:LYS:HE3	7:7:119:LEU:HB3	1.68	0.75
8:8:116:ASN:O	9:9:76:GLZ:HA1	1.87	0.75
8:8:283:LYS:H	9:9:12:THR:CA	2.00	0.75
12:C:213:PHE:CD2	12:C:230:PHE:CD2	2.74	0.75
17:H:168:ILE:HG12	17:H:186:PRO:HB2	1.68	0.75
20:K:49:PHE:HD1	23:N:192:LEU:HD11	1.50	0.75
20:K:311:ASN:OD1	20:K:312:VAL:HG23	1.85	0.75
24:O:344:VAL:O	24:O:345:ASN:CB	2.34	0.75
26:Q:90:LYS:HD3	26:Q:129:LYS:HE2	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:94:PHE:HZ	27:R:99:TYR:CZ	2.03	0.75
30:U:40:ASP:CB	30:U:47:ARG:HH21	1.98	0.75
31:V:257:GLU:O	31:V:261:LEU:HG	1.86	0.75
13:D:11:PHE:CE2	14:E:137:PRO:HD2	2.21	0.75
14:E:114:GLN:HE21	15:F:82:ARG:HD2	1.50	0.75
17:H:405:GLU:O	17:H:409:ARG:HG2	1.87	0.75
24:O:276:LYS:O	24:O:277:ILE:HB	1.87	0.75
29:T:225:ASN:HB3	29:T:241:GLU:HG2	1.68	0.75
30:U:112:LYS:HZ3	32:W:60:ARG:HH21	1.33	0.75
35:Z:56:LEU:HD22	35:Z:115:LEU:CD1	2.15	0.75
7:7:8:TYR:HE2	7:7:10:ASN:OD1	1.64	0.75
10:A:126:GLN:HE22	10:A:130:GLN:NE2	1.85	0.75
20:K:158:ILE:HG23	21:L:256:ILE:CG2	2.17	0.75
20:K:200:GLN:C	27:R:204:TRP:CZ2	2.57	0.75
20:K:210:LEU:CD1	20:K:212:TYR:CZ	2.69	0.75
24:O:210:ARG:HH21	24:O:242:ILE:C	1.87	0.75
27:R:259:PHE:CD2	27:R:329:PHE:HE1	2.01	0.75
35:Z:888:LEU:HG	35:Z:901:PHE:CE1	2.21	0.75
12:C:147:GLN:HB3	12:C:149:TYR:CE1	2.15	0.74
16:G:203:HIS:CE1	16:G:211:PHE:HD1	2.05	0.74
22:M:361:LEU:CB	22:M:376:TRP:CD2	2.67	0.74
27:R:304:TYR:CE1	27:R:308:LEU:CD1	2.64	0.74
30:U:94:HIS:CE1	30:U:96:GLY:N	2.54	0.74
33:X:46:TRP:HZ2	33:X:132:SER:N	1.86	0.74
1:1:59:VAL:HG11	1:1:82:PHE:CZ	2.22	0.74
1:1:118:SER:OG	7:7:53:GLN:HG3	1.88	0.74
17:H:271:PHE:CZ	17:H:307:PHE:CD2	2.69	0.74
21:L:223:PRO:HB2	21:L:226:THR:HG23	1.69	0.74
21:L:309:LEU:CD2	21:L:342:ARG:NE	2.39	0.74
24:O:271:LYS:HD3	24:O:274:ILE:HD12	1.68	0.74
26:Q:90:LYS:HD3	26:Q:129:LYS:CE	2.17	0.74
28:S:163:VAL:HG22	28:S:184:TRP:CH2	2.22	0.74
31:V:118:LEU:HD12	31:V:140:VAL:CB	2.06	0.74
31:V:126:GLN:O	31:V:130:GLU:HG2	1.86	0.74
35:Z:53:VAL:HG12	35:Z:92:LEU:HD23	1.69	0.74
35:Z:87:LYS:CE	35:Z:90:LYS:HB2	2.15	0.74
19:J:27:ILE:CB	20:K:51:LEU:HD21	2.18	0.74
20:K:68:ILE:HD11	23:N:608:LEU:HD21	1.65	0.74
24:O:277:ILE:CG2	24:O:279:ILE:CG1	2.31	0.74
27:R:94:PHE:CZ	27:R:95:ASP:O	2.40	0.74
27:R:137:LEU:CG	27:R:141:TYR:CE2	2.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:X:85:ARG:NH2	33:X:115:SER:HB2	2.01	0.74
35:Z:558:LEU:HG	35:Z:558:LEU:O	1.85	0.74
8:8:208:GLN:N	9:9:75:GLY:H	1.85	0.74
17:H:389:PHE:O	17:H:404:TRP:CH2	2.39	0.74
19:J:219:VAL:CG1	20:K:284:ALA:CB	2.66	0.74
23:N:322:ASP:HB2	23:N:689:LYS:NZ	2.01	0.74
23:N:666:GLN:HG3	23:N:873:ARG:HE	1.52	0.74
24:O:106:PHE:O	24:O:107:GLN:HB2	1.87	0.74
26:Q:253:ASN:HD22	26:Q:258:ALA:HB2	1.52	0.74
35:Z:510:LEU:HD13	35:Z:542:ILE:CG1	2.16	0.74
2:2:187:LEU:HD13	2:2:190:TYR:CD1	2.23	0.74
2:2:196:ARG:HE	2:2:199:LYS:HE3	1.53	0.74
3:3:75:PRO:HB2	3:3:111:PHE:CD2	2.23	0.74
4:4:81:SER:N	4:4:124:LYS:NZ	2.36	0.74
11:B:38:LYS:O	11:B:179:TRP:CH2	2.39	0.74
15:F:123:TYR:CD1	15:F:124:GLY:N	2.54	0.74
17:H:154:LYS:NZ	22:M:164:ASP:O	2.20	0.74
19:J:69:GLY:H	20:K:144:ASN:HD22	1.28	0.74
21:L:279:PHE:HE2	21:L:281:ASP:OD1	1.69	0.74
27:R:137:LEU:O	27:R:141:TYR:HD2	1.71	0.74
3:3:61:LYS:HD3	3:3:81:LEU:HD11	1.70	0.74
12:C:160:TRP:CH2	12:C:163:ILE:CD1	2.70	0.74
20:K:248:GLY:CA	20:K:251:PRO:HG2	2.17	0.74
1:1:57:ASP:OD2	10:A:106:TYR:OH	1.95	0.74
10:A:103:GLU:OE2	10:A:107:LYS:NZ	2.20	0.74
11:B:119:GLN:HE21	11:B:123:GLN:HG3	1.52	0.74
17:H:175:GLY:O	17:H:183:ILE:HB	1.88	0.74
20:K:353:PHE:CE1	20:K:387:MET:SD	2.80	0.74
21:L:259:SER:CB	21:L:303:ARG:NH1	2.48	0.74
24:O:373:TRP:CD1	30:U:200:LEU:CD1	2.70	0.74
28:S:160:ARG:O	28:S:164:ILE:HG12	1.87	0.74
8:8:116:ASN:O	9:9:76:GLZ:CA	2.35	0.74
8:8:330:LEU:HD11	17:H:166:THR:OG1	1.87	0.74
11:B:183:LEU:HD23	11:B:184:GLU:O	1.88	0.74
17:H:284:VAL:HG13	22:M:252:VAL:HG12	1.69	0.74
17:H:430:ALA:HA	17:H:435:ARG:HH21	1.52	0.74
24:O:5:HIS:CE1	24:O:27:GLU:HB3	2.22	0.74
26:Q:267:LEU:HD22	26:Q:331:THR:HG23	1.69	0.74
31:V:57:PHE:CD1	31:V:63:VAL:HG13	2.23	0.74
32:W:186:ALA:HA	32:W:192:LEU:CD1	2.16	0.74
4:4:11:SER:HB2	4:4:182:ILE:CG2	2.18	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:215:ILE:HG13	15:F:220:THR:HG21	1.69	0.74
21:L:123:SER:HA	22:M:125:GLN:HG2	1.70	0.74
26:Q:146:TYR:CD1	26:Q:151:TYR:CE1	2.75	0.74
27:R:34:THR:HA	27:R:70:TYR:CD1	2.23	0.74
27:R:183:ASP:CG	27:R:185:LEU:H	1.91	0.74
35:Z:446:GLU:HG3	35:Z:484:LYS:NZ	2.02	0.74
35:Z:530:LEU:HD12	35:Z:534:PHE:HD2	1.53	0.74
8:8:484:GLY:HA3	17:H:187:LEU:HD23	1.68	0.74
14:E:88:MET:HE2	14:E:142:LEU:HD12	1.65	0.74
15:F:105:VAL:CG1	15:F:143:HIS:ND1	2.45	0.74
15:F:179:PHE:CE1	15:F:188:GLU:OE2	2.40	0.74
26:Q:174:LEU:HG	26:Q:178:HIS:CE1	2.23	0.74
26:Q:329:GLU:CD	26:Q:332:ARG:HH21	1.88	0.74
26:Q:396:TRP:HB2	26:Q:398:TYR:CE2	2.23	0.74
26:Q:429:LYS:HE3	31:V:269:ARG:HH22	1.53	0.74
27:R:353:MET:HE3	27:R:364:LEU:CD1	2.18	0.74
35:Z:299:ASP:OD1	35:Z:334:LYS:HE2	1.87	0.74
35:Z:422:ILE:O	35:Z:426:TYR:CD2	2.41	0.74
11:B:174:PHE:CZ	11:B:198:GLU:OE1	2.41	0.73
18:I:243:THR:HG22	18:I:245:LEU:CD2	2.18	0.73
19:J:142:VAL:CG1	19:J:204:HIS:HE1	2.01	0.73
24:O:303:LYS:O	24:O:304:ASN:HB2	1.87	0.73
25:P:140:THR:CG2	25:P:163:LEU:HD22	2.18	0.73
27:R:208:ASN:ND2	27:R:238:PHE:CG	2.56	0.73
28:S:471:LEU:CB	30:U:288:PHE:CE1	2.71	0.73
35:Z:318:LYS:HE2	35:Z:496:ALA:C	2.07	0.73
35:Z:392:LEU:HG	35:Z:428:TRP:HZ3	1.53	0.73
15:F:105:VAL:HG12	15:F:143:HIS:CE1	2.23	0.73
15:F:155:GLU:OE1	16:G:62:LYS:CB	2.35	0.73
17:H:155:PHE:CE1	22:M:76:PRO:HA	2.21	0.73
20:K:67:TYR:HE2	23:N:572:LEU:O	1.71	0.73
21:L:84:LEU:HD22	21:L:88:TYR:OH	1.89	0.73
22:M:166:ARG:O	22:M:167:VAL:HG22	1.88	0.73
22:M:351:LEU:HD22	22:M:387:ASN:OD1	1.87	0.73
23:N:84:ALA:O	23:N:86:LYS:HG3	1.88	0.73
26:Q:272:LEU:CD2	26:Q:274:LEU:CD1	2.66	0.73
27:R:137:LEU:HG	27:R:141:TYR:CE2	2.23	0.73
30:U:52:PHE:CE1	30:U:80:CYS:SG	2.81	0.73
30:U:92:TRP:CZ3	30:U:106:ILE:CB	2.61	0.73
33:X:35:ILE:HG12	33:X:124:LYS:HE2	1.68	0.73
5:5:68:LEU:HD13	14:E:70:ILE:O	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:8:485:GLU:H	17:H:187:LEU:CD2	2.00	0.73
10:A:218:PHE:HB2	10:A:223:LEU:HD21	1.69	0.73
20:K:140:HIS:HB3	20:K:143:SER:HB3	1.69	0.73
22:M:385:GLU:HB2	22:M:426:LYS:NZ	2.03	0.73
25:P:286:ASN:O	25:P:293:LEU:HD21	1.87	0.73
26:Q:250:THR:HG23	26:Q:251:THR:H	1.51	0.73
29:T:112:ASN:HA	29:T:177:PHE:CE2	2.23	0.73
30:U:283:ARG:NH1	31:V:283:THR:C	2.41	0.73
11:B:4:ARG:NH2	13:D:5:ASP:HB2	2.01	0.73
12:C:213:PHE:CE2	12:C:230:PHE:CE2	2.76	0.73
16:G:197:LYS:HD2	16:G:241:PHE:HE2	1.53	0.73
17:H:206:VAL:HG11	17:H:258:LEU:HD23	1.67	0.73
23:N:249:ASN:OD1	23:N:282:TYR:OH	2.04	0.73
23:N:329:HIS:HE1	23:N:355:TRP:CE3	2.02	0.73
24:O:337:LEU:O	24:O:338:LYS:HB3	1.87	0.73
27:R:130:GLN:O	27:R:134:TRP:HD1	1.70	0.73
2:2:142:TRP:HE1	2:2:145:ASP:HA	1.52	0.73
6:6:66:TYR:CE2	6:6:73:LYS:O	2.42	0.73
10:A:59:VAL:HG21	10:A:66:PRO:HB3	1.71	0.73
18:I:106:ILE:HD11	19:J:85:LEU:CD2	2.19	0.73
20:K:350:ARG:HH21	26:Q:215:VAL:HG11	1.53	0.73
32:W:40:LYS:CE	32:W:47:ASN:HB3	2.11	0.73
34:Y:88:ASN:O	34:Y:89:GLN:CB	2.32	0.73
35:Z:147:GLU:HA	35:Z:210:TYR:CZ	2.23	0.73
1:1:36:ARG:HB2	1:1:42:TRP:CZ3	2.23	0.73
4:4:66:TYR:CZ	4:4:74:LEU:HD21	2.21	0.73
8:8:282:GLU:OE2	9:9:66:THR:CG2	2.36	0.73
15:F:76:GLY:O	22:M:433:TYR:CZ	2.42	0.73
17:H:449:LYS:NZ	18:I:346:ARG:HH11	1.87	0.73
19:J:272:MET:HE3	19:J:290:ILE:HD13	1.68	0.73
21:L:357:ARG:O	21:L:361:PHE:CD2	2.41	0.73
23:N:320:SER:HB2	23:N:686:ILE:HG22	1.69	0.73
23:N:399:PHE:HD1	23:N:441:VAL:CB	1.95	0.73
25:P:132:VAL:CA	25:P:171:MET:HE1	2.03	0.73
27:R:60:ALA:CB	27:R:102:LEU:HD22	2.19	0.73
33:X:45:PHE:CE1	33:X:69:ILE:HG12	2.24	0.73
1:1:37:VAL:HB	1:1:63:LEU:HD12	1.70	0.73
1:1:83:LYS:CD	1:1:119:VAL:HG23	2.18	0.73
1:1:124:TYR:CD1	1:1:142:PHE:CZ	2.76	0.73
4:4:72:TYR:OH	4:4:109:LYS:HE3	1.88	0.73
19:J:27:ILE:CG1	20:K:51:LEU:HD21	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:J:324:ARG:NH2	19:J:352:GLY:H	1.87	0.73
19:J:336:ASN:HD22	27:R:204:TRP:HE1	0.74	0.73
22:M:289:LYS:HZ1	22:M:334:ASP:HB2	1.53	0.73
35:Z:321:PHE:CE1	35:Z:350:GLY:HA3	2.20	0.73
3:3:-2:ASN:C	3:3:19:ARG:HH11	1.89	0.73
17:H:72:SER:HB3	18:I:153:THR:HG21	1.70	0.73
19:J:167:PRO:HD3	19:J:174:PHE:HZ	1.52	0.73
20:K:392:LEU:HD13	21:L:213:LYS:O	1.88	0.73
24:O:210:ARG:NH2	24:O:242:ILE:CB	2.51	0.73
25:P:112:LEU:HD11	25:P:146:ILE:HG21	1.69	0.73
27:R:101:GLU:CG	27:R:105:LYS:HE3	2.18	0.73
28:S:188:TYR:HH	28:S:210:LEU:HD22	1.53	0.73
29:T:197:TYR:CD2	29:T:200:LEU:HG	2.24	0.73
30:U:35:GLY:H	30:U:93:TYR:HB3	1.53	0.73
31:V:231:GLU:O	31:V:235:GLU:HB2	1.89	0.73
35:Z:133:ASP:HB3	35:Z:137:TYR:CZ	2.24	0.73
35:Z:491:LEU:HD21	35:Z:900:LEU:HD11	1.70	0.73
35:Z:811:SER:O	35:Z:815:MET:HG3	1.89	0.73
1:1:19:ARG:HH21	1:1:26:ILE:HD13	1.53	0.73
8:8:282:GLU:C	9:9:12:THR:CB	2.33	0.73
16:G:182:HIS:CE1	16:G:186:LEU:CD1	2.71	0.73
17:H:174:VAL:CG1	17:H:183:ILE:HG13	2.19	0.73
23:N:14:ARG:HB2	29:T:80:ASN:ND2	2.01	0.73
23:N:324:LYS:HG3	23:N:325:PHE:HD1	1.53	0.73
25:P:221:TYR:HE1	25:P:240:TYR:HB3	1.54	0.73
25:P:360:ILE:HG12	25:P:402:PHE:CE2	2.24	0.73
27:R:305:PHE:HA	27:R:334:ARG:NH1	2.02	0.73
29:T:224:ARG:O	29:T:225:ASN:HB2	1.88	0.73
35:Z:312:TYR:HH	35:Z:348:LEU:HA	1.51	0.73
35:Z:514:ALA:HA	35:Z:546:ILE:HD13	1.71	0.73
6:6:115:SER:HB3	6:6:128:ARG:NH1	2.04	0.73
17:H:147:ILE:CD1	17:H:157:VAL:H	2.00	0.73
24:O:185:PHE:HE2	24:O:219:ILE:CG2	2.00	0.73
26:Q:90:LYS:HD3	26:Q:129:LYS:HZ1	1.53	0.73
27:R:199:GLU:CB	27:R:206:ARG:NE	2.51	0.73
30:U:105:LYS:HB3	32:W:58:ASN:ND2	2.04	0.73
31:V:182:LYS:HB3	31:V:185:ILE:HG22	1.71	0.73
35:Z:890:SER:HB2	35:Z:891:PRO:HD3	1.71	0.73
3:3:60:TYR:HD1	12:C:96:GLN:HB3	1.54	0.72
13:D:78:LEU:HD23	18:I:436:TYR:CE1	2.24	0.72
15:F:65:LYS:CG	15:F:222:PHE:CE2	2.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:179:PHE:CZ	15:F:192:ALA:HB2	2.24	0.72
23:N:669:GLU:O	23:N:670:LYS:HB2	1.87	0.72
24:O:250:TRP:CD2	24:O:270:ILE:HG12	2.24	0.72
25:P:241:LEU:HA	25:P:244:ILE:HG22	1.71	0.72
26:Q:162:LEU:HD11	26:Q:178:HIS:NE2	2.04	0.72
30:U:66:TRP:HZ3	30:U:68:LEU:HB2	1.51	0.72
33:X:85:ARG:HH22	33:X:116:ALA:H	1.36	0.72
4:4:117:GLN:HE22	4:4:130:GLY:HA3	1.53	0.72
8:8:279:GLY:O	9:9:6:LYS:NZ	2.16	0.72
24:O:223:LEU:CA	24:O:279:ILE:HG21	2.19	0.72
24:O:347:LEU:HB3	24:O:349:THR:HG23	1.71	0.72
29:T:1:MET:HB2	29:T:2:PRO:HD2	1.69	0.72
30:U:5:HIS:HD1	30:U:6:GLU:N	1.84	0.72
35:Z:397:ASP:HB3	35:Z:425:ILE:CD1	2.19	0.72
35:Z:493:LEU:HD11	35:Z:497:PHE:CD2	2.24	0.72
21:L:174:GLU:HG2	21:L:175:GLN:NE2	2.04	0.72
26:Q:299:MET:SD	26:Q:335:PHE:HZ	2.11	0.72
26:Q:423:VAL:HG13	27:R:414:LEU:CD1	2.16	0.72
27:R:416:LYS:O	28:S:298:ARG:NH1	2.22	0.72
29:T:199:PHE:O	29:T:200:LEU:HD23	1.89	0.72
29:T:199:PHE:O	29:T:200:LEU:HG	1.90	0.72
12:C:115:LEU:HD13	12:C:137:TYR:OH	1.89	0.72
19:J:234:PHE:HZ	19:J:279:LEU:CD2	2.02	0.72
25:P:433:ILE:HD11	30:U:203:LYS:CD	2.20	0.72
26:Q:130:ARG:HH21	26:Q:133:LEU:HD12	1.54	0.72
29:T:250:MET:O	29:T:251:HIS:CB	2.37	0.72
13:D:190:GLU:OE1	13:D:193:LYS:NZ	2.22	0.72
16:G:87:LEU:HD11	16:G:115:LEU:HD22	1.70	0.72
19:J:167:PRO:HD3	19:J:174:PHE:CZ	2.25	0.72
23:N:685:VAL:HG13	23:N:691:GLN:HG3	1.69	0.72
24:O:303:LYS:O	24:O:304:ASN:CB	2.37	0.72
24:O:303:LYS:NZ	30:U:234:ASN:ND2	2.37	0.72
24:O:343:GLN:HG3	24:O:343:GLN:O	1.89	0.72
24:O:356:ARG:HH21	24:O:362:GLN:CG	2.01	0.72
27:R:59:MET:CE	27:R:143:GLN:O	2.37	0.72
27:R:60:ALA:HB2	27:R:102:LEU:HD22	1.72	0.72
27:R:137:LEU:HG	27:R:141:TYR:HE2	1.55	0.72
27:R:258:LEU:HD12	27:R:266:LEU:HD11	1.70	0.72
35:Z:610:GLY:O	35:Z:748:LEU:HB3	1.89	0.72
35:Z:805:LEU:HD22	35:Z:893:PHE:CZ	2.25	0.72
17:H:168:ILE:CG2	17:H:169:GLU:H	1.87	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:K:242:PHE:HB3	20:K:295:ILE:HD13	1.70	0.72
27:R:101:GLU:HG2	27:R:105:LYS:HE3	1.69	0.72
1:1:8:PHE:HZ	1:1:179:THR:HG22	1.55	0.72
12:C:160:TRP:CE3	12:C:163:ILE:CD1	2.69	0.72
18:I:433:GLU:HA	18:I:436:TYR:CE1	2.24	0.72
20:K:210:LEU:HD11	20:K:212:TYR:OH	1.88	0.72
23:N:366:THR:HG23	23:N:747:HIS:HE1	1.55	0.72
23:N:399:PHE:CD1	23:N:441:VAL:HB	2.25	0.72
24:O:233:LEU:CA	24:O:236:HIS:HB3	2.19	0.72
28:S:257:LEU:O	28:S:259:TYR:CD2	2.42	0.72
29:T:241:GLU:O	29:T:242:LYS:HB3	1.89	0.72
33:X:44:GLY:O	33:X:46:TRP:CD1	2.42	0.72
35:Z:312:TYR:OH	35:Z:348:LEU:CD2	2.38	0.72
35:Z:491:LEU:HD11	35:Z:900:LEU:HD12	1.70	0.72
17:H:389:PHE:CB	17:H:404:TRP:CE3	2.72	0.72
23:N:195:THR:OG1	23:N:196:THR:HG23	1.90	0.72
30:U:141:GLU:O	30:U:142:GLN:HB3	1.88	0.72
7:7:54:HIS:CD2	7:7:95:ARG:HH22	2.08	0.72
14:E:231:TYR:CE1	14:E:235:LYS:HB3	2.24	0.72
18:I:339:ILE:HD13	18:I:347:LYS:CE	2.20	0.72
19:J:219:VAL:HB	20:K:281:ARG:HD3	0.73	0.72
21:L:132:ARG:CZ	21:L:156:MET:CG	2.68	0.72
21:L:370:LYS:HD2	21:L:374:PHE:CD1	2.25	0.72
22:M:251:LEU:O	22:M:253:GLN:N	2.23	0.72
24:O:300:VAL:HG12	24:O:301:PHE:CE2	2.23	0.72
35:Z:183:LYS:NZ	35:Z:579:GLU:OE2	2.16	0.72
35:Z:433:LEU:HD11	35:Z:455:ILE:HG23	1.70	0.72
1:1:18:SER:HB3	1:1:31:THR:OG1	1.90	0.72
1:1:119:VAL:HG21	16:G:103:LYS:NZ	1.98	0.72
10:A:17:THR:HG21	10:A:129:THR:O	1.90	0.72
10:A:220:LYS:HD2	10:A:238:ALA:C	2.10	0.72
14:E:165:TYR:CB	14:E:167:TYR:OH	2.38	0.72
19:J:142:VAL:CG1	19:J:204:HIS:CE1	2.73	0.72
19:J:375:ILE:HD12	27:R:204:TRP:CD2	2.24	0.72
21:L:269:TYR:CD2	21:L:273:HIS:CE1	2.78	0.72
21:L:328:ASN:HD22	21:L:329:ARG:HG2	1.54	0.72
22:M:307:GLU:CG	22:M:311:GLN:NE2	2.52	0.72
25:P:308:LEU:HD23	25:P:369:LEU:CD2	2.20	0.72
26:Q:47:ASP:OD1	26:Q:50:ARG:HG2	1.89	0.72
26:Q:391:ASP:OD1	27:R:347:THR:HB	1.90	0.72
27:R:252:TYR:CD1	27:R:321:TYR:HB3	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:S:381:VAL:CG1	29:T:123:HIS:NE2	2.51	0.72
29:T:197:TYR:CE1	29:T:199:PHE:N	2.58	0.72
5:5:6:PHE:CZ	5:5:13:ILE:CB	2.73	0.71
5:5:51:ASP:OD2	5:5:95:LEU:HA	1.90	0.71
12:C:208:TYR:HA	12:C:235:ILE:HG21	1.72	0.71
19:J:183:LYS:HB3	19:J:276:LEU:HD13	1.72	0.71
24:O:87:LYS:HD3	24:O:132:GLU:OE1	1.90	0.71
8:8:264:HIS:ND1	9:9:10:GLY:HA3	2.05	0.71
11:B:32:VAL:HG13	11:B:48:GLU:OE1	1.90	0.71
14:E:231:TYR:OH	14:E:235:LYS:O	2.07	0.71
16:G:197:LYS:CD	16:G:241:PHE:CE2	2.72	0.71
20:K:188:VAL:HA	20:K:313:LYS:HZ1	1.55	0.71
23:N:421:ASP:N	23:N:424:LYS:HZ3	1.87	0.71
35:Z:433:LEU:HD12	35:Z:455:ILE:HG12	1.71	0.71
8:8:212:GLU:CG	9:9:42:ARG:CZ	2.68	0.71
17:H:146:VAL:H	17:H:157:VAL:HG21	1.54	0.71
17:H:198:MET:SD	17:H:272:ILE:HG23	2.29	0.71
19:J:115:LEU:HD23	19:J:116:ARG:O	1.91	0.71
25:P:283:LYS:HB3	25:P:286:ASN:HB3	1.71	0.71
27:R:396:LYS:HG2	27:R:400:TYR:HE2	1.55	0.71
33:X:40:GLU:O	33:X:41:GLU:CB	2.38	0.71
35:Z:867:PHE:HD2	35:Z:871:HIS:HA	1.53	0.71
8:8:212:GLU:CD	9:9:72:ARG:CG	2.58	0.71
8:8:282:GLU:OE2	9:9:66:THR:HG21	1.89	0.71
17:H:168:ILE:CG2	17:H:169:GLU:N	2.42	0.71
19:J:329:ARG:CG	19:J:333:ARG:NH1	2.51	0.71
20:K:280:LYS:NZ	20:K:293:GLN:HA	2.05	0.71
21:L:206:ILE:HG12	21:L:209:ARG:NH2	2.05	0.71
24:O:223:LEU:O	24:O:279:ILE:CG2	2.38	0.71
24:O:306:ARG:HG3	24:O:352:TRP:N	2.03	0.71
26:Q:299:MET:HE2	26:Q:335:PHE:CZ	2.25	0.71
28:S:188:TYR:OH	28:S:210:LEU:CD2	2.31	0.71
35:Z:609:THR:CG2	35:Z:745:LEU:HD22	2.21	0.71
17:H:249:TYR:CE2	17:H:374:LYS:HG2	2.25	0.71
17:H:340:LEU:HD11	17:H:370:ARG:NH1	2.05	0.71
21:L:177:GLU:OE2	21:L:233:LYS:NZ	2.19	0.71
23:N:391:PRO:HA	23:N:401:LYS:HD3	1.72	0.71
25:P:115:ARG:HH22	25:P:142:ASP:HB3	1.55	0.71
25:P:221:TYR:CZ	25:P:244:ILE:HB	2.26	0.71
25:P:425:HIS:CG	30:U:225:ILE:CG2	2.67	0.71
30:U:273:LEU:HG	30:U:277:TYR:CE2	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:V:24:LYS:NZ	31:V:197:TYR:CE2	2.58	0.71
19:J:273:LEU:HD11	19:J:304:LEU:HD23	1.71	0.71
21:L:161:ARG:HH21	21:L:261:ARG:CZ	2.02	0.71
21:L:221:TYR:CZ	21:L:348:GLU:CB	2.74	0.71
25:P:308:LEU:HD13	25:P:345:VAL:HG22	1.73	0.71
26:Q:174:LEU:HD11	26:Q:178:HIS:CE1	2.24	0.71
26:Q:266:LEU:HD21	26:Q:281:ILE:HG21	1.71	0.71
30:U:37:ILE:HD13	30:U:121:LEU:CD1	2.20	0.71
8:8:320:LYS:CE	17:H:164:SER:OG	2.32	0.71
11:B:104:TYR:OH	11:B:140:ASP:HA	1.90	0.71
11:B:158:PRO:O	12:C:57:LEU:HD11	1.88	0.71
18:I:282:ASP:OD1	18:I:283:GLU:HG3	1.91	0.71
20:K:67:TYR:CE2	23:N:576:VAL:HB	2.26	0.71
21:L:189:GLN:OE1	21:L:349:ILE:HG12	1.90	0.71
24:O:117:ASN:HD22	24:O:167:ILE:HA	1.55	0.71
24:O:339:GLY:O	24:O:340:SER:HB2	1.91	0.71
26:Q:61:LEU:O	26:Q:65:TYR:CD1	2.44	0.71
35:Z:312:TYR:OH	35:Z:348:LEU:CB	2.38	0.71
10:A:57:LYS:HZ3	10:A:69:VAL:HB	1.52	0.71
19:J:131:ASP:H	19:J:132:PRO:HD2	1.55	0.71
19:J:375:ILE:CD1	27:R:204:TRP:CE3	2.69	0.71
23:N:89:PHE:CE1	23:N:101:ILE:HD11	2.26	0.71
24:O:230:PHE:CD1	24:O:251:LEU:CD1	2.73	0.71
24:O:306:ARG:HG3	24:O:351:SER:CA	2.21	0.71
25:P:177:ILE:CD1	25:P:216:LEU:HD13	2.20	0.71
25:P:369:LEU:HB3	25:P:371:LEU:CD1	2.21	0.71
29:T:156:SER:HB3	29:T:159:LYS:HB2	1.72	0.71
29:T:197:TYR:CD1	29:T:198:ASP:CA	2.74	0.71
33:X:12:ALA:HB3	33:X:33:ILE:CB	2.20	0.71
8:8:320:LYS:HE3	17:H:164:SER:HB3	0.78	0.71
15:F:50:LYS:HE3	15:F:212:SER:CB	2.21	0.71
17:H:412:PRO:O	17:H:413:ASN:ND2	2.24	0.71
18:I:366:THR:HG21	18:I:377:LEU:CD2	2.21	0.71
24:O:78:VAL:HG11	24:O:106:PHE:CE2	2.24	0.71
24:O:232:GLU:O	24:O:236:HIS:HB3	1.90	0.71
25:P:184:MET:HB2	25:P:223:LEU:HD22	1.72	0.71
25:P:308:LEU:HD22	25:P:369:LEU:CD2	2.20	0.71
26:Q:243:PHE:CE1	26:Q:287:THR:CA	2.39	0.71
28:S:323:LEU:HD23	28:S:383:LEU:CD2	2.21	0.71
30:U:107:ASN:HD21	30:U:111:LYS:HE3	1.55	0.71
35:Z:64:TYR:CD1	35:Z:111:LEU:HB3	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:138:ARG:CD	35:Z:157:LEU:HD13	2.19	0.71
6:6:-6:PRO:HA	7:7:125:LEU:HD22	1.71	0.71
6:6:91:LYS:HB2	6:6:96:TYR:CZ	2.26	0.71
8:8:330:LEU:CD1	17:H:166:THR:CB	2.68	0.71
23:N:21:LYS:HE2	23:N:55:PHE:CE2	2.25	0.71
23:N:666:GLN:HA	23:N:873:ARG:NH2	2.06	0.71
24:O:79:VAL:HB	24:O:121:ASP:C	2.11	0.71
26:Q:135:HIS:CG	26:Q:161:LEU:CD2	2.74	0.71
26:Q:314:PHE:CE2	26:Q:339:TYR:HD1	2.03	0.71
35:Z:551:LEU:HD12	35:Z:591:ILE:HG22	1.72	0.71
4:4:43:MET:CG	4:4:45:PHE:HZ	2.03	0.70
15:F:74:LEU:HA	15:F:132:LEU:HD23	1.72	0.70
18:I:228:GLY:HA3	18:I:350:PHE:CZ	2.26	0.70
21:L:279:PHE:CE2	21:L:281:ASP:OD1	2.43	0.70
24:O:306:ARG:CG	24:O:351:SER:C	2.59	0.70
24:O:373:TRP:CH2	30:U:233:PHE:CB	2.73	0.70
26:Q:46:VAL:CG2	26:Q:50:ARG:HB2	2.14	0.70
26:Q:351:ILE:HG22	26:Q:362:ILE:HD13	1.71	0.70
29:T:198:ASP:OD1	29:T:199:PHE:N	2.24	0.70
35:Z:868:ASN:ND2	35:Z:870:ALA:HB3	2.05	0.70
2:2:8:PHE:HE1	2:2:12:VAL:C	1.95	0.70
11:B:27:ALA:HA	20:K:426:PHE:CE1	2.26	0.70
19:J:27:ILE:HG12	20:K:51:LEU:HD21	1.73	0.70
23:N:293:LEU:HB3	23:N:294:PRO:HD3	1.73	0.70
25:P:181:LEU:CA	25:P:223:LEU:HD11	2.21	0.70
25:P:311:TRP:CH2	25:P:338:TRP:NE1	2.58	0.70
26:Q:179:LEU:HD13	26:Q:218:LEU:HD23	1.73	0.70
4:4:55:PHE:CZ	4:4:59:ILE:HG13	2.26	0.70
8:8:283:LYS:H	9:9:12:THR:N	1.88	0.70
13:D:106:VAL:CG1	13:D:148:TYR:CE2	2.74	0.70
14:E:157:HIS:CG	14:E:170:LYS:HZ3	2.09	0.70
17:H:99:VAL:HG22	17:H:173:ARG:HH22	1.52	0.70
25:P:266:TYR:OH	25:P:322:LEU:HA	1.91	0.70
26:Q:243:PHE:HE1	26:Q:287:THR:CG2	2.03	0.70
30:U:53:ALA:HB3	31:V:98:THR:HB	1.74	0.70
32:W:20:ASP:O	32:W:21:PHE:CB	2.39	0.70
35:Z:305:VAL:HG13	35:Z:982:ILE:CG1	2.20	0.70
35:Z:352:LYS:O	35:Z:353:VAL:CG2	2.37	0.70
1:1:124:TYR:CD1	1:1:142:PHE:CE2	2.79	0.70
8:8:326:LYS:NZ	9:9:74:ARG:HE	1.87	0.70
11:B:27:ALA:CA	20:K:426:PHE:HE1	2.04	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:109:VAL:HG11	14:E:156:PHE:HD1	1.53	0.70
20:K:113:THR:HA	20:K:252:ARG:CZ	2.20	0.70
27:R:263:ARG:HD3	27:R:296:LEU:HG	1.71	0.70
30:U:35:GLY:CA	30:U:93:TYR:CB	2.64	0.70
30:U:112:LYS:HZ3	32:W:60:ARG:NH2	1.89	0.70
12:C:136:ILE:HD11	12:C:165:VAL:HG22	1.73	0.70
19:J:111:GLN:NE2	19:J:125:VAL:CG1	2.54	0.70
19:J:236:MET:O	19:J:240:HIS:ND1	2.15	0.70
21:L:259:SER:OG	21:L:303:ARG:NH2	2.22	0.70
22:M:289:LYS:HZ3	22:M:302:GLN:HE22	1.37	0.70
22:M:410:VAL:HG13	22:M:414:ASP:HB3	1.73	0.70
23:N:19:SER:CB	29:T:35:ILE:CG2	2.55	0.70
28:S:425:ARG:HH11	29:T:155:GLY:HA2	1.54	0.70
29:T:85:LEU:HD21	29:T:105:LEU:HD13	1.73	0.70
35:Z:133:ASP:CA	35:Z:137:TYR:CE1	2.72	0.70
1:1:80:SER:CB	16:G:103:LYS:HG3	2.22	0.70
14:E:98:THR:CG2	14:E:102:TYR:HE1	2.05	0.70
14:E:231:TYR:CD2	14:E:236:THR:OG1	2.45	0.70
18:I:281:ILE:CG2	18:I:284:ILE:CG1	2.69	0.70
19:J:219:VAL:CA	20:K:281:ARG:HD3	2.21	0.70
23:N:14:ARG:NE	23:N:42:GLU:OE1	2.23	0.70
24:O:352:TRP:HZ3	30:U:228:LYS:HG3	1.56	0.70
30:U:76:MET:HB2	31:V:94:MET:HE1	1.73	0.70
1:1:190:PRO:HA	1:1:193:TYR:CE1	2.26	0.70
4:4:26:VAL:HG12	4:4:28:LYS:O	1.90	0.70
6:6:115:SER:OG	6:6:128:ARG:CZ	2.38	0.70
8:8:283:LYS:CA	9:9:12:THR:HB	2.17	0.70
13:D:49:ARG:HG2	13:D:203:VAL:HG13	1.72	0.70
15:F:69:HIS:CE1	15:F:102:LYS:HB3	2.26	0.70
19:J:33:LYS:O	19:J:37:LYS:HG2	1.92	0.70
24:O:43:GLU:OE2	24:O:44:SER:CB	2.26	0.70
26:Q:51:ARG:CD	26:Q:96:VAL:HG21	2.20	0.70
26:Q:243:PHE:CZ	26:Q:287:THR:CB	2.72	0.70
28:S:159:ASN:HB2	28:S:187:ILE:HD11	1.74	0.70
33:X:46:TRP:CE2	33:X:132:SER:HA	2.26	0.70
35:Z:193:PHE:CE2	35:Z:200:THR:HG21	2.26	0.70
35:Z:786:SER:O	35:Z:787:ASP:CB	2.39	0.70
11:B:17:LYS:HD2	11:B:22:ASP:OD2	1.92	0.70
15:F:49:LEU:CD1	15:F:210:ASN:HB3	2.22	0.70
15:F:120:THR:O	16:G:129:ARG:CZ	2.39	0.70
20:K:347:ARG:HH11	26:Q:205:ALA:CB	2.01	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:M:146:VAL:HG12	22:M:158:THR:HG23	1.72	0.70
26:Q:65:TYR:CB	26:Q:74:LEU:HD22	2.22	0.70
31:V:52:LEU:O	31:V:108:TYR:HE1	1.75	0.70
32:W:3:LEU:HB3	32:W:106:GLN:HG2	1.74	0.70
32:W:32:SER:O	32:W:36:ILE:CG1	2.40	0.70
2:2:94:ILE:CG2	3:3:90:ARG:HH21	2.05	0.70
4:4:81:SER:N	4:4:124:LYS:HZ3	1.90	0.70
7:7:170:VAL:HG12	7:7:174:ARG:HH22	1.55	0.70
8:8:484:GLY:HA3	17:H:187:LEU:HA	1.72	0.70
16:G:197:LYS:CD	16:G:241:PHE:HE2	2.04	0.70
19:J:162:GLU:HA	19:J:166:LEU:HD12	1.73	0.70
19:J:216:ALA:O	19:J:219:VAL:HG23	1.90	0.70
24:O:203:THR:O	24:O:204:SER:HB2	1.92	0.70
24:O:223:LEU:O	24:O:279:ILE:HG21	1.92	0.70
26:Q:351:ILE:HG22	26:Q:362:ILE:CD1	2.22	0.70
27:R:94:PHE:CZ	27:R:99:TYR:CE2	2.80	0.70
20:K:300:LEU:O	20:K:333:ARG:NH2	2.18	0.70
21:L:227:GLY:H	22:M:339:ARG:HH22	1.40	0.70
22:M:307:GLU:CG	22:M:311:GLN:HE21	2.05	0.70
23:N:771:PHE:HE2	23:N:885:ILE:CB	2.05	0.70
24:O:79:VAL:HG21	24:O:122:HIS:C	2.11	0.70
24:O:373:TRP:CD1	30:U:200:LEU:CG	2.75	0.70
35:Z:126:TYR:O	35:Z:127:SER:CB	2.38	0.70
17:H:172:MET:CE	18:I:129:TYR:CB	2.70	0.69
17:H:217:GLN:HG3	17:H:376:GLU:CD	2.12	0.69
21:L:259:SER:CB	21:L:303:ARG:CZ	2.69	0.69
21:L:336:ALA:HA	21:L:339:ARG:HE	1.57	0.69
23:N:137:PHE:HE2	23:N:165:ILE:HG13	1.55	0.69
27:R:339:ALA:HB2	27:R:377:LEU:HD22	1.74	0.69
35:Z:924:LYS:HD3	35:Z:958:ASN:OD1	1.92	0.69
7:7:8:TYR:OH	7:7:11:GLY:HA3	1.92	0.69
7:7:85:PHE:HE2	7:7:120:ARG:CZ	2.05	0.69
17:H:95:HIS:HE1	18:I:117:HIS:ND1	1.89	0.69
19:J:350:MET:HG2	19:J:386:VAL:HG13	1.72	0.69
20:K:123:LEU:HD12	20:K:126:LEU:HD11	1.73	0.69
21:L:253:ASP:HA	22:M:256:ILE:HG21	1.73	0.69
23:N:21:LYS:HG3	23:N:55:PHE:CG	2.27	0.69
23:N:49:LEU:HD13	23:N:57:ASP:OD2	1.92	0.69
23:N:414:GLY:HA3	23:N:728:LYS:NZ	2.06	0.69
24:O:358:ILE:CG2	24:O:359:SER:H	2.04	0.69
25:P:265:VAL:HG22	25:P:280:LEU:CD2	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:308:LEU:HD12	27:R:334:ARG:HH11	1.50	0.69
29:T:197:TYR:O	29:T:198:ASP:HB3	1.92	0.69
32:W:20:ASP:O	32:W:21:PHE:HD1	1.76	0.69
33:X:41:GLU:HB2	33:X:45:PHE:N	2.06	0.69
13:D:106:VAL:HG11	13:D:148:TYR:CE2	2.28	0.69
18:I:128:TYR:CD2	18:I:154:MET:HG3	2.27	0.69
18:I:244:PHE:HE1	18:I:246:ARG:CG	2.04	0.69
19:J:37:LYS:HE3	20:K:58:TYR:CE1	2.26	0.69
19:J:167:PRO:CG	19:J:174:PHE:CZ	2.75	0.69
20:K:254:VAL:CG1	20:K:299:LEU:CD2	2.65	0.69
27:R:312:TYR:CE2	34:Y:73:PHE:CD1	2.80	0.69
29:T:249:MET:O	29:T:250:MET:HB3	1.90	0.69
30:U:223:HIS:HE1	30:U:224:THR:OG1	1.67	0.69
31:V:117:TRP:CE2	31:V:196:TYR:HB2	2.24	0.69
35:Z:397:ASP:OD2	35:Z:426:TYR:CE1	2.45	0.69
4:4:37:LEU:HD21	4:4:43:MET:CE	2.23	0.69
13:D:203:VAL:O	13:D:204:GLN:HB2	1.91	0.69
16:G:140:VAL:CG2	16:G:220:LEU:CD2	2.41	0.69
18:I:110:GLU:HB3	18:I:119:ILE:HG23	1.74	0.69
20:K:254:VAL:HG13	20:K:258:PHE:CE1	2.25	0.69
24:O:177:GLN:O	24:O:181:PHE:CD2	2.45	0.69
24:O:344:VAL:CG2	25:P:361:THR:CG2	2.70	0.69
26:Q:253:ASN:ND2	26:Q:258:ALA:HB2	2.06	0.69
29:T:197:TYR:CD2	29:T:235:PHE:CZ	2.74	0.69
30:U:158:PRO:O	30:U:159:CYS:HB2	1.92	0.69
35:Z:193:PHE:HE2	35:Z:200:THR:HG21	1.57	0.69
8:8:320:LYS:HE2	17:H:164:SER:HB2	1.71	0.69
14:E:88:MET:HE1	14:E:142:LEU:CD1	2.21	0.69
16:G:164:THR:HA	16:G:168:ARG:HE	1.56	0.69
19:J:191:PRO:HA	19:J:295:ASN:ND2	2.07	0.69
22:M:228:LYS:HE2	22:M:326:ALA:HB1	1.75	0.69
24:O:188:PHE:HD2	24:O:220:SER:HB3	1.53	0.69
30:U:16:LEU:HD22	31:V:209:GLU:CG	2.22	0.69
35:Z:854:LEU:HD22	35:Z:904:LEU:HD13	1.75	0.69
4:4:43:MET:HG3	4:4:45:PHE:HZ	1.56	0.69
10:A:32:PHE:CZ	20:K:428:LYS:NZ	2.59	0.69
17:H:168:ILE:HG12	17:H:186:PRO:CB	2.23	0.69
19:J:150:VAL:CG2	19:J:153:LEU:HD11	2.18	0.69
20:K:134:SER:HB3	20:K:255:ARG:NH2	2.01	0.69
21:L:132:ARG:CZ	21:L:156:MET:HG2	2.23	0.69
23:N:49:LEU:CD2	23:N:55:PHE:CD1	2.76	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:133:GLU:HG3	25:P:135:GLU:H	1.57	0.69
26:Q:416:VAL:HG21	27:R:403:LEU:HD22	1.74	0.69
32:W:114:VAL:O	32:W:114:VAL:HG12	1.92	0.69
35:Z:189:ALA:CB	35:Z:193:PHE:CD2	2.74	0.69
10:A:104:PHE:CD2	10:A:110:TYR:O	2.45	0.69
11:B:179:TRP:HD1	11:B:183:LEU:HD13	0.69	0.69
17:H:102:CYS:SG	17:H:174:VAL:HG22	2.33	0.69
19:J:219:VAL:CA	20:K:281:ARG:CD	2.71	0.69
23:N:421:ASP:HA	23:N:424:LYS:CE	2.23	0.69
24:O:5:HIS:ND1	24:O:27:GLU:HB3	2.08	0.69
24:O:293:LEU:HG	24:O:297:ILE:HD11	1.74	0.69
27:R:33:LEU:CD1	27:R:43:ARG:HG3	2.23	0.69
27:R:343:GLU:HG2	27:R:392:ARG:HH12	1.58	0.69
29:T:32:ILE:C	29:T:35:ILE:HG22	2.12	0.69
30:U:38:LEU:HB3	30:U:89:LEU:HD23	1.75	0.69
30:U:92:TRP:CE3	30:U:106:ILE:CG2	2.76	0.69
4:4:69:ARG:HG3	13:D:90:ARG:HH11	1.55	0.69
10:A:40:ILE:HD13	10:A:84:ASN:HA	1.75	0.69
12:C:53:THR:OG1	12:C:210:ARG:HG2	1.92	0.69
13:D:157:SER:HB3	13:D:159:TRP:HE1	1.57	0.69
17:H:95:HIS:CE1	18:I:117:HIS:ND1	2.60	0.69
17:H:382:LEU:HD12	17:H:408:SER:HB3	1.72	0.69
18:I:244:PHE:CE1	18:I:246:ARG:CG	2.75	0.69
19:J:167:PRO:HG3	19:J:174:PHE:CZ	2.27	0.69
21:L:426:LYS:HG3	21:L:427:LYS:N	2.08	0.69
22:M:163:PHE:CG	22:M:261:LYS:HE3	2.27	0.69
26:Q:51:ARG:HH22	26:Q:92:LYS:CD	2.00	0.69
30:U:16:LEU:HD22	31:V:209:GLU:HG2	1.73	0.69
32:W:9:VAL:O	32:W:113:PHE:CD2	2.41	0.69
32:W:163:ASN:HB3	32:W:164:PRO:HD2	1.73	0.69
33:X:85:ARG:NH1	33:X:106:SER:HB3	2.07	0.69
1:1:45:ARG:HH22	1:1:53:GLN:CB	2.03	0.69
10:A:53:VAL:HG11	10:A:82:VAL:HG21	1.74	0.69
12:C:98:TYR:CE1	12:C:105:ASP:C	2.67	0.69
12:C:160:TRP:CH2	12:C:163:ILE:HD13	2.27	0.69
20:K:347:ARG:HH11	26:Q:205:ALA:HB3	1.55	0.69
24:O:66:VAL:CG1	24:O:106:PHE:CZ	2.75	0.69
24:O:79:VAL:CG2	24:O:122:HIS:CG	2.76	0.69
24:O:230:PHE:CE1	24:O:251:LEU:CG	2.50	0.69
30:U:35:GLY:HA3	30:U:93:TYR:HB3	1.73	0.69
31:V:118:LEU:HD13	31:V:140:VAL:CB	2.15	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:7:-3:VAL:HG12	7:7:49:ILE:CG1	2.22	0.69
8:8:283:LYS:H	9:9:12:THR:H	1.41	0.69
16:G:98:PHE:CE2	16:G:106:ILE:HA	2.28	0.69
16:G:174:GLU:HB2	16:G:201:LEU:HD23	1.74	0.69
22:M:162:GLU:HB2	22:M:166:ARG:HE	1.58	0.69
24:O:79:VAL:HG21	24:O:123:GLY:N	2.08	0.69
25:P:203:ILE:HG21	25:P:220:TYR:CE1	2.27	0.69
25:P:425:HIS:CD2	30:U:225:ILE:HG12	2.28	0.69
30:U:37:ILE:HD13	30:U:121:LEU:HD12	1.75	0.69
35:Z:64:TYR:OH	35:Z:115:LEU:HD22	1.92	0.69
8:8:116:ASN:CA	9:9:76:GLZ:CA	2.71	0.68
12:C:115:LEU:CD1	12:C:137:TYR:OH	2.41	0.68
23:N:399:PHE:CE1	23:N:441:VAL:HG23	1.94	0.68
25:P:241:LEU:HD13	25:P:264:ILE:HG12	1.75	0.68
26:Q:14:LEU:HD13	26:Q:26:VAL:HG23	1.73	0.68
26:Q:174:LEU:CD1	26:Q:178:HIS:CE1	2.76	0.68
15:F:49:LEU:HD12	15:F:210:ASN:HB3	1.75	0.68
18:I:222:TYR:CE1	18:I:349:LEU:HA	2.28	0.68
23:N:365:PHE:CZ	23:N:406:TYR:CB	2.75	0.68
26:Q:269:LYS:HZ1	26:Q:281:ILE:HD11	1.55	0.68
27:R:353:MET:HA	27:R:357:PHE:CG	2.27	0.68
28:S:230:LYS:HE3	28:S:234:ILE:HD11	1.75	0.68
28:S:471:LEU:HB2	30:U:288:PHE:CZ	2.28	0.68
32:W:71:LYS:HA	32:W:74:ALA:CB	2.22	0.68
35:Z:230:ILE:HG22	35:Z:231:ASP:N	2.07	0.68
2:2:8:PHE:CE2	2:2:11:GLY:HA3	2.27	0.68
6:6:116:PHE:CD2	6:6:122:TYR:HB3	2.28	0.68
14:E:204:LEU:O	14:E:208:MET:HG3	1.92	0.68
16:G:140:VAL:HB	16:G:220:LEU:HD21	1.76	0.68
18:I:182:SER:O	18:I:360:LYS:HE2	1.93	0.68
24:O:230:PHE:CD1	24:O:251:LEU:HD11	2.29	0.68
31:V:109:HIS:CE1	31:V:122:ASP:OD1	2.46	0.68
31:V:117:TRP:CZ2	31:V:196:TYR:CA	2.72	0.68
32:W:101:ARG:NH1	32:W:104:LYS:HG2	2.02	0.68
7:7:92:MET:CE	7:7:102:LEU:HD23	2.24	0.68
11:B:75:TYR:HB3	11:B:134:LEU:HD23	1.73	0.68
11:B:231:LYS:HD3	11:B:234:ARG:HH22	1.57	0.68
16:G:114:ARG:O	16:G:118:TYR:CD2	2.47	0.68
19:J:37:LYS:HE3	20:K:58:TYR:OH	1.94	0.68
19:J:40:ASN:CB	20:K:65:GLU:OE2	2.40	0.68
24:O:325:GLU:O	24:O:329:MET:CG	2.40	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:418:GLY:O	28:S:475:TYR:HE1	1.77	0.68
35:Z:103:TYR:HA	35:Z:112:LYS:CG	2.23	0.68
5:5:83:LEU:O	5:5:87:VAL:HG23	1.93	0.68
5:5:83:LEU:HD11	5:5:97:MET:CE	2.23	0.68
8:8:217:LEU:O	8:8:221[B]:MSE:HG2	1.94	0.68
19:J:333:ARG:HH12	19:J:343:LEU:CD1	2.04	0.68
21:L:132:ARG:NH2	21:L:149:ASP:OD1	2.27	0.68
21:L:379:ALA:HA	21:L:382:MET:CE	2.24	0.68
22:M:216:LYS:NZ	22:M:320:ARG:H	1.92	0.68
22:M:415:PHE:CE1	22:M:419:ILE:HD11	2.27	0.68
23:N:52:ASP:O	23:N:53:ASP:CB	2.41	0.68
24:O:230:PHE:CE1	24:O:251:LEU:CD1	2.76	0.68
27:R:422:ARG:NH1	28:S:301:PRO:HG3	2.04	0.68
33:X:33:ILE:HG13	33:X:48:PHE:CZ	2.28	0.68
35:Z:193:PHE:CE2	35:Z:196:SER:CA	2.76	0.68
35:Z:312:TYR:CE1	35:Z:348:LEU:O	2.46	0.68
35:Z:325:GLY:O	35:Z:326:VAL:CG2	2.41	0.68
4:4:36:GLN:NE2	4:4:39:PRO:HA	2.06	0.68
12:C:213:PHE:HE2	12:C:230:PHE:CE2	2.11	0.68
19:J:119:SER:O	19:J:120:TYR:CG	2.47	0.68
20:K:331:PRO:HA	20:K:335:ASP:OD1	1.93	0.68
21:L:252:VAL:CG1	22:M:256:ILE:HD11	1.87	0.68
22:M:75:LEU:CD2	22:M:77:TYR:HE1	2.06	0.68
23:N:405:LEU:HD11	23:N:426:ILE:HD13	1.76	0.68
23:N:525:ASN:ND2	23:N:535:LEU:HD23	2.09	0.68
26:Q:85:MET:HE2	26:Q:93:THR:HG23	1.76	0.68
26:Q:326:MET:HE2	26:Q:332:ARG:HD2	1.74	0.68
29:T:199:PHE:O	29:T:200:LEU:CD2	2.41	0.68
32:W:180:LEU:HA	32:W:183:GLU:CD	2.14	0.68
35:Z:321:PHE:CZ	35:Z:351:PRO:HD3	2.27	0.68
6:6:66:TYR:HE2	6:6:73:LYS:O	1.77	0.68
17:H:155:PHE:CD1	22:M:76:PRO:HA	2.28	0.68
23:N:238:ALA:O	23:N:242:PHE:CD2	2.46	0.68
25:P:147:LYS:NZ	25:P:159:ILE:HG13	2.09	0.68
27:R:191:LEU:CB	27:R:213:TYR:HE2	2.06	0.68
28:S:185:PHE:HD1	28:S:239:ARG:CZ	2.07	0.68
31:V:113:GLY:HA2	31:V:118:LEU:CD2	2.24	0.68
32:W:20:ASP:O	32:W:21:PHE:CD1	2.47	0.68
35:Z:737:ALA:HB1	35:Z:775:MET:CE	2.24	0.68
35:Z:924:LYS:CB	35:Z:959:HIS:ND1	2.57	0.68
8:8:133:LEU:HD11	8:8:221[A]:MSE:SE	2.44	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:8:264:HIS:HE1	9:9:10:GLY:HA2	1.52	0.68
8:8:329:ILE:CA	17:H:163:VAL:HG23	1.88	0.68
17:H:187:LEU:HD22	18:I:115:ASP:OD1	1.94	0.68
20:K:68:ILE:CD1	23:N:608:LEU:CD2	2.72	0.68
20:K:254:VAL:HG13	20:K:299:LEU:HD23	1.76	0.68
20:K:350:ARG:NH2	26:Q:215:VAL:CG1	2.57	0.68
24:O:205:ILE:HD12	24:O:210:ARG:CD	2.22	0.68
25:P:134:VAL:HG23	25:P:138:ARG:NH1	2.08	0.68
25:P:302:LEU:CB	25:P:310:ARG:HH21	2.07	0.68
28:S:286:TYR:OH	28:S:323:LEU:HD22	1.94	0.68
28:S:465:ILE:HG13	29:T:266:TYR:HE2	1.56	0.68
31:V:133:ASN:O	31:V:134:SER:CB	2.42	0.68
33:X:41:GLU:HG3	33:X:45:PHE:CB	2.23	0.68
1:1:19:ARG:HH11	1:1:29:ARG:HG3	1.53	0.68
4:4:80:SER:CB	4:4:124:LYS:HD2	2.15	0.68
17:H:243:PRO:HG2	17:H:373:ARG:HE	1.58	0.68
20:K:99:PHE:CE1	20:K:101:GLU:O	2.47	0.68
24:O:306:ARG:CG	24:O:350:ILE:O	2.40	0.68
27:R:259:PHE:CD2	27:R:329:PHE:CD1	2.82	0.68
3:3:179:TYR:HE2	3:3:188:LYS:HD2	1.58	0.68
7:7:17:ASP:O	7:7:33:ARG:HD3	1.94	0.68
10:A:21:PRO:HB2	10:A:22:GLU:OE2	1.93	0.68
11:B:221:LEU:O	11:B:233:PRO:HD2	1.93	0.68
14:E:107:ILE:HD13	14:E:112:LEU:HD21	1.76	0.68
23:N:14:ARG:CB	29:T:80:ASN:HD21	2.06	0.68
23:N:214:LEU:HD12	23:N:217:MET:HE3	1.75	0.68
30:U:283:ARG:NH2	31:V:283:THR:HG22	2.07	0.68
35:Z:321:PHE:CZ	35:Z:351:PRO:N	2.62	0.68
5:5:40:PHE:CD2	5:5:41:LEU:HG	2.29	0.67
7:7:8:TYR:CE2	7:7:11:GLY:N	2.62	0.67
11:B:27:ALA:HB1	20:K:426:PHE:HE1	1.57	0.67
17:H:207:THR:CG2	17:H:208:TYR:CD2	2.77	0.67
19:J:113:VAL:HG21	19:J:122:LEU:HD22	1.76	0.67
24:O:373:TRP:CZ3	30:U:233:PHE:HB2	2.25	0.67
29:T:242:LYS:HG3	29:T:242:LYS:O	1.95	0.67
29:T:245:TYR:O	29:T:246:GLU:HB3	1.92	0.67
33:X:75:TRP:CH2	33:X:125:MET:HG3	2.29	0.67
35:Z:185:ASP:CG	35:Z:186:GLY:H	1.97	0.67
35:Z:510:LEU:CD1	35:Z:542:ILE:HG12	2.18	0.67
35:Z:963:ALA:O	35:Z:964:GLU:CD	2.33	0.67
7:7:119:LEU:HG	7:7:134:LEU:HD12	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:A:135:ARG:HE	16:G:124:LEU:HD23	1.57	0.67
23:N:574:VAL:HG13	23:N:578:ASP:OD2	1.95	0.67
24:O:124:ASP:CB	24:O:127:LEU:HD13	2.21	0.67
24:O:185:PHE:HD2	24:O:220:SER:HA	1.58	0.67
25:P:121:THR:HG22	25:P:122:ILE:HG23	1.75	0.67
28:S:404:LEU:HG	28:S:408:CYS:SG	2.34	0.67
30:U:16:LEU:HD23	31:V:209:GLU:HG2	1.75	0.67
32:W:37:PHE:CZ	32:W:49:VAL:CG1	2.77	0.67
35:Z:329:ILE:HD11	35:Z:335:LEU:HB3	1.74	0.67
7:7:85:PHE:CE2	7:7:120:ARG:CD	2.77	0.67
20:K:346:ARG:CZ	20:K:372:ILE:HD13	2.25	0.67
21:L:370:LYS:HD2	21:L:374:PHE:CZ	2.28	0.67
22:M:257:GLY:O	22:M:260:ALA:HB3	1.95	0.67
22:M:410:VAL:CG1	22:M:414:ASP:HB2	2.24	0.67
24:O:42:SER:C	24:O:46:THR:CB	2.61	0.67
25:P:302:LEU:HB2	25:P:310:ARG:NH2	2.08	0.67
25:P:433:ILE:HD11	30:U:203:LYS:HD2	1.76	0.67
27:R:135:ILE:HA	27:R:154:LEU:HD13	1.76	0.67
31:V:244:MET:O	31:V:247:ILE:HG22	1.93	0.67
35:Z:133:ASP:CA	35:Z:137:TYR:CG	2.73	0.67
35:Z:758:LEU:HD22	35:Z:791:LYS:CD	2.20	0.67
3:3:179:TYR:CZ	3:3:188:LYS:HE3	2.30	0.67
13:D:11:PHE:CE1	14:E:136:ARG:HB2	2.29	0.67
15:F:201:LEU:HD13	15:F:206:LEU:HD12	1.71	0.67
16:G:121:ALA:O	16:G:125:TYR:CD1	2.44	0.67
17:H:105:ILE:HD13	17:H:146:VAL:HA	1.76	0.67
18:I:176:SER:O	19:J:282:PHE:CD1	2.48	0.67
22:M:50:ARG:N	32:W:73:LEU:HD13	2.09	0.67
23:N:596:LEU:HD23	23:N:628:ALA:HA	1.75	0.67
35:Z:401:VAL:HG21	35:Z:426:TYR:OH	1.92	0.67
1:1:14:LEU:CD1	1:1:44:CYS:SG	2.78	0.67
1:1:124:TYR:CE1	1:1:142:PHE:CD2	2.83	0.67
4:4:43:MET:SD	4:4:45:PHE:CZ	2.85	0.67
6:6:48:PHE:CZ	6:6:50:ALA:HB3	2.28	0.67
7:7:39:ASP:HA	7:7:198:LEU:HD22	1.76	0.67
15:F:84:LEU:HD21	15:F:128:TYR:CE2	2.29	0.67
18:I:247:ILE:HD13	18:I:267:ILE:HD13	1.75	0.67
19:J:45:GLU:OE1	23:N:608:LEU:HD11	1.94	0.67
23:N:479:GLU:CD	23:N:512:ASN:OD1	2.33	0.67
24:O:137:TYR:CB	24:O:149:LEU:HD11	2.23	0.67
24:O:166:ARG:HH21	24:O:169:ASN:CB	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:S:223:LEU:HD13	28:S:259:TYR:HE1	1.59	0.67
32:W:143:ASN:CG	32:W:173:THR:HG23	2.14	0.67
35:Z:970:TYR:HH	35:Z:992:GLU:C	1.97	0.67
10:A:104:PHE:CE2	10:A:111:ASP:O	2.47	0.67
15:F:198:SER:HB3	15:F:206:LEU:CD2	2.23	0.67
20:K:200:GLN:HA	27:R:204:TRP:CZ2	2.29	0.67
24:O:269:LEU:CD2	24:O:270:ILE:HG13	2.24	0.67
24:O:362:GLN:O	24:O:366:MET:HG3	1.95	0.67
26:Q:429:LYS:CE	31:V:269:ARG:HH22	2.08	0.67
35:Z:126:TYR:O	35:Z:127:SER:OG	2.10	0.67
10:A:46:ARG:NE	10:A:152:PRO:HB2	2.09	0.67
15:F:117:GLN:NE2	15:F:121:GLN:HE21	1.92	0.67
26:Q:85:MET:HE2	26:Q:93:THR:CA	2.24	0.67
31:V:53:MET:HE2	31:V:65:VAL:HG11	1.77	0.67
6:6:63:VAL:O	6:6:67:HIS:HD2	1.77	0.67
8:8:116:ASN:CB	9:9:76:GLZ:HA1	2.25	0.67
12:C:106:ILE:HG12	12:C:107:PRO:O	1.95	0.67
12:C:149:TYR:OH	13:D:59:ILE:CB	2.42	0.67
13:D:92:GLU:OE2	13:D:108:TYR:HE2	1.77	0.67
14:E:18:GLU:HB3	15:F:31:GLN:HE22	1.60	0.67
16:G:8:ASP:OD1	16:G:9:LEU:HG	1.95	0.67
17:H:198:MET:HE2	17:H:272:ILE:CG2	2.25	0.67
20:K:350:ARG:HH21	26:Q:215:VAL:CG1	2.07	0.67
22:M:44:PHE:HE2	24:O:110:ASP:O	1.76	0.67
23:N:15:GLU:O	23:N:16:ASN:CB	2.43	0.67
23:N:19:SER:HB2	29:T:35:ILE:HG21	1.75	0.67
23:N:52:ASP:OD1	23:N:54:THR:HG23	1.95	0.67
24:O:41:LEU:HD11	24:O:47:LYS:HE2	1.76	0.67
27:R:181:TYR:CD2	27:R:183:ASP:HB2	2.30	0.67
27:R:207:ARG:NH1	27:R:211:LYS:NZ	2.43	0.67
28:S:191:HIS:CD2	28:S:206:GLN:HG3	2.30	0.67
35:Z:146:PHE:O	35:Z:210:TYR:CE2	2.48	0.67
12:C:33:GLY:HA3	12:C:65:LYS:NZ	2.10	0.67
12:C:160:TRP:CZ2	12:C:163:ILE:HD13	2.30	0.67
14:E:17:PRO:HA	15:F:24:TYR:CE1	2.30	0.67
21:L:193:LEU:HD21	21:L:220:LEU:HD21	1.76	0.67
23:N:298:TYR:OH	23:N:766:GLN:OE1	2.13	0.67
25:P:286:ASN:CA	25:P:293:LEU:HD11	2.25	0.67
29:T:199:PHE:O	29:T:200:LEU:CG	2.42	0.67
29:T:224:ARG:HG2	29:T:242:LYS:HG2	1.76	0.67
30:U:18:ALA:HB3	30:U:125:VAL:HG11	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:W:143:ASN:O	32:W:174:VAL:O	2.12	0.67
2:2:186:TYR:CE2	2:2:188:ARG:HB2	2.29	0.67
3:3:179:TYR:CE2	3:3:188:LYS:HG3	2.30	0.67
8:8:118:CYS:SG	9:9:76:GLZ:C	2.83	0.67
8:8:485:GLU:H	17:H:187:LEU:HD23	1.59	0.67
11:B:66:LEU:HD13	11:B:235:PHE:CG	2.30	0.67
19:J:220:GLN:HE22	20:K:293:GLN:HE22	1.39	0.67
22:M:200:PRO:HB2	22:M:319:ASP:OD2	1.95	0.67
24:O:185:PHE:CB	24:O:223:LEU:CB	2.66	0.67
25:P:221:TYR:HE2	25:P:244:ILE:CB	2.08	0.67
25:P:245:TYR:HD1	25:P:257:TRP:HE1	1.32	0.67
25:P:347:GLU:O	25:P:351:ARG:HG3	1.95	0.67
27:R:63:TYR:HH	27:R:92:ILE:C	1.98	0.67
28:S:471:LEU:CB	30:U:288:PHE:CZ	2.78	0.67
29:T:197:TYR:O	29:T:198:ASP:CB	2.43	0.67
33:X:66:LEU:CD1	33:X:97:TYR:CB	2.73	0.67
35:Z:889:VAL:HG22	35:Z:891:PRO:HD2	1.77	0.67
1:1:-8:LYS:HE3	1:1:51:ASP:OD1	1.95	0.66
4:4:26:VAL:HG13	4:4:28:LYS:O	1.93	0.66
19:J:27:ILE:HG12	20:K:51:LEU:CG	2.25	0.66
22:M:357:ARG:HG2	22:M:391:LEU:HD11	1.77	0.66
23:N:508:THR:HG21	23:N:513:ILE:HB	1.77	0.66
24:O:42:SER:O	24:O:46:THR:HG21	1.89	0.66
27:R:125:GLU:OE1	27:R:127:GLU:N	2.27	0.66
27:R:137:LEU:HD11	27:R:141:TYR:CZ	2.29	0.66
35:Z:236:PHE:CE2	35:Z:245:VAL:HG22	2.30	0.66
4:4:81:SER:HA	4:4:124:LYS:HZ3	1.61	0.66
10:A:207:ILE:CG2	10:A:211:ILE:HD11	2.25	0.66
20:K:124:SER:O	20:K:127:ASP:OD1	2.13	0.66
22:M:379:LEU:HD13	22:M:415:PHE:CD1	2.30	0.66
23:N:190:LEU:HD13	23:N:224:THR:HG23	1.77	0.66
24:O:62:TYR:CE2	24:O:82:LEU:CD2	2.58	0.66
25:P:241:LEU:CA	25:P:244:ILE:HG22	2.25	0.66
26:Q:138:SER:CB	26:Q:161:LEU:HD11	2.25	0.66
26:Q:138:SER:HB3	26:Q:161:LEU:HD11	1.76	0.66
28:S:315:LYS:HG2	28:S:345:TYR:OH	1.94	0.66
31:V:51:GLY:HA2	31:V:71:MET:HG2	1.76	0.66
32:W:52:ILE:HD13	32:W:94:ALA:HB2	1.77	0.66
17:H:410:LEU:HB2	17:H:447:VAL:HG11	1.77	0.66
20:K:244:HIS:HB2	21:L:256:ILE:HG12	1.76	0.66
26:Q:269:LYS:HZ2	26:Q:281:ILE:CD1	2.09	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:238:PHE:HD2	27:R:244:THR:HG21	1.61	0.66
29:T:227:PRO:HD3	29:T:241:GLU:OE2	1.95	0.66
29:T:241:GLU:CA	29:T:246:GLU:HB2	2.22	0.66
33:X:46:TRP:CB	33:X:68:LEU:HD13	2.24	0.66
35:Z:491:LEU:CD1	35:Z:900:LEU:CD1	2.67	0.66
35:Z:867:PHE:CD2	35:Z:871:HIS:HA	2.31	0.66
1:1:19:ARG:HH11	1:1:29:ARG:CA	2.06	0.66
7:7:8:TYR:CD2	7:7:10:ASN:OD1	2.47	0.66
12:C:53:THR:HB	12:C:59:GLN:NE2	2.10	0.66
13:D:106:VAL:HG11	13:D:148:TYR:HE2	1.59	0.66
19:J:301:ASP:H	19:J:304:LEU:CD1	2.02	0.66
23:N:514:THR:CG2	23:N:546:LEU:CD1	2.73	0.66
1:1:13:ILE:HD12	1:1:177:VAL:HG22	1.77	0.66
8:8:283:LYS:H	9:9:12:THR:CB	2.01	0.66
13:D:172:ARG:O	13:D:176:GLU:HG3	1.96	0.66
14:E:219:LEU:CD1	14:E:239:LEU:HD23	2.26	0.66
17:H:244:LYS:HE2	17:H:340:LEU:O	1.94	0.66
18:I:199:GLU:HG3	18:I:236:VAL:HG13	1.77	0.66
20:K:281:ARG:NH1	20:K:287:GLY:N	2.43	0.66
22:M:123:SER:O	22:M:125:GLN:HG3	1.96	0.66
23:N:458:ALA:HB2	23:N:492:THR:OG1	1.95	0.66
23:N:771:PHE:CD2	23:N:772:GLN:O	2.49	0.66
25:P:213:TYR:CE2	25:P:217:LYS:HE3	2.30	0.66
26:Q:269:LYS:NZ	26:Q:281:ILE:CD1	2.57	0.66
27:R:176:ARG:HB2	27:R:243:LEU:HD11	1.76	0.66
31:V:79:SER:HA	31:V:121:VAL:CG1	2.26	0.66
7:7:10:ASN:HD22	7:7:195:ASN:ND2	1.94	0.66
15:F:65:LYS:HD3	15:F:222:PHE:CD2	2.29	0.66
17:H:96:PRO:HA	17:H:193:PRO:CG	2.19	0.66
22:M:379:LEU:HD22	22:M:415:PHE:CE1	2.31	0.66
24:O:225:ASP:O	24:O:226:LYS:HG3	1.96	0.66
26:Q:151:TYR:CE2	26:Q:187:LYS:HB3	2.29	0.66
30:U:18:ALA:CB	30:U:93:TYR:OH	2.41	0.66
30:U:280:ASN:HD21	31:V:291:ASN:CG	1.99	0.66
33:X:66:LEU:CD1	33:X:99:PHE:CE1	2.79	0.66
35:Z:72:LYS:CE	35:Z:117:ASP:OD2	2.43	0.66
35:Z:192:GLY:O	35:Z:193:PHE:HB2	1.96	0.66
35:Z:427:GLN:HG2	35:Z:428:TRP:CD2	2.31	0.66
1:1:-5:GLU:H	2:2:116:HIS:CE1	2.14	0.66
20:K:113:THR:C	20:K:252:ARG:HH12	1.98	0.66
20:K:353:PHE:HD1	20:K:387:MET:SD	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:514:THR:CG2	23:N:546:LEU:HD12	2.25	0.66
24:O:106:PHE:O	24:O:107:GLN:CB	2.43	0.66
24:O:214:ALA:HB1	24:O:248:TYR:CZ	2.29	0.66
32:W:52:ILE:HG22	32:W:61:VAL:HG22	1.77	0.66
33:X:46:TRP:CZ2	33:X:132:SER:N	2.64	0.66
35:Z:562:TRP:CH2	35:Z:566:LEU:HD22	2.31	0.66
3:3:75:PRO:CB	3:3:111:PHE:CD2	2.79	0.66
7:7:85:PHE:CE2	7:7:120:ARG:NE	2.63	0.66
7:7:201:LYS:CB	7:7:204:LEU:HD11	2.26	0.66
8:8:326:LYS:HZ1	9:9:74:ARG:HE	1.40	0.66
11:B:180:ASN:O	11:B:181:ASP:HB2	1.95	0.66
15:F:50:LYS:HE3	15:F:212:SER:HB3	1.77	0.66
18:I:96:LEU:O	18:I:99:ILE:HG22	1.96	0.66
24:O:202:SER:O	24:O:203:THR:CG2	2.44	0.66
26:Q:331:THR:HG22	26:Q:335:PHE:CD2	2.30	0.66
27:R:208:ASN:ND2	27:R:238:PHE:CB	2.56	0.66
35:Z:357:ILE:HG12	35:Z:960:GLY:HA3	1.78	0.66
35:Z:756:MET:CE	35:Z:759:ARG:HE	2.08	0.66
7:7:-3:VAL:HG12	7:7:49:ILE:HG12	1.77	0.66
16:G:60:PRO:HB2	16:G:61:GLN:OE1	1.96	0.66
17:H:249:TYR:HE2	17:H:374:LYS:HG2	1.61	0.66
18:I:135:PHE:CD2	18:I:159:VAL:HG22	2.31	0.66
18:I:362:LEU:HG	18:I:377:LEU:HD22	1.77	0.66
28:S:214:MET:CE	28:S:236:LEU:HD13	2.26	0.66
29:T:241:GLU:N	29:T:246:GLU:HB2	2.10	0.66
1:1:1:THR:HG22	1:1:129:SER:N	2.09	0.66
4:4:81:SER:CA	4:4:124:LYS:HZ3	2.08	0.66
17:H:174:VAL:HG12	17:H:183:ILE:HG21	1.76	0.66
20:K:68:ILE:CG1	23:N:608:LEU:HD21	2.23	0.66
20:K:140:HIS:HE1	20:K:142:HIS:HB2	1.60	0.66
21:L:270:ALA:HB1	21:L:276:CYS:SG	2.36	0.66
23:N:176:GLN:HE21	23:N:182:ASN:ND2	1.93	0.66
26:Q:195:LYS:HE3	26:Q:229:ASP:OD2	1.96	0.66
28:S:237:ILE:HG21	28:S:253:PHE:CE1	2.31	0.66
30:U:40:ASP:CB	30:U:47:ARG:NH2	2.59	0.66
35:Z:862:MET:SD	35:Z:910:PRO:HG3	2.36	0.66
1:1:102:TYR:OH	1:1:180:ALA:HB2	1.96	0.65
2:2:104:ASP:CG	2:2:106:THR:HG1	2.00	0.65
11:B:189:ILE:HG21	11:B:246:ARG:HD3	1.77	0.65
22:M:379:LEU:HD13	22:M:415:PHE:CE1	2.31	0.65
23:N:17:GLN:O	23:N:20:VAL:HG22	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:223:LEU:CD1	24:O:277:ILE:CD1	2.71	0.65
24:O:300:VAL:CG1	24:O:301:PHE:CE2	2.79	0.65
25:P:296:GLN:O	25:P:300:VAL:HG23	1.96	0.65
26:Q:61:LEU:CB	26:Q:65:TYR:CE2	2.70	0.65
28:S:188:TYR:CZ	28:S:210:LEU:CD1	2.77	0.65
29:T:89:TYR:CE1	29:T:102:LYS:NZ	2.62	0.65
33:X:87:PHE:CE2	33:X:125:MET:SD	2.89	0.65
35:Z:357:ILE:HD11	35:Z:914:LEU:CD1	2.18	0.65
35:Z:453:LEU:HD11	35:Z:899:GLN:CG	2.26	0.65
35:Z:862:MET:CE	35:Z:910:PRO:HG3	2.26	0.65
5:5:181:THR:OG1	5:5:184:GLY:O	2.11	0.65
7:7:201:LYS:HB2	7:7:204:LEU:HD11	1.77	0.65
8:8:116:ASN:CA	9:9:76:GLZ:HA1	2.26	0.65
8:8:283:LYS:C	9:9:12:THR:C	2.54	0.65
8:8:327:SER:OG	17:H:164:SER:CB	2.41	0.65
17:H:167:ASP:HB3	17:H:186:PRO:CG	2.26	0.65
18:I:122:SER:HB3	18:I:126:PRO:O	1.96	0.65
19:J:27:ILE:HG12	20:K:51:LEU:CD2	2.26	0.65
19:J:37:LYS:HG3	20:K:58:TYR:CE1	2.32	0.65
24:O:269:LEU:HD22	24:O:270:ILE:HG13	1.78	0.65
30:U:275:VAL:HG13	31:V:251:TYR:OH	1.94	0.65
5:5:114:TYR:CE1	5:5:129:VAL:HG21	2.31	0.65
11:B:4:ARG:HH11	13:D:3:GLY:HA3	1.60	0.65
16:G:61:GLN:HA	16:G:64:VAL:HG23	1.79	0.65
20:K:156:SER:HA	21:L:126:ARG:NH1	2.11	0.65
20:K:158:ILE:N	21:L:256:ILE:HG22	2.10	0.65
21:L:249:SER:O	21:L:252:VAL:N	2.29	0.65
22:M:163:PHE:CD1	22:M:261:LYS:HG2	2.31	0.65
23:N:202:PHE:CZ	23:N:206:ILE:HD11	2.32	0.65
23:N:300:ASN:HD22	23:N:920:VAL:HG11	1.59	0.65
23:N:322:ASP:HB2	23:N:689:LYS:HZ1	1.59	0.65
23:N:405:LEU:CD1	23:N:426:ILE:HD13	2.26	0.65
23:N:406:TYR:HE1	23:N:448:LEU:CD1	1.92	0.65
24:O:124:ASP:HB2	24:O:127:LEU:HD22	1.79	0.65
28:S:468:ALA:O	28:S:472:HIS:HB2	1.96	0.65
29:T:55:LEU:HG	29:T:59:LYS:CE	2.12	0.65
30:U:288:PHE:HA	30:U:291:LEU:HD12	1.78	0.65
32:W:87:MET:HB3	32:W:120:ASP:OD2	1.97	0.65
17:H:410:LEU:HD11	17:H:444:LEU:CD2	2.26	0.65
18:I:176:SER:HB2	19:J:282:PHE:CE1	2.31	0.65
19:J:37:LYS:CE	20:K:58:TYR:OH	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:L:132:ARG:NH1	21:L:156:MET:HG2	2.11	0.65
23:N:329:HIS:ND1	23:N:355:TRP:CE3	2.65	0.65
23:N:399:PHE:CE1	23:N:441:VAL:CB	2.73	0.65
24:O:347:LEU:HB3	24:O:349:THR:CG2	2.26	0.65
26:Q:31:LEU:CG	26:Q:50:ARG:NH2	2.55	0.65
27:R:94:PHE:HE2	27:R:96:GLN:CG	2.08	0.65
30:U:38:LEU:HB2	30:U:88:LYS:C	2.17	0.65
30:U:283:ARG:HH11	31:V:284:ALA:CA	2.10	0.65
35:Z:286:VAL:O	35:Z:287:ARG:CB	2.37	0.65
11:B:14:PRO:HA	12:C:24:TYR:CZ	2.32	0.65
14:E:157:HIS:HB2	14:E:170:LYS:HD3	1.77	0.65
16:G:98:PHE:HE2	16:G:105:PRO:O	1.78	0.65
16:G:166:LYS:NZ	16:G:206:ASN:HA	2.11	0.65
22:M:217:GLY:HA3	22:M:343:LEU:HD23	1.78	0.65
24:O:11:LEU:CB	24:O:43:GLU:OE1	2.40	0.65
24:O:196:LEU:HD13	24:O:213:LEU:HD23	1.79	0.65
29:T:209:LEU:HB3	29:T:211:PHE:CZ	2.30	0.65
31:V:104:VAL:HG11	31:V:107:TRP:NE1	2.11	0.65
35:Z:453:LEU:HD11	35:Z:899:GLN:HG2	1.78	0.65
5:5:8:PHE:HZ	5:5:13:ILE:HD11	1.55	0.65
6:6:115:SER:CB	6:6:128:ARG:HH11	2.08	0.65
11:B:4:ARG:CG	15:F:123:TYR:OH	2.43	0.65
13:D:37:LYS:HE2	13:D:145:PRO:HB2	1.77	0.65
15:F:165:SER:O	15:F:169:LYS:HG3	1.96	0.65
21:L:357:ARG:O	21:L:360:ILE:HG22	1.97	0.65
22:M:379:LEU:CD2	22:M:415:PHE:CD1	2.77	0.65
23:N:666:GLN:HA	23:N:873:ARG:HH21	1.59	0.65
24:O:48:PHE:CE1	24:O:80:LYS:HD3	2.32	0.65
24:O:119:SER:CB	24:O:166:ARG:HD3	2.26	0.65
26:Q:425:GLN:OE1	31:V:265:GLU:OE1	2.14	0.65
27:R:194:VAL:HG13	27:R:206:ARG:HH21	1.60	0.65
27:R:259:PHE:O	27:R:259:PHE:CD1	2.50	0.65
32:W:44:ASN:HB2	32:W:47:ASN:HD21	1.62	0.65
35:Z:493:LEU:HD11	35:Z:497:PHE:HD2	1.61	0.65
2:2:205:PHE:HZ	3:3:144:LEU:HD22	1.62	0.65
4:4:80:SER:C	4:4:124:LYS:HZ3	2.00	0.65
14:E:72:ARG:HG3	14:E:72:ARG:O	1.96	0.65
17:H:430:ALA:HA	17:H:435:ARG:NH2	2.11	0.65
20:K:352:ILE:CG2	20:K:383:ILE:HG22	2.27	0.65
21:L:77:ARG:HD3	21:L:80:ASN:HD22	1.61	0.65
22:M:161:SER:O	22:M:166:ARG:NH2	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:M:361:LEU:O	22:M:376:TRP:CZ2	2.50	0.65
23:N:50:TYR:O	23:N:58:ARG:HG3	1.97	0.65
23:N:329:HIS:CE1	23:N:355:TRP:HE3	2.05	0.65
23:N:338:PHE:CZ	23:N:749:LEU:HB3	2.32	0.65
27:R:183:ASP:OD2	27:R:186:TYR:N	2.27	0.65
27:R:353:MET:HE2	27:R:364:LEU:HD21	0.83	0.65
8:8:326:LYS:HZ1	9:9:74:ARG:HH21	1.37	0.65
12:C:106:ILE:CD1	12:C:111:LEU:HB2	2.25	0.65
15:F:13:PHE:CE2	16:G:129:ARG:HG2	2.31	0.65
18:I:75:PHE:CD2	18:I:76:VAL:CG2	2.74	0.65
20:K:349:ARG:HH11	20:K:377:SER:H	1.42	0.65
22:M:357:ARG:NH2	22:M:386:PHE:N	2.44	0.65
24:O:105:GLN:HG3	24:O:108:GLU:OE1	1.95	0.65
25:P:203:ILE:HG21	25:P:220:TYR:CD1	2.31	0.65
25:P:260:VAL:HG22	25:P:328:ALA:HB2	1.79	0.65
25:P:286:ASN:HA	25:P:293:LEU:HD11	1.79	0.65
1:1:98:ILE:HD11	1:1:127:ALA:HB3	1.79	0.65
2:2:104:ASP:OD2	2:2:106:THR:OG1	2.14	0.65
4:4:11:SER:HB2	4:4:182:ILE:HG23	1.78	0.65
10:A:57:LYS:NZ	10:A:69:VAL:CB	2.57	0.65
17:H:307:PHE:CE1	17:H:309:ASP:OD1	2.48	0.65
23:N:239:LEU:HD11	23:N:243:LYS:HE3	1.78	0.65
23:N:399:PHE:CD1	23:N:441:VAL:CG1	2.68	0.65
24:O:79:VAL:HG21	24:O:122:HIS:CG	2.31	0.65
28:S:321:GLN:HG3	28:S:326:ASP:O	1.96	0.65
35:Z:133:ASP:OD1	35:Z:134:SER:N	2.29	0.65
35:Z:433:LEU:CD1	35:Z:455:ILE:HG12	2.27	0.65
1:1:176:VAL:HG12	1:1:178:LEU:HD21	1.78	0.65
5:5:32:LYS:HD2	5:5:45:MET:CE	2.26	0.65
14:E:107:ILE:HD13	14:E:112:LEU:CD2	2.27	0.65
16:G:174:GLU:HB2	16:G:201:LEU:CD2	2.26	0.65
19:J:111:GLN:NE2	19:J:125:VAL:HG13	2.11	0.65
19:J:136:LEU:HD22	19:J:217:GLU:CD	2.17	0.65
20:K:303:MET:HB3	20:K:333:ARG:NH1	2.11	0.65
26:Q:162:LEU:CD1	26:Q:178:HIS:HE2	2.08	0.65
31:V:40:HIS:ND1	31:V:70:ALA:HB2	2.12	0.65
32:W:52:ILE:CD1	32:W:94:ALA:HB2	2.27	0.65
33:X:24:CYS:HB2	33:X:80:SER:HA	1.77	0.65
35:Z:812:ILE:HA	35:Z:815:MET:HE3	1.78	0.65
1:1:119:VAL:CG1	16:G:103:LYS:HZ3	2.09	0.64
3:3:79:THR:HG23	3:3:115:PHE:CZ	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:8:443:SER:OG	9:9:72:ARG:O	2.13	0.64
10:A:57:LYS:HZ1	10:A:69:VAL:HB	1.59	0.64
17:H:280:VAL:HG21	18:I:304:ARG:HD2	1.77	0.64
18:I:380:LEU:HA	18:I:420:LYS:NZ	2.12	0.64
30:U:5:HIS:ND1	30:U:6:GLU:O	2.29	0.64
32:W:21:PHE:HB2	32:W:25:ARG:HA	1.79	0.64
35:Z:318:LYS:NZ	35:Z:459:ALA:C	2.45	0.64
35:Z:427:GLN:HG2	35:Z:428:TRP:CE3	2.32	0.64
35:Z:889:VAL:CG2	35:Z:891:PRO:HD2	2.27	0.64
16:G:87:LEU:CD1	16:G:115:LEU:HD22	2.26	0.64
18:I:102:ASN:HD21	19:J:83:LYS:NZ	1.93	0.64
19:J:115:LEU:HD12	19:J:122:LEU:HD21	1.77	0.64
19:J:119:SER:O	19:J:120:TYR:CD2	2.50	0.64
23:N:731:VAL:O	23:N:734:VAL:HG12	1.97	0.64
24:O:79:VAL:HB	24:O:122:HIS:N	2.12	0.64
26:Q:112:ASP:O	26:Q:116:PHE:CD2	2.50	0.64
31:V:79:SER:HA	31:V:121:VAL:HG13	1.79	0.64
33:X:10:PHE:C	33:X:33:ILE:HG22	2.16	0.64
35:Z:188:ALA:O	35:Z:189:ALA:HB3	1.96	0.64
8:8:330:LEU:CD1	17:H:166:THR:OG1	2.45	0.64
12:C:172:ALA:O	12:C:176:LEU:HG	1.97	0.64
16:G:67:GLN:HE22	16:G:85:ARG:HG2	1.62	0.64
17:H:147:ILE:HD13	17:H:157:VAL:H	1.61	0.64
18:I:243:THR:HG22	18:I:245:LEU:HD21	1.77	0.64
23:N:127:ASP:O	23:N:128:ILE:HG13	1.98	0.64
24:O:116:ASN:HD22	24:O:121:ASP:HB3	1.61	0.64
24:O:344:VAL:HG21	25:P:361:THR:CG2	2.28	0.64
25:P:422:LEU:HD22	30:U:229:LEU:HD12	1.80	0.64
28:S:223:LEU:HD13	28:S:259:TYR:CE1	2.33	0.64
28:S:230:LYS:HZ3	28:S:256:LYS:CE	2.10	0.64
28:S:286:TYR:CE1	28:S:323:LEU:CD1	2.80	0.64
33:X:85:ARG:HH21	33:X:115:SER:HA	1.61	0.64
35:Z:68:LEU:HD22	35:Z:115:LEU:HA	1.78	0.64
35:Z:446:GLU:CG	35:Z:484:LYS:NZ	2.61	0.64
2:2:87:LEU:HD23	2:2:94:ILE:HD11	1.78	0.64
7:7:145:PRO:HB3	7:7:148:ARG:HH21	1.63	0.64
10:A:153:SER:HB2	10:A:155:TYR:HE1	1.62	0.64
15:F:85:SER:O	15:F:89:ARG:HG3	1.96	0.64
16:G:200:TYR:OH	16:G:239:ILE:HA	1.97	0.64
18:I:400:GLY:CA	19:J:179:ILE:HG13	2.27	0.64
25:P:203:ILE:HG23	25:P:220:TYR:CE1	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:422:ARG:HH21	28:S:299:LYS:CB	2.11	0.64
29:T:197:TYR:OH	29:T:234:TYR:HA	1.97	0.64
30:U:167:GLU:O	30:U:171:VAL:HG23	1.98	0.64
32:W:46:GLU:HB3	32:W:106:GLN:NE2	2.13	0.64
1:1:176:VAL:HG12	1:1:178:LEU:CD2	2.28	0.64
4:4:117:GLN:NE2	4:4:127:LEU:HD12	2.12	0.64
12:C:208:TYR:CB	12:C:235:ILE:HG22	2.27	0.64
16:G:7:TYR:HE1	16:G:13:VAL:HG23	1.57	0.64
16:G:220:LEU:HD23	16:G:225:GLY:HA2	1.79	0.64
17:H:248:LEU:HD23	17:H:375:VAL:HB	1.79	0.64
19:J:78:ILE:HD11	19:J:107:LEU:CB	2.28	0.64
22:M:361:LEU:HD22	22:M:376:TRP:CZ3	2.32	0.64
23:N:313:LEU:HD22	23:N:786:ARG:NH2	2.13	0.64
23:N:320:SER:HB3	23:N:686:ILE:HG22	1.79	0.64
24:O:155:LYS:O	24:O:159:LYS:HG3	1.97	0.64
25:P:218:LEU:HD21	25:P:256:LYS:NZ	2.12	0.64
27:R:207:ARG:NH1	27:R:211:LYS:HZ2	1.95	0.64
30:U:94:HIS:ND1	30:U:96:GLY:N	2.44	0.64
35:Z:207:ILE:O	35:Z:210:TYR:HB2	1.97	0.64
35:Z:809:MET:HB2	35:Z:893:PHE:CD2	2.32	0.64
1:1:119:VAL:CG2	16:G:103:LYS:NZ	2.47	0.64
4:4:66:TYR:CD1	4:4:74:LEU:HD21	2.26	0.64
23:N:707:ASN:HD21	23:N:786:ARG:HH11	1.46	0.64
24:O:119:SER:C	24:O:166:ARG:HD3	2.18	0.64
24:O:250:TRP:CE2	24:O:270:ILE:CG2	2.72	0.64
25:P:422:LEU:HD23	30:U:229:LEU:HA	1.80	0.64
27:R:263:ARG:NH1	27:R:296:LEU:HG	2.09	0.64
31:V:231:GLU:O	31:V:235:GLU:HB3	1.98	0.64
35:Z:471:LEU:CG	35:Z:497:PHE:CZ	2.80	0.64
8:8:212:GLU:HG3	9:9:42:ARG:CZ	2.27	0.64
10:A:89:ASP:OD1	10:A:135:ARG:NH2	2.31	0.64
12:C:69:LEU:CD2	12:C:88:ILE:HG23	2.27	0.64
15:F:31:GLN:HA	22:M:430:VAL:HG12	1.78	0.64
23:N:190:LEU:HD11	23:N:228:VAL:CG2	2.28	0.64
23:N:666:GLN:CG	23:N:873:ARG:HH21	2.10	0.64
24:O:342:ASP:OD1	25:P:358:SER:CB	2.45	0.64
29:T:209:LEU:CD1	29:T:211:PHE:CZ	2.80	0.64
30:U:223:HIS:ND1	30:U:224:THR:CA	2.60	0.64
33:X:85:ARG:NH2	33:X:116:ALA:N	2.44	0.64
35:Z:955:VAL:HG22	35:Z:956:LEU:N	2.12	0.64
2:2:94:ILE:HG22	3:3:90:ARG:HH21	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:60:TYR:HD1	12:C:96:GLN:CB	2.10	0.64
10:A:126:GLN:NE2	10:A:130:GLN:NE2	2.45	0.64
18:I:113:ILE:HG22	18:I:115:ASP:H	1.62	0.64
24:O:277:ILE:HG21	24:O:279:ILE:N	1.92	0.64
24:O:337:LEU:O	24:O:338:LYS:CB	2.45	0.64
27:R:74:ASN:HA	27:R:86:ASP:OD2	1.96	0.64
3:3:96:VAL:O	3:3:117:LEU:HD11	1.97	0.64
10:A:156:LYS:HB3	10:A:166:TYR:CE1	2.32	0.64
17:H:390:ARG:CA	17:H:404:TRP:CE2	2.75	0.64
18:I:369:MET:CE	18:I:416:PHE:HZ	2.11	0.64
25:P:207:THR:HB	25:P:217:LYS:HE2	1.80	0.64
25:P:303:PHE:C	25:P:348:HIS:NE2	2.50	0.64
29:T:197:TYR:HD2	29:T:235:PHE:CE1	2.05	0.64
30:U:141:GLU:O	30:U:142:GLN:CB	2.45	0.64
31:V:114:PHE:HD1	31:V:118:LEU:C	2.01	0.64
35:Z:865:ASP:O	35:Z:877:THR:HG21	1.98	0.64
1:1:6:VAL:HB	1:1:155:ILE:HD11	1.79	0.64
6:6:-6:PRO:HA	7:7:125:LEU:CD2	2.26	0.64
12:C:149:TYR:CZ	13:D:59:ILE:HD12	2.33	0.64
12:C:208:TYR:HA	12:C:235:ILE:CG2	2.26	0.64
18:I:253:ILE:HD11	18:I:286:ALA:HB3	1.80	0.64
18:I:400:GLY:HA3	19:J:179:ILE:HG12	1.76	0.64
18:I:400:GLY:CA	19:J:179:ILE:CD1	2.60	0.64
19:J:324:ARG:HH21	19:J:353:CYS:H	1.46	0.64
21:L:251:ILE:C	21:L:252:VAL:N	2.52	0.64
24:O:233:LEU:HD22	24:O:238:ILE:CD1	2.19	0.64
25:P:412:LEU:HD13	31:V:245:VAL:HA	1.80	0.64
35:Z:581:VAL:HG21	35:Z:603:VAL:HG12	1.80	0.64
35:Z:737:ALA:CB	35:Z:775:MET:SD	2.85	0.64
7:7:95:ARG:HH11	7:7:102:LEU:HD13	1.63	0.63
17:H:257:THR:CG2	17:H:261:ARG:HE	2.11	0.63
23:N:641:LEU:CB	23:N:660:LEU:HD21	2.28	0.63
24:O:373:TRP:CH2	30:U:233:PHE:HB2	2.32	0.63
26:Q:174:LEU:CG	26:Q:178:HIS:CE1	2.81	0.63
26:Q:419:LEU:HD23	26:Q:419:LEU:C	2.19	0.63
27:R:335:ARG:HA	27:R:371:PHE:CZ	2.33	0.63
29:T:225:ASN:HB2	29:T:241:GLU:CB	2.26	0.63
32:W:59:PRO:CB	32:W:93:ILE:HG21	2.28	0.63
8:8:212:GLU:CD	9:9:42:ARG:CD	2.57	0.63
8:8:326:LYS:NZ	9:9:74:ARG:HH21	1.94	0.63
14:E:98:THR:HG23	14:E:102:TYR:HE1	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:241:LYS:CA	14:E:244:LYS:NZ	2.58	0.63
20:K:240:SER:CB	21:L:306:MET:HE2	2.19	0.63
23:N:52:ASP:O	23:N:53:ASP:HB2	1.98	0.63
24:O:358:ILE:CG2	24:O:360:GLY:H	1.99	0.63
32:W:21:PHE:HB3	32:W:28:ALA:HB3	1.81	0.63
35:Z:133:ASP:CG	35:Z:134:SER:H	2.00	0.63
1:1:80:SER:HB3	16:G:103:LYS:CD	2.29	0.63
17:H:430:ALA:HA	17:H:435:ARG:HE	1.64	0.63
23:N:406:TYR:CD1	23:N:448:LEU:HD12	2.34	0.63
23:N:479:GLU:OE1	23:N:512:ASN:OD1	2.15	0.63
24:O:79:VAL:HG11	24:O:123:GLY:N	2.12	0.63
28:S:399:TYR:HD2	28:S:401:LYS:O	1.80	0.63
30:U:18:ALA:HB1	30:U:125:VAL:HG21	1.81	0.63
35:Z:189:ALA:CB	35:Z:193:PHE:CG	2.81	0.63
35:Z:391:ASN:OD1	35:Z:394:TYR:HD2	1.80	0.63
35:Z:800:SER:OG	35:Z:815:MET:HE1	1.98	0.63
10:A:17:THR:CG2	10:A:129:THR:O	2.46	0.63
10:A:57:LYS:CE	10:A:69:VAL:CB	2.76	0.63
10:A:81:MET:SD	10:A:143:PHE:CZ	2.92	0.63
11:B:27:ALA:HB1	20:K:426:PHE:CE1	2.32	0.63
14:E:46:VAL:HB	14:E:222:ILE:HD12	1.79	0.63
16:G:108:ILE:CG2	16:G:148:TYR:CD1	2.81	0.63
17:H:146:VAL:H	17:H:157:VAL:CG2	2.10	0.63
20:K:365:GLU:HG2	20:K:404:GLN:H	1.62	0.63
21:L:252:VAL:HG11	22:M:299:ARG:NH2	2.13	0.63
23:N:190:LEU:HD13	23:N:224:THR:CG2	2.27	0.63
24:O:185:PHE:CD1	24:O:279:ILE:HG13	2.34	0.63
26:Q:243:PHE:CE1	26:Q:287:THR:CG2	2.80	0.63
26:Q:299:MET:HE2	26:Q:335:PHE:HZ	1.57	0.63
29:T:1:MET:HB2	29:T:2:PRO:CD	2.23	0.63
29:T:190:ALA:CB	29:T:224:ARG:NE	2.62	0.63
35:Z:877:THR:HG23	35:Z:907:GLY:HA2	1.80	0.63
1:1:119:VAL:HG11	16:G:103:LYS:HZ3	1.64	0.63
11:B:82:TYR:HE1	11:B:134:LEU:HD22	1.64	0.63
12:C:97:ASN:O	12:C:101:THR:HG23	1.97	0.63
18:I:340:ARG:NH1	18:I:343:ARG:CB	2.59	0.63
33:X:89:LEU:HG	33:X:91:PHE:CZ	2.34	0.63
8:8:330:LEU:H	17:H:163:VAL:HG23	1.63	0.63
17:H:318:ARG:HH12	17:H:364:ALA:CB	2.12	0.63
23:N:277:LEU:CD1	23:N:287:LEU:HD23	2.28	0.63
24:O:188:PHE:CZ	24:O:216:ASP:HB3	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:263:HIS:CE1	25:P:327:LEU:O	2.51	0.63
29:T:147:LYS:O	29:T:151:TRP:CD1	2.52	0.63
35:Z:244:ARG:O	35:Z:248:TYR:CD1	2.46	0.63
35:Z:551:LEU:HD13	35:Z:591:ILE:HG22	1.56	0.63
1:1:112:THR:CG2	7:7:27:ARG:HH21	2.12	0.63
5:5:83:LEU:HD11	5:5:97:MET:HE1	1.80	0.63
20:K:210:LEU:CD1	20:K:212:TYR:OH	2.47	0.63
24:O:341:ILE:HD12	24:O:348:VAL:HG13	1.80	0.63
26:Q:51:ARG:NH2	26:Q:92:LYS:CD	2.57	0.63
29:T:250:MET:O	29:T:251:HIS:HB2	1.98	0.63
30:U:16:LEU:CD2	31:V:209:GLU:CG	2.77	0.63
30:U:32:ARG:HH21	30:U:56:PHE:HZ	1.45	0.63
30:U:85:ALA:O	30:U:86:LYS:HB2	1.98	0.63
13:D:197:ARG:NH2	13:D:239:GLU:OE1	2.32	0.63
18:I:262:ARG:CB	19:J:223:ILE:HD12	2.29	0.63
20:K:240:SER:O	21:L:303:ARG:HG3	1.99	0.63
20:K:244:HIS:CE1	20:K:295:ILE:HD11	2.34	0.63
20:K:349:ARG:HH12	20:K:377:SER:H	1.44	0.63
21:L:357:ARG:HE	21:L:380:VAL:HG13	1.63	0.63
32:W:25:ARG:NE	32:W:144:PHE:CD2	2.66	0.63
33:X:8:ILE:CG2	33:X:124:LYS:CD	2.77	0.63
34:Y:80:GLU:CD	34:Y:83:ARG:HH21	2.01	0.63
35:Z:55:ARG:NE	35:Z:63:LEU:HD13	2.14	0.63
35:Z:958:ASN:N	35:Z:961:GLU:OE1	2.29	0.63
1:1:80:SER:HB3	16:G:103:LYS:HD3	1.81	0.63
15:F:80:ASP:CG	15:F:126:ARG:HH22	2.02	0.63
15:F:117:GLN:HE21	15:F:121:GLN:HE21	1.47	0.63
17:H:155:PHE:CE1	22:M:76:PRO:CA	2.82	0.63
18:I:243:THR:HG21	18:I:245:LEU:HD21	1.80	0.63
19:J:154:THR:HA	19:J:157:ILE:HD12	1.81	0.63
23:N:325:PHE:N	31:V:182:LYS:HG2	2.14	0.63
24:O:223:LEU:HA	24:O:279:ILE:HG21	1.79	0.63
24:O:322:ASP:O	24:O:325:GLU:HB2	1.98	0.63
25:P:207:THR:HB	25:P:217:LYS:CE	2.28	0.63
26:Q:54:GLN:HE22	26:Q:81:SER:HB2	1.62	0.63
27:R:94:PHE:HZ	27:R:99:TYR:CE2	2.17	0.63
32:W:21:PHE:CE2	32:W:25:ARG:HG3	2.34	0.63
35:Z:407:VAL:HG12	35:Z:415:MET:HG3	1.80	0.63
1:1:45:ARG:HE	1:1:52:THR:HB	1.63	0.62
7:7:69:ASP:O	7:7:70:ASN:HB2	1.99	0.62
13:D:104:VAL:HG11	13:D:109:LEU:HD11	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:154:GLN:OE1	14:E:166:ARG:HD2	1.99	0.62
17:H:155:PHE:CE1	22:M:77:TYR:N	2.60	0.62
21:L:192:GLU:HB3	21:L:345:ARG:HH21	1.62	0.62
23:N:596:LEU:CD2	23:N:717:LEU:HD22	2.29	0.62
23:N:768:ILE:HG21	23:N:871:MET:SD	2.39	0.62
24:O:332:ILE:HD11	24:O:341:ILE:HG21	1.80	0.62
26:Q:264:TYR:OH	26:Q:330:LEU:HD12	1.98	0.62
31:V:182:LYS:HE2	31:V:185:ILE:HG21	1.81	0.62
33:X:46:TRP:O	33:X:68:LEU:HB2	2.00	0.62
2:2:104:ASP:CG	2:2:106:THR:OG1	2.36	0.62
24:O:80:LYS:CE	24:O:81:TYR:HE2	2.10	0.62
25:P:181:LEU:HG	25:P:223:LEU:HD11	1.81	0.62
30:U:19:LEU:HD11	31:V:208:LYS:CB	2.29	0.62
35:Z:471:LEU:HD23	35:Z:471:LEU:C	2.19	0.62
3:3:1:GLY:HA2	3:3:17:ASP:OD2	1.99	0.62
3:3:1:GLY:HA3	3:3:33:LYS:NZ	2.15	0.62
5:5:33:ARG:HD3	5:5:45:MET:O	1.99	0.62
22:M:189:GLN:O	22:M:193:LEU:HG	1.98	0.62
22:M:192:GLU:OE1	22:M:347:ILE:HG23	2.00	0.62
23:N:366:THR:HG23	23:N:747:HIS:CE1	2.34	0.62
23:N:596:LEU:CD1	23:N:717:LEU:CD2	2.77	0.62
24:O:133:ILE:HG12	24:O:137:TYR:CD2	2.34	0.62
25:P:221:TYR:CE2	25:P:244:ILE:CB	2.76	0.62
26:Q:97:LEU:HD11	26:Q:121:SER:HB3	1.81	0.62
27:R:353:MET:O	27:R:357:PHE:HB2	1.99	0.62
33:X:41:GLU:HG3	33:X:45:PHE:CA	2.28	0.62
1:1:-7:LYS:HD3	2:2:92:GLY:O	2.00	0.62
5:5:73:ARG:HH12	5:5:106:ARG:CD	2.12	0.62
17:H:390:ARG:HG3	17:H:404:TRP:NE1	2.14	0.62
18:I:252:LEU:H	18:I:253:ILE:N	1.96	0.62
19:J:219:VAL:HG11	20:K:284:ALA:CB	2.25	0.62
26:Q:9:GLU:OE2	26:Q:12:ARG:NH2	2.32	0.62
27:R:335:ARG:HA	27:R:371:PHE:HZ	1.64	0.62
32:W:16:SER:HA	32:W:25:ARG:HH11	1.63	0.62
32:W:87:MET:H	32:W:118:ILE:HD11	1.62	0.62
33:X:8:ILE:HG21	33:X:124:LYS:CD	2.28	0.62
33:X:8:ILE:HG22	33:X:124:LYS:HD2	1.78	0.62
35:Z:449:ALA:HB1	35:Z:899:GLN:HE22	1.65	0.62
35:Z:914:LEU:HB3	35:Z:980:VAL:HG22	1.81	0.62
2:2:196:ARG:NE	2:2:199:LYS:HE3	2.13	0.62
7:7:62:LEU:HD11	7:7:87:TYR:CD2	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:A:153:SER:HB2	10:A:155:TYR:CE1	2.34	0.62
18:I:135:PHE:HD2	18:I:159:VAL:HG22	1.63	0.62
24:O:306:ARG:HG3	24:O:351:SER:C	2.20	0.62
25:P:119:ILE:HD12	25:P:143:LEU:HD22	1.80	0.62
25:P:132:VAL:O	25:P:133:GLU:HB2	1.99	0.62
25:P:308:LEU:CD2	25:P:369:LEU:HD22	2.29	0.62
26:Q:278:VAL:O	26:Q:282:LEU:HG	2.00	0.62
27:R:40:ILE:CG2	27:R:89:ASN:HD22	2.13	0.62
27:R:171:MET:HE1	27:R:206:ARG:HG3	1.81	0.62
27:R:421:VAL:O	27:R:422:ARG:HB2	1.99	0.62
35:Z:161:ILE:CD1	35:Z:207:ILE:HD11	2.29	0.62
35:Z:211:PHE:CD2	35:Z:220:ALA:HB2	2.35	0.62
3:3:59:ARG:HH22	12:C:99:LEU:HD11	1.52	0.62
8:8:133:LEU:CD1	8:8:221[B]:MSE:HE2	2.28	0.62
13:D:96:HIS:HD2	13:D:100:LEU:HB2	1.63	0.62
17:H:261:ARG:HH22	17:H:273:ARG:HH21	1.46	0.62
24:O:50:ASP:HA	24:O:53:LYS:HZ1	1.65	0.62
24:O:222:LEU:HD22	24:O:270:ILE:HD11	1.81	0.62
27:R:154:LEU:HD21	27:R:173:THR:HG21	1.82	0.62
27:R:258:LEU:HD12	27:R:266:LEU:CD1	2.30	0.62
29:T:225:ASN:ND2	29:T:241:GLU:HA	2.13	0.62
31:V:53:MET:HE2	31:V:65:VAL:CG1	2.28	0.62
35:Z:889:VAL:CG1	35:Z:894:MET:CE	2.74	0.62
11:B:119:GLN:HG3	11:B:123:GLN:NE2	2.14	0.62
13:D:81:ASP:HB3	13:D:129:PHE:HD1	1.64	0.62
16:G:146:HIS:CB	16:G:148:TYR:CE1	2.50	0.62
17:H:97:LEU:HB2	17:H:173:ARG:HG2	1.82	0.62
17:H:390:ARG:HG3	17:H:404:TRP:HE1	1.65	0.62
19:J:272:MET:CE	19:J:290:ILE:HD13	2.30	0.62
24:O:119:SER:CA	24:O:166:ARG:HD3	2.30	0.62
25:P:308:LEU:HD22	25:P:369:LEU:HD22	1.82	0.62
26:Q:90:LYS:O	26:Q:94:VAL:HG23	2.00	0.62
26:Q:222:SER:O	26:Q:226:HIS:HD2	1.79	0.62
26:Q:382:LEU:HB3	27:R:263:ARG:HH22	1.64	0.62
27:R:101:GLU:OE2	27:R:105:LYS:NZ	2.28	0.62
32:W:143:ASN:OD1	32:W:173:THR:HG23	1.99	0.62
35:Z:767:TYR:HE2	35:Z:772:ILE:CG1	2.11	0.62
19:J:193:THR:HG21	19:J:316:PHE:CD1	2.33	0.62
20:K:128:ARG:HD3	31:V:276:PRO:HD3	1.82	0.62
20:K:169:VAL:N	21:L:315:PHE:HE1	1.94	0.62
23:N:277:LEU:HB3	23:N:287:LEU:HD21	1.76	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:9:THR:HG23	24:O:27:GLU:OE2	2.00	0.62
24:O:277:ILE:HG22	24:O:279:ILE:N	1.94	0.62
26:Q:279:LYS:HA	26:Q:282:LEU:HD12	1.81	0.62
28:S:323:LEU:HD23	28:S:383:LEU:HD21	1.82	0.62
33:X:85:ARG:HH21	33:X:115:SER:CB	2.11	0.62
35:Z:134:SER:N	35:Z:134:SER:C	2.53	0.62
35:Z:258:PRO:HB2	35:Z:259:PRO:HD3	1.82	0.62
35:Z:312:TYR:CZ	35:Z:348:LEU:O	2.53	0.62
1:1:92:ASN:OD1	1:1:93:LEU:HG	2.00	0.62
5:5:177:LEU:HD12	5:5:191:HIS:NE2	2.15	0.62
7:7:83:TYR:CZ	15:F:101:ARG:HG2	2.35	0.62
14:E:153:TYR:HE1	14:E:222:ILE:HG22	1.65	0.62
14:E:180:GLN:HA	14:E:183:LEU:HD12	1.80	0.62
14:E:201:LEU:HD11	14:E:239:LEU:CD2	2.28	0.62
17:H:410:LEU:CB	17:H:447:VAL:HG11	2.30	0.62
19:J:78:ILE:HD11	19:J:107:LEU:HB2	1.81	0.62
22:M:197:ILE:HG13	22:M:198:VAL:N	2.14	0.62
24:O:124:ASP:CB	24:O:127:LEU:HD22	2.30	0.62
25:P:241:LEU:HA	25:P:244:ILE:CG2	2.30	0.62
28:S:257:LEU:O	28:S:259:TYR:HD2	1.83	0.62
29:T:229:VAL:CG2	29:T:234:TYR:CE1	2.76	0.62
33:X:10:PHE:HE2	33:X:103:GLU:OE2	1.78	0.62
35:Z:493:LEU:CD1	35:Z:497:PHE:CE2	2.83	0.62
1:1:19:ARG:HH12	1:1:29:ARG:CB	2.08	0.62
1:1:103:ASP:HB2	1:1:106:ASN:OD1	1.98	0.62
11:B:27:ALA:HA	20:K:426:PHE:HE1	1.64	0.62
14:E:88:MET:HE1	14:E:142:LEU:HD12	1.81	0.62
21:L:357:ARG:HB3	21:L:361:PHE:HE2	1.64	0.62
21:L:372:GLY:O	21:L:374:PHE:CE1	2.52	0.62
26:Q:202:ARG:NH2	26:Q:222:SER:HG	1.95	0.62
27:R:125:GLU:CG	27:R:126:GLY:H	2.13	0.62
29:T:169:GLN:CD	29:T:174:PHE:CZ	2.73	0.62
35:Z:260:GLU:CG	35:Z:611:THR:HG21	2.29	0.62
35:Z:431:ASP:OD2	35:Z:458:SER:HB3	1.99	0.62
5:5:8:PHE:CE1	5:5:13:ILE:CG1	2.79	0.61
17:H:146:VAL:HG11	22:M:75:LEU:HB3	1.81	0.61
19:J:250:ILE:HA	19:J:299:ILE:CD1	2.29	0.61
24:O:26:PHE:CA	24:O:61:LEU:HD21	2.29	0.61
28:S:185:PHE:CE1	28:S:239:ARG:HD2	2.35	0.61
28:S:188:TYR:CE1	28:S:210:LEU:HD13	2.35	0.61
28:S:191:HIS:NE2	28:S:206:GLN:CG	2.61	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:236:ASN:ND2	29:T:240:LYS:HE3	2.15	0.61
33:X:95:GLU:HB3	33:X:97:TYR:HE1	1.63	0.61
35:Z:831:LEU:HA	35:Z:834:LEU:HD12	1.81	0.61
1:1:19:ARG:HH11	1:1:29:ARG:CG	2.10	0.61
10:A:156:LYS:HE3	10:A:169:THR:HG21	1.81	0.61
11:B:140:ASP:OD1	11:B:143:ASN:HB2	2.00	0.61
13:D:92:GLU:OE2	13:D:108:TYR:CE2	2.53	0.61
18:I:176:SER:O	19:J:282:PHE:CE1	2.54	0.61
20:K:99:PHE:CZ	20:K:101:GLU:C	2.73	0.61
22:M:225:GLY:O	22:M:226:THR:CG2	2.48	0.61
23:N:596:LEU:HD13	23:N:717:LEU:HD22	1.81	0.61
27:R:79:LEU:HD13	27:R:93:LYS:CE	2.28	0.61
29:T:193:THR:HG21	29:T:226:TRP:HH2	1.20	0.61
30:U:16:LEU:HD22	31:V:209:GLU:CD	2.19	0.61
32:W:20:ASP:C	32:W:21:PHE:HD1	2.02	0.61
32:W:21:PHE:HZ	32:W:144:PHE:CD1	2.17	0.61
32:W:158:ILE:HG13	32:W:171:LEU:HB2	1.82	0.61
35:Z:550:PHE:CD1	35:Z:562:TRP:HZ3	2.18	0.61
3:3:61:LYS:NZ	3:3:85:SER:CB	2.63	0.61
8:8:329:ILE:CA	17:H:163:VAL:HG22	2.02	0.61
13:D:34:VAL:CG2	13:D:199:LEU:HD21	2.30	0.61
24:O:373:TRP:CZ3	30:U:233:PHE:CD2	2.88	0.61
26:Q:46:VAL:HB	26:Q:48:ASP:OD1	2.00	0.61
26:Q:412:ALA:HB2	27:R:400:TYR:HE1	1.65	0.61
27:R:199:GLU:HB3	27:R:206:ARG:CD	2.30	0.61
27:R:243:LEU:O	27:R:244:THR:HB	2.00	0.61
29:T:170:ASN:HA	29:T:174:PHE:HB2	1.83	0.61
35:Z:312:TYR:CE1	35:Z:348:LEU:C	2.73	0.61
35:Z:361:HIS:CE1	35:Z:861:THR:HB	2.35	0.61
5:5:207:PHE:O	5:5:208:ASN:OD1	2.17	0.61
10:A:135:ARG:NH1	10:A:137:LEU:HD23	2.15	0.61
10:A:207:ILE:HG22	10:A:211:ILE:CD1	2.30	0.61
14:E:165:TYR:C	14:E:167:TYR:CE1	2.74	0.61
17:H:247:LEU:HD22	17:H:371:ILE:HD13	1.81	0.61
19:J:115:LEU:HD12	19:J:122:LEU:HD23	1.82	0.61
23:N:12:LEU:HD13	29:T:40:LEU:HD13	1.83	0.61
24:O:50:ASP:HA	24:O:53:LYS:HZ3	1.63	0.61
24:O:140:LYS:HG2	24:O:141:ASN:OD1	2.00	0.61
27:R:36:SER:C	27:R:43:ARG:NH2	2.53	0.61
27:R:335:ARG:HG3	27:R:371:PHE:CE1	2.35	0.61
33:X:85:ARG:HH12	33:X:106:SER:HB3	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:68:LEU:CD2	35:Z:115:LEU:HA	2.30	0.61
35:Z:298:PHE:O	35:Z:307:HIS:NE2	2.33	0.61
35:Z:970:TYR:CE1	35:Z:993:GLU:N	2.69	0.61
8:8:326:LYS:CE	9:9:74:ARG:HE	2.12	0.61
17:H:248:LEU:CD2	17:H:375:VAL:HB	2.31	0.61
19:J:45:GLU:OE1	23:N:608:LEU:CD1	2.49	0.61
19:J:45:GLU:OE1	23:N:608:LEU:CG	2.49	0.61
20:K:94:LEU:HB2	21:L:128:ILE:HB	1.83	0.61
20:K:134:SER:HB2	20:K:255:ARG:NH2	2.11	0.61
23:N:21:LYS:O	23:N:25:LEU:HG	2.01	0.61
25:P:360:ILE:HG12	25:P:402:PHE:CZ	2.35	0.61
26:Q:291:TYR:OH	26:Q:293:SER:CB	2.49	0.61
29:T:193:THR:O	29:T:197:TYR:HB2	2.00	0.61
35:Z:805:LEU:HD22	35:Z:893:PHE:HE1	1.65	0.61
11:B:178:ARG:NH1	11:B:194:LEU:HB3	2.10	0.61
13:D:153:SER:OG	13:D:155:ILE:HG12	2.01	0.61
14:E:72:ARG:O	14:E:73:HIS:CG	2.53	0.61
19:J:224:GLY:O	19:J:227:SER:HB2	2.01	0.61
20:K:90:GLN:HE22	20:K:143:SER:HB2	1.64	0.61
23:N:328:PHE:HZ	23:N:696:LYS:HD2	1.65	0.61
24:O:344:VAL:CG2	25:P:361:THR:HG22	2.30	0.61
27:R:270:VAL:O	27:R:270:VAL:HG12	2.01	0.61
30:U:85:ALA:O	30:U:86:LYS:CB	2.48	0.61
32:W:25:ARG:HD2	32:W:144:PHE:HE2	1.56	0.61
6:6:115:SER:HB3	6:6:128:ARG:HH11	1.66	0.61
8:8:328:LYS:O	17:H:163:VAL:HG22	2.00	0.61
20:K:194:GLN:HG2	20:K:197:LEU:HG	1.83	0.61
23:N:325:PHE:CA	31:V:182:LYS:CG	2.74	0.61
23:N:452:LEU:HD21	23:N:748:PHE:CE1	2.33	0.61
23:N:666:GLN:HG3	23:N:873:ARG:NE	2.14	0.61
31:V:50:MET:HB2	31:V:78:VAL:HG13	1.83	0.61
33:X:46:TRP:CZ2	33:X:131:ASN:C	2.73	0.61
14:E:15:PHE:HZ	15:F:126:ARG:HD2	1.65	0.61
17:H:312:ASP:OD1	17:H:360:THR:HG21	2.01	0.61
18:I:387:LEU:HA	18:I:427:LYS:NZ	2.15	0.61
21:L:252:VAL:HG12	22:M:256:ILE:HD12	0.86	0.61
21:L:357:ARG:O	21:L:361:PHE:HD2	1.83	0.61
22:M:361:LEU:CD1	22:M:376:TRP:CE3	2.80	0.61
25:P:181:LEU:HA	25:P:223:LEU:CD1	2.24	0.61
26:Q:154:SER:O	26:Q:158:ILE:HG13	2.01	0.61
27:R:33:LEU:HB2	27:R:46:ALA:HB1	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:64:LYS:O	27:R:68:GLU:HG3	2.00	0.61
29:T:149:ASP:O	29:T:153:MET:HG2	2.00	0.61
30:U:5:HIS:CG	30:U:6:GLU:N	2.62	0.61
32:W:11:ASP:OD1	32:W:12:ASN:N	2.34	0.61
8:8:318:PHE:CA	9:9:71:LEU:HD22	2.20	0.61
15:F:46:LEU:HD21	15:F:73:SER:HB3	1.82	0.61
18:I:126:PRO:HB2	18:I:128:TYR:CE2	2.36	0.61
19:J:45:GLU:OE1	23:N:608:LEU:HG	2.00	0.61
20:K:67:TYR:CE2	23:N:572:LEU:O	2.54	0.61
20:K:246:TYR:HB3	21:L:256:ILE:HD11	1.83	0.61
20:K:303:MET:HB3	20:K:333:ARG:HH12	1.64	0.61
24:O:10:ILE:O	24:O:14:LEU:HG	2.01	0.61
25:P:181:LEU:CG	25:P:223:LEU:HD11	2.31	0.61
25:P:412:LEU:HB3	31:V:245:VAL:HG22	1.83	0.61
26:Q:135:HIS:CB	26:Q:161:LEU:CD2	2.77	0.61
27:R:194:VAL:O	27:R:199:GLU:OE1	2.19	0.61
27:R:396:LYS:CG	27:R:400:TYR:CE2	2.84	0.61
29:T:190:ALA:HA	29:T:224:ARG:NH1	2.15	0.61
30:U:235:LEU:O	30:U:263:LYS:HD3	2.00	0.61
33:X:46:TRP:NE1	33:X:132:SER:HA	2.15	0.61
33:X:75:TRP:CZ3	33:X:125:MET:HB2	2.36	0.61
33:X:75:TRP:CZ3	33:X:125:MET:CB	2.84	0.61
1:1:75:THR:HG22	1:1:111:TYR:CG	2.29	0.61
5:5:114:TYR:HE1	5:5:129:VAL:HG11	1.65	0.61
6:6:68:PHE:CZ	15:F:66:CYS:O	2.54	0.61
10:A:117:LEU:HD23	10:A:143:PHE:CD2	2.36	0.61
18:I:408:ARG:NH2	18:I:415:ASP:OD2	2.33	0.61
21:L:132:ARG:HD2	21:L:133:ASN:N	2.16	0.61
23:N:420:THR:O	23:N:424:LYS:HG3	2.01	0.61
24:O:196:LEU:CB	24:O:213:LEU:HD21	2.31	0.61
28:S:188:TYR:CD2	28:S:210:LEU:HD13	2.36	0.61
30:U:35:GLY:HA3	30:U:93:TYR:CB	2.29	0.61
35:Z:188:ALA:O	35:Z:189:ALA:CB	2.49	0.61
35:Z:551:LEU:HD13	35:Z:591:ILE:HG21	1.80	0.61
35:Z:551:LEU:CA	35:Z:593:HIS:NE2	2.59	0.61
35:Z:809:MET:HB2	35:Z:893:PHE:HD2	1.66	0.61
1:1:-6:GLY:HA3	2:2:116:HIS:CG	2.34	0.60
1:1:45:ARG:HH21	1:1:52:THR:C	2.03	0.60
1:1:98:ILE:HD11	1:1:127:ALA:CB	2.31	0.60
5:5:40:PHE:CE2	5:5:41:LEU:HG	2.36	0.60
8:8:329:ILE:HG12	17:H:163:VAL:HG11	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C:160:TRP:CZ2	12:C:163:ILE:CD1	2.84	0.60
16:G:34:THR:OG1	16:G:65:LYS:NZ	2.33	0.60
20:K:273:GLU:OE1	21:L:306:MET:HB2	2.01	0.60
20:K:347:ARG:HG3	26:Q:215:VAL:HG11	1.83	0.60
23:N:21:LYS:HG3	23:N:55:PHE:HD2	1.54	0.60
27:R:305:PHE:CA	27:R:334:ARG:HH12	2.06	0.60
35:Z:610:GLY:C	35:Z:748:LEU:HB3	2.21	0.60
13:D:4:TYR:O	13:D:4:TYR:CD1	2.54	0.60
22:M:170:MET:HB3	22:M:244:LEU:CD1	2.24	0.60
22:M:227:GLY:O	22:M:231:LEU:HG	2.00	0.60
23:N:475:ALA:HB1	23:N:510:HIS:NE2	2.16	0.60
24:O:43:GLU:CD	24:O:44:SER:CB	2.70	0.60
25:P:203:ILE:CG2	25:P:220:TYR:CD1	2.84	0.60
25:P:422:LEU:CD2	30:U:229:LEU:HA	2.30	0.60
27:R:214:TYR:HH	27:R:226:GLU:HB3	1.65	0.60
28:S:436:ILE:CG1	29:T:196:SER:O	2.45	0.60
30:U:112:LYS:NZ	32:W:60:ARG:NH2	2.49	0.60
35:Z:52:LEU:HD13	35:Z:67:SER:HA	1.83	0.60
35:Z:194:GLU:HG2	35:Z:195:PHE:CD2	2.36	0.60
35:Z:567:ALA:CB	35:Z:599:ILE:HG12	2.31	0.60
2:2:8:PHE:CE2	2:2:11:GLY:CA	2.84	0.60
3:3:59:ARG:CZ	12:C:99:LEU:HD11	2.23	0.60
5:5:73:ARG:NH1	5:5:106:ARG:HD2	2.15	0.60
17:H:77:ALA:C	18:I:153:THR:HG22	2.20	0.60
20:K:350:ARG:NH2	26:Q:215:VAL:HG12	2.16	0.60
23:N:43:LEU:HD21	23:N:69:TYR:CZ	2.35	0.60
23:N:579:SER:HA	23:N:584:ARG:NE	2.15	0.60
24:O:219:ILE:HG22	24:O:223:LEU:HD22	1.78	0.60
25:P:235:LEU:HD21	25:P:276:LEU:HD11	1.81	0.60
26:Q:178:HIS:CB	26:Q:201:ALA:HB2	2.32	0.60
29:T:209:LEU:CB	29:T:211:PHE:CE1	2.80	0.60
30:U:132:LEU:HG	30:U:134:THR:H	1.66	0.60
31:V:24:LYS:NZ	31:V:197:TYR:OH	2.34	0.60
31:V:104:VAL:HG13	31:V:106:GLY:O	2.02	0.60
31:V:182:LYS:HE2	31:V:185:ILE:CG2	2.31	0.60
35:Z:854:LEU:HD21	35:Z:864:MET:SD	2.41	0.60
35:Z:867:PHE:HE2	35:Z:871:HIS:ND1	1.92	0.60
6:6:-8:PHE:HE1	7:7:124:LEU:HD13	1.67	0.60
21:L:253:ASP:HA	22:M:256:ILE:CB	2.31	0.60
23:N:320:SER:HB2	23:N:686:ILE:CG2	2.31	0.60
25:P:231:LYS:O	25:P:232:ARG:HB2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:234:TYR:HA	25:P:267:PHE:HE2	1.55	0.60
28:S:288:THR:HG22	28:S:292:TYR:CE2	2.36	0.60
30:U:66:TRP:C	32:W:93:ILE:HD12	2.21	0.60
31:V:106:GLY:C	31:V:107:TRP:CD1	2.74	0.60
32:W:172:LEU:CD2	32:W:185:ILE:CA	2.79	0.60
35:Z:102:ILE:CG2	35:Z:112:LYS:HG3	2.21	0.60
35:Z:737:ALA:HA	35:Z:775:MET:HE2	1.83	0.60
6:6:22:THR:OG1	6:6:27:ASN:ND2	2.31	0.60
18:I:253:ILE:HB	19:J:267:GLU:OE2	2.02	0.60
19:J:142:VAL:O	19:J:142:VAL:HG12	2.01	0.60
23:N:398:ARG:HD2	23:N:438:ASP:HB3	1.83	0.60
23:N:402:GLY:HA2	23:N:442:LEU:HD12	1.84	0.60
24:O:329:MET:CA	25:P:357:TYR:OH	2.45	0.60
24:O:373:TRP:CD1	30:U:200:LEU:HD11	2.35	0.60
27:R:125:GLU:OE1	27:R:126:GLY:N	2.32	0.60
27:R:134:TRP:CH2	27:R:156:LYS:NZ	2.66	0.60
27:R:308:LEU:CB	27:R:334:ARG:CZ	2.79	0.60
29:T:59:LYS:HD3	29:T:97:SER:HB2	1.83	0.60
29:T:225:ASN:HB2	29:T:241:GLU:CA	2.31	0.60
33:X:100:TRP:HZ2	33:X:110:PRO:CG	2.14	0.60
5:5:83:LEU:HD21	5:5:97:MET:SD	2.41	0.60
10:A:148:GLU:HG2	10:A:230:LYS:HE3	1.82	0.60
14:E:17:PRO:HA	15:F:24:TYR:CD1	2.36	0.60
22:M:166:ARG:O	22:M:167:VAL:CG2	2.50	0.60
23:N:127:ASP:C	23:N:128:ILE:HG13	2.22	0.60
23:N:771:PHE:CE2	23:N:772:GLN:O	2.55	0.60
28:S:286:TYR:CE1	28:S:323:LEU:CB	2.83	0.60
35:Z:863:THR:OG1	35:Z:911:LYS:HE2	2.01	0.60
1:1:36:ARG:HG3	1:1:38:HIS:O	2.01	0.60
1:1:75:THR:CB	1:1:111:TYR:CD1	2.83	0.60
10:A:48:LYS:HD2	10:A:195:ASN:CG	2.22	0.60
19:J:219:VAL:CG1	20:K:284:ALA:HB1	2.31	0.60
23:N:528:ARG:NH2	23:N:531:LEU:O	2.27	0.60
27:R:320:LYS:HD2	27:R:324:ARG:HD2	1.84	0.60
28:S:420:GLU:O	28:S:423:VAL:HG12	2.01	0.60
35:Z:186:GLY:O	35:Z:187:SER:CB	2.49	0.60
35:Z:193:PHE:CE2	35:Z:196:SER:CB	2.84	0.60
35:Z:970:TYR:OH	35:Z:992:GLU:C	2.39	0.60
4:4:80:SER:C	4:4:124:LYS:NZ	2.55	0.60
8:8:318:PHE:HA	9:9:71:LEU:HD23	1.55	0.60
12:C:208:TYR:HB2	12:C:235:ILE:CG2	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:G:182:HIS:CD2	16:G:186:LEU:CD1	2.85	0.60
19:J:133:LEU:HD23	19:J:137:MET:CE	2.32	0.60
19:J:143:PRO:O	19:J:204:HIS:ND1	2.35	0.60
20:K:68:ILE:HD11	23:N:608:LEU:CD2	2.31	0.60
28:S:153:GLU:HA	28:S:156:VAL:HG23	1.83	0.60
28:S:371:LEU:HD13	28:S:380:CYS:HG	1.60	0.60
28:S:471:LEU:HB2	30:U:288:PHE:CE1	2.36	0.60
29:T:35:ILE:CD1	29:T:40:LEU:CD1	2.69	0.60
29:T:93:ASN:ND2	29:T:94:HIS:CD2	2.67	0.60
29:T:245:TYR:HE2	29:T:251:HIS:NE2	1.92	0.60
35:Z:471:LEU:HG	35:Z:497:PHE:CD2	2.35	0.60
5:5:126:ILE:HD11	5:5:144:TYR:CZ	2.37	0.60
8:8:116:ASN:C	9:9:76:GLZ:HA1	2.20	0.60
8:8:330:LEU:N	17:H:163:VAL:HG23	2.17	0.60
10:A:130:GLN:HB3	11:B:127:VAL:CG2	2.31	0.60
14:E:226:ASP:OD2	14:E:229:LYS:HD2	2.02	0.60
16:G:73:ILE:HG12	16:G:108:ILE:HD13	1.80	0.60
17:H:249:TYR:OH	17:H:376:GLU:CB	2.49	0.60
19:J:167:PRO:CD	19:J:174:PHE:HZ	2.06	0.60
22:M:335:PRO:O	22:M:342:ARG:NH1	2.35	0.60
23:N:47:GLU:O	23:N:50:TYR:CB	2.41	0.60
24:O:179:PHE:CZ	24:O:187:SER:HB3	2.37	0.60
24:O:223:LEU:HG	24:O:279:ILE:HG13	1.84	0.60
24:O:335:GLY:O	24:O:336:LEU:HB2	2.02	0.60
31:V:261:LEU:CD2	31:V:283:THR:CG2	2.58	0.60
35:Z:102:ILE:HG22	35:Z:112:LYS:CG	2.24	0.60
35:Z:970:TYR:CE1	35:Z:993:GLU:HB2	2.36	0.60
1:1:85:LEU:HD12	1:1:89:ASN:ND2	2.17	0.60
4:4:37:LEU:HD23	4:4:60:GLN:OE1	2.02	0.60
10:A:48:LYS:NZ	10:A:195:ASN:HD21	1.99	0.60
10:A:172:GLY:H	20:K:419:ASN:ND2	2.00	0.60
15:F:166:GLN:O	22:M:381:ARG:NH2	2.35	0.60
17:H:104:LYS:HB3	17:H:170:GLU:OE1	2.02	0.60
17:H:340:LEU:HD12	17:H:370:ARG:NH1	2.09	0.60
24:O:217:LEU:HD21	24:O:236:HIS:HE1	1.67	0.60
27:R:37:LYS:HA	27:R:43:ARG:HH22	1.67	0.60
27:R:101:GLU:HG2	27:R:105:LYS:CE	2.31	0.60
27:R:137:LEU:O	27:R:141:TYR:CD2	2.53	0.60
27:R:421:VAL:O	27:R:422:ARG:HB3	2.01	0.60
32:W:1:MET:H3	32:W:44:ASN:HD21	1.49	0.60
32:W:20:ASP:C	32:W:21:PHE:CD1	2.75	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:W:98:LEU:O	32:W:98:LEU:HG	2.00	0.60
33:X:75:TRP:CG	33:X:87:PHE:CE1	2.88	0.60
1:1:80:SER:HB3	16:G:103:LYS:CG	2.32	0.59
8:8:212:GLU:CG	9:9:42:ARG:NH1	2.65	0.59
16:G:150:LEU:HD12	16:G:156:TYR:HB3	1.84	0.59
17:H:244:LYS:HE3	17:H:340:LEU:HD22	1.84	0.59
18:I:306:MET:SD	18:I:338:LEU:HD11	2.42	0.59
23:N:202:PHE:CE2	23:N:206:ILE:CD1	2.83	0.59
24:O:118:GLY:C	24:O:166:ARG:HD3	2.20	0.59
24:O:373:TRP:CH2	30:U:233:PHE:CG	2.90	0.59
25:P:147:LYS:HZ2	25:P:159:ILE:HG13	1.65	0.59
26:Q:51:ARG:NH2	26:Q:92:LYS:CB	2.58	0.59
28:S:138:MET:SD	28:S:179:ILE:HG12	2.42	0.59
28:S:185:PHE:CD1	28:S:239:ARG:CZ	2.84	0.59
28:S:237:ILE:HG21	28:S:253:PHE:HE1	1.67	0.59
29:T:28:PRO:HB2	29:T:29:PRO:CD	2.29	0.59
32:W:65:PHE:CD2	32:W:65:PHE:O	2.54	0.59
33:X:8:ILE:HB	33:X:124:LYS:HE3	1.83	0.59
35:Z:551:LEU:CG	35:Z:593:HIS:NE2	2.60	0.59
1:1:38:HIS:HE1	1:1:67:THR:CG2	2.14	0.59
2:2:77:VAL:O	2:2:81:GLN:HG2	2.02	0.59
10:A:52:VAL:CG2	10:A:202:VAL:CG1	2.80	0.59
19:J:119:SER:C	19:J:120:TYR:CG	2.76	0.59
23:N:436:ASP:O	23:N:439:VAL:HG12	2.02	0.59
24:O:43:GLU:O	24:O:46:THR:HB	2.02	0.59
26:Q:112:ASP:O	26:Q:116:PHE:HD2	1.85	0.59
26:Q:266:LEU:HD21	26:Q:281:ILE:CG2	2.31	0.59
28:S:159:ASN:HB2	28:S:187:ILE:CD1	2.33	0.59
29:T:224:ARG:CG	29:T:242:LYS:HG2	2.32	0.59
31:V:144:ILE:HG22	31:V:145:GLN:HE21	1.66	0.59
32:W:88:ALA:HB2	32:W:120:ASP:HB3	1.84	0.59
33:X:10:PHE:CD2	33:X:11:ARG:O	2.54	0.59
4:4:81:SER:CA	4:4:124:LYS:NZ	2.65	0.59
6:6:147:PHE:CD2	6:6:163:LEU:HA	2.37	0.59
12:C:16:GLU:OE1	12:C:18:ARG:NH2	2.36	0.59
13:D:106:VAL:HG12	13:D:148:TYR:CE2	2.37	0.59
14:E:125:GLU:CD	15:F:123:TYR:CE1	2.74	0.59
16:G:7:TYR:CD1	16:G:13:VAL:HG23	2.37	0.59
25:P:231:LYS:O	25:P:232:ARG:CB	2.49	0.59
25:P:269:VAL:HA	25:P:277:GLN:NE2	2.17	0.59
26:Q:135:HIS:NE2	26:Q:164:GLU:HG3	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:59:MET:HE1	27:R:143:GLN:O	2.00	0.59
27:R:353:MET:HA	27:R:357:PHE:CE1	2.37	0.59
28:S:421:TYR:CE1	29:T:158:GLN:HB2	2.37	0.59
30:U:275:VAL:HG12	31:V:251:TYR:CE1	2.04	0.59
31:V:184:ASN:O	31:V:188:LEU:HG	2.01	0.59
32:W:21:PHE:CZ	32:W:25:ARG:HG3	2.37	0.59
35:Z:124:MET:CE	35:Z:153:TYR:HA	2.32	0.59
1:1:13:ILE:CD1	1:1:177:VAL:HG22	2.32	0.59
1:1:109:GLU:HB3	1:1:111:TYR:CE1	2.37	0.59
1:1:176:VAL:HG13	1:1:183:VAL:HG12	1.83	0.59
7:7:81:PRO:HD2	7:7:112:GLN:HG2	1.84	0.59
8:8:114:MSE:CE	8:8:181:PRO:HD2	2.32	0.59
16:G:140:VAL:HG21	16:G:225:GLY:HA2	1.84	0.59
17:H:208:TYR:OH	17:H:266:ARG:HD2	2.02	0.59
19:J:166:LEU:C	19:J:174:PHE:CZ	2.75	0.59
21:L:164:ASP:O	21:L:166:LEU:HD12	2.02	0.59
21:L:328:ASN:ND2	21:L:329:ARG:NE	2.50	0.59
23:N:555:ILE:HG23	23:N:559:TYR:CE2	2.38	0.59
24:O:196:LEU:HD13	24:O:213:LEU:CD2	2.31	0.59
28:S:186:TYR:OH	28:S:309:PHE:HZ	1.85	0.59
30:U:105:LYS:HB3	32:W:58:ASN:HD21	1.65	0.59
31:V:261:LEU:CD1	31:V:283:THR:HG22	2.30	0.59
35:Z:189:ALA:HB3	35:Z:193:PHE:HB3	1.82	0.59
35:Z:800:SER:OG	35:Z:815:MET:CE	2.50	0.59
3:3:20:LEU:HD13	4:4:125:VAL:HG21	1.84	0.59
4:4:95:ARG:NE	5:5:92:GLY:HA3	2.14	0.59
14:E:157:HIS:HB3	14:E:170:LYS:HZ3	1.67	0.59
16:G:141:ASP:OD1	16:G:143:ASN:N	2.22	0.59
19:J:219:VAL:HG13	20:K:284:ALA:HB1	1.85	0.59
21:L:276:CYS:SG	21:L:321:THR:HG23	2.42	0.59
21:L:360:ILE:CG2	21:L:391:ILE:CD1	2.51	0.59
22:M:383:THR:HB	22:M:386:PHE:CD1	2.37	0.59
23:N:14:ARG:NH2	23:N:42:GLU:CD	2.35	0.59
24:O:33:TYR:CE1	24:O:57:LEU:HB2	2.38	0.59
24:O:66:VAL:HG11	24:O:106:PHE:CE1	2.37	0.59
24:O:140:LYS:HD3	24:O:141:ASN:HD21	1.66	0.59
29:T:225:ASN:HB2	29:T:241:GLU:HB3	1.83	0.59
30:U:287:ALA:O	30:U:291:LEU:HG	2.03	0.59
33:X:35:ILE:HG12	33:X:124:LYS:CE	2.32	0.59
33:X:66:LEU:HD12	33:X:97:TYR:CG	2.37	0.59
1:1:119:VAL:CG1	16:G:103:LYS:NZ	2.64	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:4:LEU:HD11	5:5:15:ALA:HB3	1.83	0.59
7:7:10:ASN:HD22	7:7:195:ASN:HD21	1.49	0.59
12:C:53:THR:HB	12:C:59:GLN:CD	2.23	0.59
14:E:153:TYR:OH	14:E:223:THR:HA	2.02	0.59
15:F:120:THR:HB	16:G:129:ARG:HH22	1.67	0.59
17:H:102:CYS:SG	17:H:174:VAL:CG2	2.90	0.59
18:I:362:LEU:CD2	18:I:377:LEU:HD22	2.31	0.59
23:N:542:SER:HB3	23:N:547:LEU:HD12	1.84	0.59
26:Q:382:LEU:HD21	27:R:344:SER:HB3	1.84	0.59
27:R:360:SER:HA	34:Y:86:ARG:NH2	2.18	0.59
27:R:415:GLN:CG	28:S:471:LEU:HD22	2.08	0.59
28:S:242:LEU:HD21	28:S:278:LYS:HG2	1.85	0.59
4:4:7:ARG:HG3	4:4:12:VAL:HG22	1.84	0.59
10:A:119:LYS:HG2	10:A:163:TYR:CZ	2.37	0.59
10:A:130:GLN:CB	11:B:127:VAL:HG23	2.32	0.59
16:G:111:PHE:CE2	16:G:115:LEU:HD11	2.38	0.59
16:G:122:HIS:CD2	16:G:128:VAL:CG1	2.85	0.59
20:K:158:ILE:N	21:L:256:ILE:CG2	2.65	0.59
23:N:324:LYS:HG3	23:N:325:PHE:CE1	2.37	0.59
23:N:596:LEU:HD11	23:N:717:LEU:CD2	2.32	0.59
23:N:641:LEU:HB2	23:N:660:LEU:HD21	1.85	0.59
24:O:62:TYR:CE2	24:O:82:LEU:HD13	2.37	0.59
24:O:140:LYS:HD3	24:O:141:ASN:ND2	2.16	0.59
24:O:185:PHE:HB3	24:O:223:LEU:CB	2.32	0.59
24:O:293:LEU:O	24:O:297:ILE:CG1	2.47	0.59
27:R:110:ILE:HD11	27:R:140:TYR:OH	2.02	0.59
33:X:41:GLU:CB	33:X:45:PHE:N	2.62	0.59
2:2:8:PHE:CE1	2:2:11:GLY:C	2.76	0.59
4:4:34:THR:OG1	4:4:181:LYS:NZ	2.36	0.59
13:D:96:HIS:CD2	13:D:100:LEU:HB2	2.38	0.59
14:E:162:GLY:O	15:F:82:ARG:NH2	2.36	0.59
23:N:238:ALA:O	23:N:242:PHE:HD2	1.83	0.59
23:N:338:PHE:CE1	23:N:749:LEU:HB3	2.37	0.59
23:N:719:ASN:HB3	23:N:721:ASP:OD1	2.02	0.59
24:O:140:LYS:HG2	24:O:141:ASN:CG	2.22	0.59
24:O:306:ARG:CD	24:O:351:SER:O	2.29	0.59
25:P:303:PHE:C	25:P:348:HIS:HE2	2.02	0.59
29:T:175:ASP:OD1	29:T:176:SER:N	2.34	0.59
35:Z:321:PHE:HE1	35:Z:350:GLY:CA	1.85	0.59
4:4:40:HIS:HD2	4:4:184:ASP:O	1.86	0.59
10:A:14:ARG:HA	10:A:27:GLN:NE2	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:B:27:ALA:CB	20:K:426:PHE:CE1	2.79	0.59
15:F:38:LEU:HD13	15:F:172:LEU:HD22	1.83	0.59
17:H:105:ILE:CD1	17:H:146:VAL:HA	2.33	0.59
18:I:113:ILE:HG22	18:I:114:ASP:N	2.18	0.59
18:I:378:GLU:O	18:I:382:THR:HG23	2.02	0.59
19:J:219:VAL:CG1	20:K:281:ARG:NE	2.66	0.59
21:L:259:SER:HB2	21:L:303:ARG:NH2	2.09	0.59
35:Z:963:ALA:C	35:Z:964:GLU:OE1	2.41	0.59
1:1:75:THR:HB	1:1:111:TYR:HE1	1.65	0.59
3:3:172:SER:O	3:3:193:MET:HE1	2.03	0.59
11:B:85:LEU:HD21	11:B:118:MET:HE3	1.85	0.59
19:J:113:VAL:CG2	19:J:122:LEU:HD22	2.33	0.59
20:K:173:ASP:HB2	20:K:221:MET:SD	2.43	0.59
20:K:281:ARG:NH2	20:K:286:THR:C	2.56	0.59
22:M:365:SER:HB3	22:M:376:TRP:CZ2	2.25	0.59
23:N:641:LEU:CD1	23:N:660:LEU:HD23	2.33	0.59
25:P:221:TYR:HE2	25:P:244:ILE:CG1	2.16	0.59
25:P:369:LEU:O	25:P:371:LEU:HG	2.03	0.59
25:P:433:ILE:HD11	30:U:203:LYS:HD3	1.85	0.59
31:V:109:HIS:HE1	31:V:122:ASP:OD1	1.85	0.59
33:X:11:ARG:O	33:X:103:GLU:OE2	2.20	0.59
33:X:35:ILE:CG1	33:X:124:LYS:CE	2.79	0.59
35:Z:352:LYS:C	35:Z:353:VAL:HG23	2.23	0.59
35:Z:924:LYS:CG	35:Z:959:HIS:CE1	2.85	0.59
7:7:7:LYS:CE	7:7:119:LEU:HB3	2.32	0.58
8:8:282:GLU:HB2	9:9:12:THR:N	2.14	0.58
10:A:122:ALA:CB	10:A:163:TYR:CD1	2.86	0.58
11:B:4:ARG:HH22	13:D:5:ASP:CB	2.07	0.58
12:C:98:TYR:CE1	12:C:105:ASP:O	2.56	0.58
15:F:65:LYS:HG3	15:F:222:PHE:CE2	2.38	0.58
15:F:194:VAL:HG11	15:F:234:ILE:HA	1.84	0.58
22:M:75:LEU:HG	22:M:77:TYR:HE1	1.46	0.58
23:N:298:TYR:OH	23:N:766:GLN:HB3	2.03	0.58
23:N:316:LYS:HE2	23:N:683:LEU:HD11	1.85	0.58
23:N:667:GLN:HG3	23:N:671:LEU:HD23	1.82	0.58
24:O:80:LYS:HD3	24:O:81:TYR:CE2	2.38	0.58
24:O:82:LEU:HD23	24:O:98:TYR:OH	2.02	0.58
35:Z:542:ILE:O	35:Z:546:ILE:HG12	2.03	0.58
3:3:89:ARG:NE	3:3:94:TYR:OH	2.29	0.58
6:6:9:GLU:HG2	6:6:11:PHE:HE1	1.67	0.58
15:F:153:VAL:HB	16:G:85:ARG:NH1	2.14	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:187:LEU:HD22	18:I:115:ASP:CG	2.24	0.58
20:K:150:LEU:HD11	21:L:128:ILE:HD11	1.84	0.58
24:O:228:TYR:CD1	24:O:294:MET:HG3	2.39	0.58
27:R:167:LYS:O	27:R:171:MET:HG2	2.03	0.58
32:W:145:GLY:HA3	32:W:148:GLU:OE1	2.03	0.58
1:1:90:LYS:HE2	7:7:-7:GLN:OE1	2.03	0.58
1:1:119:VAL:CB	16:G:103:LYS:HZ3	2.16	0.58
3:3:61:LYS:HZ2	3:3:85:SER:HB3	1.68	0.58
7:7:1:THR:HG22	7:7:2:SER:OG	2.03	0.58
15:F:65:LYS:HD2	15:F:222:PHE:CD2	2.37	0.58
17:H:274:VAL:HG21	17:H:294:LEU:HD13	1.85	0.58
18:I:339:ILE:O	18:I:340:ARG:HB3	2.03	0.58
18:I:369:MET:HE1	18:I:416:PHE:HZ	1.67	0.58
20:K:281:ARG:NH2	20:K:287:GLY:N	2.51	0.58
21:L:197:ILE:HA	21:L:322:LYS:HE3	1.85	0.58
23:N:326:SER:N	31:V:182:LYS:CG	2.65	0.58
23:N:328:PHE:HE1	23:N:696:LYS:HB2	1.67	0.58
23:N:671:LEU:HD22	23:N:782:PHE:CE1	2.38	0.58
23:N:707:ASN:HD21	23:N:786:ARG:NH1	2.01	0.58
24:O:137:TYR:CB	24:O:149:LEU:CD1	2.81	0.58
24:O:250:TRP:CE2	24:O:270:ILE:HA	2.38	0.58
24:O:340:SER:O	25:P:358:SER:HB2	2.03	0.58
26:Q:48:ASP:HB3	26:Q:88:PHE:CE1	2.38	0.58
26:Q:297:ASP:HB3	26:Q:321:TYR:CZ	2.37	0.58
29:T:39:LEU:O	29:T:40:LEU:CB	2.51	0.58
35:Z:265:LEU:HD13	35:Z:288:LEU:HD21	1.85	0.58
1:1:119:VAL:HG11	16:G:103:LYS:NZ	2.18	0.58
10:A:87:ILE:CG2	10:A:88:PRO:HD3	2.32	0.58
17:H:98:GLN:OE1	17:H:178:ARG:NE	2.34	0.58
17:H:105:ILE:HA	17:H:170:GLU:OE2	2.04	0.58
17:H:198:MET:HE1	17:H:272:ILE:HG12	1.86	0.58
19:J:163:VAL:HG13	19:J:182:PRO:HG2	1.84	0.58
19:J:273:LEU:HD22	19:J:309:ARG:O	2.02	0.58
23:N:479:GLU:HB3	23:N:512:ASN:HD21	1.69	0.58
23:N:884:PHE:CD2	23:N:896:PHE:HB2	2.38	0.58
24:O:345:ASN:O	24:O:347:LEU:HG	2.02	0.58
25:P:260:VAL:HG22	25:P:328:ALA:CB	2.33	0.58
25:P:286:ASN:O	25:P:293:LEU:HD11	2.03	0.58
26:Q:46:VAL:C	26:Q:50:ARG:HB2	2.22	0.58
27:R:193:ALA:O	27:R:197:MET:HG3	2.03	0.58
32:W:98:LEU:HD11	32:W:108:GLN:CG	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:624:LEU:HD13	35:Z:736:LEU:O	2.04	0.58
12:C:68:LYS:HG3	12:C:229:ILE:HD11	1.85	0.58
17:H:147:ILE:HD11	17:H:157:VAL:O	2.04	0.58
17:H:295:PHE:CE1	17:H:336:LEU:HD12	2.38	0.58
19:J:250:ILE:HA	19:J:299:ILE:HD13	1.84	0.58
19:J:327:ILE:HG22	19:J:358:VAL:HG11	1.85	0.58
19:J:329:ARG:HB2	19:J:343:LEU:HD13	1.85	0.58
21:L:136:ASP:O	21:L:158:ILE:HD13	2.03	0.58
22:M:289:LYS:HD2	22:M:295:LYS:HE3	1.85	0.58
23:N:641:LEU:HD12	23:N:660:LEU:HD23	1.86	0.58
24:O:303:LYS:HZ3	30:U:234:ASN:ND2	2.01	0.58
24:O:303:LYS:HZ2	30:U:234:ASN:ND2	2.00	0.58
25:P:327:LEU:O	25:P:328:ALA:HB3	2.04	0.58
26:Q:3:LEU:HD23	26:Q:36:SER:HA	1.86	0.58
31:V:24:LYS:HZ2	31:V:197:TYR:HE2	1.44	0.58
33:X:75:TRP:HA	33:X:87:PHE:CE1	2.26	0.58
3:3:-2:ASN:C	3:3:19:ARG:HH12	2.07	0.58
4:4:77:GLN:OE1	4:4:116:TYR:OH	2.05	0.58
11:B:82:TYR:HE1	11:B:134:LEU:CD2	2.17	0.58
17:H:166:THR:O	17:H:186:PRO:HB3	2.03	0.58
20:K:306:PHE:O	20:K:307:ASP:HB2	2.03	0.58
21:L:259:SER:HB3	21:L:303:ARG:NH2	2.03	0.58
21:L:382:MET:HE1	21:L:416:MET:HA	1.86	0.58
23:N:329:HIS:ND1	23:N:355:TRP:HE3	2.00	0.58
25:P:94:GLN:HG3	25:P:125:VAL:HG12	1.84	0.58
25:P:298:SER:O	25:P:302:LEU:HG	2.02	0.58
26:Q:419:LEU:HD23	26:Q:419:LEU:O	2.02	0.58
30:U:92:TRP:CE3	30:U:110:PHE:HE2	2.21	0.58
5:5:58:TRP:CH2	5:5:86:LEU:HD11	2.38	0.58
8:8:209:ASP:CG	9:9:73:LEU:H	2.06	0.58
12:C:194:LEU:HD23	12:C:197:LEU:HD12	1.86	0.58
16:G:98:PHE:CD2	16:G:106:ILE:HA	2.37	0.58
18:I:384:LYS:NZ	18:I:395:MET:SD	2.75	0.58
19:J:329:ARG:HG3	19:J:333:ARG:HH12	1.60	0.58
20:K:347:ARG:HH12	26:Q:205:ALA:CB	2.13	0.58
21:L:389:ALA:HA	21:L:392:ARG:CZ	2.33	0.58
24:O:133:ILE:O	24:O:137:TYR:CG	2.56	0.58
24:O:205:ILE:CD1	24:O:210:ARG:HD2	2.31	0.58
24:O:235:HIS:NE2	24:O:358:ILE:HG23	2.19	0.58
25:P:360:ILE:CD1	25:P:365:LEU:HD13	2.34	0.58
27:R:292:LEU:HD21	27:R:307:TYR:CB	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:S:176:LEU:CD1	28:S:179:ILE:HB	2.33	0.58
33:X:100:TRP:CZ2	33:X:110:PRO:HD3	2.39	0.58
2:2:152:ILE:CD1	2:2:177:VAL:HG21	2.34	0.58
12:C:4:ARG:HG3	12:C:9:ARG:NH2	2.18	0.58
18:I:167:MET:CG	18:I:270:VAL:HG11	2.33	0.58
19:J:27:ILE:HG13	20:K:51:LEU:HD11	1.86	0.58
20:K:254:VAL:CG1	20:K:258:PHE:HE1	2.11	0.58
20:K:262:ARG:NH1	20:K:311:ASN:ND2	2.51	0.58
21:L:81:ILE:O	21:L:83:ASP:N	2.37	0.58
25:P:271:SER:O	25:P:344:ARG:HD3	2.03	0.58
26:Q:65:TYR:HD2	26:Q:74:LEU:CB	2.04	0.58
28:S:343:LEU:N	28:S:344:PRO:HD2	2.17	0.58
29:T:241:GLU:H	29:T:246:GLU:HB2	1.68	0.58
33:X:85:ARG:HE	33:X:115:SER:HB3	1.68	0.58
2:2:84:LYS:HE3	2:2:85:GLN:HE21	1.69	0.58
17:H:97:LEU:HD13	17:H:174:VAL:C	2.23	0.58
18:I:190:GLN:NE2	18:I:351:GLU:HB3	2.19	0.58
27:R:237:THR:HG22	27:R:250:ALA:HA	1.86	0.58
29:T:46:ILE:CD1	29:T:94:HIS:NE2	2.67	0.58
29:T:241:GLU:O	29:T:242:LYS:CB	2.51	0.58
35:Z:889:VAL:HG22	35:Z:890:SER:N	2.19	0.58
10:A:48:LYS:HZ1	10:A:195:ASN:HD21	1.50	0.58
12:C:120:GLN:NE2	13:D:81:ASP:OD1	2.37	0.58
17:H:49:LEU:C	17:H:49:LEU:HD13	2.25	0.58
18:I:252:LEU:C	18:I:253:ILE:CA	2.72	0.58
20:K:200:GLN:O	27:R:204:TRP:CE2	2.56	0.58
23:N:300:ASN:ND2	23:N:920:VAL:HG11	2.19	0.58
27:R:54:ILE:HD12	27:R:54:ILE:C	2.24	0.58
29:T:197:TYR:CZ	29:T:199:PHE:C	2.77	0.58
30:U:90:ILE:C	30:U:90:ILE:HD12	2.24	0.58
30:U:280:ASN:HD21	31:V:291:ASN:CB	2.17	0.58
35:Z:56:LEU:HB3	35:Z:99:LEU:HD21	1.85	0.58
35:Z:394:TYR:CD2	35:Z:395:CYS:N	2.67	0.58
35:Z:490:ILE:HG23	35:Z:529:ALA:HB2	1.86	0.58
8:8:320:LYS:HE3	17:H:164:SER:C	2.24	0.57
12:C:18:ARG:NH1	12:C:23:GLU:CD	2.57	0.57
17:H:389:PHE:CE2	17:H:407:ILE:HG22	2.39	0.57
19:J:27:ILE:HG12	20:K:51:LEU:HG	1.85	0.57
19:J:192:GLY:HA2	19:J:253:ILE:HG13	1.84	0.57
19:J:276:LEU:HD22	19:J:286:LYS:HE2	1.86	0.57
23:N:508:THR:HG21	23:N:513:ILE:CB	2.32	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:738:GLN:NE2	23:N:742:TRP:CH2	2.72	0.57
24:O:166:ARG:NH2	24:O:169:ASN:HB3	2.19	0.57
25:P:119:ILE:CD1	25:P:143:LEU:HD22	2.33	0.57
26:Q:314:PHE:CZ	26:Q:339:TYR:HB2	2.39	0.57
27:R:412:THR:HG22	27:R:416:LYS:HE3	1.86	0.57
30:U:92:TRP:NE1	30:U:120:LEU:HB2	2.19	0.57
4:4:37:LEU:HD21	4:4:43:MET:SD	2.44	0.57
6:6:-2:ASN:HD22	6:6:49:ALA:H	1.52	0.57
14:E:165:TYR:O	14:E:167:TYR:CE1	2.58	0.57
18:I:106:ILE:HD13	19:J:85:LEU:HD22	1.82	0.57
18:I:303:GLN:O	18:I:307:LEU:HG	2.04	0.57
24:O:217:LEU:HD21	24:O:236:HIS:CE1	2.38	0.57
25:P:238:ALA:O	25:P:242:GLN:HG3	2.03	0.57
26:Q:61:LEU:HB3	26:Q:65:TYR:CE1	2.31	0.57
27:R:292:LEU:HD21	27:R:307:TYR:HB3	1.85	0.57
29:T:93:ASN:HD21	29:T:94:HIS:HD2	1.50	0.57
29:T:226:TRP:CD2	29:T:235:PHE:CE2	2.92	0.57
30:U:283:ARG:HH11	31:V:284:ALA:HA	1.63	0.57
31:V:52:LEU:O	31:V:108:TYR:CE1	2.57	0.57
32:W:16:SER:HA	32:W:25:ARG:NH1	2.19	0.57
1:1:8:PHE:HD2	1:1:10:ASP:H	1.50	0.57
12:C:9:ARG:HD3	14:E:9:ASP:OD1	2.03	0.57
18:I:222:TYR:OH	18:I:349:LEU:HB3	2.04	0.57
19:J:45:GLU:OE2	19:J:48:ARG:NH2	2.27	0.57
19:J:166:LEU:HB2	19:J:174:PHE:HZ	1.68	0.57
20:K:200:GLN:CG	27:R:204:TRP:CZ2	2.54	0.57
20:K:254:VAL:CG1	20:K:258:PHE:CE1	2.87	0.57
25:P:342:GLN:HE21	25:P:346:ILE:HD11	1.70	0.57
26:Q:294:ARG:NH2	26:Q:324:GLU:HB2	2.20	0.57
29:T:38:ASN:O	29:T:39:LEU:HD23	2.03	0.57
7:7:62:LEU:HD21	7:7:87:TYR:CZ	2.39	0.57
9:9:17:VAL:HG12	9:9:29:LYS:HE3	1.85	0.57
15:F:123:TYR:CD1	15:F:123:TYR:C	2.77	0.57
18:I:300:ARG:HG2	18:I:304:ARG:HH11	1.69	0.57
23:N:158:LEU:HD13	23:N:192:LEU:CD2	2.34	0.57
24:O:26:PHE:HD1	24:O:61:LEU:CD2	2.16	0.57
24:O:230:PHE:HD1	24:O:251:LEU:CD1	2.16	0.57
25:P:131:PHE:CD1	25:P:166:GLU:HB3	2.40	0.57
25:P:164:GLN:HE22	25:P:202:LYS:NZ	2.01	0.57
26:Q:61:LEU:HD13	26:Q:65:TYR:CE2	2.39	0.57
26:Q:390:LEU:HD23	27:R:345:TYR:CE1	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:S:471:LEU:CD1	30:U:288:PHE:CE2	2.87	0.57
29:T:173:GLU:HA	29:T:175:ASP:OD1	2.04	0.57
30:U:92:TRP:CE3	30:U:106:ILE:HG21	2.38	0.57
31:V:50:MET:CB	31:V:78:VAL:HG13	2.35	0.57
35:Z:510:LEU:CD1	35:Z:542:ILE:HA	2.31	0.57
10:A:220:LYS:CD	10:A:242:GLU:HB2	2.32	0.57
14:E:130:GLU:CD	14:E:132:ARG:HE	2.08	0.57
17:H:62:ARG:HG2	17:H:66:LYS:HE3	1.86	0.57
17:H:95:HIS:HE2	17:H:187:LEU:HD13	1.67	0.57
18:I:358:LYS:CE	18:I:387:LEU:H	2.17	0.57
19:J:219:VAL:C	20:K:281:ARG:CD	2.66	0.57
20:K:134:SER:OG	20:K:255:ARG:CZ	2.52	0.57
23:N:510:HIS:CE1	23:N:512:ASN:HB3	2.39	0.57
24:O:79:VAL:HG23	24:O:122:HIS:CG	2.40	0.57
25:P:218:LEU:HD21	25:P:256:LYS:HZ1	1.67	0.57
29:T:189:ILE:HG21	29:T:209:LEU:HD23	1.85	0.57
35:Z:81:SER:C	35:Z:82:MET:HG3	2.19	0.57
35:Z:312:TYR:OH	35:Z:348:LEU:HD23	2.05	0.57
7:7:68:TYR:CE2	16:G:92:ARG:HB3	2.39	0.57
10:A:24:ARG:NE	10:A:29:GLU:OE2	2.37	0.57
11:B:53:SER:HB3	11:B:56:ALA:HB2	1.86	0.57
11:B:139:HIS:HB2	11:B:145:PHE:CE1	2.39	0.57
15:F:137:TYR:CE2	15:F:218:LYS:HA	2.39	0.57
18:I:196:GLU:O	18:I:208:TYR:OH	2.21	0.57
18:I:253:ILE:HG22	18:I:253:ILE:O	2.05	0.57
19:J:111:GLN:CD	19:J:125:VAL:HG13	2.24	0.57
21:L:394:CYS:SG	21:L:419:VAL:HA	2.45	0.57
21:L:403:ILE:HG23	22:M:203:ARG:HH11	1.70	0.57
22:M:220:MET:HB3	22:M:349:PHE:HE1	1.69	0.57
23:N:399:PHE:CE2	23:N:438:ASP:OD1	2.58	0.57
24:O:81:TYR:O	24:O:82:LEU:CB	2.51	0.57
24:O:133:ILE:HG13	24:O:137:TYR:CZ	2.40	0.57
25:P:415:TRP:CG	30:U:265:LEU:HD11	2.39	0.57
29:T:139:ASP:HB2	29:T:142:LEU:HD12	1.86	0.57
35:Z:52:LEU:HB3	35:Z:67:SER:OG	2.05	0.57
35:Z:394:TYR:CG	35:Z:395:CYS:N	2.72	0.57
35:Z:737:ALA:HB1	35:Z:775:MET:HE1	1.85	0.57
4:4:24:ILE:HG23	4:4:25:SER:HB3	1.86	0.57
4:4:69:ARG:HA	13:D:90:ARG:NH1	2.19	0.57
12:C:208:TYR:HB2	12:C:235:ILE:HG22	1.87	0.57
13:D:49:ARG:CG	13:D:203:VAL:HG13	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:G:108:ILE:HG22	16:G:148:TYR:CD1	2.38	0.57
17:H:367:ARG:HH21	22:M:225:GLY:HA2	1.69	0.57
19:J:301:ASP:N	19:J:304:LEU:CD1	2.61	0.57
20:K:350:ARG:NH2	26:Q:215:VAL:HG11	2.18	0.57
24:O:79:VAL:CG2	24:O:122:HIS:CB	2.82	0.57
24:O:137:TYR:HB2	24:O:149:LEU:HD13	1.86	0.57
27:R:72:VAL:HA	27:R:76:GLN:OE1	2.05	0.57
31:V:80:VAL:CG2	31:V:125:THR:HA	2.28	0.57
35:Z:407:VAL:CG1	35:Z:415:MET:HG3	2.34	0.57
35:Z:889:VAL:H	35:Z:894:MET:CE	2.18	0.57
1:1:124:TYR:CE1	1:1:142:PHE:CE2	2.93	0.57
2:2:187:LEU:HD13	2:2:190:TYR:CE1	2.40	0.57
6:6:9:GLU:HG2	6:6:11:PHE:CE1	2.39	0.57
7:7:85:PHE:CE2	7:7:120:ARG:CZ	2.86	0.57
12:C:16:GLU:OE1	12:C:18:ARG:CZ	2.53	0.57
16:G:42:ASN:ND2	16:G:183:PRO:HG2	2.19	0.57
17:H:217:GLN:HG2	17:H:376:GLU:O	2.04	0.57
24:O:79:VAL:HG21	24:O:123:GLY:H	1.69	0.57
24:O:369:ARG:HE	30:U:226:LEU:HD22	1.68	0.57
27:R:43:ARG:NE	27:R:70:TYR:OH	2.28	0.57
27:R:199:GLU:HB3	27:R:206:ARG:CZ	2.35	0.57
31:V:79:SER:CA	31:V:121:VAL:CG1	2.83	0.57
35:Z:906:ALA:O	35:Z:909:ARG:NH1	2.34	0.57
3:3:44:ILE:HG12	3:3:98:PRO:CB	2.33	0.57
5:5:73:ARG:HH12	5:5:106:ARG:HD2	1.70	0.57
5:5:159:ARG:NH2	5:5:203:GLU:OE1	2.35	0.57
11:B:85:LEU:HD21	11:B:118:MET:CE	2.35	0.57
12:C:213:PHE:CZ	12:C:215:THR:CG2	2.88	0.57
17:H:318:ARG:NH1	17:H:364:ALA:HB3	2.18	0.57
24:O:276:LYS:O	24:O:277:ILE:CB	2.53	0.57
25:P:213:TYR:CE2	25:P:217:LYS:CE	2.88	0.57
26:Q:250:THR:CG2	26:Q:251:THR:H	2.14	0.57
27:R:176:ARG:HB2	27:R:243:LEU:CD1	2.34	0.57
28:S:323:LEU:HD23	28:S:383:LEU:HD23	1.85	0.57
30:U:283:ARG:NH2	31:V:283:THR:O	2.37	0.57
33:X:85:ARG:CZ	33:X:115:SER:HB2	2.34	0.57
1:1:78:ALA:O	1:1:82:PHE:CD2	2.58	0.57
1:1:148:LYS:HE3	1:1:177:VAL:HG11	1.87	0.57
6:6:73:LYS:HD3	14:E:150:ASP:OD2	2.05	0.57
8:8:329:ILE:CG2	17:H:163:VAL:HG21	2.34	0.57
14:E:84:ASP:OD1	14:E:136:ARG:NH2	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:G:137:PHE:CZ	16:G:148:TYR:HB2	2.40	0.57
17:H:420:ARG:CD	18:I:343:ARG:HH12	2.17	0.57
18:I:190:GLN:OE1	18:I:349:LEU:CD1	2.48	0.57
19:J:350:MET:SD	19:J:361:VAL:HG21	2.45	0.57
20:K:140:HIS:CE1	20:K:142:HIS:HB2	2.38	0.57
20:K:173:ASP:CB	20:K:221:MET:SD	2.92	0.57
20:K:363:ALA:HB1	20:K:364:PRO:HD2	1.86	0.57
22:M:183:VAL:HG12	22:M:186:LEU:HD12	1.87	0.57
22:M:372:ASP:O	22:M:373:ASP:OD1	2.23	0.57
23:N:277:LEU:HD12	23:N:287:LEU:HD23	1.86	0.57
24:O:4:ASN:HD21	24:O:30:GLU:HB3	1.69	0.57
24:O:79:VAL:HG21	24:O:122:HIS:CB	2.34	0.57
24:O:366:MET:HG2	30:U:226:LEU:HD13	1.85	0.57
25:P:293:LEU:HD23	25:P:293:LEU:C	2.26	0.57
27:R:101:GLU:O	27:R:105:LYS:HG3	2.05	0.57
27:R:263:ARG:HD3	27:R:296:LEU:CG	2.35	0.57
31:V:96:LYS:N	31:V:101:ASP:HB2	2.19	0.57
35:Z:394:TYR:CE2	35:Z:395:CYS:O	2.58	0.57
35:Z:422:ILE:HD11	35:Z:436:LEU:CD2	2.35	0.57
35:Z:433:LEU:CD1	35:Z:455:ILE:HG23	2.35	0.57
4:4:117:GLN:NE2	4:4:130:GLY:HA3	2.20	0.56
6:6:34:VAL:HG12	6:6:196:LEU:CD1	2.21	0.56
6:6:48:PHE:CZ	6:6:50:ALA:CB	2.88	0.56
11:B:65:SER:HB2	11:B:90:ARG:HH21	1.70	0.56
16:G:73:ILE:CG1	16:G:108:ILE:HD13	2.33	0.56
16:G:122:HIS:NE2	16:G:128:VAL:HG11	2.20	0.56
21:L:253:ASP:HA	22:M:256:ILE:CG2	2.34	0.56
24:O:294:MET:SD	24:O:357:ILE:HG23	2.45	0.56
24:O:352:TRP:CH2	30:U:227:GLY:HA3	2.39	0.56
27:R:80:GLU:HG3	27:R:81:HIS:CD2	2.40	0.56
27:R:342:LEU:CG	27:R:392:ARG:HH21	2.17	0.56
28:S:223:LEU:HD21	28:S:230:LYS:HE2	1.86	0.56
29:T:155:GLY:O	29:T:156:SER:OG	2.22	0.56
32:W:10:ILE:HA	32:W:113:PHE:CD2	2.39	0.56
32:W:101:ARG:CZ	32:W:104:LYS:HA	2.33	0.56
33:X:16:GLU:CB	33:X:27:ILE:HB	2.33	0.56
33:X:32:GLU:HG3	33:X:53:THR:OG1	2.05	0.56
33:X:41:GLU:CD	33:X:45:PHE:HB2	2.25	0.56
33:X:44:GLY:O	33:X:46:TRP:HD1	1.85	0.56
35:Z:169:VAL:HG22	35:Z:192:GLY:HA3	1.87	0.56
35:Z:857:LEU:HD23	35:Z:857:LEU:C	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:141:ASN:HB2	1:1:154:PHE:HE1	1.69	0.56
2:2:220:ILE:CD1	3:3:39:HIS:CE1	2.88	0.56
10:A:94:ALA:O	10:A:98:LYS:HG3	2.05	0.56
16:G:182:HIS:ND1	16:G:186:LEU:HG	2.19	0.56
19:J:350:MET:CG	19:J:386:VAL:HG13	2.35	0.56
22:M:75:LEU:HD21	22:M:77:TYR:HE1	1.68	0.56
23:N:588:VAL:HG12	23:N:620:GLY:O	2.04	0.56
24:O:250:TRP:CH2	24:O:270:ILE:CG2	2.79	0.56
24:O:366:MET:HE2	30:U:226:LEU:CD1	2.35	0.56
26:Q:370:THR:O	26:Q:374:GLU:HG3	2.04	0.56
27:R:304:TYR:CZ	27:R:337:VAL:HG21	2.40	0.56
28:S:138:MET:HB3	28:S:179:ILE:HD11	1.87	0.56
29:T:25:LYS:O	29:T:28:PRO:HD2	2.05	0.56
30:U:92:TRP:CZ3	30:U:106:ILE:HG22	2.39	0.56
31:V:161:THR:HA	31:V:189:ILE:CD1	2.29	0.56
1:1:36:ARG:HB2	1:1:42:TRP:CH2	2.40	0.56
1:1:38:HIS:CE1	1:1:67:THR:OG1	2.59	0.56
2:2:140:SER:OG	2:2:141:HIS:CD2	2.59	0.56
3:3:60:TYR:CD1	12:C:96:GLN:CB	2.88	0.56
5:5:57:THR:HG22	14:E:101:LEU:CD1	2.35	0.56
5:5:66:HIS:CE1	5:5:70:GLU:OE2	2.58	0.56
8:8:430:TYR:HB3	8:8:494:TYR:HB3	1.87	0.56
10:A:57:LYS:CE	10:A:69:VAL:HB	2.35	0.56
11:B:82:TYR:CE1	11:B:134:LEU:CD2	2.89	0.56
12:C:4:ARG:HA	12:C:9:ARG:HH22	1.69	0.56
15:F:138:ASP:OD1	15:F:140:SER:HB2	2.05	0.56
15:F:166:GLN:CB	22:M:381:ARG:NH2	2.67	0.56
15:F:197:ILE:HG23	15:F:206:LEU:HD21	1.87	0.56
16:G:64:VAL:HG12	16:G:66:ILE:H	1.69	0.56
17:H:105:ILE:CD1	17:H:147:ILE:H	2.18	0.56
17:H:249:TYR:CE1	17:H:376:GLU:HA	2.40	0.56
18:I:167:MET:HG3	18:I:270:VAL:HG11	1.85	0.56
18:I:172:LYS:HD3	19:J:275:LEU:HD21	1.88	0.56
19:J:143:PRO:HD2	19:J:204:HIS:HA	1.88	0.56
20:K:169:VAL:HB	20:K:224:LYS:HD2	1.86	0.56
20:K:188:VAL:HA	20:K:313:LYS:HZ3	1.65	0.56
20:K:244:HIS:HE1	20:K:295:ILE:HD11	1.70	0.56
22:M:196:ALA:HB2	22:M:345:ARG:HE	1.70	0.56
22:M:221:TYR:HE1	22:M:346:LYS:HG3	1.67	0.56
23:N:28:ILE:O	23:N:32:VAL:HG22	2.02	0.56
23:N:326:SER:H	31:V:182:LYS:HG3	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:771:PHE:HE2	23:N:885:ILE:HB	1.69	0.56
24:O:58:ARG:HD2	24:O:58:ARG:C	2.26	0.56
24:O:117:ASN:HD22	24:O:167:ILE:CA	2.18	0.56
24:O:344:VAL:O	24:O:345:ASN:HB2	2.04	0.56
25:P:67:ALA:HB2	25:P:75:LEU:HD22	1.87	0.56
25:P:241:LEU:HB3	25:P:264:ILE:HD11	1.86	0.56
27:R:207:ARG:CZ	27:R:211:LYS:HZ1	2.19	0.56
27:R:296:LEU:CD1	27:R:337:VAL:HG23	2.20	0.56
29:T:107:SER:HG	29:T:174:PHE:HZ	1.54	0.56
31:V:159:ILE:HG23	31:V:164:LEU:HD12	1.87	0.56
33:X:95:GLU:HB3	33:X:97:TYR:CD1	2.40	0.56
35:Z:49:LEU:HD12	35:Z:55:ARG:NH1	2.20	0.56
35:Z:452:LEU:CD1	35:Z:485:ILE:HG23	2.33	0.56
35:Z:866:VAL:HA	35:Z:877:THR:CG2	2.35	0.56
4:4:95:ARG:HH21	5:5:92:GLY:CA	2.18	0.56
10:A:126:GLN:HE22	10:A:130:GLN:CD	2.08	0.56
16:G:90:ARG:HH12	16:G:122:HIS:HE1	1.54	0.56
16:G:182:HIS:NE2	16:G:186:LEU:CD1	2.68	0.56
17:H:393:SER:HB2	17:H:404:TRP:CH2	2.41	0.56
18:I:148:LEU:HD11	19:J:95:ILE:CG2	2.35	0.56
18:I:201:PRO:HG3	18:I:208:TYR:CZ	2.40	0.56
20:K:248:GLY:HA2	20:K:251:PRO:CG	2.28	0.56
20:K:392:LEU:CG	20:K:396:ARG:HH12	2.18	0.56
21:L:370:LYS:HB2	21:L:374:PHE:CE1	2.39	0.56
24:O:277:ILE:HG22	24:O:278:PRO:HD2	1.83	0.56
25:P:369:LEU:CB	25:P:371:LEU:HD12	2.31	0.56
28:S:462:ASP:O	28:S:465:ILE:HG22	2.04	0.56
29:T:211:PHE:HD2	29:T:217:THR:OG1	1.88	0.56
32:W:60:ARG:O	32:W:60:ARG:HD2	2.05	0.56
35:Z:64:TYR:HE1	35:Z:68:LEU:HD11	1.70	0.56
35:Z:481:PRO:O	35:Z:482:ASP:HB2	2.06	0.56
6:6:179:PHE:O	6:6:183:THR:HG23	2.05	0.56
11:B:119:GLN:CG	11:B:123:GLN:HE21	2.18	0.56
14:E:98:THR:O	14:E:102:TYR:CD1	2.55	0.56
14:E:98:THR:CG2	14:E:102:TYR:CE1	2.87	0.56
14:E:157:HIS:CB	14:E:170:LYS:HD3	2.36	0.56
15:F:179:PHE:CD1	15:F:188:GLU:HG3	2.40	0.56
17:H:191:ILE:HG22	17:H:191:ILE:O	2.04	0.56
19:J:67:GLU:HG2	20:K:144:ASN:HD22	1.70	0.56
19:J:169:LYS:HZ1	19:J:206:THR:HA	1.68	0.56
23:N:433:THR:CG2	23:N:439:VAL:HG21	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:651:PHE:CG	23:N:740:TRP:HH2	2.23	0.56
24:O:80:LYS:HG2	24:O:81:TYR:CE2	2.41	0.56
24:O:339:GLY:O	24:O:340:SER:CB	2.53	0.56
24:O:358:ILE:HG23	24:O:359:SER:H	1.70	0.56
25:P:257:TRP:CZ3	25:P:290:LEU:HD11	2.40	0.56
26:Q:135:HIS:CA	26:Q:161:LEU:HD22	2.35	0.56
27:R:263:ARG:NH1	27:R:296:LEU:C	2.58	0.56
32:W:149:GLN:HG2	32:W:152:GLU:HG3	1.88	0.56
33:X:48:PHE:CD1	33:X:48:PHE:C	2.78	0.56
35:Z:805:LEU:HB3	35:Z:893:PHE:CZ	2.41	0.56
2:2:220:ILE:HD11	3:3:39:HIS:CE1	2.40	0.56
3:3:78:PHE:HE2	3:3:100:VAL:HG22	1.70	0.56
6:6:52:GLY:O	6:6:56:VAL:HG23	2.05	0.56
15:F:146:GLU:OE2	15:F:148:GLN:NE2	2.39	0.56
17:H:412:PRO:O	17:H:413:ASN:CG	2.44	0.56
19:J:111:GLN:CD	19:J:125:VAL:CG1	2.74	0.56
19:J:253:ILE:HG12	19:J:255:SER:H	1.70	0.56
20:K:169:VAL:HB	20:K:224:LYS:CD	2.36	0.56
21:L:328:ASN:ND2	21:L:329:ARG:HG2	2.20	0.56
22:M:49:GLN:HG3	32:W:73:LEU:HD11	1.88	0.56
24:O:186:ASN:HD21	24:O:226:LYS:HD2	1.71	0.56
25:P:286:ASN:O	25:P:293:LEU:CG	2.54	0.56
26:Q:326:MET:CE	26:Q:332:ARG:HD2	2.35	0.56
27:R:259:PHE:CG	27:R:329:PHE:CE1	2.94	0.56
27:R:382:ASP:OD2	28:S:402:ILE:HA	2.06	0.56
30:U:92:TRP:CE3	30:U:106:ILE:HG22	2.41	0.56
30:U:283:ARG:HD2	31:V:284:ALA:CB	2.36	0.56
32:W:70:GLY:O	32:W:73:LEU:HB2	2.06	0.56
33:X:69:ILE:HB	33:X:73:THR:HG23	1.86	0.56
35:Z:258:PRO:HB2	35:Z:259:PRO:CD	2.36	0.56
10:A:207:ILE:HG22	10:A:211:ILE:HD12	1.88	0.56
11:B:38:LYS:NZ	11:B:145:PHE:O	2.37	0.56
11:B:179:TRP:HE1	11:B:183:LEU:HB3	1.71	0.56
15:F:201:LEU:O	15:F:202:ARG:HG3	2.06	0.56
18:I:384:LYS:HG3	18:I:420:LYS:HD2	1.88	0.56
19:J:327:ILE:HG22	19:J:358:VAL:CG1	2.36	0.56
19:J:357:ASP:O	19:J:361:VAL:HG23	2.05	0.56
22:M:183:VAL:CG1	22:M:186:LEU:HD12	2.36	0.56
23:N:525:ASN:ND2	23:N:535:LEU:CD2	2.68	0.56
24:O:69:PHE:CZ	24:O:73:ILE:HG21	2.41	0.56
26:Q:88:PHE:HB3	26:Q:92:LYS:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:396:LYS:CG	27:R:400:TYR:HE2	2.19	0.56
30:U:283:ARG:HH22	31:V:283:THR:CG2	2.14	0.56
2:2:185:GLU:HG2	11:B:225:THR:OG1	2.06	0.56
3:3:179:TYR:CE2	3:3:188:LYS:HD2	2.39	0.56
6:6:31:GLU:OE1	6:6:33:LYS:NZ	2.32	0.56
7:7:8:TYR:CE1	7:7:11:GLY:C	2.79	0.56
7:7:170:VAL:HG12	7:7:174:ARG:NH2	2.19	0.56
16:G:182:HIS:HB3	16:G:183:PRO:HD2	1.88	0.56
17:H:314:VAL:HG13	17:H:329:VAL:HG13	1.87	0.56
18:I:167:MET:HG2	18:I:171:MET:SD	2.45	0.56
19:J:200:ARG:CG	19:J:210:PHE:CZ	2.88	0.56
23:N:424:LYS:HG2	23:N:450:ILE:HD11	1.87	0.56
23:N:514:THR:HG21	23:N:546:LEU:HD12	1.87	0.56
24:O:277:ILE:CB	24:O:279:ILE:HB	2.36	0.56
25:P:177:ILE:HD12	25:P:216:LEU:HD13	1.86	0.56
27:R:63:TYR:OH	27:R:92:ILE:C	2.42	0.56
29:T:39:LEU:O	29:T:40:LEU:HG	2.05	0.56
30:U:98:LYS:HE2	30:U:122:ILE:HG22	1.87	0.56
32:W:16:SER:HA	32:W:25:ARG:HD3	1.88	0.56
33:X:93:SER:CB	33:X:96:ARG:HH21	2.19	0.56
35:Z:771:HIS:O	35:Z:775:MET:HG2	2.06	0.56
5:5:120:THR:HG22	5:5:122:LEU:HG	1.87	0.56
8:8:212:GLU:HG2	9:9:42:ARG:CZ	2.34	0.56
12:C:207:THR:O	12:C:211:LEU:HG	2.05	0.56
17:H:430:ALA:HA	17:H:435:ARG:NE	2.21	0.56
19:J:200:ARG:HG3	19:J:210:PHE:CZ	2.40	0.56
19:J:272:MET:HE3	19:J:290:ILE:HG21	1.87	0.56
24:O:250:TRP:CD1	24:O:269:LEU:O	2.59	0.56
24:O:258:LEU:HD21	24:O:287:LEU:HD11	1.87	0.56
24:O:258:LEU:HB3	24:O:291:ILE:HG13	1.87	0.56
27:R:208:ASN:CG	27:R:238:PHE:CD1	2.77	0.56
28:S:188:TYR:CE1	28:S:210:LEU:CD1	2.89	0.56
35:Z:96:TYR:HE1	35:Z:119:LEU:HD22	1.70	0.56
2:2:83:LEU:HD21	2:2:98:LEU:HD12	1.87	0.56
3:3:60:TYR:HA	12:C:96:GLN:OE1	2.05	0.56
6:6:176:ARG:HD2	6:6:208:TYR:CE2	2.41	0.56
10:A:36:ASN:HD21	10:A:140:ILE:CD1	2.19	0.56
10:A:174:LYS:HD3	10:A:214:LEU:HG	1.86	0.56
15:F:92:CYS:SG	15:F:103:LEU:HD23	2.46	0.56
16:G:182:HIS:CG	16:G:186:LEU:CG	2.86	0.56
17:H:167:ASP:OD2	17:H:183:ILE:HD12	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:276:GLY:O	17:H:314:VAL:HG21	2.06	0.56
18:I:362:LEU:HD21	18:I:377:LEU:CD2	2.36	0.56
20:K:90:GLN:NE2	20:K:143:SER:OG	2.35	0.56
21:L:358:LEU:HD12	21:L:376:PHE:HB3	1.87	0.56
23:N:36:TRP:HB3	23:N:71:ASN:HD22	1.71	0.56
23:N:122:GLN:HA	23:N:124:TYR:CE2	2.40	0.56
23:N:246:LYS:NZ	23:N:280:GLN:HB2	2.21	0.56
25:P:260:VAL:O	25:P:264:ILE:HG13	2.05	0.56
26:Q:99:THR:HG22	26:Q:103:LYS:HG2	1.86	0.56
31:V:78:VAL:C	31:V:121:VAL:HG11	2.26	0.56
31:V:111:HIS:HD2	31:V:140:VAL:HG21	1.71	0.56
2:2:8:PHE:CE2	2:2:11:GLY:N	2.74	0.55
11:B:37:ILE:HD11	11:B:175:LEU:HD22	1.88	0.55
16:G:86:HIS:NE2	16:G:90:ARG:NH2	2.53	0.55
16:G:182:HIS:NE2	16:G:186:LEU:HD11	2.21	0.55
16:G:215:ILE:HG23	16:G:230:VAL:CB	2.18	0.55
17:H:428:MET:CE	17:H:431:ILE:HD12	2.36	0.55
21:L:283:VAL:HG11	21:L:325:MET:CE	2.35	0.55
23:N:596:LEU:HD11	23:N:717:LEU:HD22	1.89	0.55
24:O:66:VAL:HG12	24:O:106:PHE:CZ	2.41	0.55
27:R:194:VAL:HG13	27:R:206:ARG:NH2	2.20	0.55
27:R:404:VAL:HG22	30:U:278:ILE:HG12	1.88	0.55
28:S:159:ASN:CB	28:S:187:ILE:CD1	2.84	0.55
29:T:193:THR:HB	29:T:226:TRP:CZ2	2.40	0.55
30:U:19:LEU:HD11	31:V:208:LYS:HB3	1.88	0.55
30:U:97:PRO:HG2	30:U:100:ARG:HH21	1.70	0.55
30:U:98:LYS:HZ2	30:U:124:ASP:HB2	1.71	0.55
35:Z:440:LEU:HD21	35:Z:477:TYR:OH	2.06	0.55
2:2:99:ILE:HG13	2:2:127:LEU:HD12	1.87	0.55
4:4:81:SER:HA	4:4:124:LYS:NZ	2.21	0.55
7:7:145:PRO:CB	7:7:148:ARG:HH21	2.18	0.55
16:G:116:GLY:O	16:G:120:GLN:HG3	2.06	0.55
19:J:115:LEU:HB2	19:J:122:LEU:CD2	2.33	0.55
19:J:375:ILE:HB	27:R:204:TRP:CD2	2.41	0.55
24:O:119:SER:HB2	24:O:166:ARG:CD	2.34	0.55
24:O:240:GLU:C	24:O:241:THR:HG23	2.26	0.55
25:P:177:ILE:HG23	25:P:203:ILE:HD11	1.88	0.55
25:P:283:LYS:HB3	25:P:286:ASN:CB	2.36	0.55
27:R:71:LEU:HG	27:R:72:VAL:HG23	1.87	0.55
27:R:177:LEU:HB2	27:R:190:LYS:NZ	2.21	0.55
27:R:207:ARG:NH2	27:R:211:LYS:HZ1	2.04	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:S:256:LYS:HD2	28:S:259:TYR:OH	2.06	0.55
29:T:39:LEU:O	29:T:40:LEU:HB2	2.05	0.55
30:U:38:LEU:CD1	30:U:87:GLU:HG2	2.37	0.55
32:W:7:VAL:O	32:W:110:ILE:HD12	2.05	0.55
10:A:12:TYR:HB2	10:A:15:HIS:HD2	1.72	0.55
10:A:57:LYS:HZ3	10:A:69:VAL:CB	2.17	0.55
24:O:137:TYR:HB2	24:O:149:LEU:CD1	2.37	0.55
25:P:76:ASN:ND2	25:P:118:VAL:HG21	2.17	0.55
25:P:286:ASN:O	25:P:293:LEU:CD2	2.53	0.55
26:Q:51:ARG:HA	26:Q:54:GLN:HB3	1.89	0.55
26:Q:76:GLU:C	26:Q:79:PRO:HD2	2.27	0.55
26:Q:291:TYR:OH	26:Q:293:SER:HB3	2.07	0.55
30:U:283:ARG:CZ	31:V:283:THR:C	2.74	0.55
35:Z:392:LEU:HG	35:Z:428:TRP:CZ3	2.39	0.55
35:Z:889:VAL:HG22	35:Z:891:PRO:CD	2.35	0.55
2:2:152:ILE:HD11	2:2:177:VAL:HG21	1.88	0.55
3:3:69:GLU:OE2	11:B:109:LEU:HD22	2.06	0.55
3:3:179:TYR:CE2	3:3:188:LYS:CD	2.90	0.55
10:A:150:LEU:CD2	10:A:155:TYR:OH	2.55	0.55
16:G:81:ILE:HB	16:G:82:PRO:HD3	1.89	0.55
22:M:170:MET:HG2	22:M:246:LEU:HD13	1.87	0.55
24:O:76:LEU:HD22	24:O:121:ASP:CG	2.20	0.55
27:R:60:ALA:HB3	27:R:102:LEU:CD2	2.36	0.55
28:S:159:ASN:CB	28:S:187:ILE:HD13	2.37	0.55
28:S:186:TYR:HH	28:S:309:PHE:HZ	1.51	0.55
29:T:197:TYR:CD1	29:T:198:ASP:C	2.79	0.55
29:T:245:TYR:O	29:T:246:GLU:CB	2.51	0.55
30:U:19:LEU:HD23	30:U:19:LEU:C	2.26	0.55
30:U:226:LEU:HD23	30:U:226:LEU:C	2.27	0.55
35:Z:169:VAL:CG2	35:Z:192:GLY:HA3	2.36	0.55
4:4:60:GLN:HE21	4:4:64:GLN:NE2	2.04	0.55
5:5:7:ARG:HG3	5:5:110:PRO:HB2	1.87	0.55
10:A:239:GLU:O	10:A:243:GLU:HG3	2.06	0.55
12:C:144:TYR:HB2	12:C:147:GLN:NE2	2.22	0.55
23:N:91:ILE:HD12	23:N:140:MET:SD	2.46	0.55
24:O:83:LEU:HD13	24:O:128:LEU:HD22	1.85	0.55
24:O:344:VAL:HB	25:P:361:THR:CG2	2.35	0.55
26:Q:178:HIS:HB3	26:Q:201:ALA:HB2	1.89	0.55
28:S:465:ILE:HG13	29:T:266:TYR:CE2	2.39	0.55
29:T:82:PHE:CZ	29:T:109:TYR:CG	2.87	0.55
32:W:29:GLN:O	32:W:32:SER:HB3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:X:100:TRP:CZ2	33:X:110:PRO:HG3	2.37	0.55
35:Z:551:LEU:CD1	35:Z:591:ILE:HG23	2.35	0.55
1:1:45:ARG:NH2	1:1:52:THR:OG1	2.39	0.55
4:4:149:PRO:O	4:4:150:ASP:CB	2.52	0.55
11:B:27:ALA:CA	20:K:426:PHE:CE1	2.85	0.55
11:B:65:SER:HB2	11:B:90:ARG:NH2	2.22	0.55
18:I:113:ILE:HD11	18:I:119:ILE:HB	1.89	0.55
19:J:333:ARG:NH1	19:J:343:LEU:HD11	2.04	0.55
20:K:153:ASP:HB2	21:L:110:LYS:NZ	2.22	0.55
22:M:197:ILE:O	22:M:200:PRO:HD2	2.07	0.55
23:N:490:LEU:HD23	23:N:490:LEU:C	2.26	0.55
23:N:758:VAL:HB	23:N:874:ILE:HD13	1.87	0.55
24:O:233:LEU:HD23	24:O:236:HIS:CE1	2.40	0.55
25:P:213:TYR:CD2	25:P:217:LYS:HE2	2.41	0.55
27:R:312:TYR:CD2	34:Y:73:PHE:HD1	2.25	0.55
28:S:147:TRP:O	28:S:148:ASP:HB2	2.07	0.55
28:S:185:PHE:CE1	28:S:239:ARG:NH1	2.75	0.55
28:S:188:TYR:CZ	28:S:210:LEU:CD2	2.88	0.55
29:T:46:ILE:HD13	29:T:94:HIS:NE2	2.21	0.55
30:U:16:LEU:C	31:V:32:ILE:HD11	2.27	0.55
30:U:21:HIS:ND1	30:U:53:ALA:HB2	2.21	0.55
30:U:66:TRP:CH2	30:U:109:LEU:CD1	2.88	0.55
30:U:92:TRP:CD1	30:U:120:LEU:HA	2.42	0.55
30:U:109:LEU:CD2	32:W:60:ARG:HB2	2.36	0.55
35:Z:60:ASP:CG	35:Z:63:LEU:HD12	2.26	0.55
35:Z:318:LYS:HZ1	35:Z:459:ALA:HB1	1.70	0.55
35:Z:348:LEU:CD1	35:Z:921:GLU:HG2	2.33	0.55
8:8:282:GLU:OE2	9:9:66:THR:HG23	2.06	0.55
12:C:68:LYS:CG	12:C:229:ILE:HD11	2.36	0.55
16:G:108:ILE:HG21	16:G:148:TYR:CD1	2.42	0.55
18:I:380:LEU:HD23	18:I:420:LYS:NZ	2.22	0.55
22:M:225:GLY:O	22:M:226:THR:HG23	2.05	0.55
25:P:234:TYR:HD2	25:P:267:PHE:CG	2.25	0.55
29:T:126:LEU:HD21	29:T:136:LEU:HD21	1.89	0.55
32:W:180:LEU:O	32:W:183:GLU:HB2	2.06	0.55
35:Z:195:PHE:HB3	35:Z:197:LYS:NZ	2.22	0.55
35:Z:361:HIS:CE1	35:Z:861:THR:O	2.60	0.55
35:Z:829:GLN:HG2	35:Z:832:ARG:NH2	2.21	0.55
35:Z:963:ALA:C	35:Z:964:GLU:CD	2.65	0.55
1:1:80:SER:CB	16:G:103:LYS:CG	2.85	0.55
11:B:12:PHE:HZ	12:C:129:ARG:HH21	1.52	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:157:HIS:CB	14:E:170:LYS:HZ3	2.20	0.55
15:F:145:LEU:HD23	15:F:146:GLU:C	2.27	0.55
18:I:121:THR:CA	18:I:127:ASP:OD1	2.45	0.55
18:I:175:LYS:O	19:J:282:PHE:CD1	2.56	0.55
24:O:26:PHE:HA	24:O:61:LEU:CD2	2.34	0.55
24:O:58:ARG:HD2	24:O:58:ARG:O	2.07	0.55
24:O:107:GLN:O	24:O:107:GLN:HG2	2.07	0.55
24:O:377:VAL:O	30:U:193:GLN:NE2	2.34	0.55
27:R:286:LEU:HD23	27:R:289:ILE:CD1	2.28	0.55
28:S:471:LEU:HD13	30:U:288:PHE:CE2	2.41	0.55
30:U:133:PRO:HD3	31:V:212:MET:SD	2.47	0.55
30:U:280:ASN:ND2	31:V:291:ASN:CG	2.59	0.55
31:V:117:TRP:CZ2	31:V:196:TYR:HB3	2.35	0.55
32:W:1:MET:H2	32:W:44:ASN:HD21	1.52	0.55
35:Z:551:LEU:HD11	35:Z:591:ILE:CG2	2.31	0.55
2:2:50:ALA:HB2	3:3:120:CYS:SG	2.47	0.55
15:F:65:LYS:HB2	15:F:222:PHE:CE2	2.42	0.55
16:G:203:HIS:CE1	16:G:211:PHE:CD1	2.91	0.55
17:H:280:VAL:HG11	18:I:304:ARG:CZ	2.37	0.55
19:J:166:LEU:CB	19:J:174:PHE:HZ	2.19	0.55
20:K:93:PRO:HB3	21:L:153:LEU:HB2	1.89	0.55
20:K:254:VAL:HG13	20:K:299:LEU:CD2	2.36	0.55
24:O:119:SER:C	24:O:166:ARG:CD	2.75	0.55
24:O:341:ILE:CG1	24:O:348:VAL:HA	2.33	0.55
25:P:429:ILE:HG23	30:U:203:LYS:HD3	1.88	0.55
30:U:92:TRP:HE3	30:U:110:PHE:HE2	1.54	0.55
33:X:66:LEU:HD11	33:X:97:TYR:CB	2.28	0.55
33:X:125:MET:O	33:X:128:VAL:HG22	2.07	0.55
1:1:176:VAL:HG12	1:1:183:VAL:HG13	1.88	0.55
10:A:234:PHE:HE2	10:A:236:LEU:HD21	1.71	0.55
11:B:38:LYS:HE3	11:B:145:PHE:HB2	1.89	0.55
13:D:149:GLN:CD	13:D:162:GLN:HG2	2.27	0.55
13:D:159:TRP:CE3	14:E:59:LEU:CD1	2.90	0.55
14:E:98:THR:HG22	14:E:102:TYR:CE1	2.42	0.55
18:I:244:PHE:HE1	18:I:246:ARG:CZ	2.20	0.55
19:J:166:LEU:HB2	19:J:167:PRO:HD3	1.88	0.55
22:M:415:PHE:HE1	22:M:419:ILE:HD11	1.70	0.55
23:N:155:GLY:O	23:N:159:GLU:HG3	2.07	0.55
23:N:399:PHE:HD1	23:N:441:VAL:CG2	1.90	0.55
24:O:203:THR:O	24:O:204:SER:CB	2.54	0.55
25:P:221:TYR:OH	25:P:244:ILE:HB	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:98:LYS:O	26:Q:140:LYS:NZ	2.40	0.55
26:Q:351:ILE:HD12	26:Q:386:PHE:CE1	2.41	0.55
29:T:197:TYR:CE1	29:T:199:PHE:CA	2.89	0.55
29:T:197:TYR:HD1	29:T:198:ASP:N	1.60	0.55
30:U:66:TRP:N	32:W:93:ILE:HD11	2.22	0.55
4:4:147:TYR:HE1	4:4:151:MET:HB2	1.72	0.54
8:8:241:ILE:HD13	9:9:64:GLU:OE1	2.08	0.54
12:C:160:TRP:CE2	12:C:163:ILE:CD1	2.86	0.54
15:F:215:ILE:CG1	15:F:220:THR:HG21	2.37	0.54
17:H:280:VAL:CG2	18:I:304:ARG:CD	2.73	0.54
22:M:44:PHE:CE2	24:O:110:ASP:O	2.59	0.54
23:N:94:LYS:HE3	23:N:143:LYS:HZ3	1.72	0.54
23:N:420:THR:HG22	23:N:424:LYS:HZ2	1.71	0.54
23:N:549:TYR:CE2	23:N:586:ALA:HB2	2.42	0.54
23:N:666:GLN:NE2	23:N:712:ASN:HA	2.22	0.54
23:N:774:ASN:ND2	23:N:885:ILE:HD11	2.21	0.54
24:O:48:PHE:CD1	24:O:81:TYR:HE2	2.24	0.54
24:O:80:LYS:HG2	24:O:81:TYR:CD2	2.42	0.54
24:O:366:MET:CE	30:U:226:LEU:CD1	2.85	0.54
24:O:370:LEU:HD11	30:U:207:VAL:CG2	2.33	0.54
27:R:422:ARG:NH2	28:S:299:LYS:CB	2.70	0.54
30:U:173:HIS:HE1	31:V:151:VAL:H	1.55	0.54
30:U:283:ARG:CZ	31:V:283:THR:O	2.55	0.54
31:V:127:LYS:NZ	31:V:194:ARG:NH2	2.55	0.54
1:1:122:LEU:CD1	7:7:28:PHE:CD1	2.81	0.54
5:5:45:MET:HE1	5:5:53:GLN:OE1	2.07	0.54
10:A:183:GLU:O	10:A:187:LYS:HG3	2.07	0.54
11:B:139:HIS:CE1	11:B:145:PHE:CZ	2.92	0.54
11:B:142:PHE:O	11:B:143:ASN:OD1	2.24	0.54
14:E:110:GLU:CG	14:E:164:PHE:HE2	2.09	0.54
18:I:362:LEU:CG	18:I:377:LEU:HD22	2.38	0.54
18:I:387:LEU:HA	18:I:427:LYS:HZ2	1.72	0.54
19:J:89:GLN:N	19:J:90:PRO:CD	2.70	0.54
19:J:131:ASP:H	19:J:132:PRO:CD	2.20	0.54
23:N:483:LEU:HD21	23:N:519:VAL:HB	1.89	0.54
23:N:771:PHE:CE2	23:N:885:ILE:HB	2.43	0.54
30:U:233:PHE:CE1	30:U:260:ASN:HB2	2.42	0.54
35:Z:830:LEU:O	35:Z:834:LEU:HG	2.07	0.54
6:6:14:LEU:CD2	6:6:34:VAL:HG13	2.31	0.54
6:6:61:ASN:O	6:6:65:TRP:CD1	2.61	0.54
14:E:179:ALA:O	14:E:183:LEU:HG	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:62:ARG:HG3	18:I:133:LEU:HD11	1.89	0.54
19:J:219:VAL:HB	20:K:284:ALA:HA	1.83	0.54
20:K:422:ASP:OD2	20:K:428:LYS:HD3	2.08	0.54
21:L:252:VAL:CG1	22:M:256:ILE:HD13	1.92	0.54
22:M:385:GLU:HB2	22:M:426:LYS:HZ3	1.59	0.54
23:N:94:LYS:HE3	23:N:143:LYS:NZ	2.23	0.54
23:N:433:THR:HG22	23:N:439:VAL:HG21	1.89	0.54
23:N:573:HIS:O	23:N:576:VAL:HG12	2.07	0.54
24:O:222:LEU:HD22	24:O:270:ILE:CD1	2.35	0.54
25:P:289:ASN:O	25:P:293:LEU:HD13	2.07	0.54
25:P:429:ILE:CG2	30:U:203:LYS:HD3	2.37	0.54
28:S:241:PHE:CZ	28:S:253:PHE:CE2	2.95	0.54
29:T:209:LEU:HD13	29:T:211:PHE:CE2	2.42	0.54
31:V:133:ASN:O	31:V:134:SER:HB3	2.07	0.54
31:V:154:ASP:CB	31:V:156:PHE:HE1	2.19	0.54
35:Z:491:LEU:HD22	35:Z:903:MET:SD	2.47	0.54
2:2:8:PHE:CE1	2:2:12:VAL:C	2.78	0.54
3:3:75:PRO:HB3	3:3:111:PHE:HD2	1.73	0.54
3:3:98:PRO:HG2	3:3:115:PHE:HB2	1.89	0.54
4:4:139:THR:O	4:4:143:LEU:HG	2.06	0.54
4:4:167:LEU:HD22	4:4:171:MET:CE	2.38	0.54
15:F:145:LEU:HD23	15:F:146:GLU:N	2.22	0.54
16:G:140:VAL:HG23	16:G:220:LEU:HD21	1.78	0.54
17:H:224:VAL:O	17:H:228:PRO:HG3	2.07	0.54
19:J:81:ASP:O	19:J:82:LYS:HB2	2.08	0.54
20:K:141:ARG:NH1	21:L:153:LEU:CD1	2.71	0.54
22:M:197:ILE:HB	22:M:322:LYS:HD3	1.89	0.54
23:N:214:LEU:CD1	23:N:217:MET:CE	2.79	0.54
25:P:308:LEU:HD13	25:P:345:VAL:CG2	2.36	0.54
26:Q:272:LEU:HD21	26:Q:274:LEU:HD11	1.90	0.54
27:R:174:ILE:CB	27:R:190:LYS:HD3	2.29	0.54
28:S:436:ILE:HD12	28:S:438:HIS:CD2	2.41	0.54
32:W:159:ALA:HA	32:W:162:ASN:ND2	2.21	0.54
33:X:85:ARG:NH2	33:X:115:SER:CB	2.70	0.54
35:Z:752:ILE:O	35:Z:755:GLU:HB2	2.07	0.54
7:7:106:ILE:HB	7:7:122:VAL:CG1	2.37	0.54
10:A:234:PHE:HE2	10:A:236:LEU:CD2	2.21	0.54
13:D:70:HIS:CD2	13:D:138:PHE:O	2.53	0.54
14:E:241:LYS:HA	14:E:244:LYS:HZ3	1.71	0.54
21:L:111:GLU:HG2	21:L:117:TYR:CE2	2.43	0.54
23:N:15:GLU:O	23:N:16:ASN:HB3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:41:LEU:HG	24:O:43:GLU:H	1.72	0.54
24:O:377:VAL:HG21	30:U:200:LEU:CD1	2.37	0.54
26:Q:311:LEU:HD11	26:Q:366:ILE:HD11	1.90	0.54
27:R:158:LEU:HD13	27:R:170:VAL:CG2	2.38	0.54
27:R:187:VAL:O	27:R:213:TYR:OH	2.17	0.54
29:T:110:LEU:HD22	29:T:122:PHE:CE1	2.42	0.54
29:T:193:THR:HB	29:T:226:TRP:HH2	1.57	0.54
30:U:9:THR:HB	30:U:162:GLU:HB3	1.89	0.54
31:V:24:LYS:NZ	31:V:197:TYR:CZ	2.74	0.54
33:X:38:ASN:HD21	33:X:47:ASP:HB2	1.72	0.54
35:Z:331:GLY:HA3	35:Z:346:LEU:HD13	1.89	0.54
35:Z:357:ILE:HG23	35:Z:960:GLY:CA	2.36	0.54
35:Z:812:ILE:HA	35:Z:815:MET:CE	2.37	0.54
1:1:34:LEU:HD13	1:1:176:VAL:HG23	1.89	0.54
10:A:207:ILE:CG2	10:A:211:ILE:CD1	2.84	0.54
11:B:139:HIS:ND1	11:B:145:PHE:CD2	2.71	0.54
13:D:188:VAL:HG21	13:D:216:LYS:CE	2.37	0.54
15:F:145:LEU:HD11	15:F:153:VAL:HG11	1.90	0.54
17:H:207:THR:HG22	17:H:208:TYR:CD2	2.41	0.54
18:I:380:LEU:CD1	18:I:416:PHE:HB3	2.38	0.54
18:I:398:GLU:CD	18:I:422:ARG:HH21	2.11	0.54
20:K:300:LEU:HA	20:K:333:ARG:NH1	2.22	0.54
21:L:169:ASN:O	21:L:170:MET:HB2	2.07	0.54
27:R:389:GLU:OE2	28:S:399:TYR:HE1	1.90	0.54
29:T:97:SER:OG	29:T:98:GLU:HG3	2.08	0.54
32:W:60:ARG:CZ	32:W:62:LEU:HD21	2.38	0.54
32:W:123:ASP:HB3	32:W:127:ARG:HH12	1.72	0.54
35:Z:741:LEU:HD22	35:Z:782:ILE:CD1	2.36	0.54
1:1:114:PRO:HG2	1:1:118:SER:HB3	1.89	0.54
5:5:6:PHE:HZ	5:5:13:ILE:HG13	1.68	0.54
6:6:175:VAL:HG12	6:6:179:PHE:CE2	2.42	0.54
14:E:143:LEU:CD2	14:E:157:HIS:ND1	2.71	0.54
17:H:174:VAL:HG13	17:H:183:ILE:CG1	2.28	0.54
18:I:170:VAL:HG23	18:I:171:MET:HG3	1.88	0.54
18:I:194:ILE:CG2	18:I:236:VAL:HG21	2.37	0.54
20:K:244:HIS:HE1	20:K:250:GLY:HA3	1.60	0.54
22:M:251:LEU:C	22:M:253:GLN:N	2.61	0.54
23:N:25:LEU:HD11	23:N:57:ASP:CG	2.28	0.54
24:O:103:LYS:O	24:O:129:ILE:CD1	2.55	0.54
24:O:343:GLN:HB3	25:P:360:ILE:HG22	1.90	0.54
27:R:191:LEU:CA	27:R:213:TYR:HE2	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:S:171:TYR:HE2	28:S:176:LEU:HA	1.72	0.54
29:T:190:ALA:HB1	29:T:224:ARG:HD3	1.90	0.54
31:V:83:VAL:HG11	31:V:107:TRP:CH2	2.42	0.54
35:Z:318:LYS:HG2	35:Z:496:ALA:O	2.07	0.54
35:Z:756:MET:HE3	35:Z:759:ARG:HE	1.71	0.54
2:2:37:ILE:HG22	2:2:63:ILE:HG21	1.89	0.54
4:4:80:SER:HB2	4:4:124:LYS:CD	2.20	0.54
6:6:94:PHE:HE1	7:7:99:MET:CE	2.21	0.54
15:F:80:ASP:OD2	15:F:126:ARG:NH1	2.39	0.54
18:I:124:THR:O	18:I:125:MET:HB2	2.08	0.54
19:J:124:LYS:NZ	20:K:103:ILE:HG21	2.23	0.54
19:J:160:ILE:CD1	19:J:314:ILE:HG21	2.37	0.54
21:L:253:ASP:HA	22:M:256:ILE:HG13	1.85	0.54
21:L:267:PHE:CZ	21:L:311:GLN:NE2	2.76	0.54
22:M:171:GLU:O	22:M:244:LEU:HD12	2.08	0.54
23:N:70:TYR:HE2	28:S:219:LYS:CD	2.20	0.54
23:N:414:GLY:HA3	23:N:728:LYS:HZ3	1.72	0.54
24:O:229:ASN:CG	24:O:287:LEU:HG	2.28	0.54
25:P:181:LEU:HG	25:P:223:LEU:CD1	2.38	0.54
27:R:320:LYS:O	27:R:324:ARG:HG3	2.08	0.54
28:S:185:PHE:CD1	28:S:239:ARG:HD2	2.42	0.54
32:W:98:LEU:HD11	32:W:108:GLN:HG3	1.90	0.54
32:W:147:ILE:O	32:W:147:ILE:CG2	2.47	0.54
33:X:24:CYS:HB2	33:X:79:LYS:O	2.08	0.54
35:Z:325:GLY:C	35:Z:326:VAL:HG22	2.28	0.54
35:Z:737:ALA:HB2	35:Z:771:HIS:CE1	2.43	0.54
15:F:145:LEU:CD2	15:F:153:VAL:HG13	2.34	0.54
20:K:156:SER:OG	20:K:249:GLU:HB3	2.08	0.54
20:K:342:SER:OG	20:K:343:LEU:HG	2.08	0.54
20:K:353:PHE:HD1	20:K:387:MET:CG	2.21	0.54
21:L:132:ARG:CZ	21:L:156:MET:HG3	2.35	0.54
21:L:204:PRO:HG3	21:L:320:GLN:NE2	2.23	0.54
21:L:206:ILE:HG12	21:L:209:ARG:HH22	1.73	0.54
22:M:43:ILE:HG21	32:W:26:PHE:CE2	2.42	0.54
24:O:366:MET:CE	30:U:226:LEU:HD13	2.38	0.54
25:P:425:HIS:HE1	30:U:228:LYS:HB2	1.72	0.54
26:Q:90:LYS:CD	26:Q:129:LYS:NZ	2.70	0.54
26:Q:326:MET:HE3	26:Q:332:ARG:HG3	1.89	0.54
27:R:312:TYR:HE2	34:Y:73:PHE:HB2	1.72	0.54
31:V:117:TRP:CE3	31:V:123:VAL:HG22	2.43	0.54
35:Z:970:TYR:CZ	35:Z:993:GLU:HB2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D:113:VAL:HG11	13:D:135:ILE:HD11	1.90	0.54
15:F:154:THR:HG22	15:F:156:LEU:CD1	2.38	0.54
20:K:99:PHE:CZ	20:K:102:PRO:N	2.76	0.54
20:K:364:PRO:HB2	26:Q:247:HIS:NE2	2.22	0.54
21:L:197:ILE:O	21:L:322:LYS:HE3	2.08	0.54
23:N:641:LEU:HB3	23:N:660:LEU:HD21	1.90	0.54
24:O:277:ILE:CG2	24:O:278:PRO:N	2.48	0.54
26:Q:418:GLN:HB3	31:V:262:THR:HG21	1.90	0.54
27:R:404:VAL:CG2	30:U:278:ILE:HD11	2.38	0.54
1:1:176:VAL:CG1	1:1:178:LEU:HD21	2.37	0.53
8:8:206:LYS:NZ	9:9:74:ARG:CD	2.71	0.53
10:A:142:THR:OG1	10:A:156:LYS:HE2	2.07	0.53
14:E:231:TYR:CZ	14:E:235:LYS:HB3	2.42	0.53
20:K:152:PRO:CB	20:K:259:ARG:HD2	2.38	0.53
20:K:346:ARG:HE	20:K:372:ILE:CG2	2.16	0.53
23:N:52:ASP:O	23:N:53:ASP:CG	2.47	0.53
26:Q:299:MET:SD	26:Q:335:PHE:CZ	2.99	0.53
27:R:238:PHE:CD2	27:R:244:THR:HG21	2.42	0.53
31:V:52:LEU:HD11	31:V:107:TRP:HZ3	1.66	0.53
35:Z:54:GLU:O	35:Z:57:LYS:HB3	2.08	0.53
35:Z:193:PHE:CD2	35:Z:196:SER:CA	2.91	0.53
3:3:96:VAL:H	3:3:117:LEU:HG	1.73	0.53
5:5:33:ARG:HH11	5:5:46:ALA:HB2	1.72	0.53
5:5:66:HIS:CE1	5:5:70:GLU:CD	2.82	0.53
15:F:91:GLN:NE2	15:F:115:LYS:NZ	2.56	0.53
18:I:194:ILE:HG21	18:I:236:VAL:HG21	1.89	0.53
20:K:379:SER:OG	20:K:382:VAL:HG23	2.07	0.53
22:M:277:ILE:HG21	22:M:324:LEU:HD12	1.90	0.53
23:N:89:PHE:HE1	23:N:101:ILE:HD11	1.73	0.53
24:O:283:HIS:CD2	24:O:287:LEU:HD12	2.39	0.53
25:P:234:TYR:CG	25:P:267:PHE:CZ	2.96	0.53
25:P:306:ASN:HD22	25:P:310:ARG:HD3	1.73	0.53
27:R:304:TYR:CD1	27:R:308:LEU:HD11	2.39	0.53
31:V:80:VAL:HG23	31:V:125:THR:CA	2.29	0.53
35:Z:495:ILE:HD12	35:Z:906:ALA:HB2	1.91	0.53
1:1:78:ALA:O	1:1:82:PHE:HD2	1.90	0.53
10:A:19:PHE:HZ	11:B:128:ARG:HH12	1.51	0.53
11:B:12:PHE:CE2	11:B:18:LEU:HD21	2.43	0.53
13:D:171:VAL:O	13:D:175:LEU:HG	2.08	0.53
18:I:137:ASP:O	18:I:141:LEU:HG	2.08	0.53
18:I:172:LYS:HA	19:J:231:ARG:CZ	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:J:37:LYS:CE	20:K:58:TYR:CE1	2.92	0.53
21:L:269:TYR:CZ	21:L:273:HIS:CE1	2.95	0.53
22:M:357:ARG:HH22	22:M:385:GLU:N	2.06	0.53
24:O:277:ILE:HG21	24:O:279:ILE:HB	1.79	0.53
24:O:300:VAL:CG1	24:O:301:PHE:CD2	2.85	0.53
24:O:373:TRP:HE1	30:U:200:LEU:HD21	1.67	0.53
27:R:214:TYR:CZ	27:R:218:CYS:SG	3.01	0.53
30:U:18:ALA:HB2	30:U:93:TYR:HE2	1.73	0.53
30:U:92:TRP:HE1	30:U:120:LEU:HB2	1.73	0.53
35:Z:312:TYR:CZ	35:Z:348:LEU:CA	2.91	0.53
35:Z:460:SER:HB2	35:Z:495:ILE:HG22	1.90	0.53
35:Z:610:GLY:CA	35:Z:748:LEU:CD1	2.52	0.53
1:1:18:SER:OG	1:1:33:LYS:HG2	2.08	0.53
3:3:60:TYR:CD1	12:C:96:GLN:HG3	2.43	0.53
8:8:206:LYS:NZ	9:9:74:ARG:HD3	2.23	0.53
9:9:63:LYS:O	9:9:64:GLU:HB2	2.09	0.53
20:K:243:VAL:O	20:K:243:VAL:HG12	2.09	0.53
24:O:185:PHE:CE1	24:O:279:ILE:HG13	2.44	0.53
24:O:250:TRP:CG	24:O:270:ILE:HG12	2.41	0.53
24:O:337:LEU:HB3	24:O:350:ILE:HG21	1.91	0.53
26:Q:99:THR:CG2	26:Q:103:LYS:CE	2.86	0.53
26:Q:258:ALA:O	26:Q:261:VAL:HG12	2.08	0.53
28:S:212:SER:O	28:S:216:LYS:HG3	2.08	0.53
29:T:197:TYR:CG	29:T:198:ASP:N	2.44	0.53
30:U:157:LEU:HD23	30:U:157:LEU:C	2.29	0.53
35:Z:218:GLU:HB3	35:Z:248:TYR:CZ	2.35	0.53
12:C:194:LEU:HA	12:C:197:LEU:HD12	1.91	0.53
16:G:86:HIS:HD2	16:G:131:PHE:HZ	1.55	0.53
17:H:147:ILE:HD11	17:H:157:VAL:HB	1.91	0.53
20:K:171:TYR:CE2	20:K:225:ALA:HB1	2.44	0.53
20:K:200:GLN:O	27:R:204:TRP:CZ2	2.62	0.53
21:L:161:ARG:HH12	21:L:264:ARG:NH2	2.06	0.53
22:M:75:LEU:CD2	22:M:77:TYR:CE1	2.85	0.53
23:N:28:ILE:HG21	23:N:64:ILE:HD13	1.91	0.53
23:N:877:GLN:OE1	23:N:880:ARG:NH2	2.42	0.53
24:O:105:GLN:HA	24:O:108:GLU:CD	2.29	0.53
25:P:257:TRP:CZ2	25:P:261:LEU:HD22	2.43	0.53
26:Q:155:LEU:CD1	26:Q:185:TYR:HE1	2.21	0.53
30:U:36:VAL:HB	30:U:89:LEU:HD22	1.90	0.53
35:Z:563:VAL:HG11	35:Z:595:MET:CE	2.38	0.53
4:4:66:TYR:HE1	4:4:74:LEU:CD2	2.02	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:7:54:HIS:CD2	7:7:58:LEU:HD11	2.43	0.53
9:9:54:ARG:NH2	9:9:58:ASP:OD2	2.42	0.53
12:C:106:ILE:HG23	12:C:106:ILE:O	2.08	0.53
14:E:109:VAL:CB	14:E:156:PHE:CE1	2.90	0.53
16:G:192:VAL:HG13	16:G:215:ILE:HD13	1.89	0.53
22:M:50:ARG:N	32:W:73:LEU:CD1	2.70	0.53
23:N:106:ILE:O	23:N:110:VAL:HG23	2.09	0.53
24:O:217:LEU:CD2	24:O:238:ILE:HD13	2.38	0.53
25:P:221:TYR:CZ	25:P:240:TYR:O	2.62	0.53
30:U:283:ARG:HE	31:V:287:THR:HB	1.74	0.53
31:V:261:LEU:HD13	31:V:283:THR:CG2	2.38	0.53
35:Z:218:GLU:HA	35:Z:248:TYR:CE1	2.44	0.53
35:Z:554:THR:O	35:Z:555:ALA:HB3	2.07	0.53
35:Z:617:ILE:HG23	35:Z:743:ILE:HG23	1.91	0.53
1:1:75:THR:CB	1:1:111:TYR:CE1	2.91	0.53
1:1:109:GLU:HB3	1:1:111:TYR:HE1	1.72	0.53
3:3:63:ASN:HD22	12:C:96:GLN:HE22	1.57	0.53
3:3:179:TYR:CE2	3:3:188:LYS:CG	2.92	0.53
6:6:115:SER:HB2	6:6:128:ARG:HG2	1.89	0.53
11:B:18:LEU:HD12	11:B:21:ILE:HD12	1.90	0.53
15:F:179:PHE:CE1	15:F:192:ALA:HB2	2.44	0.53
16:G:73:ILE:HD13	16:G:108:ILE:HD13	1.91	0.53
16:G:215:ILE:CG2	16:G:230:VAL:HB	2.18	0.53
17:H:318:ARG:NH1	17:H:364:ALA:HB2	2.24	0.53
17:H:428:MET:HE2	17:H:431:ILE:HD12	1.91	0.53
22:M:362:GLN:HA	22:M:376:TRP:HE1	1.72	0.53
23:N:328:PHE:CZ	23:N:696:LYS:HD2	2.42	0.53
23:N:383:LYS:H	23:N:412:TYR:HH	1.52	0.53
23:N:457:SER:O	23:N:458:ALA:HB3	2.09	0.53
24:O:73:ILE:CG2	24:O:74:ASN:H	2.07	0.53
24:O:82:LEU:CD2	24:O:98:TYR:OH	2.56	0.53
24:O:87:LYS:CD	24:O:135:ARG:HD2	2.39	0.53
24:O:103:LYS:O	24:O:129:ILE:HD11	2.09	0.53
24:O:195:TYR:HD2	24:O:213:LEU:HD13	1.74	0.53
25:P:286:ASN:HA	25:P:293:LEU:CD1	2.38	0.53
26:Q:217:GLU:HA	26:Q:220:LEU:HD12	1.91	0.53
27:R:360:SER:CB	34:Y:86:ARG:HH22	2.21	0.53
29:T:256:LYS:O	29:T:260:ILE:HG12	2.08	0.53
34:Y:84:TYR:O	34:Y:88:ASN:ND2	2.41	0.53
35:Z:557:GLU:O	35:Z:558:LEU:HB3	2.09	0.53
35:Z:621:LEU:HD13	35:Z:760:HIS:NE2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:6:28:SER:OG	6:6:31:GLU:HB2	2.09	0.53
7:7:48:ASP:OD2	7:7:103:TRP:CD1	2.62	0.53
8:8:212:GLU:HG2	9:9:42:ARG:HH11	1.74	0.53
8:8:485:GLU:H	17:H:187:LEU:HD21	1.71	0.53
15:F:80:ASP:OD2	15:F:126:ARG:NH2	2.41	0.53
15:F:166:GLN:CA	22:M:381:ARG:HH21	2.21	0.53
17:H:420:ARG:CZ	18:I:343:ARG:NH1	2.72	0.53
19:J:67:GLU:O	20:K:144:ASN:HB2	2.09	0.53
20:K:68:ILE:HG12	23:N:608:LEU:HD21	1.77	0.53
20:K:167:PRO:HB2	21:L:315:PHE:HZ	1.74	0.53
22:M:225:GLY:C	22:M:226:THR:HG23	2.28	0.53
25:P:202:LYS:HE2	25:P:206:LYS:HZ1	1.74	0.53
27:R:208:ASN:CG	27:R:238:PHE:HB2	2.29	0.53
30:U:94:HIS:HB3	30:U:122:ILE:HG12	1.89	0.53
30:U:152:LYS:CG	30:U:154:PHE:CZ	2.92	0.53
35:Z:359:LYS:NZ	35:Z:429:ASN:ND2	2.51	0.53
35:Z:385:PHE:HZ	35:Z:898:HIS:ND1	2.06	0.53
1:1:8:PHE:CE2	1:1:10:ASP:CB	2.74	0.53
2:2:72:ARG:NH1	10:A:116:VAL:HG21	2.23	0.53
2:2:142:TRP:NE1	2:2:145:ASP:HA	2.21	0.53
18:I:166:PRO:HG2	18:I:270:VAL:HG21	1.90	0.53
18:I:433:GLU:HA	18:I:436:TYR:CZ	2.43	0.53
23:N:158:LEU:HD13	23:N:192:LEU:HD21	1.90	0.53
23:N:741:TYR:H	23:N:742:TRP:HE3	1.57	0.53
24:O:47:LYS:NZ	24:O:69:PHE:CD1	2.68	0.53
24:O:120:LYS:CB	24:O:166:ARG:HD2	2.39	0.53
25:P:202:LYS:HE2	25:P:206:LYS:NZ	2.23	0.53
25:P:384:VAL:HG13	25:P:390:TYR:HA	1.90	0.53
26:Q:162:LEU:CD1	26:Q:178:HIS:NE2	2.68	0.53
27:R:78:ASP:O	27:R:93:LYS:HG3	2.09	0.53
28:S:197:SER:O	28:S:198:SER:CB	2.57	0.53
29:T:169:GLN:OE1	29:T:174:PHE:CZ	2.61	0.53
30:U:66:TRP:H	32:W:93:ILE:HD11	1.73	0.53
32:W:179:ARG:O	32:W:180:LEU:HB2	2.07	0.53
35:Z:236:PHE:CE2	35:Z:245:VAL:CG2	2.92	0.53
4:4:3:ILE:HD11	4:4:44:SER:OG	2.08	0.53
5:5:124:GLY:N	5:5:127:PHE:HZ	2.07	0.53
5:5:135:PHE:HB2	5:5:167:ARG:NH1	2.24	0.53
10:A:220:LYS:HD3	10:A:242:GLU:CB	2.36	0.53
11:B:156:TYR:CE1	12:C:81:THR:HG21	2.44	0.53
12:C:206:LEU:HD11	12:C:211:LEU:HD11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:150:HIS:ND1	18:I:151:HIS:N	2.57	0.53
21:L:325:MET:CE	21:L:337:LEU:HD13	2.39	0.53
23:N:89:PHE:CZ	23:N:101:ILE:HD11	2.44	0.53
23:N:176:GLN:NE2	23:N:182:ASN:ND2	2.56	0.53
25:P:308:LEU:O	25:P:308:LEU:HG	2.08	0.53
26:Q:343:LEU:CD2	26:Q:376:LYS:HG2	2.39	0.53
26:Q:429:LYS:NZ	31:V:269:ARG:HH22	2.07	0.53
29:T:249:MET:O	29:T:250:MET:CB	2.57	0.53
35:Z:49:LEU:CD1	35:Z:55:ARG:CZ	2.87	0.53
35:Z:81:SER:O	35:Z:82:MET:CB	2.57	0.53
1:1:104:ASP:OD1	1:1:105:LYS:HG3	2.09	0.52
8:8:328:LYS:C	17:H:163:VAL:HG22	2.30	0.52
11:B:82:TYR:CD1	11:B:134:LEU:HD21	2.44	0.52
12:C:19:LEU:HD11	13:D:127:ARG:NH2	2.24	0.52
12:C:216:ILE:HG12	12:C:227:GLN:HG2	1.91	0.52
17:H:284:VAL:HG13	22:M:252:VAL:CG1	2.39	0.52
19:J:374:ARG:NH1	19:J:378:THR:HG21	2.23	0.52
24:O:210:ARG:NE	24:O:242:ILE:O	2.36	0.52
26:Q:418:GLN:O	26:Q:421:LYS:HB2	2.09	0.52
27:R:268:SER:OG	27:R:269:LYS:HG3	2.09	0.52
28:S:186:TYR:OH	28:S:309:PHE:CZ	2.62	0.52
29:T:190:ALA:HB2	29:T:224:ARG:NH2	2.20	0.52
1:1:37:VAL:HB	1:1:63:LEU:CD1	2.39	0.52
5:5:76:VAL:HG12	5:5:113:TYR:HD1	1.74	0.52
6:6:11:PHE:HA	6:6:105:LEU:HD21	1.90	0.52
7:7:8:TYR:CE2	7:7:10:ASN:C	2.82	0.52
11:B:174:PHE:CE1	26:Q:169:ASP:OD2	2.62	0.52
12:C:107:PRO:HD2	12:C:110:ILE:HD12	1.91	0.52
15:F:49:LEU:HD23	15:F:51:ARG:NH2	2.23	0.52
21:L:328:ASN:HD21	21:L:329:ARG:NE	2.07	0.52
26:Q:417:GLY:O	26:Q:421:LYS:HG3	2.09	0.52
27:R:240:SER:OG	27:R:244:THR:HG22	2.10	0.52
30:U:132:LEU:HG	30:U:134:THR:N	2.24	0.52
32:W:17:ARG:O	32:W:18:ASN:CG	2.48	0.52
33:X:86:ILE:HG12	33:X:100:TRP:CD1	2.44	0.52
35:Z:955:VAL:O	35:Z:956:LEU:HB2	2.08	0.52
7:7:13:ILE:HG22	7:7:169:ILE:HG13	1.90	0.52
10:A:110:TYR:CD2	10:A:111:ASP:O	2.62	0.52
19:J:189:GLY:O	19:J:295:ASN:OD1	2.26	0.52
21:L:81:ILE:HG22	21:L:82:ARG:N	2.23	0.52
22:M:50:ARG:CB	32:W:73:LEU:HB3	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:49:LEU:HD21	23:N:55:PHE:CD1	2.44	0.52
24:O:286:PHE:HE1	24:O:334:LEU:HD11	1.74	0.52
25:P:99:LYS:O	25:P:103:TYR:HD1	1.92	0.52
25:P:395:ARG:NE	26:Q:357:VAL:HA	2.20	0.52
26:Q:47:ASP:O	26:Q:51:ARG:HB2	2.09	0.52
26:Q:75:ARG:HH21	26:Q:113:ASP:HA	1.74	0.52
28:S:214:MET:HE2	28:S:236:LEU:HD13	1.91	0.52
32:W:34:GLU:O	32:W:38:GLN:HG3	2.08	0.52
33:X:48:PHE:C	33:X:48:PHE:HD1	2.12	0.52
35:Z:102:ILE:HG12	35:Z:107:THR:HG1	1.73	0.52
35:Z:312:TYR:CZ	35:Z:348:LEU:HA	2.39	0.52
10:A:48:LYS:NZ	10:A:195:ASN:ND2	2.57	0.52
12:C:98:TYR:CD1	12:C:104:GLU:O	2.62	0.52
14:E:219:LEU:HD11	14:E:239:LEU:HD23	1.91	0.52
17:H:198:MET:HE1	17:H:272:ILE:HG23	1.86	0.52
18:I:281:ILE:HG21	18:I:284:ILE:HD11	0.57	0.52
20:K:141:ARG:NH1	21:L:153:LEU:HD11	2.23	0.52
20:K:289:ASP:O	20:K:293:GLN:HG3	2.10	0.52
22:M:410:VAL:HG12	22:M:411:LYS:O	2.09	0.52
23:N:360:GLN:O	23:N:364:LYS:HG3	2.10	0.52
24:O:66:VAL:HG13	24:O:106:PHE:CZ	2.44	0.52
26:Q:291:TYR:CZ	26:Q:293:SER:HB2	2.44	0.52
27:R:94:PHE:CG	27:R:95:ASP:N	2.77	0.52
28:S:256:LYS:HD2	28:S:259:TYR:HH	1.72	0.52
28:S:315:LYS:HA	28:S:345:TYR:OH	2.08	0.52
29:T:11:LEU:HD21	29:T:27:LEU:CD2	2.40	0.52
29:T:82:PHE:HE1	29:T:109:TYR:CE2	1.95	0.52
29:T:227:PRO:CD	29:T:241:GLU:OE2	2.58	0.52
33:X:33:ILE:CD1	33:X:48:PHE:CZ	2.93	0.52
35:Z:889:VAL:HB	35:Z:901:PHE:CZ	2.44	0.52
2:2:30:ASN:O	2:2:31:CYS:HB2	2.09	0.52
2:2:220:ILE:CD1	3:3:39:HIS:ND1	2.73	0.52
8:8:283:LYS:CA	9:9:12:THR:O	2.56	0.52
10:A:36:ASN:HD21	10:A:140:ILE:HD12	1.73	0.52
17:H:207:THR:HG23	17:H:208:TYR:CD2	2.44	0.52
21:L:173:PHE:HD1	21:L:175:GLN:O	1.93	0.52
22:M:302:GLN:OE1	22:M:302:GLN:HA	2.09	0.52
24:O:11:LEU:CD2	24:O:15:ARG:HH12	2.13	0.52
24:O:137:TYR:HB3	24:O:149:LEU:CD1	2.37	0.52
24:O:369:ARG:HE	30:U:226:LEU:CD2	2.22	0.52
25:P:234:TYR:CA	25:P:267:PHE:CZ	2.80	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:11:ALA:O	26:Q:14:LEU:HB2	2.09	0.52
26:Q:265:MET:CE	26:Q:281:ILE:HD13	2.40	0.52
27:R:137:LEU:HD23	27:R:153:THR:HB	1.90	0.52
28:S:205:ASN:O	28:S:208:ILE:CG2	2.39	0.52
32:W:25:ARG:NE	32:W:144:PHE:CE2	2.77	0.52
33:X:83:SER:HB3	33:X:86:ILE:HD11	1.91	0.52
35:Z:916:LEU:HD23	35:Z:922:PRO:CA	2.40	0.52
35:Z:973:TYR:HD2	35:Z:974:THR:HG22	1.75	0.52
5:5:125:ASP:OD1	5:5:126:ILE:N	2.42	0.52
8:8:118:CYS:N	9:9:76:GLZ:O	2.39	0.52
10:A:46:ARG:HG3	10:A:152:PRO:HB2	1.91	0.52
10:A:183:GLU:HG2	10:A:187:LYS:HE2	1.91	0.52
15:F:135:ILE:HG22	15:F:144:LEU:HD13	1.91	0.52
18:I:252:LEU:HD22	18:I:263:LEU:CD2	2.39	0.52
20:K:75:LEU:O	20:K:79:LEU:HG	2.10	0.52
23:N:421:ASP:N	23:N:424:LYS:NZ	2.52	0.52
24:O:166:ARG:NH2	24:O:169:ASN:CB	2.72	0.52
24:O:240:GLU:O	24:O:241:THR:OG1	2.20	0.52
26:Q:31:LEU:CG	26:Q:50:ARG:HH21	2.00	0.52
26:Q:311:LEU:CD1	26:Q:366:ILE:CG1	2.86	0.52
27:R:259:PHE:CD1	27:R:259:PHE:C	2.82	0.52
30:U:66:TRP:CZ3	30:U:68:LEU:HB2	2.40	0.52
30:U:123:VAL:HG12	30:U:125:VAL:HG13	1.92	0.52
31:V:182:LYS:CB	31:V:185:ILE:HG22	2.40	0.52
33:X:22:ARG:HE	33:X:96:ARG:HH12	1.58	0.52
2:2:70:THR:OG1	2:2:72:ARG:HG3	2.10	0.52
5:5:158:LYS:HE3	5:5:196:LEU:HD11	1.92	0.52
12:C:18:ARG:HH11	12:C:23:GLU:CD	2.08	0.52
12:C:144:TYR:CB	12:C:147:GLN:HE21	2.23	0.52
13:D:218:ASP:O	13:D:219:SER:HB2	2.09	0.52
17:H:172:MET:HE2	18:I:129:TYR:CB	2.26	0.52
20:K:189:GLU:HG3	20:K:230:THR:HG22	1.91	0.52
20:K:347:ARG:NH1	26:Q:205:ALA:HB1	2.23	0.52
20:K:349:ARG:CZ	20:K:376:ASP:HA	2.40	0.52
21:L:407:ARG:HD3	21:L:409:HIS:CD2	2.45	0.52
23:N:277:LEU:HB3	23:N:287:LEU:CD2	2.36	0.52
26:Q:265:MET:HE2	26:Q:281:ILE:HD13	1.91	0.52
27:R:354:ALA:HB1	27:R:361:VAL:HA	1.92	0.52
29:T:86:LYS:HB3	29:T:87:PRO:HD3	1.90	0.52
35:Z:335:LEU:HG	35:Z:335:LEU:O	2.09	0.52
1:1:85:LEU:HD12	1:1:89:ASN:HD22	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:120:HIS:NE2	7:7:49:ILE:HG21	2.25	0.52
11:B:45:ILE:HD12	11:B:74:VAL:HG13	1.92	0.52
11:B:70:ASP:O	11:B:214:ILE:HG21	2.10	0.52
16:G:60:PRO:HB3	16:G:212:GLU:OE2	2.10	0.52
19:J:219:VAL:CA	20:K:281:ARG:HD2	2.34	0.52
20:K:95:VAL:CG1	20:K:139:LEU:HB2	2.34	0.52
23:N:21:LYS:CG	23:N:55:PHE:CE2	2.93	0.52
24:O:52:ALA:HB3	24:O:85:SER:HB3	1.90	0.52
24:O:87:LYS:HD2	24:O:135:ARG:CD	2.40	0.52
24:O:140:LYS:CD	24:O:141:ASN:HD21	2.23	0.52
24:O:335:GLY:O	24:O:336:LEU:CB	2.58	0.52
26:Q:11:ALA:HA	26:Q:14:LEU:HD12	1.91	0.52
27:R:60:ALA:HB3	27:R:102:LEU:HD22	1.91	0.52
27:R:252:TYR:CE1	27:R:321:TYR:HB3	2.45	0.52
31:V:57:PHE:CD2	31:V:63:VAL:HG22	2.44	0.52
32:W:182:TYR:O	32:W:183:GLU:HB2	2.06	0.52
35:Z:128:GLU:OE2	35:Z:132:HIS:HB2	2.10	0.52
1:1:-6:GLY:CA	2:2:116:HIS:CG	2.91	0.52
6:6:-8:PHE:CE1	7:7:124:LEU:HD13	2.44	0.52
7:7:185:ARG:HG2	7:7:205:GLN:HG3	1.92	0.52
17:H:66:LYS:HE2	18:I:99:ILE:HB	1.92	0.52
17:H:249:TYR:CZ	17:H:376:GLU:CA	2.91	0.52
20:K:352:ILE:HG21	20:K:383:ILE:HG22	1.91	0.52
21:L:407:ARG:HD3	21:L:409:HIS:NE2	2.25	0.52
22:M:50:ARG:HB3	32:W:73:LEU:HB3	1.90	0.52
23:N:645:THR:HG21	23:N:660:LEU:HD11	1.91	0.52
24:O:260:VAL:HG11	24:O:262:ASP:OD2	2.10	0.52
25:P:268:LEU:HD12	25:P:280:LEU:HD23	1.91	0.52
25:P:273:TYR:HE2	25:P:388:ILE:HG13	1.75	0.52
25:P:352:VAL:HB	25:P:356:TYR:CE2	2.45	0.52
26:Q:266:LEU:HD23	26:Q:281:ILE:CD1	2.40	0.52
27:R:137:LEU:HD12	27:R:141:TYR:CE2	2.36	0.52
28:S:237:ILE:CG2	28:S:253:PHE:CE1	2.92	0.52
30:U:100:ARG:O	30:U:152:LYS:CD	2.55	0.52
30:U:132:LEU:HD21	30:U:134:THR:O	2.10	0.52
32:W:59:PRO:CB	32:W:93:ILE:HG13	2.38	0.52
35:Z:147:GLU:HA	35:Z:210:TYR:HE1	1.70	0.52
35:Z:187:SER:O	35:Z:188:ALA:HB3	2.10	0.52
35:Z:391:ASN:OD1	35:Z:394:TYR:CD2	2.63	0.52
35:Z:506:LEU:HD23	35:Z:506:LEU:C	2.30	0.52
5:5:37:ILE:HG22	5:5:38:ASN:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D:203:VAL:O	13:D:204:GLN:CB	2.57	0.52
15:F:65:LYS:CD	15:F:222:PHE:HD2	2.22	0.52
15:F:166:GLN:HA	22:M:381:ARG:HH22	1.70	0.52
17:H:402:ILE:HD13	17:H:443:PHE:HE2	1.75	0.52
18:I:132:ILE:CG1	18:I:156:ILE:HD12	2.29	0.52
20:K:254:VAL:O	20:K:258:PHE:HD1	1.92	0.52
22:M:196:ALA:HB2	22:M:345:ARG:NE	2.24	0.52
23:N:277:LEU:HD23	23:N:280:GLN:NE2	2.25	0.52
29:T:197:TYR:HE2	29:T:200:LEU:N	2.04	0.52
29:T:224:ARG:HB3	29:T:242:LYS:CB	2.40	0.52
35:Z:220:ALA:O	35:Z:224:LEU:HG	2.10	0.52
35:Z:424:SER:OG	35:Z:457:ILE:HG21	2.10	0.52
35:Z:620:LEU:HD23	35:Z:743:ILE:CG1	2.40	0.52
1:1:122:LEU:CG	7:7:28:PHE:CE1	2.93	0.51
6:6:61:ASN:O	6:6:65:TRP:HD1	1.92	0.51
11:B:4:ARG:NH2	13:D:5:ASP:H	2.06	0.51
14:E:157:HIS:HD2	14:E:170:LYS:NZ	2.07	0.51
15:F:51:ARG:NH2	15:F:204:GLU:OE1	2.33	0.51
16:G:7:TYR:CE1	16:G:13:VAL:CG2	2.89	0.51
17:H:168:ILE:HD13	17:H:174:VAL:CG1	2.40	0.51
20:K:262:ARG:NH1	20:K:311:ASN:OD1	2.43	0.51
20:K:303:MET:HE2	20:K:314:VAL:HG11	1.92	0.51
21:L:360:ILE:HG21	21:L:391:ILE:HD12	1.83	0.51
22:M:163:PHE:CD1	22:M:261:LYS:CE	2.90	0.51
23:N:508:THR:HG21	23:N:513:ILE:HG22	1.91	0.51
30:U:15:LEU:HD12	30:U:125:VAL:HG12	1.92	0.51
30:U:35:GLY:C	30:U:93:TYR:CB	2.77	0.51
30:U:273:LEU:O	30:U:277:TYR:CG	2.62	0.51
32:W:142:ILE:CG2	32:W:185:ILE:HD12	2.40	0.51
35:Z:955:VAL:HG22	35:Z:956:LEU:HG	1.90	0.51
35:Z:963:ALA:O	35:Z:964:GLU:CG	2.58	0.51
2:2:87:LEU:HD21	2:2:94:ILE:HD11	1.93	0.51
7:7:54:HIS:HD2	7:7:95:ARG:HH22	1.56	0.51
8:8:114:MSE:HE2	8:8:181:PRO:HD2	1.90	0.51
8:8:318:PHE:CZ	17:H:163:VAL:HG13	2.45	0.51
13:D:34:VAL:HG21	13:D:199:LEU:HD21	1.92	0.51
14:E:143:LEU:HD21	14:E:157:HIS:ND1	2.25	0.51
17:H:198:MET:CE	17:H:272:ILE:CG2	2.72	0.51
20:K:127:ASP:OD1	20:K:128:ARG:N	2.42	0.51
20:K:157:SER:C	21:L:256:ILE:HG22	2.31	0.51
22:M:290:ARG:NE	22:M:292:ASP:OD2	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:41:LEU:CD1	24:O:47:LYS:HG2	2.40	0.51
24:O:133:ILE:HG13	24:O:137:TYR:CE2	2.42	0.51
24:O:269:LEU:HD23	24:O:269:LEU:C	2.30	0.51
25:P:135:GLU:CG	25:P:138:ARG:HH22	2.24	0.51
26:Q:65:TYR:CD2	26:Q:74:LEU:HD13	2.44	0.51
26:Q:351:ILE:CG2	26:Q:362:ILE:HD13	2.40	0.51
27:R:110:ILE:HG22	27:R:114:ASN:ND2	2.25	0.51
31:V:108:TYR:O	31:V:109:HIS:CD2	2.63	0.51
31:V:168:LEU:CD1	31:V:182:LYS:HD2	2.41	0.51
32:W:25:ARG:HD2	32:W:144:PHE:CZ	2.43	0.51
32:W:71:LYS:CA	32:W:74:ALA:HB3	2.34	0.51
35:Z:437:ASP:O	35:Z:441:TYR:CD2	2.64	0.51
2:2:72:ARG:CZ	2:2:75:ARG:HH12	2.23	0.51
6:6:120:GLY:O	6:6:121:SER:HB2	2.10	0.51
10:A:174:LYS:HD3	10:A:214:LEU:HA	1.91	0.51
14:E:165:TYR:CB	14:E:167:TYR:HE1	2.09	0.51
15:F:65:LYS:HD2	15:F:222:PHE:HD2	1.73	0.51
16:G:98:PHE:CZ	16:G:107:PRO:HD3	2.45	0.51
19:J:169:LYS:HE2	19:J:206:THR:HG22	1.92	0.51
20:K:89:ILE:HG22	20:K:90:GLN:HE21	1.75	0.51
23:N:490:LEU:HD21	23:N:526:TYR:CG	2.46	0.51
24:O:69:PHE:HZ	24:O:77:SER:HB3	1.75	0.51
24:O:217:LEU:HD21	24:O:238:ILE:HD13	1.92	0.51
25:P:147:LYS:HD3	25:P:155:GLU:HG3	1.91	0.51
25:P:234:TYR:CD2	25:P:267:PHE:CE2	2.99	0.51
26:Q:74:LEU:HD21	26:Q:104:PHE:HE1	1.76	0.51
26:Q:74:LEU:HD21	26:Q:104:PHE:CE1	2.45	0.51
26:Q:351:ILE:HD12	26:Q:386:PHE:CD1	2.45	0.51
28:S:168:LEU:HD13	28:S:184:TRP:CZ2	2.45	0.51
31:V:40:HIS:CE1	31:V:70:ALA:HB2	2.44	0.51
31:V:79:SER:CA	31:V:121:VAL:HG13	2.39	0.51
33:X:91:PHE:O	33:X:92:SER:HB2	2.11	0.51
35:Z:64:TYR:OH	35:Z:115:LEU:CB	2.57	0.51
3:3:44:ILE:HG22	3:3:51:VAL:HG22	1.92	0.51
3:3:155:PHE:CE1	3:3:189:ARG:CD	2.89	0.51
4:4:27:LEU:HD12	5:5:137:TYR:CE1	2.45	0.51
4:4:28:LYS:HE2	5:5:127:PHE:CE2	2.44	0.51
5:5:74:ILE:HG12	5:5:75:SER:O	2.10	0.51
7:7:124:LEU:HD12	7:7:124:LEU:C	2.31	0.51
11:B:139:HIS:ND1	11:B:145:PHE:CE1	2.77	0.51
16:G:106:ILE:HG23	16:G:106:ILE:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:J:133:LEU:HD23	19:J:137:MET:HE3	1.91	0.51
19:J:339:ARG:HH12	27:R:168:ILE:HG13	1.76	0.51
20:K:353:PHE:HD1	20:K:387:MET:HG3	1.74	0.51
23:N:433:THR:HG22	23:N:439:VAL:HG11	1.93	0.51
23:N:555:ILE:HB	23:N:571:LEU:HD21	1.92	0.51
23:N:669:GLU:O	23:N:670:LYS:CB	2.54	0.51
24:O:373:TRP:CH2	30:U:229:LEU:O	2.64	0.51
28:S:232:MET:HA	28:S:272:TYR:OH	2.11	0.51
28:S:425:ARG:NH1	29:T:155:GLY:CA	2.66	0.51
28:S:465:ILE:HG12	29:T:266:TYR:CD2	2.46	0.51
33:X:10:PHE:CE2	33:X:11:ARG:O	2.64	0.51
33:X:46:TRP:HE1	33:X:132:SER:HA	1.75	0.51
33:X:75:TRP:CE3	33:X:125:MET:HB3	2.45	0.51
12:C:161:LYS:HD2	12:C:180:TYR:OH	2.10	0.51
13:D:159:TRP:CH2	14:E:59:LEU:HD13	2.45	0.51
15:F:198:SER:HA	15:F:206:LEU:CD1	2.36	0.51
19:J:219:VAL:CB	20:K:281:ARG:NE	2.63	0.51
19:J:220:GLN:HE22	20:K:293:GLN:NE2	2.07	0.51
19:J:234:PHE:HE1	19:J:279:LEU:HD21	1.69	0.51
21:L:161:ARG:HH21	21:L:261:ARG:HH12	0.52	0.51
21:L:254:LYS:N	22:M:256:ILE:HG13	2.24	0.51
23:N:386:MET:CE	23:N:404:SER:HA	2.41	0.51
26:Q:250:THR:CG2	26:Q:251:THR:N	2.62	0.51
28:S:277:SER:OG	28:S:293:ILE:HG13	2.11	0.51
28:S:288:THR:CG2	28:S:292:TYR:CE2	2.93	0.51
31:V:69:PHE:C	31:V:108:TYR:OH	2.49	0.51
35:Z:185:ASP:CG	35:Z:186:GLY:N	2.63	0.51
1:1:120:HIS:CB	7:7:28:PHE:CE1	2.93	0.51
3:3:75:PRO:CB	3:3:111:PHE:HD2	2.23	0.51
5:5:32:LYS:HB2	6:6:123:GLU:OE2	2.10	0.51
5:5:77:ALA:HA	5:5:121:ARG:HH21	1.75	0.51
5:5:159:ARG:HH12	5:5:200:VAL:HA	1.76	0.51
9:9:42:ARG:HD2	9:9:49:GLN:OE1	2.11	0.51
13:D:138:PHE:HE1	13:D:215:VAL:CG1	2.09	0.51
16:G:90:ARG:HH12	16:G:122:HIS:CE1	2.28	0.51
17:H:146:VAL:N	17:H:157:VAL:HG21	2.24	0.51
17:H:338:THR:HG21	22:M:281:ASP:CG	2.31	0.51
18:I:358:LYS:HZ1	18:I:387:LEU:N	2.02	0.51
23:N:542:SER:HB3	23:N:547:LEU:CD1	2.41	0.51
23:N:641:LEU:O	23:N:645:THR:HG23	2.10	0.51
24:O:254:LEU:O	24:O:258:LEU:HG	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:277:ILE:HB	24:O:278:PRO:C	2.31	0.51
25:P:234:TYR:CD2	25:P:267:PHE:CG	2.99	0.51
25:P:308:LEU:HD22	25:P:369:LEU:HD23	1.86	0.51
26:Q:9:GLU:CD	26:Q:12:ARG:HH21	2.13	0.51
26:Q:426:LEU:HD23	26:Q:426:LEU:C	2.31	0.51
28:S:141:LEU:O	28:S:145:PHE:CE2	2.64	0.51
31:V:261:LEU:HD11	31:V:283:THR:HG22	1.83	0.51
32:W:59:PRO:CG	32:W:93:ILE:CG1	2.58	0.51
33:X:85:ARG:HE	33:X:115:SER:CB	2.23	0.51
35:Z:124:MET:HE1	35:Z:153:TYR:HA	1.91	0.51
35:Z:254:PRO:HB3	35:Z:287:ARG:HH12	1.75	0.51
35:Z:403:ASN:OD1	35:Z:405:ASN:HB2	2.11	0.51
35:Z:505:VAL:O	35:Z:509:LEU:HG	2.10	0.51
5:5:66:HIS:HE1	5:5:70:GLU:CD	2.14	0.51
8:8:330:LEU:HD11	17:H:166:THR:HG21	1.66	0.51
10:A:135:ARG:NH2	16:G:124:LEU:HD21	2.25	0.51
11:B:38:LYS:CE	11:B:145:PHE:O	2.59	0.51
11:B:75:TYR:HB3	11:B:134:LEU:CD2	2.41	0.51
15:F:12:THR:HG22	15:F:13:PHE:O	2.10	0.51
17:H:342:GLY:O	17:H:343:PHE:HB2	2.09	0.51
19:J:286:LYS:NZ	19:J:289:LYS:HG2	2.26	0.51
19:J:329:ARG:CB	19:J:343:LEU:HD13	2.40	0.51
23:N:395:ALA:HB3	23:N:401:LYS:HE3	1.93	0.51
23:N:596:LEU:HD21	23:N:627:ILE:HG22	1.93	0.51
23:N:771:PHE:CG	23:N:772:GLN:N	2.78	0.51
24:O:138:LEU:CD2	24:O:146:ALA:CB	2.89	0.51
24:O:387:ARG:HH22	29:T:258:ASN:HB3	1.72	0.51
25:P:207:THR:CB	25:P:217:LYS:HZ3	2.21	0.51
26:Q:85:MET:HE2	26:Q:93:THR:CG2	2.40	0.51
27:R:259:PHE:HD2	27:R:329:PHE:HE1	1.57	0.51
30:U:68:LEU:HD13	30:U:110:PHE:CZ	2.46	0.51
33:X:73:THR:CG2	33:X:91:PHE:CE1	2.94	0.51
35:Z:970:TYR:CD1	35:Z:993:GLU:HB2	2.45	0.51
5:5:54:PHE:HE1	6:6:86:HIS:HD1	1.57	0.51
11:B:178:ARG:CD	11:B:191:ILE:HG23	2.40	0.51
18:I:235:ALA:O	18:I:239:GLN:HG2	2.10	0.51
23:N:666:GLN:HG3	23:N:873:ARG:CZ	2.40	0.51
24:O:30:GLU:OE1	24:O:40:GLN:CD	2.48	0.51
25:P:425:HIS:CE1	30:U:228:LYS:HB2	2.46	0.51
27:R:381:ILE:HG22	27:R:388:VAL:HG22	1.92	0.51
28:S:439:GLU:OE2	29:T:199:PHE:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:111:LEU:HD21	29:T:177:PHE:HB2	1.91	0.51
29:T:163:LEU:HD13	29:T:163:LEU:C	2.31	0.51
30:U:98:LYS:NZ	30:U:124:ASP:HB2	2.25	0.51
30:U:154:PHE:CD1	30:U:154:PHE:N	2.78	0.51
35:Z:924:LYS:CG	35:Z:959:HIS:ND1	2.74	0.51
9:9:42:ARG:HB2	9:9:70:VAL:O	2.11	0.51
12:C:71:ASP:OD1	12:C:72:LYS:HG3	2.11	0.51
14:E:46:VAL:HG11	14:E:145:ALA:HB1	1.93	0.51
18:I:148:LEU:HD11	19:J:95:ILE:HG21	1.92	0.51
18:I:222:TYR:OH	18:I:349:LEU:CB	2.59	0.51
19:J:219:VAL:HG22	20:K:284:ALA:CB	2.17	0.51
20:K:283:ASP:O	20:K:284:ALA:HB3	2.11	0.51
20:K:316:MET:HG3	20:K:334:LEU:HD21	1.92	0.51
21:L:245:PHE:CZ	21:L:281:ASP:OD2	2.64	0.51
23:N:214:LEU:HD12	23:N:217:MET:HE2	1.90	0.51
23:N:542:SER:CB	23:N:547:LEU:HD13	2.40	0.51
23:N:579:SER:CA	23:N:584:ARG:NH2	2.69	0.51
24:O:173:SER:HB3	24:O:195:TYR:CE1	2.46	0.51
27:R:263:ARG:HD3	27:R:296:LEU:CD2	2.41	0.51
33:X:46:TRP:O	33:X:68:LEU:CB	2.59	0.51
4:4:72:TYR:HB2	12:C:143:ARG:NH2	2.25	0.51
9:9:54:ARG:CZ	9:9:58:ASP:OD2	2.59	0.51
16:G:114:ARG:O	16:G:118:TYR:HD2	1.94	0.51
21:L:197:ILE:HG23	21:L:322:LYS:HD2	1.92	0.51
23:N:738:GLN:NE2	23:N:742:TRP:CZ3	2.80	0.51
24:O:379:LYS:HE2	24:O:383:LYS:NZ	2.26	0.51
26:Q:294:ARG:HB2	26:Q:324:GLU:OE1	2.11	0.51
26:Q:311:LEU:HD11	26:Q:366:ILE:CD1	2.41	0.51
26:Q:326:MET:HE2	26:Q:332:ARG:CD	2.39	0.51
28:S:343:LEU:HB2	28:S:344:PRO:CD	2.41	0.51
32:W:41:ARG:CZ	32:W:67:ALA:O	2.60	0.51
32:W:159:ALA:HA	32:W:162:ASN:HD21	1.76	0.51
33:X:39:GLU:HA	33:X:133:SER:OG	2.11	0.51
1:1:124:TYR:HD1	1:1:142:PHE:CZ	2.29	0.50
4:4:51:ASP:HB3	4:4:97:TYR:HD1	1.76	0.50
7:7:-3:VAL:HG12	7:7:49:ILE:HB	1.92	0.50
8:8:133:LEU:HD11	8:8:221[B]:MSE:CE	2.31	0.50
10:A:52:VAL:HG23	10:A:202:VAL:CG1	2.41	0.50
12:C:13:PHE:CE1	13:D:127:ARG:HD2	2.46	0.50
14:E:157:HIS:ND1	14:E:172:ILE:HG21	2.15	0.50
18:I:113:ILE:CG2	18:I:114:ASP:N	2.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:361:ILE:CG2	18:I:392:ILE:CG2	2.79	0.50
20:K:60:LEU:O	20:K:64:GLN:HG3	2.12	0.50
22:M:228:LYS:HE2	22:M:326:ALA:CB	2.41	0.50
23:N:33:ASP:O	23:N:36:TRP:HD1	1.94	0.50
23:N:273:LEU:O	23:N:277:LEU:HG	2.11	0.50
23:N:330:THR:O	23:N:334:VAL:HG23	2.10	0.50
24:O:103:LYS:O	24:O:129:ILE:HG12	2.07	0.50
24:O:222:LEU:CD2	24:O:270:ILE:CD1	2.90	0.50
24:O:226:LYS:HB3	24:O:226:LYS:NZ	2.26	0.50
25:P:248:ASP:OD1	25:P:256:LYS:NZ	2.41	0.50
25:P:265:VAL:HG22	25:P:280:LEU:HD23	1.93	0.50
25:P:268:LEU:HD12	25:P:280:LEU:CD2	2.41	0.50
25:P:289:ASN:O	25:P:290:LEU:HB2	2.10	0.50
25:P:353:ILE:HG22	25:P:402:PHE:CZ	2.46	0.50
26:Q:429:LYS:HG2	30:U:292:ILE:HG22	1.92	0.50
27:R:416:LYS:NZ	28:S:294:ILE:HG21	2.26	0.50
28:S:322:LEU:CD2	28:S:327:ILE:HG22	2.41	0.50
28:S:465:ILE:HG12	29:T:266:TYR:HD2	1.76	0.50
29:T:114:LEU:HD13	29:T:148:LEU:HD23	1.92	0.50
33:X:11:ARG:HG2	33:X:103:GLU:HA	1.93	0.50
5:5:3:THR:HG23	5:5:16:VAL:HG12	1.92	0.50
5:5:65:LEU:HD13	14:E:97:VAL:HG21	1.93	0.50
6:6:17:ASP:OD2	6:6:189:VAL:HA	2.11	0.50
20:K:158:ILE:CG2	21:L:256:ILE:CG2	2.82	0.50
21:L:228:LYS:NZ	21:L:326:ALA:HB1	2.27	0.50
23:N:91:ILE:O	23:N:94:LYS:HE2	2.11	0.50
24:O:70:TYR:OH	24:O:113:LYS:HE3	2.11	0.50
26:Q:390:LEU:HD23	27:R:345:TYR:HE1	1.76	0.50
29:T:161:TRP:HE3	29:T:162:ASP:OD1	1.93	0.50
29:T:194:GLU:OE2	29:T:239:SER:N	2.44	0.50
30:U:127:GLN:HG2	31:V:212:MET:HB3	1.93	0.50
33:X:80:SER:OG	33:X:83:SER:HB3	2.11	0.50
33:X:100:TRP:HZ2	33:X:110:PRO:HD3	1.76	0.50
35:Z:165:TYR:O	35:Z:169:VAL:HG23	2.11	0.50
2:2:61:SER:OG	11:B:94:HIS:HB3	2.10	0.50
2:2:85:GLN:O	2:2:89:LYS:HG3	2.12	0.50
3:3:84:SER:O	3:3:88:GLU:HG3	2.12	0.50
7:7:121:TYR:CE1	7:7:123:ASN:HB3	2.46	0.50
7:7:129:TYR:CE2	7:7:134:LEU:HD22	2.45	0.50
10:A:40:ILE:CD1	10:A:84:ASN:HA	2.41	0.50
10:A:156:LYS:HB3	10:A:166:TYR:HE1	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:12:THR:HG21	16:G:9:LEU:HD23	1.94	0.50
17:H:62:ARG:HA	18:I:133:LEU:HD11	1.94	0.50
18:I:300:ARG:HG2	18:I:304:ARG:NH1	2.26	0.50
19:J:115:LEU:CB	19:J:122:LEU:HD23	2.35	0.50
19:J:166:LEU:O	19:J:174:PHE:CE1	2.54	0.50
19:J:342:ASN:HB2	19:J:345:LYS:HD2	1.94	0.50
23:N:253:LEU:HD13	23:N:894:ARG:NE	2.25	0.50
24:O:223:LEU:C	24:O:279:ILE:HG21	2.31	0.50
25:P:272:PRO:HG2	25:P:273:TYR:CD1	2.47	0.50
27:R:181:TYR:HD2	27:R:183:ASP:HB2	1.75	0.50
29:T:209:LEU:CD1	29:T:211:PHE:CE2	2.94	0.50
29:T:240:LYS:HA	29:T:245:TYR:CB	2.38	0.50
29:T:246:GLU:HG3	29:T:246:GLU:O	2.10	0.50
32:W:20:ASP:OD2	32:W:176:PRO:HB3	2.11	0.50
35:Z:232:LYS:HA	35:Z:235:GLN:HB3	1.93	0.50
35:Z:357:ILE:CD1	35:Z:914:LEU:HD13	2.22	0.50
1:1:138:CYS:HA	1:1:154:PHE:HZ	1.75	0.50
6:6:3:ILE:CD1	6:6:101:ILE:HD12	2.40	0.50
6:6:73:LYS:NZ	14:E:108:ASN:ND2	2.59	0.50
11:B:82:TYR:O	11:B:86:VAL:HG23	2.10	0.50
18:I:176:SER:HB2	19:J:282:PHE:HE1	1.76	0.50
19:J:196:THR:HA	19:J:246:PHE:CZ	2.46	0.50
20:K:192:LEU:HD21	20:K:313:LYS:HG2	1.92	0.50
20:K:300:LEU:HA	20:K:333:ARG:HH12	1.77	0.50
21:L:104:LEU:HD13	22:M:127:VAL:HG12	1.94	0.50
21:L:140:LEU:CD2	21:L:158:ILE:HG12	2.42	0.50
22:M:345:ARG:NH2	22:M:347:ILE:HG12	2.26	0.50
23:N:328:PHE:HE1	23:N:696:LYS:CB	2.24	0.50
24:O:15:ARG:HD2	24:O:43:GLU:OE2	2.11	0.50
24:O:81:TYR:O	24:O:82:LEU:HB2	2.11	0.50
24:O:258:LEU:HD13	24:O:291:ILE:HD11	1.94	0.50
25:P:127:GLU:OE2	25:P:130:ILE:HG22	2.12	0.50
27:R:259:PHE:HZ	27:R:332:GLU:OE1	1.95	0.50
29:T:32:ILE:HA	29:T:35:ILE:CG2	2.42	0.50
29:T:225:ASN:CB	29:T:241:GLU:HA	2.41	0.50
31:V:32:ILE:O	31:V:36:LYS:HG2	2.11	0.50
35:Z:617:ILE:HD11	35:Z:747:ALA:HB2	1.93	0.50
35:Z:737:ALA:CA	35:Z:775:MET:CE	2.89	0.50
35:Z:888:LEU:HG	35:Z:901:PHE:HE1	1.71	0.50
4:4:27:LEU:HD12	5:5:137:TYR:CZ	2.46	0.50
8:8:212:GLU:CD	9:9:72:ARG:HG2	2.31	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C:57:LEU:HG	12:C:58:GLU:O	2.12	0.50
14:E:208:MET:SD	14:E:212:LEU:HD13	2.52	0.50
17:H:168:ILE:HA	17:H:174:VAL:HG11	1.94	0.50
19:J:187:LEU:HD13	19:J:198:LEU:HD23	1.93	0.50
21:L:147:THR:OG1	21:L:159:LEU:HD11	2.11	0.50
22:M:376:TRP:CE3	22:M:376:TRP:HA	2.47	0.50
23:N:220:CYS:HB3	23:N:225:LEU:HD11	1.93	0.50
24:O:138:LEU:CD2	24:O:146:ALA:HB1	2.42	0.50
25:P:184:MET:CB	25:P:223:LEU:HD22	2.39	0.50
26:Q:195:LYS:NZ	26:Q:229:ASP:HB3	2.27	0.50
32:W:38:GLN:HG2	32:W:69:PHE:HZ	1.76	0.50
35:Z:359:LYS:HZ3	35:Z:429:ASN:HD22	1.53	0.50
35:Z:422:ILE:HD11	35:Z:436:LEU:HD23	1.94	0.50
16:G:217:TRP:HE1	16:G:228:LYS:HB2	1.76	0.50
17:H:402:ILE:HD13	17:H:443:PHE:CE2	2.47	0.50
18:I:335:ASP:HB2	18:I:338:LEU:HG	1.94	0.50
19:J:150:VAL:CG1	19:J:197:LEU:HD13	2.42	0.50
19:J:224:GLY:O	19:J:228:ARG:N	2.43	0.50
19:J:374:ARG:NH1	19:J:378:THR:CG2	2.74	0.50
20:K:107:THR:OG1	20:K:121:ARG:NH1	2.44	0.50
20:K:158:ILE:HG22	21:L:256:ILE:HG23	1.91	0.50
21:L:119:VAL:HG11	21:L:148:LEU:HD11	1.93	0.50
23:N:21:LYS:HE2	23:N:55:PHE:CZ	2.41	0.50
23:N:321:LEU:HD22	23:N:328:PHE:CD1	2.47	0.50
24:O:306:ARG:CD	24:O:351:SER:CA	2.88	0.50
24:O:340:SER:CB	25:P:358:SER:HB2	2.38	0.50
25:P:134:VAL:CG2	25:P:138:ARG:NH1	2.68	0.50
27:R:308:LEU:HB3	27:R:334:ARG:NH2	2.18	0.50
29:T:248:GLU:O	29:T:248:GLU:HG2	2.11	0.50
31:V:113:GLY:HA3	31:V:142:ASP:OD2	2.11	0.50
35:Z:854:LEU:HD11	35:Z:864:MET:SD	2.51	0.50
35:Z:985:LYS:HB2	35:Z:991:GLU:HG3	1.94	0.50
3:3:63:ASN:ND2	12:C:96:GLN:HE22	2.09	0.50
3:3:85:SER:HA	3:3:88:GLU:OE1	2.10	0.50
5:5:76:VAL:HG13	5:5:101:ILE:HG22	1.92	0.50
14:E:143:LEU:HG	14:E:172:ILE:CD1	2.40	0.50
15:F:179:PHE:HD1	15:F:188:GLU:HG3	1.76	0.50
16:G:86:HIS:HD2	16:G:131:PHE:CZ	2.29	0.50
17:H:145:TYR:HB2	17:H:162:ARG:CZ	2.42	0.50
17:H:167:ASP:CG	17:H:168:ILE:N	2.65	0.50
19:J:212:ARG:HH12	20:K:330:ARG:HD3	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:M:175:LYS:NZ	22:M:240:ASN:HB3	2.27	0.50
22:M:257:GLY:CA	22:M:258:GLU:N	2.72	0.50
24:O:153:LEU:HD11	24:O:174:THR:HG21	1.75	0.50
24:O:233:LEU:HD22	24:O:236:HIS:ND1	2.26	0.50
25:P:311:TRP:HB3	25:P:312:PRO:HD3	1.93	0.50
26:Q:331:THR:HG21	26:Q:335:PHE:HE2	1.68	0.50
27:R:404:VAL:HG21	30:U:274:MET:SD	2.52	0.50
33:X:23:LEU:O	33:X:24:CYS:CB	2.59	0.50
33:X:33:ILE:HD11	33:X:48:PHE:CE2	2.46	0.50
1:1:176:VAL:HG13	1:1:183:VAL:HG13	1.79	0.50
3:3:44:ILE:HG12	3:3:98:PRO:HA	1.94	0.50
4:4:18:LYS:HB3	4:4:179:ILE:HG13	1.93	0.50
6:6:1:GLY:C	6:6:46:ASN:HD21	2.15	0.50
11:B:117:ILE:HG22	11:B:130:PHE:CE2	2.46	0.50
12:C:98:TYR:CD1	12:C:106:ILE:N	2.80	0.50
12:C:208:TYR:CB	12:C:235:ILE:CG2	2.89	0.50
16:G:140:VAL:CG1	16:G:220:LEU:HG	2.35	0.50
17:H:295:PHE:HE1	17:H:336:LEU:HD12	1.76	0.50
19:J:143:PRO:O	19:J:204:HIS:CG	2.64	0.50
20:K:211:LEU:HD23	20:K:338:ILE:HB	1.94	0.50
24:O:374:ASN:HA	30:U:200:LEU:HD13	1.93	0.50
26:Q:282:LEU:HD23	26:Q:288:LYS:HE3	1.93	0.50
27:R:301:TYR:HD2	27:R:357:PHE:O	1.95	0.50
27:R:383:ARG:HD3	28:S:406:ASP:OD1	2.11	0.50
29:T:225:ASN:CB	29:T:241:GLU:HG2	2.41	0.50
30:U:127:GLN:HB3	31:V:212:MET:HB2	1.94	0.50
32:W:101:ARG:HH12	32:W:104:LYS:CG	2.04	0.50
4:4:27:LEU:CD1	5:5:137:TYR:CE1	2.95	0.50
5:5:104:TYR:C	5:5:104:TYR:CD1	2.86	0.50
7:7:13:ILE:HG12	7:7:191:ILE:HG12	1.94	0.50
7:7:193:ASP:OD2	7:7:195:ASN:HB2	2.12	0.50
12:C:98:TYR:CE1	12:C:104:GLU:O	2.65	0.50
13:D:157:SER:HB3	13:D:159:TRP:NE1	2.26	0.50
15:F:43:HIS:NE2	15:F:219:ASP:OD1	2.27	0.50
15:F:45:VAL:HG13	15:F:189:LEU:HD23	1.93	0.50
15:F:215:ILE:CD1	15:F:220:THR:HG21	2.41	0.50
17:H:284:VAL:HB	22:M:254:MET:HB3	1.92	0.50
19:J:256:THR:O	19:J:257:ARG:HB2	2.12	0.50
20:K:244:HIS:ND1	20:K:250:GLY:HA3	2.24	0.50
22:M:379:LEU:HB3	22:M:415:PHE:CE1	2.46	0.50
23:N:123:PHE:HZ	23:N:129:ILE:HB	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:69:PHE:CE2	24:O:78:VAL:CG2	2.94	0.50
24:O:283:HIS:NE2	24:O:287:LEU:CD1	2.56	0.50
24:O:293:LEU:HG	24:O:297:ILE:CD1	2.42	0.50
25:P:320:PRO:O	25:P:321:VAL:HB	2.12	0.50
26:Q:308:ASN:O	26:Q:309:ARG:HB2	2.12	0.50
27:R:83:GLU:HG3	27:R:83:GLU:O	2.12	0.50
27:R:301:TYR:HE2	27:R:359:VAL:CG1	2.25	0.50
35:Z:124:MET:SD	35:Z:153:TYR:HA	2.52	0.50
35:Z:228:GLU:OE2	35:Z:259:PRO:HG3	2.12	0.50
35:Z:857:LEU:HD22	35:Z:908:ILE:HG21	1.94	0.50
2:2:104:ASP:OD1	2:2:106:THR:OG1	2.24	0.49
5:5:6:PHE:CE1	5:5:13:ILE:CB	2.79	0.49
6:6:114:TYR:CE2	6:6:124:ARG:HB2	2.46	0.49
7:7:62:LEU:HD11	7:7:87:TYR:CE2	2.47	0.49
7:7:95:ARG:HH12	7:7:102:LEU:HD13	1.73	0.49
8:8:253:LYS:NZ	9:9:64:GLU:HB3	2.09	0.49
10:A:128:TYR:HD1	10:A:131:ARG:HD2	1.76	0.49
10:A:162:TYR:CZ	20:K:428:LYS:CB	2.86	0.49
10:A:195:ASN:C	10:A:196:GLU:HG2	2.29	0.49
11:B:140:ASP:OD1	11:B:140:ASP:O	2.30	0.49
14:E:103:TYR:O	14:E:104:ASP:HB2	2.12	0.49
14:E:123:PHE:O	14:E:123:PHE:CD1	2.65	0.49
18:I:244:PHE:CE1	18:I:246:ARG:NE	2.78	0.49
18:I:361:ILE:O	18:I:365:HIS:CD2	2.65	0.49
20:K:262:ARG:NH1	20:K:311:ASN:CG	2.66	0.49
22:M:309:LEU:HD22	22:M:342:ARG:HG2	1.93	0.49
23:N:542:SER:CB	23:N:547:LEU:CD1	2.90	0.49
23:N:671:LEU:HD22	23:N:782:PHE:HE1	1.76	0.49
26:Q:178:HIS:HB2	26:Q:201:ALA:HB2	1.94	0.49
27:R:308:LEU:HD13	27:R:334:ARG:CD	2.41	0.49
27:R:334:ARG:O	27:R:338:TYR:CD2	2.65	0.49
30:U:20:ASP:O	30:U:24:ARG:HG3	2.11	0.49
31:V:114:PHE:N	31:V:118:LEU:HD23	2.17	0.49
33:X:67:ILE:HG12	33:X:95:GLU:OE2	2.12	0.49
35:Z:142:ASP:OD2	35:Z:202:ARG:HB2	2.11	0.49
35:Z:442:VAL:O	35:Z:448:LYS:HE3	2.12	0.49
4:4:168:GLU:OE2	4:4:175:PHE:CD1	2.65	0.49
5:5:66:HIS:HE1	5:5:70:GLU:OE2	1.94	0.49
15:F:49:LEU:HD11	15:F:210:ASN:HB3	1.93	0.49
15:F:65:LYS:HG3	15:F:222:PHE:CD2	2.47	0.49
15:F:166:GLN:CB	22:M:381:ARG:CZ	2.86	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:166:GLN:C	22:M:381:ARG:HH21	2.15	0.49
16:G:206:ASN:HD21	16:G:209:LYS:HB2	1.76	0.49
19:J:183:LYS:C	19:J:276:LEU:HD13	2.32	0.49
19:J:219:VAL:CG1	20:K:281:ARG:CD	2.89	0.49
20:K:179:MET:O	20:K:183:GLU:HG3	2.12	0.49
20:K:198:TYR:CB	20:K:205:PRO:HG3	2.42	0.49
20:K:352:ILE:HG22	20:K:383:ILE:HG22	1.94	0.49
20:K:353:PHE:CD1	20:K:387:MET:CG	2.94	0.49
21:L:309:LEU:CD2	21:L:342:ARG:HE	2.10	0.49
23:N:486:GLY:HA2	23:N:524:ILE:CG2	2.42	0.49
24:O:157:LEU:HD22	24:O:171:PHE:CG	2.47	0.49
24:O:306:ARG:CG	24:O:351:SER:CA	2.89	0.49
27:R:312:TYR:CD2	34:Y:73:PHE:CD1	3.00	0.49
29:T:28:PRO:CB	29:T:29:PRO:HD3	2.34	0.49
29:T:189:ILE:HG21	29:T:209:LEU:CD2	2.42	0.49
31:V:145:GLN:HB3	31:V:152:VAL:HG21	1.94	0.49
33:X:16:GLU:CD	33:X:27:ILE:HG21	2.33	0.49
35:Z:415:MET:HE1	35:Z:447:VAL:HG23	1.94	0.49
35:Z:531:ALA:HA	35:Z:573:LEU:HG	1.93	0.49
35:Z:866:VAL:HA	35:Z:877:THR:HG22	1.93	0.49
1:1:142:PHE:HA	1:1:146:MET:CE	2.42	0.49
6:6:147:PHE:CE2	6:6:163:LEU:HA	2.48	0.49
7:7:8:TYR:CE1	7:7:12:VAL:N	2.81	0.49
11:B:43:VAL:CG1	11:B:214:ILE:HB	2.42	0.49
16:G:86:HIS:NE2	16:G:90:ARG:CZ	2.74	0.49
19:J:27:ILE:HA	20:K:51:LEU:HD22	1.87	0.49
21:L:403:ILE:CG2	22:M:203:ARG:HH11	2.25	0.49
22:M:203:ARG:CB	22:M:206:LYS:HD2	2.37	0.49
23:N:137:PHE:CE2	23:N:165:ILE:HG13	2.43	0.49
23:N:782:PHE:HD1	23:N:875:LEU:CD2	2.20	0.49
24:O:196:LEU:HD21	24:O:242:ILE:HD11	1.93	0.49
26:Q:162:LEU:CD1	26:Q:178:HIS:CD2	2.95	0.49
28:S:187:ILE:HG23	28:S:188:TYR:N	2.27	0.49
28:S:234:ILE:HG22	28:S:257:LEU:HD13	1.94	0.49
30:U:276:ILE:HB	31:V:291:ASN:HD22	1.78	0.49
33:X:8:ILE:HG22	33:X:124:LYS:CE	2.42	0.49
33:X:66:LEU:HD12	33:X:97:TYR:CB	2.42	0.49
35:Z:985:LYS:HB2	35:Z:991:GLU:CD	2.33	0.49
1:1:178:LEU:HD23	1:1:183:VAL:HG13	1.94	0.49
10:A:74:CYS:HG	10:A:233:PHE:HD2	1.58	0.49
10:A:87:ILE:HG23	10:A:88:PRO:HD3	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C:9:ARG:CZ	13:D:6:ARG:HH12	2.25	0.49
12:C:176:LEU:HD21	12:C:196:THR:HG21	1.94	0.49
13:D:34:VAL:HG22	13:D:163:THR:OG1	2.12	0.49
17:H:96:PRO:O	17:H:97:LEU:HB3	2.11	0.49
22:M:43:ILE:HD13	32:W:26:PHE:HE2	1.77	0.49
23:N:14:ARG:NH2	23:N:42:GLU:OE1	2.42	0.49
23:N:253:LEU:HD13	23:N:894:ARG:HE	1.77	0.49
23:N:326:SER:H	31:V:182:LYS:CG	2.24	0.49
24:O:179:PHE:CE2	24:O:187:SER:HB3	2.47	0.49
25:P:101:MET:CE	25:P:139:VAL:HG22	2.43	0.49
25:P:394:ASN:OD1	25:P:396:PRO:HD2	2.13	0.49
26:Q:7:LYS:HB3	26:Q:30:LEU:HD22	1.94	0.49
26:Q:291:TYR:CZ	26:Q:293:SER:CB	2.95	0.49
27:R:271:ILE:O	27:R:272:ASP:HB2	2.11	0.49
27:R:320:LYS:HE3	27:R:324:ARG:CZ	2.42	0.49
31:V:108:TYR:HA	31:V:139:VAL:O	2.12	0.49
33:X:73:THR:HG21	33:X:91:PHE:HE1	1.76	0.49
35:Z:133:ASP:CB	35:Z:137:TYR:CG	2.94	0.49
35:Z:265:LEU:HB3	35:Z:288:LEU:HD11	1.93	0.49
35:Z:424:SER:OG	35:Z:457:ILE:HD13	2.13	0.49
2:2:83:LEU:HD23	2:2:113:ILE:HG12	1.93	0.49
3:3:146:GLU:O	3:3:149:LEU:HD11	2.12	0.49
5:5:124:GLY:HA3	5:5:127:PHE:CZ	2.48	0.49
7:7:169:ILE:HG21	7:7:189:LEU:HD11	1.94	0.49
15:F:2:PHE:HB2	15:F:5:ASN:ND2	2.27	0.49
15:F:13:PHE:CZ	16:G:129:ARG:HG2	2.48	0.49
16:G:10:SER:O	16:G:11:ASN:OD1	2.30	0.49
17:H:271:PHE:CE1	17:H:273:ARG:CZ	2.95	0.49
18:I:361:ILE:HB	18:I:392:ILE:HD13	1.93	0.49
18:I:376:ASN:OD1	18:I:378:GLU:HB2	2.12	0.49
19:J:193:THR:OG1	19:J:316:PHE:CE1	2.51	0.49
20:K:304:ASP:HB2	20:K:333:ARG:CZ	2.43	0.49
23:N:43:LEU:HD11	23:N:69:TYR:CZ	2.47	0.49
23:N:208:ARG:HG2	23:N:232:LEU:HD13	1.94	0.49
23:N:322:ASP:HB2	23:N:689:LYS:HZ2	1.74	0.49
24:O:76:LEU:HD21	24:O:121:ASP:OD1	2.08	0.49
24:O:222:LEU:CD2	24:O:270:ILE:HD12	2.42	0.49
29:T:143:SER:O	29:T:146:ILE:HG22	2.13	0.49
1:1:83:LYS:CE	1:1:119:VAL:HG23	2.42	0.49
3:3:133:ALA:O	3:3:137:LEU:HG	2.12	0.49
17:H:168:ILE:CG1	17:H:186:PRO:HB2	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:244:PHE:CZ	18:I:280:PHE:CG	3.01	0.49
19:J:166:LEU:CB	19:J:174:PHE:CZ	2.95	0.49
19:J:324:ARG:HH22	19:J:352:GLY:H	1.60	0.49
20:K:198:TYR:HB3	20:K:205:PRO:HG3	1.95	0.49
21:L:286:ILE:HB	21:L:304:THR:HG21	1.94	0.49
23:N:238:ALA:HB1	23:N:242:PHE:HE2	1.78	0.49
29:T:89:TYR:HE1	29:T:102:LYS:HZ2	1.53	0.49
30:U:22:TYR:CE1	30:U:27:THR:HG22	2.48	0.49
30:U:85:ALA:O	30:U:86:LYS:HG3	2.13	0.49
35:Z:129:ASN:OD1	35:Z:156:HIS:NE2	2.46	0.49
35:Z:471:LEU:CG	35:Z:497:PHE:CE2	2.71	0.49
2:2:35:HIS:HE1	2:2:53:GLU:HG2	1.78	0.49
3:3:80:GLN:HG2	11:B:102:GLY:CA	2.42	0.49
3:3:129:VAL:HG22	3:3:138:PHE:CE1	2.48	0.49
10:A:167:LYS:HE3	11:B:57:MET:HG2	1.94	0.49
19:J:272:MET:HE3	19:J:290:ILE:CG2	2.42	0.49
23:N:414:GLY:HA3	23:N:728:LYS:HZ1	1.75	0.49
23:N:710:GLY:O	23:N:711:ARG:HB2	2.11	0.49
26:Q:54:GLN:NE2	26:Q:81:SER:HB2	2.26	0.49
27:R:59:MET:HE2	27:R:143:GLN:O	2.11	0.49
27:R:301:TYR:CD2	27:R:357:PHE:O	2.65	0.49
33:X:66:LEU:CD1	33:X:97:TYR:CG	2.95	0.49
35:Z:184:SER:OG	35:Z:185:ASP:N	2.43	0.49
2:2:72:ARG:HD3	2:2:73:GLU:O	2.13	0.49
6:6:-6:PRO:CA	7:7:125:LEU:HD22	2.42	0.49
7:7:33:ARG:NH2	7:7:46:SER:HA	2.28	0.49
7:7:86:GLU:HG3	15:F:100:ASN:CB	2.28	0.49
11:B:174:PHE:CE2	11:B:198:GLU:OE1	2.66	0.49
12:C:68:LYS:HD2	12:C:229:ILE:CD1	2.42	0.49
12:C:149:TYR:OH	13:D:59:ILE:CG2	2.60	0.49
15:F:120:THR:HB	16:G:129:ARG:NH2	2.28	0.49
15:F:169:LYS:O	15:F:173:GLU:HG3	2.13	0.49
18:I:109:LEU:HD11	18:I:147:VAL:HG11	1.95	0.49
18:I:428:VAL:HG12	18:I:428:VAL:O	2.12	0.49
20:K:192:LEU:HD11	20:K:268:ILE:HD11	1.94	0.49
24:O:69:PHE:CD2	24:O:78:VAL:HG23	2.45	0.49
25:P:310:ARG:O	25:P:313:ILE:HB	2.13	0.49
26:Q:99:THR:HG22	26:Q:103:LYS:CG	2.43	0.49
27:R:404:VAL:HG23	30:U:278:ILE:HD11	1.94	0.49
28:S:138:MET:SD	28:S:178:LEU:HB2	2.52	0.49
29:T:132:HIS:CG	29:T:133:ILE:N	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:U:283:ARG:HH12	31:V:283:THR:HG22	1.77	0.49
33:X:121:ILE:O	33:X:125:MET:HG2	2.13	0.49
35:Z:567:ALA:HB1	35:Z:738:TYR:CE2	2.48	0.49
1:1:6:VAL:CG2	1:1:155:ILE:HD11	2.43	0.49
2:2:38:SER:HB3	2:2:39:PRO:HD2	1.95	0.49
4:4:37:LEU:HD13	4:4:79:VAL:HG11	1.95	0.49
5:5:147:ASP:O	5:5:148:LEU:HB2	2.13	0.49
6:6:91:LYS:HB2	6:6:96:TYR:OH	2.12	0.49
7:7:48:ASP:CG	7:7:103:TRP:CD1	2.86	0.49
10:A:135:ARG:NE	16:G:124:LEU:CD2	2.74	0.49
11:B:3:ASP:OD1	11:B:3:ASP:O	2.31	0.49
13:D:188:VAL:HG21	13:D:216:LYS:HE2	1.94	0.49
14:E:93:ARG:O	14:E:97:VAL:HG23	2.13	0.49
14:E:231:TYR:HD2	14:E:236:THR:OG1	1.90	0.49
15:F:38:LEU:CG	15:F:189:LEU:HD11	2.40	0.49
19:J:200:ARG:HG2	19:J:210:PHE:CZ	2.48	0.49
20:K:210:LEU:HG	20:K:212:TYR:CD2	2.43	0.49
20:K:258:PHE:HE1	20:K:299:LEU:HD23	1.77	0.49
21:L:132:ARG:CG	21:L:133:ASN:H	2.26	0.49
22:M:371:ASP:OD2	22:M:411:LYS:HG2	2.12	0.49
24:O:377:VAL:CG1	30:U:193:GLN:NE2	2.72	0.49
28:S:322:LEU:HD21	28:S:327:ILE:HG22	1.94	0.49
29:T:85:LEU:CD2	29:T:105:LEU:HD13	2.43	0.49
35:Z:298:PHE:CZ	35:Z:310:LEU:HD13	2.48	0.49
35:Z:756:MET:HE3	35:Z:759:ARG:HH21	1.77	0.49
2:2:35:HIS:CE1	2:2:53:GLU:HG2	2.48	0.49
12:C:13:PHE:HA	12:C:19:LEU:HD23	1.95	0.49
13:D:216:LYS:HB3	13:D:217:PRO:CD	2.43	0.49
18:I:104:LEU:O	19:J:95:ILE:HG22	2.13	0.49
18:I:408:ARG:HH12	18:I:411:VAL:HA	1.76	0.49
19:J:161:LYS:HG3	19:J:165:GLU:OE1	2.13	0.49
20:K:99:PHE:HZ	20:K:102:PRO:N	2.11	0.49
21:L:84:LEU:HD22	21:L:88:TYR:CZ	2.47	0.49
21:L:383:SER:O	21:L:384:ASP:OD1	2.31	0.49
24:O:112:LYS:O	24:O:113:LYS:HB2	2.13	0.49
24:O:188:PHE:CE2	24:O:220:SER:HB3	2.47	0.49
26:Q:162:LEU:HD13	26:Q:178:HIS:CD2	2.47	0.49
26:Q:314:PHE:CD2	26:Q:339:TYR:CE1	2.99	0.49
27:R:79:LEU:HD13	27:R:93:LYS:NZ	2.28	0.49
28:S:235:ASN:HB2	28:S:272:TYR:CE1	2.48	0.49
30:U:19:LEU:HD12	30:U:127:GLN:NE2	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:U:32:ARG:HG3	30:U:100:ARG:NH1	2.27	0.49
31:V:168:LEU:HD12	31:V:182:LYS:NZ	2.28	0.49
35:Z:55:ARG:HG2	35:Z:60:ASP:OD2	2.13	0.49
3:3:64:LEU:CD2	12:C:92:ARG:HB3	2.43	0.48
4:4:37:LEU:HD21	4:4:43:MET:HE1	1.93	0.48
5:5:55:TRP:CZ3	5:5:86:LEU:HD13	2.47	0.48
5:5:63:CYS:SG	5:5:74:ILE:HD13	2.53	0.48
8:8:388:MSE:HE2	8:8:392:GLU:HB3	1.94	0.48
11:B:177:LYS:NZ	26:Q:168:LEU:HA	2.28	0.48
14:E:162:GLY:HA3	15:F:79:PRO:HG3	1.95	0.48
15:F:145:LEU:HD11	15:F:153:VAL:HG13	1.92	0.48
16:G:183:PRO:HD2	16:G:186:LEU:HD23	1.94	0.48
18:I:380:LEU:O	18:I:384:LYS:HG3	2.12	0.48
19:J:88:VAL:HG21	19:J:91:GLU:HB2	1.95	0.48
20:K:173:ASP:HB3	20:K:221:MET:SD	2.52	0.48
21:L:75:LYS:HG2	21:L:78:ARG:NH2	2.28	0.48
23:N:124:TYR:CE1	23:N:125:THR:HG22	2.47	0.48
23:N:406:TYR:CE1	23:N:448:LEU:HB3	2.48	0.48
29:T:75:PHE:O	29:T:78:PHE:HB3	2.13	0.48
29:T:226:TRP:CZ2	29:T:235:PHE:CE2	2.82	0.48
33:X:31:GLY:HA2	33:X:53:THR:H	1.78	0.48
35:Z:392:LEU:CD1	35:Z:424:SER:O	2.50	0.48
8:8:448:TYR:HE1	9:9:75:GLY:HA3	1.77	0.48
13:D:179:TYR:CE1	13:D:184:PRO:HB3	2.48	0.48
16:G:45:VAL:HG23	16:G:47:PHE:HE1	1.78	0.48
17:H:257:THR:HG22	17:H:261:ARG:HE	1.77	0.48
18:I:387:LEU:CD2	18:I:427:LYS:HD3	2.44	0.48
19:J:375:ILE:O	27:R:204:TRP:CE2	2.66	0.48
21:L:336:ALA:HA	21:L:339:ARG:NE	2.27	0.48
21:L:364:HIS:O	21:L:368:VAL:HG23	2.13	0.48
22:M:193:LEU:HD23	22:M:347:ILE:HD13	1.95	0.48
23:N:338:PHE:CE2	23:N:749:LEU:HD23	2.48	0.48
24:O:277:ILE:CG2	24:O:279:ILE:HB	2.40	0.48
24:O:320:PRO:HD2	24:O:323:ASN:HD22	1.77	0.48
24:O:354:GLN:HG3	24:O:355:PRO:HD2	1.94	0.48
25:P:209:LYS:O	25:P:211:PRO:HD3	2.13	0.48
26:Q:318:LEU:HD11	26:Q:326:MET:SD	2.53	0.48
27:R:60:ALA:CB	27:R:102:LEU:CD2	2.91	0.48
27:R:79:LEU:HB2	27:R:93:LYS:HE2	1.95	0.48
28:S:230:LYS:HZ1	28:S:256:LYS:CE	2.23	0.48
29:T:209:LEU:HD13	29:T:211:PHE:HZ	1.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:225:ASN:HB2	29:T:241:GLU:HA	1.95	0.48
31:V:168:LEU:HD13	31:V:182:LYS:HD2	1.95	0.48
32:W:143:ASN:HD21	32:W:149:GLN:HG3	1.78	0.48
32:W:179:ARG:O	32:W:180:LEU:CB	2.61	0.48
33:X:40:GLU:O	33:X:41:GLU:HB2	2.13	0.48
33:X:41:GLU:HG3	33:X:45:PHE:C	2.33	0.48
33:X:41:GLU:HG3	33:X:45:PHE:O	2.13	0.48
35:Z:91:PHE:O	35:Z:94:PRO:HD2	2.14	0.48
35:Z:581:VAL:CG2	35:Z:603:VAL:HG12	2.42	0.48
35:Z:756:MET:HE1	35:Z:759:ARG:HE	1.77	0.48
1:1:-8:LYS:HE2	2:2:88:PHE:CD1	2.48	0.48
7:7:170:VAL:CG1	7:7:174:ARG:HH22	2.24	0.48
8:8:207:GLN:C	9:9:75:GLY:H	2.16	0.48
12:C:208:TYR:CE1	12:C:209:ASP:HB3	2.48	0.48
14:E:114:GLN:NE2	15:F:82:ARG:HD2	2.22	0.48
18:I:124:THR:O	18:I:125:MET:CB	2.60	0.48
19:J:115:LEU:HD23	19:J:116:ARG:N	2.28	0.48
23:N:433:THR:HB	23:N:439:VAL:HG21	1.96	0.48
23:N:656:ALA:O	23:N:660:LEU:HG	2.14	0.48
25:P:204:LEU:HD22	25:P:240:TYR:CE2	2.48	0.48
27:R:214:TYR:CE1	27:R:218:CYS:SG	3.06	0.48
27:R:292:LEU:CD2	27:R:307:TYR:HB2	2.43	0.48
27:R:389:GLU:OE2	28:S:399:TYR:CE1	2.66	0.48
28:S:144:LEU:O	28:S:155:LEU:HD13	2.13	0.48
28:S:461:PHE:HE2	29:T:263:ALA:HB1	1.77	0.48
35:Z:400:ILE:HD12	35:Z:407:VAL:HG22	1.94	0.48
5:5:8:PHE:CZ	5:5:13:ILE:CG1	2.96	0.48
11:B:68:THR:OG1	11:B:71:ILE:HD12	2.14	0.48
11:B:180:ASN:O	11:B:181:ASP:CB	2.61	0.48
12:C:45:VAL:HG21	12:C:189:ALA:CB	2.43	0.48
14:E:35:SER:OG	14:E:51:GLU:HB2	2.14	0.48
14:E:122:ARG:HD3	14:E:131:GLU:O	2.13	0.48
14:E:231:TYR:CE2	14:E:236:THR:N	2.81	0.48
16:G:222:GLU:HG3	16:G:222:GLU:O	2.13	0.48
17:H:368:PRO:HA	17:H:372:ASP:OD1	2.13	0.48
20:K:49:PHE:CD1	23:N:192:LEU:HG	2.45	0.48
20:K:246:TYR:CG	20:K:247:LEU:N	2.81	0.48
22:M:401:ILE:HG22	22:M:405:ASN:ND2	2.28	0.48
24:O:80:LYS:CG	24:O:81:TYR:CE2	2.97	0.48
24:O:185:PHE:HB2	24:O:223:LEU:HB3	1.86	0.48
25:P:415:TRP:CD2	30:U:265:LEU:HD11	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:47:ASP:HA	26:Q:50:ARG:CB	2.42	0.48
26:Q:350:ILE:HG22	26:Q:362:ILE:HG12	1.96	0.48
27:R:241:ILE:CG2	27:R:242:GLU:HG3	2.36	0.48
27:R:354:ALA:HA	27:R:364:LEU:HD22	1.95	0.48
28:S:471:LEU:HD12	30:U:288:PHE:CE2	2.48	0.48
30:U:38:LEU:HD11	30:U:87:GLU:HG2	1.95	0.48
31:V:106:GLY:O	31:V:107:TRP:CD1	2.66	0.48
31:V:161:THR:CA	31:V:189:ILE:HD11	2.32	0.48
31:V:212:MET:HG3	31:V:212:MET:O	2.13	0.48
1:1:122:LEU:CD2	7:7:28:PHE:HD1	2.12	0.48
7:7:201:LYS:HB3	7:7:204:LEU:HD11	1.94	0.48
10:A:25:LEU:HD11	11:B:128:ARG:NH2	2.28	0.48
10:A:111:ASP:OD1	10:A:112:MET:N	2.45	0.48
10:A:112:MET:HE1	10:A:116:VAL:HG12	1.96	0.48
11:B:109:LEU:O	11:B:113:GLU:HG2	2.13	0.48
15:F:190:ILE:HG21	15:F:233:TYR:CD1	2.49	0.48
17:H:168:ILE:HD13	17:H:174:VAL:HG11	1.94	0.48
20:K:77:ARG:HB3	20:K:81:ARG:HH12	1.78	0.48
21:L:177:GLU:HG2	21:L:233:LYS:HD3	1.95	0.48
21:L:375:ASP:OD1	21:L:377:GLU:HB2	2.14	0.48
22:M:383:THR:HB	22:M:386:PHE:CG	2.48	0.48
24:O:366:MET:O	24:O:370:LEU:HG	2.13	0.48
26:Q:249:LEU:C	26:Q:250:THR:HG22	2.32	0.48
31:V:261:LEU:HB3	31:V:280:LEU:CD1	2.43	0.48
35:Z:358:TYR:CE1	35:Z:910:PRO:HG2	2.48	0.48
35:Z:551:LEU:O	35:Z:551:LEU:HD23	2.13	0.48
2:2:104:ASP:HB2	2:2:105:PRO:HD2	1.95	0.48
12:C:206:LEU:CD1	12:C:211:LEU:HD11	2.43	0.48
19:J:78:ILE:HD11	19:J:107:LEU:HB3	1.95	0.48
20:K:415:VAL:HG13	20:K:416:LYS:HG2	1.94	0.48
23:N:556:ALA:HB1	23:N:593:PHE:HB2	1.94	0.48
24:O:42:SER:O	24:O:46:THR:OG1	2.31	0.48
25:P:274:GLY:HA3	25:P:344:ARG:NH2	2.28	0.48
26:Q:76:GLU:O	26:Q:79:PRO:HD2	2.14	0.48
27:R:105:LYS:O	27:R:109:LYS:HG2	2.14	0.48
33:X:100:TRP:HZ2	33:X:110:PRO:CD	2.26	0.48
35:Z:318:LYS:CE	35:Z:459:ALA:O	2.58	0.48
3:3:69:GLU:OE2	11:B:109:LEU:HB2	2.14	0.48
7:7:108:VAL:CG1	7:7:118:PHE:HE2	2.27	0.48
10:A:135:ARG:CZ	16:G:124:LEU:CD2	2.92	0.48
11:B:189:ILE:HG21	11:B:246:ARG:CD	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C:86:ILE:O	12:C:90:THR:HG23	2.13	0.48
12:C:213:PHE:CD2	12:C:230:PHE:CE2	2.99	0.48
16:G:108:ILE:HG22	16:G:148:TYR:CE1	2.49	0.48
20:K:97:GLY:HA3	20:K:139:LEU:HD11	1.94	0.48
23:N:69:TYR:CE2	23:N:81:TYR:CE2	3.01	0.48
23:N:262:VAL:HA	23:N:270:LEU:HD21	1.95	0.48
23:N:714:THR:CG2	23:N:756:THR:OG1	2.57	0.48
23:N:742:TRP:HB3	23:N:745:LEU:HD22	1.96	0.48
23:N:771:PHE:CE2	23:N:885:ILE:HG21	2.48	0.48
24:O:48:PHE:CD1	24:O:81:TYR:CE2	3.01	0.48
25:P:233:GLU:HG3	25:P:236:GLU:H	1.78	0.48
25:P:241:LEU:HB3	25:P:264:ILE:CD1	2.44	0.48
26:Q:151:TYR:CE2	26:Q:187:LYS:CB	2.96	0.48
27:R:34:THR:HA	27:R:70:TYR:CE1	2.48	0.48
27:R:312:TYR:CE2	34:Y:73:PHE:HD1	2.27	0.48
30:U:18:ALA:CB	30:U:125:VAL:HG11	2.41	0.48
32:W:48:THR:H	32:W:103:ASN:HD21	1.62	0.48
35:Z:740:VAL:HA	35:Z:743:ILE:HD12	1.96	0.48
1:1:13:ILE:HG21	1:1:151:THR:HG22	1.96	0.48
5:5:35:ILE:HG21	5:5:56:GLU:HB2	1.95	0.48
8:8:329:ILE:N	17:H:163:VAL:HG22	2.28	0.48
12:C:224:GLU:O	12:C:225:VAL:HB	2.14	0.48
13:D:215:VAL:HG13	13:D:221:ILE:HG12	1.96	0.48
15:F:130:VAL:O	15:F:149:PRO:HB3	2.13	0.48
15:F:135:ILE:HG22	15:F:144:LEU:CD1	2.43	0.48
17:H:312:ASP:OD1	17:H:360:THR:CG2	2.61	0.48
18:I:328:THR:HG23	18:I:330:LYS:O	2.13	0.48
20:K:294:ARG:HH12	20:K:298:GLU:HB2	1.79	0.48
22:M:228:LYS:NZ	22:M:327:THR:H	2.12	0.48
24:O:233:LEU:HD13	24:O:251:LEU:HD13	1.95	0.48
28:S:223:LEU:CD2	28:S:230:LYS:HG2	2.44	0.48
28:S:376:THR:HG23	28:S:378:GLN:HG2	1.95	0.48
35:Z:955:VAL:CG2	35:Z:956:LEU:N	2.76	0.48
1:1:19:ARG:NH2	1:1:26:ILE:HD13	2.27	0.48
1:1:175:MET:CE	1:1:188:PHE:CE1	2.96	0.48
7:7:83:TYR:CD2	15:F:101:ARG:NE	2.81	0.48
8:8:116:ASN:HA	9:9:76:GLZ:O	1.93	0.48
8:8:484:GLY:CA	17:H:187:LEU:HD23	2.42	0.48
12:C:198:SER:CA	12:C:206:LEU:HD22	2.44	0.48
15:F:156:LEU:HD22	15:F:159:THR:HB	1.95	0.48
16:G:45:VAL:HG23	16:G:47:PHE:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:G:115:LEU:HB3	16:G:150:LEU:CD2	2.44	0.48
16:G:182:HIS:CB	16:G:186:LEU:HG	2.43	0.48
18:I:265:ARG:HA	18:I:312:GLN:HE22	1.79	0.48
21:L:277:ILE:HG23	21:L:324:ILE:HD12	1.96	0.48
22:M:175:LYS:HZ3	22:M:240:ASN:HB3	1.79	0.48
23:N:365:PHE:CE2	23:N:403:GLY:HA2	2.49	0.48
23:N:479:GLU:HB2	23:N:512:ASN:OD1	2.11	0.48
24:O:269:LEU:HD23	24:O:270:ILE:HG13	1.96	0.48
25:P:234:TYR:CE2	25:P:267:PHE:O	2.66	0.48
26:Q:66:VAL:HG23	26:Q:109:ASP:HB3	1.96	0.48
28:S:293:ILE:HG21	28:S:317:HIS:HB2	1.96	0.48
29:T:39:LEU:O	29:T:40:LEU:CG	2.61	0.48
31:V:114:PHE:CD1	31:V:118:LEU:C	2.80	0.48
32:W:132:LEU:CD2	32:W:137:VAL:HG21	2.44	0.48
35:Z:737:ALA:CB	35:Z:775:MET:CE	2.91	0.48
35:Z:868:ASN:OD1	35:Z:871:HIS:N	2.46	0.48
1:1:82:PHE:CD2	1:1:99:VAL:HG21	2.49	0.48
10:A:57:LYS:HE3	10:A:69:VAL:HG12	1.83	0.48
12:C:144:TYR:HB2	12:C:147:GLN:HE21	1.79	0.48
15:F:216:VAL:HG12	15:F:222:PHE:HA	1.95	0.48
19:J:69:GLY:N	20:K:144:ASN:CG	2.57	0.48
22:M:252:VAL:CG2	22:M:285:ALA:HB1	2.41	0.48
24:O:117:ASN:C	24:O:166:ARG:HG2	2.33	0.48
24:O:120:LYS:HB2	24:O:166:ARG:HD2	1.96	0.48
26:Q:90:LYS:CD	26:Q:129:LYS:HZ1	2.25	0.48
26:Q:261:VAL:HG13	26:Q:262:LEU:N	2.29	0.48
28:S:390:THR:HA	28:S:393:ARG:NH2	2.29	0.48
29:T:86:LYS:NZ	29:T:125:GLU:HG3	2.28	0.48
29:T:89:TYR:CE1	29:T:102:LYS:CE	2.97	0.48
30:U:38:LEU:HG	30:U:87:GLU:HG2	1.96	0.48
33:X:89:LEU:HG	33:X:91:PHE:CE2	2.48	0.48
33:X:90:VAL:HG12	33:X:92:SER:H	1.79	0.48
34:Y:82:ASP:HB3	34:Y:86:ARG:NH1	2.29	0.48
35:Z:237:VAL:CG1	35:Z:245:VAL:HG11	2.26	0.48
35:Z:370:SER:OG	35:Z:390:LEU:CD1	2.61	0.48
35:Z:748:LEU:HD23	35:Z:748:LEU:C	2.34	0.48
4:4:33:LYS:O	4:4:34:THR:CG2	2.62	0.47
4:4:167:LEU:HD22	4:4:171:MET:HE1	1.96	0.47
11:B:12:PHE:HZ	12:C:129:ARG:NH2	2.12	0.47
13:D:32:CYS:SG	13:D:166:ARG:O	2.68	0.47
13:D:129:PHE:HB3	13:D:131:VAL:HG12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:157:HIS:CD2	14:E:170:LYS:HZ1	2.28	0.47
18:I:362:LEU:HD21	18:I:377:LEU:HD23	1.96	0.47
19:J:52:ASN:HD21	23:N:613:HIS:H	1.61	0.47
19:J:135:SER:O	19:J:136:LEU:HB2	2.14	0.47
19:J:160:ILE:HD11	19:J:314:ILE:HG21	1.96	0.47
21:L:382:MET:CE	21:L:416:MET:HA	2.44	0.47
27:R:167:LYS:HD3	27:R:202:GLY:HA2	1.94	0.47
27:R:301:TYR:CZ	27:R:338:TYR:CE1	3.01	0.47
27:R:320:LYS:HE3	27:R:324:ARG:NE	2.28	0.47
27:R:339:ALA:HA	27:R:377:LEU:HD11	1.95	0.47
29:T:107:SER:OG	29:T:174:PHE:HZ	1.96	0.47
33:X:11:ARG:HB2	33:X:103:GLU:CG	2.32	0.47
35:Z:546:ILE:HG21	35:Z:566:LEU:HD21	1.96	0.47
1:1:66:TYR:HE2	1:1:73:PRO:N	2.11	0.47
5:5:77:ALA:CA	5:5:121:ARG:HH21	2.28	0.47
6:6:21:ILE:HD11	6:6:188:GLN:HG2	1.96	0.47
7:7:172:ALA:O	7:7:175:VAL:HB	2.14	0.47
13:D:190:GLU:OE1	13:D:193:LYS:CE	2.62	0.47
16:G:39:ILE:HD11	16:G:198:ILE:HD12	1.96	0.47
16:G:78:SER:HB2	16:G:164:THR:HG23	1.96	0.47
17:H:142:ASP:HB3	17:H:157:VAL:HG13	1.95	0.47
17:H:431:ILE:HG22	18:I:196:GLU:OE2	2.14	0.47
21:L:183:ILE:HD12	21:L:231:LEU:HD23	1.94	0.47
21:L:370:LYS:CD	21:L:374:PHE:CZ	2.96	0.47
21:L:372:GLY:O	21:L:374:PHE:HE1	1.95	0.47
25:P:109:SER:O	25:P:112:LEU:HB3	2.14	0.47
27:R:93:LYS:HG2	27:R:94:PHE:N	2.29	0.47
35:Z:466:GLU:OE1	35:Z:466:GLU:N	2.34	0.47
35:Z:552:GLU:O	35:Z:553:ARG:CB	2.61	0.47
2:2:8:PHE:HE1	2:2:12:VAL:O	1.95	0.47
2:2:220:ILE:HD12	3:3:39:HIS:ND1	2.29	0.47
5:5:54:PHE:HB2	6:6:85:GLN:HE22	1.79	0.47
6:6:77:ILE:CD1	6:6:102:ILE:HD12	2.44	0.47
8:8:276:LEU:HB3	8:8:344:MSE:HE1	1.96	0.47
10:A:57:LYS:NZ	10:A:69:VAL:CG1	2.77	0.47
18:I:289:THR:O	18:I:306:MET:SD	2.72	0.47
19:J:112:ARG:HD3	19:J:129:LYS:HD2	1.96	0.47
19:J:224:GLY:O	19:J:227:SER:N	2.47	0.47
21:L:253:ASP:HA	22:M:256:ILE:CG1	2.45	0.47
22:M:77:TYR:CE2	22:M:79:VAL:HG12	2.49	0.47
23:N:596:LEU:HD13	23:N:717:LEU:CD2	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:771:PHE:CE2	23:N:885:ILE:HG13	2.49	0.47
26:Q:233:LYS:O	26:Q:236:PHE:HB3	2.14	0.47
27:R:292:LEU:CD2	27:R:307:TYR:CB	2.91	0.47
27:R:353:MET:CE	27:R:364:LEU:CD1	2.81	0.47
30:U:54:LEU:HD12	30:U:55:PRO:HD2	1.95	0.47
32:W:1:MET:H3	32:W:44:ASN:ND2	2.11	0.47
35:Z:312:TYR:OH	35:Z:348:LEU:HB3	2.12	0.47
35:Z:406:TRP:O	35:Z:410:THR:HG23	2.14	0.47
35:Z:813:PHE:CE2	35:Z:885:ALA:HB2	2.49	0.47
7:7:77:GLU:O	7:7:77:GLU:HG3	2.15	0.47
8:8:283:LYS:N	9:9:12:THR:CA	2.62	0.47
8:8:330:LEU:HD11	17:H:166:THR:CG2	2.26	0.47
10:A:89:ASP:HB3	10:A:139:VAL:HG13	1.96	0.47
14:E:12:VAL:HG11	14:E:124:GLY:HA3	1.96	0.47
15:F:80:ASP:OD1	15:F:126:ARG:NH2	2.48	0.47
17:H:167:ASP:CG	17:H:168:ILE:H	2.18	0.47
19:J:225:GLU:OE2	19:J:228:ARG:NH2	2.25	0.47
20:K:129:GLU:O	20:K:130:LEU:HD23	2.14	0.47
22:M:165:SER:OG	22:M:168:LYS:HB2	2.14	0.47
24:O:79:VAL:HG23	24:O:122:HIS:CD2	2.49	0.47
25:P:234:TYR:HD2	25:P:267:PHE:CD2	2.32	0.47
25:P:299:LEU:HD23	25:P:302:LEU:HD12	1.95	0.47
27:R:62:TYR:CE2	27:R:180:PHE:CZ	3.02	0.47
30:U:83:ILE:HD13	31:V:70:ALA:HB3	1.95	0.47
31:V:107:TRP:CE2	31:V:129:PHE:CZ	3.02	0.47
1:1:59:VAL:HG22	1:1:81:VAL:HG12	1.95	0.47
10:A:12:TYR:HB2	10:A:15:HIS:CD2	2.48	0.47
11:B:13:SER:HB3	11:B:14:PRO:HD2	1.97	0.47
13:D:149:GLN:OE1	13:D:162:GLN:HG2	2.15	0.47
14:E:226:ASP:O	14:E:226:ASP:OD1	2.32	0.47
16:G:47:PHE:O	16:G:215:ILE:HG13	2.15	0.47
17:H:65:GLU:HG3	18:I:133:LEU:CB	2.44	0.47
19:J:115:LEU:HD23	19:J:115:LEU:C	2.35	0.47
19:J:200:ARG:HG2	19:J:210:PHE:CE2	2.50	0.47
21:L:206:ILE:CG1	21:L:209:ARG:NH2	2.76	0.47
21:L:224:PRO:HA	21:L:228:LYS:HE2	1.97	0.47
23:N:771:PHE:HE2	23:N:885:ILE:HG13	1.79	0.47
24:O:258:LEU:HD23	24:O:287:LEU:CD2	2.22	0.47
25:P:327:LEU:O	25:P:328:ALA:CB	2.61	0.47
26:Q:109:ASP:O	26:Q:109:ASP:OD1	2.32	0.47
26:Q:135:HIS:CG	26:Q:161:LEU:HD23	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:308:ASN:C	26:Q:309:ARG:HD3	2.34	0.47
27:R:208:ASN:OD1	27:R:238:PHE:HB2	2.14	0.47
28:S:159:ASN:HB3	28:S:187:ILE:HD13	1.96	0.47
28:S:234:ILE:CG2	28:S:257:LEU:HD13	2.44	0.47
31:V:52:LEU:CD1	31:V:107:TRP:CE3	2.97	0.47
31:V:57:PHE:HE2	31:V:59:ASP:HB3	1.78	0.47
35:Z:351:PRO:O	35:Z:352:LYS:HB2	2.14	0.47
35:Z:446:GLU:CG	35:Z:484:LYS:HZ3	2.26	0.47
1:1:25:TYR:HE2	2:2:132:LEU:HB2	1.80	0.47
2:2:72:ARG:NH2	2:2:75:ARG:HH12	2.11	0.47
10:A:140:ILE:HG12	10:A:159:PRO:HD3	1.96	0.47
12:C:50:ARG:HD2	12:C:212:GLU:OE2	2.15	0.47
12:C:115:LEU:HD12	12:C:137:TYR:OH	2.15	0.47
15:F:65:LYS:CB	15:F:222:PHE:CE2	2.98	0.47
15:F:182:ILE:CD1	15:F:188:GLU:HG2	2.45	0.47
18:I:102:ASN:HD21	19:J:83:LYS:HZ2	1.60	0.47
18:I:324:VAL:HG12	18:I:326:MET:HG3	1.97	0.47
19:J:277:ASN:HB2	19:J:309:ARG:NH1	2.30	0.47
21:L:133:ASN:O	21:L:134:SER:CB	2.63	0.47
22:M:196:ALA:HB1	22:M:345:ARG:HG3	1.96	0.47
22:M:361:LEU:CB	22:M:376:TRP:CE3	2.96	0.47
23:N:158:LEU:CD1	23:N:192:LEU:HD22	2.45	0.47
26:Q:266:LEU:HD23	26:Q:281:ILE:HD12	1.96	0.47
30:U:79:MET:CE	31:V:90:LYS:HE2	2.45	0.47
30:U:127:GLN:CG	31:V:212:MET:CB	2.93	0.47
32:W:25:ARG:NH2	32:W:115:CYS:HA	2.30	0.47
35:Z:737:ALA:O	35:Z:740:VAL:HG12	2.15	0.47
35:Z:768:GLY:O	35:Z:769:ASN:CB	2.63	0.47
35:Z:874:ASN:OD1	35:Z:876:VAL:HB	2.14	0.47
3:3:1:GLY:HA3	3:3:33:LYS:HZ2	1.80	0.47
3:3:79:THR:HG1	3:3:111:PHE:HZ	1.62	0.47
4:4:15:ALA:HB1	4:4:178:VAL:HG21	1.96	0.47
6:6:94:PHE:HE1	7:7:99:MET:HE2	1.79	0.47
7:7:1:THR:O	7:7:2:SER:HB2	2.15	0.47
8:8:320:LYS:HD2	17:H:164:SER:OG	2.15	0.47
10:A:31:ALA:HA	16:G:14:PHE:CE2	2.50	0.47
10:A:71:TYR:OH	16:G:157:TRP:CZ2	2.67	0.47
10:A:87:ILE:HG22	10:A:88:PRO:HD3	1.96	0.47
11:B:67:LEU:HD11	11:B:73:ALA:HB2	1.97	0.47
14:E:219:LEU:HB2	14:E:231:TYR:CD2	2.50	0.47
15:F:227:GLY:O	15:F:230:VAL:HG22	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:G:108:ILE:CG2	16:G:148:TYR:CE1	2.97	0.47
17:H:334:LEU:CD2	22:M:282:GLU:HG2	2.42	0.47
17:H:389:PHE:C	17:H:404:TRP:CZ3	2.88	0.47
18:I:93:LYS:O	18:I:97:GLU:HG2	2.15	0.47
18:I:380:LEU:HD11	18:I:416:PHE:CB	2.45	0.47
19:J:219:VAL:O	19:J:219:VAL:HG12	2.15	0.47
19:J:220:GLN:OE1	20:K:290:ARG:HD3	2.15	0.47
20:K:49:PHE:CE1	23:N:192:LEU:CB	2.98	0.47
20:K:222:LEU:O	20:K:226:VAL:HG23	2.15	0.47
23:N:576:VAL:HG13	23:N:577:SER:N	2.30	0.47
23:N:741:TYR:HD2	23:N:742:TRP:CZ3	2.33	0.47
24:O:129:ILE:O	24:O:133:ILE:HB	2.15	0.47
24:O:257:ALA:HA	24:O:265:LYS:HG2	1.96	0.47
25:P:342:GLN:O	25:P:345:VAL:HG12	2.14	0.47
26:Q:9:GLU:O	26:Q:13:ARG:HG3	2.14	0.47
26:Q:90:LYS:HZ1	26:Q:129:LYS:HD3	1.79	0.47
26:Q:243:PHE:CE2	26:Q:287:THR:C	2.84	0.47
26:Q:272:LEU:CD2	26:Q:274:LEU:HD11	2.41	0.47
26:Q:423:VAL:CG1	27:R:414:LEU:HD11	2.22	0.47
27:R:94:PHE:CE1	27:R:98:LEU:HD23	2.50	0.47
27:R:353:MET:CE	27:R:364:LEU:CG	2.92	0.47
27:R:380:VAL:HG21	27:R:391:ASN:HD22	1.79	0.47
29:T:93:ASN:HD21	29:T:94:HIS:CD2	2.32	0.47
29:T:209:LEU:CB	29:T:211:PHE:CZ	2.97	0.47
30:U:104:LEU:HD13	30:U:152:LYS:HA	1.97	0.47
33:X:11:ARG:HH22	33:X:105:ASN:HD22	1.63	0.47
35:Z:982:ILE:HD12	35:Z:982:ILE:N	2.29	0.47
1:1:137:TYR:CE1	1:1:157:HIS:CD2	3.03	0.47
3:3:179:TYR:OH	3:3:188:LYS:CE	2.46	0.47
7:7:-3:VAL:CG1	7:7:49:ILE:CB	2.87	0.47
10:A:77:ARG:CG	10:A:78:THR:HG23	2.33	0.47
17:H:62:ARG:HA	18:I:133:LEU:CD1	2.45	0.47
17:H:162:ARG:HH21	17:H:167:ASP:CG	2.18	0.47
17:H:420:ARG:NH1	18:I:343:ARG:NH2	2.63	0.47
18:I:396:CYS:O	19:J:179:ILE:CD1	2.63	0.47
20:K:92:VAL:HA	20:K:94:LEU:HG	1.97	0.47
20:K:156:SER:CA	21:L:126:ARG:NH1	2.76	0.47
21:L:223:PRO:CB	21:L:226:THR:HG23	2.42	0.47
22:M:327:THR:HG21	22:M:329:ARG:O	2.15	0.47
23:N:314:LEU:HD11	23:N:340:HIS:HE1	1.80	0.47
23:N:757:THR:OG1	23:N:759:ILE:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:O:173:SER:O	24:O:177:GLN:HG3	2.15	0.47
24:O:229:ASN:HB2	24:O:258:LEU:HD13	1.95	0.47
24:O:338:LYS:H	24:O:350:ILE:HG23	1.80	0.47
26:Q:115:ILE:HG23	26:Q:141:LEU:HD11	1.95	0.47
28:S:152:LEU:O	28:S:156:VAL:HG23	2.15	0.47
28:S:390:THR:HA	28:S:393:ARG:CZ	2.44	0.47
29:T:224:ARG:O	29:T:242:LYS:HB2	2.15	0.47
30:U:90:ILE:HD12	30:U:91:GLY:N	2.30	0.47
30:U:109:LEU:HD22	32:W:60:ARG:HB2	1.97	0.47
31:V:144:ILE:HG22	31:V:145:GLN:NE2	2.29	0.47
35:Z:99:LEU:HD22	35:Z:115:LEU:HD11	1.97	0.47
35:Z:381:LEU:HD23	35:Z:414:GLY:HA2	1.97	0.47
5:5:150:VAL:HG21	5:5:179:HIS:ND1	2.30	0.47
8:8:318:PHE:CE1	17:H:163:VAL:HG13	2.50	0.47
8:8:319:TRP:CD1	9:9:37:PRO:HD2	2.50	0.47
11:B:39:ALA:O	11:B:40:THR:HB	2.15	0.47
14:E:107:ILE:HG21	14:E:112:LEU:HD21	1.95	0.47
21:L:166:LEU:HD22	21:L:169:ASN:OD1	2.15	0.47
21:L:263:ILE:HD13	21:L:307:GLU:HB2	1.97	0.47
21:L:292:SER:O	21:L:293:GLU:HB2	2.15	0.47
22:M:385:GLU:HB2	22:M:426:LYS:HD3	1.96	0.47
23:N:579:SER:HA	23:N:584:ARG:HH21	1.74	0.47
24:O:69:PHE:CE2	24:O:78:VAL:HG23	2.50	0.47
24:O:195:TYR:CD2	24:O:213:LEU:HD13	2.49	0.47
25:P:42:LEU:O	25:P:46:THR:HG23	2.15	0.47
25:P:123:ARG:NH1	25:P:128:ASN:HD22	2.13	0.47
25:P:272:PRO:HA	25:P:344:ARG:HD3	1.97	0.47
26:Q:101:ILE:CG2	26:Q:140:LYS:HD3	2.45	0.47
27:R:187:VAL:HA	27:R:213:TYR:OH	2.15	0.47
28:S:343:LEU:HB2	28:S:344:PRO:HD3	1.97	0.47
33:X:46:TRP:H	33:X:68:LEU:HB3	1.80	0.47
33:X:66:LEU:HD21	33:X:91:PHE:CZ	2.50	0.47
34:Y:89:GLN:HG3	34:Y:89:GLN:O	2.14	0.47
35:Z:558:LEU:O	35:Z:558:LEU:CG	2.58	0.47
3:3:10:ASP:HA	3:3:110:PRO:HD3	1.96	0.47
8:8:328:LYS:O	17:H:163:VAL:O	2.33	0.47
21:L:216:LYS:NZ	21:L:341:GLY:HA2	2.30	0.47
21:L:285:ALA:O	21:L:301:ILE:HG12	2.15	0.47
22:M:163:PHE:HE1	22:M:261:LYS:HG2	1.77	0.47
25:P:81:LEU:HA	25:P:84:LYS:HE2	1.97	0.47
25:P:290:LEU:HB2	25:P:293:LEU:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:416:LYS:HZ2	28:S:294:ILE:HG21	1.79	0.47
28:S:256:LYS:O	28:S:259:TYR:OH	2.31	0.47
30:U:38:LEU:HD23	30:U:38:LEU:H	1.80	0.47
30:U:283:ARG:HH12	31:V:283:THR:C	2.18	0.47
8:8:281:ASN:O	9:9:6:LYS:HE3	2.15	0.46
8:8:303:ILE:HB	8:8:345:LEU:HD23	1.97	0.46
9:9:15:LEU:CD2	9:9:26:VAL:HG13	2.44	0.46
12:C:54:SER:H	12:C:59:GLN:NE2	2.13	0.46
13:D:38:GLY:HA2	13:D:185:PRO:HD2	1.96	0.46
15:F:13:PHE:CE2	16:G:129:ARG:CG	2.99	0.46
17:H:62:ARG:CG	17:H:66:LYS:HE3	2.45	0.46
19:J:252:SER:HA	19:J:258:VAL:HG22	1.97	0.46
20:K:123:LEU:HD12	20:K:126:LEU:HD12	1.91	0.46
20:K:347:ARG:HH12	26:Q:205:ALA:HB3	1.74	0.46
23:N:176:GLN:HG3	23:N:182:ASN:HD22	1.80	0.46
23:N:399:PHE:HA	23:N:441:VAL:CG1	2.45	0.46
23:N:771:PHE:HE2	23:N:885:ILE:CG1	2.27	0.46
24:O:25:LEU:HB3	24:O:29:PHE:CE2	2.50	0.46
24:O:69:PHE:HZ	24:O:77:SER:CB	2.29	0.46
24:O:341:ILE:HB	24:O:350:ILE:HG13	1.96	0.46
24:O:365:LYS:HE3	24:O:369:ARG:HH12	1.80	0.46
28:S:457:PRO:HG3	30:U:274:MET:HB2	1.96	0.46
29:T:11:LEU:HD21	29:T:27:LEU:HD21	1.97	0.46
31:V:117:TRP:HE1	31:V:196:TYR:HB3	0.58	0.46
33:X:93:SER:HB2	33:X:96:ARG:NH2	2.30	0.46
35:Z:218:GLU:CA	35:Z:248:TYR:CZ	2.98	0.46
35:Z:552:GLU:O	35:Z:553:ARG:HB2	2.15	0.46
2:2:93:HIS:HB3	3:3:91:PHE:CE1	2.50	0.46
3:3:92:GLY:O	3:3:94:TYR:CD1	2.68	0.46
8:8:320:LYS:CD	17:H:164:SER:OG	2.62	0.46
11:B:178:ARG:HD2	11:B:191:ILE:HG23	1.96	0.46
11:B:204:PHE:CZ	11:B:209:ILE:HD11	2.49	0.46
12:C:194:LEU:HD12	12:C:242:THR:HG21	1.96	0.46
14:E:65:GLU:HB2	14:E:218:GLN:OE1	2.14	0.46
16:G:203:HIS:ND1	16:G:211:PHE:CD1	2.83	0.46
17:H:393:SER:CB	17:H:404:TRP:HH2	2.27	0.46
18:I:194:ILE:HD11	18:I:232:LEU:HD13	1.97	0.46
18:I:227:THR:OG1	18:I:390:ALA:HB2	2.15	0.46
19:J:143:PRO:HD2	19:J:204:HIS:CA	2.45	0.46
19:J:187:LEU:C	19:J:195:LYS:HZ2	2.18	0.46
21:L:287:GLY:HA2	21:L:305:LEU:HD13	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:M:50:ARG:HB3	32:W:73:LEU:CB	2.46	0.46
22:M:219:LEU:HD12	22:M:325:ALA:HB3	1.96	0.46
22:M:300:GLU:O	22:M:304:THR:HG23	2.15	0.46
24:O:286:PHE:CE1	24:O:334:LEU:HD11	2.50	0.46
24:O:321:LYS:O	24:O:325:GLU:HG3	2.15	0.46
25:P:144:VAL:HG13	25:P:156:ALA:HB1	1.96	0.46
26:Q:216:ALA:O	26:Q:220:LEU:HG	2.15	0.46
27:R:62:TYR:O	27:R:66:LEU:HG	2.15	0.46
27:R:191:LEU:HD13	27:R:213:TYR:HD2	1.80	0.46
27:R:325:HIS:O	27:R:328:PHE:HB2	2.15	0.46
28:S:465:ILE:CG1	29:T:266:TYR:CE2	2.98	0.46
35:Z:312:TYR:OH	35:Z:348:LEU:HD22	2.13	0.46
35:Z:563:VAL:HG11	35:Z:595:MET:HE2	1.97	0.46
1:1:120:HIS:HB3	7:7:28:PHE:CE1	2.50	0.46
3:3:80:GLN:HG2	11:B:102:GLY:N	2.30	0.46
5:5:77:ALA:HB1	5:5:121:ARG:NH2	2.30	0.46
10:A:63:LEU:HD21	16:G:179:VAL:HG11	1.97	0.46
10:A:101:ALA:O	10:A:105:ARG:HG3	2.15	0.46
10:A:119:LYS:HG2	10:A:163:TYR:HE2	1.74	0.46
17:H:430:ALA:HA	17:H:435:ARG:CZ	2.44	0.46
19:J:375:ILE:CD1	27:R:204:TRP:HB3	2.45	0.46
22:M:63:LYS:O	22:M:67:GLU:HG2	2.16	0.46
27:R:250:ALA:HB1	27:R:279:LEU:HD21	1.96	0.46
27:R:252:TYR:HD1	27:R:321:TYR:HB3	1.79	0.46
30:U:85:ALA:O	30:U:86:LYS:CG	2.63	0.46
30:U:92:TRP:NE1	30:U:120:LEU:HA	2.30	0.46
30:U:280:ASN:HD21	31:V:291:ASN:HB3	1.80	0.46
33:X:95:GLU:O	33:X:96:ARG:HB3	2.16	0.46
35:Z:491:LEU:HD21	35:Z:900:LEU:CD1	2.44	0.46
4:4:45:PHE:HD1	4:4:101:VAL:HG12	1.80	0.46
8:8:116:ASN:O	9:9:76:GLZ:HA2	2.15	0.46
15:F:155:GLU:CD	16:G:62:LYS:HB3	2.33	0.46
19:J:241:ALA:CB	19:J:287:ASN:HD22	2.09	0.46
23:N:277:LEU:HA	23:N:280:GLN:HG2	1.97	0.46
25:P:433:ILE:HD13	30:U:203:LYS:HA	1.96	0.46
25:P:436:GLU:OE1	30:U:206:ASP:OD2	2.33	0.46
26:Q:51:ARG:HH21	26:Q:92:LYS:CB	2.23	0.46
27:R:183:ASP:OD2	27:R:185:LEU:HB2	2.14	0.46
27:R:320:LYS:HE3	27:R:324:ARG:NH1	2.29	0.46
27:R:353:MET:CA	27:R:357:PHE:CD1	2.82	0.46
30:U:19:LEU:HD11	30:U:127:GLN:OE1	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:X:38:ASN:HD21	33:X:47:ASP:CB	2.28	0.46
35:Z:133:ASP:CB	35:Z:137:TYR:CZ	2.95	0.46
7:7:190:ALA:HB2	7:7:200:PHE:HD2	1.75	0.46
14:E:196:ALA:O	14:E:200:VAL:HG23	2.15	0.46
15:F:35:THR:HG23	15:F:133:LEU:HD12	1.96	0.46
15:F:65:LYS:CG	15:F:222:PHE:CD2	2.97	0.46
15:F:117:GLN:HE21	15:F:121:GLN:HG3	1.80	0.46
17:H:227:LEU:N	17:H:228:PRO:HD2	2.30	0.46
17:H:375:VAL:HG12	17:H:377:PHE:CE2	2.51	0.46
18:I:128:TYR:CD2	18:I:154:MET:CG	2.97	0.46
18:I:182:SER:O	18:I:360:LYS:CE	2.62	0.46
20:K:346:ARG:NH2	20:K:372:ILE:CD1	2.76	0.46
21:L:186:LEU:CD2	21:L:387:ASN:OD1	2.64	0.46
22:M:186:LEU:HB2	22:M:231:LEU:HD21	1.97	0.46
22:M:201:MET:HE2	22:M:322:LYS:HE3	1.97	0.46
24:O:91:ASP:HB3	24:O:94:GLU:HB2	1.96	0.46
24:O:117:ASN:O	24:O:166:ARG:HG2	2.15	0.46
24:O:233:LEU:HA	24:O:236:HIS:CB	2.25	0.46
24:O:306:ARG:HG3	24:O:352:TRP:H	1.78	0.46
26:Q:396:TRP:HB2	26:Q:398:TYR:CZ	2.49	0.46
27:R:285:ALA:O	27:R:287:GLN:HG3	2.15	0.46
32:W:123:ASP:HB3	32:W:127:ARG:NH1	2.31	0.46
35:Z:534:PHE:O	35:Z:573:LEU:CD2	2.64	0.46
2:2:160:GLN:O	2:2:164:TRP:CD1	2.68	0.46
5:5:8:PHE:HA	5:5:146:TRP:CD1	2.51	0.46
5:5:45:MET:O	5:5:46:ALA:HB2	2.16	0.46
5:5:158:LYS:HG2	5:5:196:LEU:HD21	1.98	0.46
6:6:91:LYS:CB	6:6:96:TYR:OH	2.64	0.46
6:6:112:ALA:HB1	6:6:114:TYR:CE1	2.51	0.46
7:7:17:ASP:OD2	7:7:183:SER:HA	2.16	0.46
11:B:224:TYR:HD2	11:B:226:GLY:H	1.63	0.46
13:D:11:PHE:CZ	14:E:137:PRO:CD	2.93	0.46
19:J:27:ILE:CG1	20:K:51:LEU:HD11	2.46	0.46
20:K:245:LYS:HE3	21:L:300:GLU:OE2	2.15	0.46
23:N:47:GLU:CD	23:N:81:TYR:OH	2.54	0.46
23:N:654:GLN:HG3	23:N:698:GLY:CA	2.45	0.46
24:O:23:HIS:HB3	24:O:26:PHE:HB3	1.98	0.46
27:R:285:ALA:CB	27:R:314:ASN:HD22	2.28	0.46
30:U:21:HIS:HE1	30:U:53:ALA:CB	1.92	0.46
31:V:79:SER:N	31:V:121:VAL:HG11	2.30	0.46
35:Z:427:GLN:CG	35:Z:428:TRP:CE3	2.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:80:SER:CB	16:G:103:LYS:CD	2.94	0.46
1:1:87:TYR:OH	7:7:51:ASP:OD1	2.16	0.46
5:5:8:PHE:CZ	5:5:13:ILE:HG12	2.49	0.46
8:8:330:LEU:HD11	17:H:166:THR:CB	2.40	0.46
12:C:46:LEU:HD11	12:C:138:ALA:CB	2.46	0.46
17:H:336:LEU:HG	17:H:370:ARG:HH12	1.80	0.46
21:L:173:PHE:O	21:L:243:PHE:HB3	2.16	0.46
21:L:332:THR:HG21	22:M:295:LYS:HD3	1.97	0.46
22:M:313:ASP:HA	22:M:316:SER:HG	1.77	0.46
24:O:23:HIS:CB	24:O:26:PHE:HB3	2.46	0.46
24:O:87:LYS:HD2	24:O:135:ARG:HD2	1.97	0.46
24:O:225:ASP:HB3	24:O:290:LYS:HE2	1.96	0.46
24:O:344:VAL:CB	25:P:361:THR:CG2	2.94	0.46
26:Q:269:LYS:CE	26:Q:281:ILE:HD11	2.46	0.46
27:R:353:MET:CE	27:R:364:LEU:CD2	2.61	0.46
28:S:264:VAL:HG11	28:S:272:TYR:HE2	1.79	0.46
33:X:8:ILE:CG2	33:X:124:LYS:CE	2.93	0.46
33:X:85:ARG:HH21	33:X:116:ALA:N	2.13	0.46
35:Z:805:LEU:CD2	35:Z:893:PHE:CZ	2.97	0.46
11:B:43:VAL:HG21	11:B:137:ALA:HB1	1.98	0.46
14:E:157:HIS:CG	14:E:170:LYS:NZ	2.81	0.46
18:I:199:GLU:HA	18:I:240:THR:HG22	1.96	0.46
19:J:248:ASP:O	19:J:249:GLU:CB	2.64	0.46
20:K:141:ARG:HH12	21:L:153:LEU:HD11	1.81	0.46
23:N:647:ASP:O	23:N:653:ARG:NE	2.49	0.46
23:N:681:ASN:O	23:N:685:VAL:HG23	2.16	0.46
25:P:140:THR:CB	25:P:163:LEU:HD22	2.46	0.46
25:P:218:LEU:HD11	25:P:256:LYS:CE	2.46	0.46
26:Q:128:GLU:HG3	26:Q:129:LYS:HG2	1.98	0.46
29:T:89:TYR:CE1	29:T:102:LYS:HE3	2.51	0.46
32:W:41:ARG:NH1	32:W:67:ALA:O	2.49	0.46
32:W:144:PHE:HE1	32:W:176:PRO:HA	1.80	0.46
32:W:172:LEU:HD21	32:W:185:ILE:N	2.31	0.46
33:X:22:ARG:HG2	33:X:96:ARG:NH1	2.31	0.46
35:Z:212:LEU:HD13	35:Z:217:GLU:OE2	2.15	0.46
35:Z:312:TYR:CZ	35:Z:348:LEU:C	2.88	0.46
4:4:66:TYR:CD1	4:4:74:LEU:CD1	2.92	0.46
5:5:57:THR:HG22	14:E:101:LEU:HD12	1.97	0.46
17:H:217:GLN:HG3	17:H:376:GLU:OE2	2.15	0.46
20:K:49:PHE:CD1	23:N:192:LEU:CG	2.86	0.46
20:K:153:ASP:HB2	21:L:110:LYS:HZ2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:K:347:ARG:HH11	26:Q:205:ALA:HB1	1.77	0.46
22:M:175:LYS:NZ	22:M:240:ASN:CB	2.79	0.46
24:O:214:ALA:HB3	24:O:248:TYR:HH	1.79	0.46
24:O:287:LEU:C	24:O:287:LEU:HD23	2.36	0.46
25:P:145:GLU:O	25:P:149:GLU:HG3	2.16	0.46
27:R:36:SER:C	27:R:43:ARG:HH21	2.15	0.46
27:R:304:TYR:CE2	27:R:337:VAL:HG21	2.51	0.46
27:R:360:SER:HB3	34:Y:86:ARG:HH22	1.81	0.46
28:S:227:ASN:OD1	28:S:263:ASP:CG	2.55	0.46
28:S:281:ALA:HB2	28:S:320:ILE:HD11	1.97	0.46
28:S:390:THR:OG1	28:S:393:ARG:NH2	2.49	0.46
28:S:435:LYS:NZ	29:T:238:GLN:CD	2.68	0.46
29:T:59:LYS:HD3	29:T:97:SER:CB	2.45	0.46
29:T:193:THR:CB	29:T:226:TRP:CZ2	2.94	0.46
30:U:92:TRP:NE1	30:U:120:LEU:CA	2.78	0.46
30:U:273:LEU:O	30:U:277:TYR:CD2	2.69	0.46
35:Z:96:TYR:CE1	35:Z:119:LEU:HD22	2.51	0.46
35:Z:737:ALA:CA	35:Z:775:MET:HE2	2.46	0.46
1:1:122:LEU:CG	7:7:28:PHE:HE1	2.29	0.46
7:7:92:MET:HE2	7:7:102:LEU:HD23	1.97	0.46
7:7:129:TYR:HE2	7:7:134:LEU:CD2	2.29	0.46
11:B:35:LEU:C	11:B:35:LEU:HD12	2.36	0.46
16:G:140:VAL:HG11	16:G:220:LEU:CG	2.35	0.46
17:H:280:VAL:CG2	18:I:304:ARG:HD2	2.42	0.46
18:I:178:THR:HG23	19:J:282:PHE:HA	1.98	0.46
18:I:250:SER:O	18:I:253:ILE:CG1	2.63	0.46
19:J:88:VAL:HG23	19:J:91:GLU:H	1.80	0.46
19:J:336:ASN:ND2	20:K:200:GLN:O	2.46	0.46
21:L:269:TYR:CE2	21:L:273:HIS:NE2	2.84	0.46
21:L:328:ASN:ND2	21:L:329:ARG:HE	2.12	0.46
23:N:49:LEU:HD21	23:N:55:PHE:CE1	2.51	0.46
23:N:666:GLN:CG	23:N:873:ARG:HE	2.23	0.46
23:N:707:ASN:HB3	23:N:711:ARG:CZ	2.46	0.46
23:N:870:ASN:OD1	23:N:871:MET:HG2	2.16	0.46
26:Q:115:ILE:HG23	26:Q:141:LEU:CD1	2.46	0.46
28:S:323:LEU:CD2	28:S:383:LEU:HD21	2.45	0.46
28:S:471:LEU:CD1	30:U:288:PHE:HZ	2.00	0.46
30:U:154:PHE:N	30:U:154:PHE:HD1	2.14	0.46
31:V:33:ALA:O	31:V:37:MET:HG3	2.16	0.46
35:Z:434:GLN:O	35:Z:437:ASP:HB2	2.16	0.46
1:1:59:VAL:HG21	1:1:82:PHE:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:63:ASN:HD22	12:C:96:GLN:NE2	2.14	0.45
5:5:150:VAL:CG2	5:5:179:HIS:CE1	2.99	0.45
11:B:78:MET:HG2	11:B:80:PRO:HD2	1.98	0.45
15:F:117:GLN:HE21	15:F:121:GLN:NE2	2.14	0.45
17:H:280:VAL:O	17:H:280:VAL:HG12	2.16	0.45
17:H:387:ASN:O	17:H:391:ILE:HG13	2.16	0.45
19:J:375:ILE:HB	27:R:204:TRP:CE3	2.51	0.45
22:M:42:ARG:HB2	32:W:27:GLU:HB3	1.98	0.45
25:P:60:ALA:HA	25:P:96:MET:HE1	1.98	0.45
25:P:132:VAL:HA	25:P:171:MET:SD	2.55	0.45
25:P:293:LEU:HD23	25:P:293:LEU:O	2.16	0.45
25:P:308:LEU:CD2	25:P:369:LEU:HA	2.20	0.45
31:V:185:ILE:HA	31:V:188:LEU:HD12	1.98	0.45
32:W:5:ALA:CB	32:W:103:ASN:CG	2.60	0.45
33:X:73:THR:HG22	33:X:91:PHE:CD1	2.52	0.45
35:Z:64:TYR:HE1	35:Z:111:LEU:O	1.99	0.45
35:Z:318:LYS:CD	35:Z:496:ALA:O	2.62	0.45
35:Z:452:LEU:HD11	35:Z:485:ILE:CG2	2.44	0.45
1:1:7:THR:HA	1:1:12:VAL:HA	1.98	0.45
1:1:8:PHE:CZ	1:1:179:THR:HG22	2.44	0.45
5:5:104:TYR:C	5:5:104:TYR:HD1	2.20	0.45
11:B:68:THR:HB	11:B:69:PRO:HD2	1.98	0.45
11:B:236:ARG:NH1	11:B:238:LEU:CD2	2.79	0.45
12:C:180:TYR:HE2	12:C:182:ASP:HA	1.76	0.45
14:E:48:LEU:CD1	14:E:145:ALA:HB3	2.25	0.45
14:E:48:LEU:HD21	14:E:155:LEU:HD13	1.98	0.45
14:E:165:TYR:O	14:E:167:TYR:CD1	2.69	0.45
17:H:393:SER:OG	17:H:404:TRP:HH2	1.99	0.45
20:K:190:LEU:HB2	20:K:198:TYR:OH	2.15	0.45
24:O:73:ILE:CG2	24:O:74:ASN:N	2.63	0.45
24:O:230:PHE:CE1	24:O:251:LEU:HD11	2.48	0.45
24:O:341:ILE:CD1	24:O:348:VAL:HA	2.47	0.45
25:P:235:LEU:CD2	25:P:276:LEU:HD11	2.47	0.45
27:R:259:PHE:O	27:R:259:PHE:HD1	1.97	0.45
29:T:38:ASN:O	29:T:39:LEU:CD2	2.64	0.45
30:U:94:HIS:HD1	30:U:96:GLY:H	1.60	0.45
30:U:223:HIS:CE1	30:U:224:THR:HB	2.49	0.45
31:V:104:VAL:HG11	31:V:107:TRP:HE1	1.81	0.45
35:Z:502:ASN:ND2	35:Z:505:VAL:HG23	2.31	0.45
35:Z:567:ALA:HB1	35:Z:599:ILE:HG12	1.97	0.45
35:Z:620:LEU:HD23	35:Z:743:ILE:HG13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:220:ILE:HD12	3:3:39:HIS:CE1	2.50	0.45
4:4:28:LYS:CE	5:5:127:PHE:CE2	3.00	0.45
11:B:44:VAL:CG2	11:B:211:LEU:HD11	2.46	0.45
13:D:37:LYS:CE	13:D:145:PRO:HB2	2.46	0.45
17:H:251:PRO:O	17:H:254:THR:HG21	2.13	0.45
17:H:397:SER:OG	17:H:436:LYS:HE2	2.17	0.45
19:J:274:GLU:HA	19:J:309:ARG:NH1	2.32	0.45
21:L:132:ARG:CD	21:L:133:ASN:H	2.29	0.45
21:L:311:GLN:NE2	21:L:316:ASP:HB2	2.32	0.45
21:L:389:ALA:HA	21:L:392:ARG:NH2	2.31	0.45
22:M:50:ARG:CB	32:W:73:LEU:CB	2.94	0.45
23:N:192:LEU:C	23:N:192:LEU:HD23	2.36	0.45
25:P:180:ILE:HD11	25:P:206:LYS:NZ	2.31	0.45
25:P:360:ILE:CD1	25:P:402:PHE:HZ	2.29	0.45
28:S:141:LEU:O	28:S:145:PHE:CZ	2.70	0.45
28:S:227:ASN:ND2	28:S:260:PRO:HD2	2.31	0.45
29:T:156:SER:HB3	29:T:159:LYS:CB	2.44	0.45
31:V:117:TRP:HH2	31:V:157:ARG:C	2.20	0.45
35:Z:361:HIS:HE1	35:Z:861:THR:O	1.98	0.45
1:1:119:VAL:HB	16:G:103:LYS:HZ3	1.71	0.45
5:5:159:ARG:HH11	5:5:200:VAL:HG13	1.81	0.45
7:7:8:TYR:CZ	7:7:11:GLY:N	2.84	0.45
7:7:83:TYR:CE1	15:F:101:ARG:HG2	2.51	0.45
13:D:11:PHE:HD2	14:E:26:TYR:HB2	1.82	0.45
15:F:166:GLN:C	22:M:381:ARG:NH2	2.70	0.45
16:G:73:ILE:HG22	16:G:75:CYS:SG	2.57	0.45
17:H:382:LEU:HD13	17:H:385:ARG:HH21	1.82	0.45
18:I:176:SER:C	19:J:282:PHE:CD1	2.90	0.45
21:L:206:ILE:CG1	21:L:209:ARG:HH22	2.28	0.45
27:R:207:ARG:HH12	27:R:211:LYS:NZ	2.15	0.45
28:S:185:PHE:CD1	28:S:239:ARG:NH1	2.85	0.45
29:T:46:ILE:HD11	29:T:94:HIS:NE2	2.31	0.45
29:T:55:LEU:HD22	29:T:94:HIS:CD2	2.51	0.45
29:T:226:TRP:NE1	29:T:235:PHE:CD2	2.85	0.45
29:T:250:MET:O	29:T:251:HIS:HD2	1.93	0.45
30:U:19:LEU:HD11	31:V:208:LYS:HB2	1.97	0.45
30:U:288:PHE:O	30:U:291:LEU:HB2	2.16	0.45
1:1:18:SER:O	1:1:19:ARG:HB2	2.17	0.45
3:3:79:THR:HG23	3:3:115:PHE:HZ	1.81	0.45
7:7:74:ASP:HA	7:7:79:LEU:HD12	1.97	0.45
7:7:85:PHE:CD2	7:7:120:ARG:HD3	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D:190:GLU:OE1	13:D:193:LYS:HE2	2.16	0.45
14:E:109:VAL:CG1	14:E:156:PHE:CG	2.99	0.45
15:F:51:ARG:HH21	15:F:204:GLU:CD	2.18	0.45
17:H:146:VAL:HG12	17:H:155:PHE:CB	2.39	0.45
18:I:196:GLU:OE2	18:I:200:LEU:HD23	2.16	0.45
18:I:299:GLU:O	18:I:303:GLN:HG2	2.17	0.45
18:I:397:THR:O	19:J:179:ILE:HD12	2.17	0.45
20:K:49:PHE:HE1	23:N:192:LEU:CB	2.30	0.45
20:K:258:PHE:CE1	20:K:299:LEU:HD23	2.52	0.45
20:K:262:ARG:NH1	20:K:311:ASN:HD21	2.13	0.45
24:O:196:LEU:HD21	24:O:242:ILE:CD1	2.46	0.45
24:O:270:ILE:HG22	24:O:271:LYS:N	2.31	0.45
25:P:110:LEU:O	25:P:113:ASN:HB2	2.17	0.45
25:P:352:VAL:HG23	25:P:353:ILE:N	2.31	0.45
27:R:301:TYR:HE2	27:R:359:VAL:HG13	1.81	0.45
28:S:471:LEU:CB	30:U:288:PHE:HE1	2.24	0.45
29:T:59:LYS:HD3	29:T:97:SER:HA	1.98	0.45
31:V:133:ASN:HD22	31:V:136:ALA:HB2	1.81	0.45
35:Z:502:ASN:CG	35:Z:505:VAL:HG23	2.36	0.45
35:Z:546:ILE:CG2	35:Z:566:LEU:HD21	2.46	0.45
1:1:-5:GLU:O	2:2:116:HIS:CE1	2.69	0.45
3:3:69:GLU:OE1	11:B:106:PRO:HG2	2.17	0.45
5:5:19:ARG:H	5:5:31:VAL:HG12	1.82	0.45
5:5:199:LYS:HG2	5:5:203:GLU:OE1	2.16	0.45
14:E:15:PHE:CZ	15:F:126:ARG:HD2	2.50	0.45
16:G:45:VAL:CG2	16:G:47:PHE:HE1	2.30	0.45
16:G:98:PHE:CE2	16:G:105:PRO:O	2.63	0.45
17:H:175:GLY:H	17:H:183:ILE:HG13	1.82	0.45
18:I:173:MET:H	19:J:231:ARG:NH2	2.14	0.45
18:I:417:LYS:O	18:I:421:GLU:HG3	2.16	0.45
19:J:329:ARG:CA	19:J:343:LEU:HD13	2.47	0.45
20:K:171:TYR:CD2	20:K:225:ALA:HB1	2.52	0.45
20:K:226:VAL:O	20:K:230:THR:HG23	2.17	0.45
22:M:327:THR:CG2	22:M:329:ARG:O	2.65	0.45
23:N:399:PHE:HE2	23:N:438:ASP:OD1	2.00	0.45
23:N:521:LEU:HD13	23:N:539:MET:SD	2.56	0.45
24:O:344:VAL:O	24:O:345:ASN:ND2	2.49	0.45
25:P:433:ILE:CD1	30:U:203:LYS:HA	2.47	0.45
26:Q:195:LYS:HZ2	26:Q:229:ASP:HB3	1.81	0.45
26:Q:381:ILE:HG21	27:R:344:SER:HA	1.97	0.45
26:Q:426:LEU:HD21	30:U:292:ILE:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R:34:THR:HG22	27:R:70:TYR:HB2	1.98	0.45
31:V:113:GLY:O	31:V:114:PHE:CG	2.69	0.45
33:X:83:SER:OG	33:X:110:PRO:HG3	2.17	0.45
35:Z:103:TYR:CG	35:Z:116:ALA:HB2	2.48	0.45
35:Z:362:LEU:CD2	35:Z:858:GLY:O	2.65	0.45
35:Z:528:LEU:HD11	35:Z:565:PHE:CD1	2.51	0.45
35:Z:973:TYR:CD2	35:Z:974:THR:HG22	2.51	0.45
4:4:66:TYR:CG	4:4:74:LEU:HD11	2.49	0.45
5:5:33:ARG:NH1	5:5:46:ALA:HB2	2.31	0.45
7:7:42:VAL:HG23	7:7:192:ILE:HD11	1.98	0.45
7:7:62:LEU:HD21	7:7:87:TYR:CE2	2.52	0.45
11:B:127:VAL:HG22	11:B:128:ARG:O	2.17	0.45
13:D:122:GLN:HG3	14:E:134:MET:SD	2.56	0.45
19:J:153:LEU:O	19:J:157:ILE:HG13	2.16	0.45
22:M:384:ASP:O	22:M:386:PHE:CD1	2.70	0.45
23:N:328:PHE:CE1	23:N:696:LYS:HB2	2.50	0.45
24:O:140:LYS:CD	24:O:141:ASN:ND2	2.78	0.45
24:O:193:LEU:HD13	24:O:236:HIS:CD2	2.51	0.45
25:P:213:TYR:HD2	25:P:217:LYS:HG2	1.82	0.45
26:Q:65:TYR:HB2	26:Q:74:LEU:CD2	2.36	0.45
27:R:147:LYS:HD3	27:R:181:TYR:CZ	2.52	0.45
27:R:153:THR:O	27:R:156:LYS:HB2	2.17	0.45
28:S:173:LEU:O	28:S:174:ARG:NH1	2.43	0.45
28:S:189:LEU:HD12	28:S:193:THR:HB	1.99	0.45
28:S:364:ILE:HD13	28:S:380:CYS:HB3	1.99	0.45
33:X:8:ILE:HG22	33:X:124:LYS:CD	2.44	0.45
35:Z:551:LEU:CB	35:Z:593:HIS:NE2	2.80	0.45
35:Z:570:LEU:CD1	35:Z:599:ILE:HG21	2.43	0.45
35:Z:624:LEU:CD1	35:Z:736:LEU:O	2.64	0.45
1:1:38:HIS:NE2	1:1:73:PRO:HD2	2.30	0.45
1:1:120:HIS:HB2	7:7:28:PHE:CZ	2.52	0.45
2:2:200:GLN:O	2:2:201:LYS:HB2	2.17	0.45
3:3:-2:ASN:CA	3:3:19:ARG:NH1	2.80	0.45
3:3:61:LYS:HZ2	3:3:85:SER:CB	2.28	0.45
3:3:140:MET:CG	3:3:168:ARG:HH22	2.30	0.45
7:7:-3:VAL:HG12	7:7:49:ILE:CB	2.45	0.45
8:8:153:ASP:O	8:8:156[A]:ILE:HG22	2.17	0.45
12:C:208:TYR:CA	12:C:235:ILE:HG21	2.44	0.45
13:D:34:VAL:HB	13:D:199:LEU:HD21	1.97	0.45
13:D:45:GLY:HA3	13:D:199:LEU:CD1	2.47	0.45
14:E:50:VAL:HG22	14:E:67:ILE:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:G:45:VAL:CG2	16:G:47:PHE:CE1	2.99	0.45
18:I:225:PRO:HB3	19:J:309:ARG:HH21	1.80	0.45
19:J:165:GLU:OE2	19:J:205:HIS:CD2	2.70	0.45
20:K:347:ARG:HG3	26:Q:215:VAL:CG1	2.46	0.45
21:L:174:GLU:HG2	21:L:175:GLN:CD	2.38	0.45
22:M:219:LEU:CD1	22:M:325:ALA:HB3	2.47	0.45
25:P:397:ALA:HB1	25:P:399:ILE:HD12	1.98	0.45
26:Q:426:LEU:HD23	26:Q:426:LEU:O	2.16	0.45
27:R:422:ARG:HH22	28:S:301:PRO:CG	2.30	0.45
28:S:144:LEU:C	28:S:155:LEU:HD13	2.38	0.45
28:S:175:SER:HB2	28:S:229:THR:HG1	1.78	0.45
30:U:37:ILE:HD13	30:U:121:LEU:HD11	1.97	0.45
31:V:25:GLU:OE2	31:V:157:ARG:NH1	2.50	0.45
31:V:118:LEU:HD12	31:V:140:VAL:CG2	2.47	0.45
31:V:261:LEU:HD11	31:V:283:THR:HG21	1.67	0.45
32:W:132:LEU:HD22	32:W:137:VAL:HG21	1.99	0.45
35:Z:53:VAL:O	35:Z:56:LEU:HB2	2.17	0.45
1:1:119:VAL:HB	16:G:103:LYS:HZ1	1.76	0.45
8:8:318:PHE:C	9:9:71:LEU:CD2	2.35	0.45
15:F:128:TYR:HB3	15:F:130:VAL:HG12	1.99	0.45
16:G:161:GLY:HA3	16:G:175:LEU:HD21	1.97	0.45
19:J:87:LYS:HD2	19:J:93:LYS:HE2	1.99	0.45
19:J:234:PHE:HZ	19:J:279:LEU:HD21	1.49	0.45
23:N:70:TYR:CE2	28:S:219:LYS:CE	2.86	0.45
23:N:758:VAL:H	23:N:874:ILE:HD12	1.82	0.45
23:N:774:ASN:ND2	23:N:885:ILE:CD1	2.80	0.45
25:P:286:ASN:O	25:P:293:LEU:CD1	2.65	0.45
26:Q:288:LYS:NZ	26:Q:296:ILE:HG21	2.32	0.45
27:R:72:VAL:O	27:R:72:VAL:HG12	2.16	0.45
29:T:4:LEU:O	29:T:5:ALA:HB3	2.17	0.45
29:T:224:ARG:HB3	29:T:242:LYS:HB2	1.98	0.45
30:U:40:ASP:HB2	30:U:47:ARG:NE	2.32	0.45
32:W:182:TYR:C	32:W:183:GLU:HG3	2.31	0.45
35:Z:315:ALA:CA	35:Z:327:GLN:HE22	2.29	0.45
8:8:485:GLU:N	17:H:187:LEU:HD23	2.29	0.45
10:A:57:LYS:NZ	10:A:66:PRO:O	2.47	0.45
13:D:45:GLY:HA3	13:D:199:LEU:HD11	1.99	0.45
13:D:236:ILE:O	13:D:240:LYS:HG3	2.17	0.45
16:G:217:TRP:O	16:G:217:TRP:HD1	2.00	0.45
17:H:271:PHE:CZ	17:H:273:ARG:CZ	3.00	0.45
18:I:102:ASN:ND2	19:J:83:LYS:NZ	2.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:J:88:VAL:HB	19:J:90:PRO:HD2	1.97	0.45
21:L:362:LYS:CA	21:L:376:PHE:CE2	2.93	0.45
22:M:129:LEU:C	22:M:129:LEU:HD12	2.37	0.45
22:M:186:LEU:CD1	22:M:231:LEU:HD21	2.47	0.45
23:N:19:SER:C	29:T:35:ILE:HG12	2.36	0.45
23:N:300:ASN:HD22	23:N:920:VAL:HG21	1.82	0.45
24:O:185:PHE:CE2	24:O:219:ILE:CG2	2.86	0.45
26:Q:124:PHE:CD1	26:Q:127:ARG:NH2	2.85	0.45
28:S:163:VAL:HG21	28:S:184:TRP:CZ3	2.37	0.45
30:U:40:ASP:HB2	30:U:47:ARG:HE	1.82	0.45
30:U:76:MET:CB	31:V:94:MET:HE1	2.45	0.45
32:W:142:ILE:HG22	32:W:185:ILE:HD12	1.99	0.45
33:X:33:ILE:CG1	33:X:48:PHE:CZ	2.99	0.45
33:X:40:GLU:C	33:X:41:GLU:HG2	2.31	0.45
1:1:-2:LEU:C	1:1:-2:LEU:HD12	2.37	0.44
1:1:29:ARG:HE	1:1:30:VAL:HG23	1.82	0.44
1:1:82:PHE:O	1:1:86:CYS:SG	2.72	0.44
5:5:150:VAL:HG23	5:5:179:HIS:CE1	2.52	0.44
5:5:159:ARG:NH1	5:5:200:VAL:HG13	2.32	0.44
7:7:-3:VAL:CG1	7:7:49:ILE:CG1	2.93	0.44
7:7:103:TRP:CD1	7:7:103:TRP:O	2.70	0.44
7:7:119:LEU:HD23	7:7:131:SER:O	2.17	0.44
7:7:121:TYR:HE1	7:7:123:ASN:HB3	1.82	0.44
10:A:39:ASN:ND2	10:A:58:LYS:HD2	2.21	0.44
10:A:57:LYS:CE	10:A:69:VAL:HG11	2.21	0.44
11:B:12:PHE:CZ	11:B:18:LEU:HD21	2.52	0.44
11:B:179:TRP:NE1	11:B:183:LEU:HB3	2.32	0.44
14:E:165:TYR:O	14:E:167:TYR:HE1	1.98	0.44
15:F:166:GLN:HA	22:M:381:ARG:HH21	1.72	0.44
17:H:98:GLN:NE2	17:H:193:PRO:O	2.50	0.44
18:I:75:PHE:CD2	18:I:76:VAL:N	2.85	0.44
22:M:163:PHE:CE1	22:M:261:LYS:HE3	2.52	0.44
23:N:17:GLN:H	23:N:20:VAL:CG2	2.29	0.44
23:N:227:LYS:HA	23:N:724:THR:HG21	1.99	0.44
23:N:258:ALA:CB	23:N:289:ILE:HG21	2.46	0.44
23:N:745:LEU:O	23:N:748:PHE:HD2	1.99	0.44
23:N:759:ILE:HG12	23:N:902:VAL:HG12	1.99	0.44
24:O:373:TRP:NE1	30:U:200:LEU:HD11	2.32	0.44
27:R:126:GLY:O	27:R:127:GLU:HB2	2.16	0.44
28:S:211:ARG:NE	28:S:240:ASP:HB3	2.30	0.44
29:T:143:SER:O	29:T:147:LYS:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:U:152:LYS:HG2	30:U:154:PHE:CZ	2.53	0.44
33:X:41:GLU:CB	33:X:45:PHE:HB2	2.47	0.44
33:X:46:TRP:CH2	33:X:131:ASN:HB2	2.52	0.44
35:Z:889:VAL:H	35:Z:894:MET:HE3	1.79	0.44
1:1:82:PHE:CE2	1:1:99:VAL:HG21	2.53	0.44
3:3:80:GLN:HG2	11:B:102:GLY:HA3	1.99	0.44
4:4:55:PHE:CE2	4:4:59:ILE:HG13	2.52	0.44
5:5:40:PHE:CE2	5:5:41:LEU:CG	3.00	0.44
11:B:82:TYR:CE1	11:B:134:LEU:HD21	2.53	0.44
15:F:33:SER:HA	15:F:51:ARG:NH1	2.32	0.44
15:F:38:LEU:CD2	15:F:189:LEU:CD1	2.96	0.44
19:J:248:ASP:O	19:J:249:GLU:HB3	2.18	0.44
21:L:335:PRO:O	21:L:339:ARG:HG3	2.16	0.44
21:L:336:ALA:HA	21:L:339:ARG:HH21	1.82	0.44
23:N:5:THR:HG23	23:N:8:PRO:CD	2.47	0.44
23:N:170:LEU:O	23:N:174:LEU:HG	2.17	0.44
24:O:210:ARG:NH2	24:O:242:ILE:CG1	2.80	0.44
25:P:221:TYR:HE2	25:P:244:ILE:HD13	1.82	0.44
25:P:425:HIS:CD2	30:U:225:ILE:CB	3.00	0.44
26:Q:138:SER:HB2	26:Q:161:LEU:HD11	1.96	0.44
26:Q:326:MET:HB3	26:Q:332:ARG:HD3	1.99	0.44
27:R:331:ARG:NH2	27:R:367:ASP:HB3	2.33	0.44
28:S:185:PHE:HE1	28:S:239:ARG:NH1	2.14	0.44
28:S:395:ILE:HD12	28:S:410:LYS:HD3	1.98	0.44
29:T:245:TYR:CE2	29:T:251:HIS:NE2	2.76	0.44
32:W:16:SER:CB	32:W:25:ARG:NH1	2.80	0.44
32:W:120:ASP:O	32:W:121:SER:O	2.35	0.44
1:1:120:HIS:HB2	7:7:28:PHE:CE1	2.53	0.44
3:3:59:ARG:NE	12:C:99:LEU:HD21	2.32	0.44
10:A:51:THR:HB	10:A:228:ALA:HB3	1.98	0.44
10:A:79:ILE:CD1	10:A:112:MET:HB3	2.47	0.44
12:C:68:LYS:HD2	12:C:229:ILE:HD11	1.98	0.44
18:I:243:THR:HG22	18:I:245:LEU:CG	2.47	0.44
18:I:300:ARG:O	18:I:304:ARG:HG3	2.17	0.44
19:J:61:GLU:O	19:J:65:LEU:HG	2.17	0.44
20:K:349:ARG:HH11	20:K:377:SER:N	2.01	0.44
22:M:307:GLU:CD	22:M:311:GLN:HE21	2.19	0.44
24:O:69:PHE:HE2	24:O:78:VAL:N	2.15	0.44
24:O:303:LYS:O	24:O:304:ASN:CG	2.55	0.44
25:P:214:GLU:O	25:P:218:LEU:HG	2.18	0.44
28:S:471:LEU:HB2	30:U:288:PHE:HZ	1.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:V:108:TYR:O	31:V:109:HIS:CG	2.70	0.44
32:W:65:PHE:CZ	32:W:102:GLN:OE1	2.71	0.44
35:Z:551:LEU:HD23	35:Z:551:LEU:C	2.38	0.44
35:Z:563:VAL:HG11	35:Z:595:MET:HE3	2.00	0.44
1:1:6:VAL:CB	1:1:155:ILE:HD11	2.46	0.44
1:1:45:ARG:HE	1:1:52:THR:CB	2.29	0.44
7:7:123:ASN:HD21	7:7:127:VAL:HB	1.81	0.44
8:8:337:PHE:CZ	8:8:474:LYS:HG3	2.52	0.44
13:D:188:VAL:CG2	13:D:216:LYS:HE2	2.48	0.44
19:J:133:LEU:HD23	19:J:137:MET:SD	2.57	0.44
19:J:142:VAL:HG12	19:J:204:HIS:CE1	2.51	0.44
21:L:81:ILE:HG22	21:L:82:ARG:HA	2.00	0.44
21:L:135:VAL:HB	21:L:158:ILE:HD11	1.99	0.44
22:M:49:GLN:CG	32:W:73:LEU:HD11	2.48	0.44
23:N:419:THR:O	23:N:423:LEU:HG	2.16	0.44
23:N:664:LEU:O	23:N:706:MET:CE	2.65	0.44
24:O:179:PHE:HB3	24:O:188:PHE:HB2	1.99	0.44
27:R:241:ILE:HG22	27:R:242:GLU:N	2.33	0.44
27:R:263:ARG:HH11	27:R:296:LEU:C	2.20	0.44
28:S:176:LEU:HG	28:S:179:ILE:O	2.18	0.44
31:V:117:TRP:NE1	31:V:196:TYR:CG	2.49	0.44
33:X:26:PRO:O	33:X:27:ILE:HD13	2.18	0.44
12:C:137:TYR:HE1	12:C:151:SER:HG	1.64	0.44
12:C:137:TYR:HE1	12:C:151:SER:OG	2.01	0.44
15:F:7:ASP:HA	15:F:21:GLN:HE21	1.83	0.44
16:G:140:VAL:CB	16:G:220:LEU:CD2	2.84	0.44
16:G:140:VAL:HB	16:G:220:LEU:CD1	2.41	0.44
18:I:380:LEU:HD11	18:I:416:PHE:HB3	1.98	0.44
19:J:364:GLU:OE1	19:J:388:LYS:HD3	2.18	0.44
22:M:383:THR:HB	22:M:386:PHE:CE1	2.53	0.44
23:N:884:PHE:CE2	23:N:896:PHE:HB2	2.53	0.44
24:O:261:GLY:CA	24:O:288:ARG:HH22	2.30	0.44
26:Q:46:VAL:O	26:Q:50:ARG:HB2	2.10	0.44
27:R:339:ALA:O	27:R:342:LEU:HB3	2.18	0.44
31:V:88:GLN:HG3	31:V:92:MET:HE2	1.99	0.44
33:X:45:PHE:CD1	33:X:68:LEU:O	2.71	0.44
35:Z:189:ALA:HB3	35:Z:196:SER:HB2	1.99	0.44
35:Z:448:LYS:O	35:Z:451:ALA:HB3	2.17	0.44
35:Z:850:LEU:HD21	35:Z:901:PHE:CE1	2.53	0.44
2:2:8:PHE:CE1	2:2:13:VAL:HG23	2.52	0.44
3:3:59:ARG:HE	12:C:99:LEU:HD21	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:7:13:ILE:HD12	7:7:165:ALA:HB1	2.00	0.44
7:7:85:PHE:CZ	7:7:120:ARG:HG2	2.53	0.44
8:8:253:LYS:HE3	9:9:64:GLU:OE1	2.18	0.44
10:A:133:TYR:HB3	11:B:5:TYR:CE2	2.53	0.44
19:J:102:ILE:HD11	19:J:122:LEU:HB2	2.00	0.44
19:J:145:SER:OG	19:J:201:ALA:HB2	2.18	0.44
21:L:105:ILE:HG12	21:L:159:LEU:CD1	2.48	0.44
23:N:255:ALA:O	23:N:259:PHE:CD2	2.70	0.44
23:N:406:TYR:HD1	23:N:448:LEU:HB2	1.83	0.44
23:N:510:HIS:NE2	31:V:60:ASP:HB2	2.33	0.44
25:P:290:LEU:HB2	25:P:293:LEU:CB	2.48	0.44
26:Q:7:LYS:CB	26:Q:30:LEU:HD13	2.47	0.44
26:Q:363:SER:O	26:Q:366:ILE:HG22	2.17	0.44
27:R:110:ILE:CG2	27:R:114:ASN:ND2	2.80	0.44
27:R:154:LEU:HD21	27:R:173:THR:CG2	2.46	0.44
29:T:182:LYS:HG2	29:T:186:ARG:NE	2.33	0.44
30:U:52:PHE:CZ	30:U:80:CYS:SG	3.10	0.44
30:U:276:ILE:HB	31:V:291:ASN:ND2	2.32	0.44
31:V:127:LYS:HZ1	31:V:194:ARG:NH2	2.15	0.44
32:W:16:SER:CA	32:W:25:ARG:HH11	2.29	0.44
35:Z:276:ASN:O	35:Z:277:GLU:HB2	2.18	0.44
35:Z:612:GLY:HA2	35:Z:616:LEU:HD12	1.99	0.44
35:Z:613:ASP:H	35:Z:616:LEU:HB2	1.83	0.44
2:2:149:GLU:CG	2:2:153:LYS:HE3	2.48	0.44
4:4:147:TYR:CE1	4:4:151:MET:HB2	2.51	0.44
5:5:60:GLY:O	5:5:64:ARG:HG3	2.18	0.44
10:A:79:ILE:HD11	10:A:112:MET:O	2.18	0.44
17:H:105:ILE:CG2	17:H:145:TYR:O	2.61	0.44
23:N:96:GLN:HE22	28:S:220:ILE:HD13	1.83	0.44
24:O:26:PHE:CD1	24:O:61:LEU:CD2	3.00	0.44
24:O:341:ILE:CD1	24:O:348:VAL:HG22	2.35	0.44
24:O:359:SER:O	24:O:363:ILE:HD12	2.18	0.44
25:P:115:ARG:HH22	25:P:142:ASP:CB	2.29	0.44
25:P:188:ILE:HD13	25:P:226:LYS:HB3	1.99	0.44
26:Q:298:ALA:HB1	26:Q:325:LEU:HD22	1.98	0.44
28:S:295:ALA:HA	28:S:298:ARG:NE	2.32	0.44
35:Z:315:ALA:HA	35:Z:327:GLN:HE22	1.82	0.44
35:Z:359:LYS:HZ3	35:Z:429:ASN:ND2	2.12	0.44
35:Z:457:ILE:HD11	35:Z:902:TYR:CD1	2.52	0.44
1:1:19:ARG:CZ	1:1:26:ILE:HG21	2.48	0.44
1:1:66:TYR:CD2	1:1:73:PRO:HB3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:55:TRP:NE1	6:6:89:TYR:OH	2.28	0.44
7:7:170:VAL:CG1	7:7:174:ARG:NH2	2.81	0.44
17:H:155:PHE:CE1	22:M:77:TYR:O	2.71	0.44
17:H:397:SER:C	17:H:398:VAL:HG13	2.37	0.44
18:I:255:LYS:NZ	19:J:267:GLU:OE1	2.51	0.44
18:I:366:THR:HA	18:I:369:MET:SD	2.58	0.44
19:J:150:VAL:CG1	19:J:197:LEU:CD1	2.95	0.44
20:K:236:ARG:HH21	21:L:310:THR:CG2	2.11	0.44
20:K:370:SER:O	20:K:374:ARG:HG3	2.18	0.44
21:L:374:PHE:CD1	21:L:374:PHE:N	2.84	0.44
21:L:374:PHE:N	21:L:374:PHE:HD1	2.15	0.44
22:M:196:ALA:CB	22:M:345:ARG:HG3	2.47	0.44
22:M:267:PHE:CZ	22:M:315:PHE:CD2	3.06	0.44
23:N:771:PHE:HE2	23:N:885:ILE:CG2	2.30	0.44
25:P:302:LEU:CB	25:P:310:ARG:NE	2.62	0.44
26:Q:429:LYS:HE3	31:V:269:ARG:NH2	2.27	0.44
27:R:261:LEU:O	27:R:336:LYS:NZ	2.50	0.44
29:T:197:TYR:CG	29:T:198:ASP:H	1.73	0.44
30:U:132:LEU:CD2	30:U:134:THR:O	2.66	0.44
33:X:46:TRP:HB2	33:X:68:LEU:CD1	2.32	0.44
35:Z:121:ILE:O	35:Z:125:THR:HG23	2.18	0.44
35:Z:312:TYR:HH	35:Z:348:LEU:HD23	1.82	0.44
35:Z:610:GLY:O	35:Z:748:LEU:CB	2.62	0.44
35:Z:612:GLY:C	35:Z:616:LEU:HD12	2.38	0.44
1:1:188:PHE:HA	1:1:192:GLU:OE1	2.17	0.44
5:5:77:ALA:CB	5:5:121:ARG:NH2	2.81	0.44
13:D:133:THR:OG1	13:D:150:THR:OG1	2.36	0.44
14:E:127:ALA:HB3	14:E:130:GLU:HG2	2.00	0.44
17:H:248:LEU:HB2	17:H:256:LYS:HD3	2.00	0.44
18:I:349:LEU:HD12	18:I:349:LEU:C	2.39	0.44
19:J:126:LEU:HD21	20:K:103:ILE:HD13	2.00	0.44
21:L:259:SER:HB3	21:L:303:ARG:HH12	1.77	0.44
22:M:170:MET:CE	22:M:269:LEU:HD12	2.47	0.44
23:N:399:PHE:HA	23:N:441:VAL:HG11	2.00	0.44
24:O:203:THR:OG1	24:O:204:SER:N	2.49	0.44
24:O:377:VAL:HG21	30:U:200:LEU:HD11	2.00	0.44
26:Q:279:LYS:O	26:Q:282:LEU:HB2	2.18	0.44
28:S:241:PHE:CZ	28:S:253:PHE:CZ	3.06	0.44
35:Z:884:THR:HG22	35:Z:888:LEU:HD13	1.99	0.44
1:1:175:MET:CE	1:1:188:PHE:HE1	2.30	0.43
5:5:19:ARG:HD2	5:5:172:GLY:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:107:LYS:O	5:5:108:GLU:HG3	2.18	0.43
7:7:68:TYR:CZ	16:G:92:ARG:HG2	2.52	0.43
10:A:46:ARG:HH21	10:A:152:PRO:HD2	1.83	0.43
10:A:219:SER:HB2	10:A:222:ASP:OD2	2.18	0.43
14:E:122:ARG:CD	14:E:131:GLU:O	2.66	0.43
14:E:165:TYR:C	14:E:167:TYR:HE1	2.20	0.43
16:G:182:HIS:HB3	16:G:186:LEU:HG	1.99	0.43
17:H:154:LYS:HZ2	22:M:162:GLU:HG2	1.82	0.43
17:H:390:ARG:CA	17:H:404:TRP:CZ2	2.75	0.43
18:I:208:TYR:CE2	18:I:215:PRO:CB	2.84	0.43
20:K:200:GLN:CD	27:R:204:TRP:CZ3	2.88	0.43
21:L:163:THR:O	21:L:164:ASP:HB2	2.16	0.43
21:L:173:PHE:HZ	21:L:177:GLU:HB3	1.75	0.43
22:M:50:ARG:HB3	32:W:73:LEU:CG	2.48	0.43
22:M:357:ARG:HH22	22:M:385:GLU:H	1.65	0.43
23:N:25:LEU:CD2	23:N:64:ILE:HD12	2.48	0.43
23:N:258:ALA:HB1	23:N:289:ILE:HG21	2.00	0.43
23:N:510:HIS:CE1	23:N:512:ASN:CB	3.00	0.43
24:O:134:ALA:HB3	24:O:153:LEU:HD21	2.00	0.43
24:O:137:TYR:HD2	24:O:149:LEU:HD21	1.83	0.43
24:O:245:ASP:O	24:O:246:SER:HB2	2.18	0.43
24:O:345:ASN:HD21	25:P:359:ARG:HH11	1.66	0.43
25:P:202:LYS:HG2	25:P:206:LYS:HE3	1.98	0.43
26:Q:48:ASP:CG	26:Q:49:LYS:H	2.22	0.43
27:R:259:PHE:CE2	27:R:329:PHE:CD1	3.05	0.43
32:W:58:ASN:HA	32:W:59:PRO:HD3	1.61	0.43
33:X:72:GLU:O	33:X:72:GLU:HG2	2.18	0.43
33:X:85:ARG:O	33:X:100:TRP:CD1	2.70	0.43
35:Z:72:LYS:NZ	35:Z:117:ASP:OD2	2.49	0.43
35:Z:426:TYR:CD2	35:Z:432:GLY:HA3	2.53	0.43
35:Z:839:SER:O	35:Z:842:GLN:HG3	2.18	0.43
1:1:8:PHE:CE2	1:1:10:ASP:CA	3.01	0.43
1:1:36:ARG:N	1:1:42:TRP:CE3	2.85	0.43
3:3:17:ASP:C	3:3:17:ASP:OD1	2.56	0.43
8:8:283:LYS:N	9:9:12:THR:H	2.12	0.43
12:C:208:TYR:CA	12:C:235:ILE:CG2	2.95	0.43
15:F:34:VAL:H	15:F:51:ARG:HH12	1.64	0.43
17:H:183:ILE:O	17:H:183:ILE:CG2	2.54	0.43
17:H:290:MET:O	17:H:294:LEU:HG	2.19	0.43
17:H:393:SER:HA	17:H:396:MET:CE	2.48	0.43
18:I:148:LEU:CD1	19:J:95:ILE:HG21	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:167:MET:CG	18:I:270:VAL:CG1	2.96	0.43
19:J:111:GLN:NE2	19:J:125:VAL:HG12	2.33	0.43
21:L:132:ARG:NH1	21:L:156:MET:CG	2.79	0.43
21:L:236:ALA:CB	21:L:277:ILE:HD12	2.41	0.43
22:M:166:ARG:C	22:M:167:VAL:HG22	2.39	0.43
24:O:258:LEU:HB3	24:O:291:ILE:CD1	2.48	0.43
27:R:23:ASN:HD21	27:R:143:GLN:NE2	2.16	0.43
27:R:316:LEU:HD23	27:R:322:LEU:HD13	2.00	0.43
30:U:76:MET:HB2	31:V:94:MET:CE	2.46	0.43
31:V:40:HIS:CG	31:V:70:ALA:HB2	2.52	0.43
33:X:85:ARG:O	33:X:100:TRP:HD1	2.01	0.43
35:Z:491:LEU:CD2	35:Z:900:LEU:CD1	2.95	0.43
35:Z:504:GLU:O	35:Z:508:LEU:HG	2.18	0.43
2:2:81:GLN:HA	2:2:84:LYS:HE2	2.00	0.43
8:8:216:GLN:OE1	8:8:216:GLN:HA	2.18	0.43
10:A:46:ARG:CG	10:A:152:PRO:HB2	2.48	0.43
16:G:149:MET:HB3	16:G:159:TYR:CE1	2.53	0.43
17:H:65:GLU:HG3	18:I:133:LEU:HB2	2.00	0.43
19:J:119:SER:C	19:J:120:TYR:CD1	2.91	0.43
19:J:329:ARG:HA	19:J:343:LEU:CD1	2.48	0.43
20:K:67:TYR:CD1	20:K:67:TYR:C	2.92	0.43
20:K:99:PHE:CZ	20:K:102:PRO:HD3	2.53	0.43
23:N:65:ALA:O	23:N:69:TYR:CD2	2.72	0.43
23:N:158:LEU:CD1	23:N:192:LEU:CD2	2.95	0.43
24:O:365:LYS:CB	24:O:369:ARG:HH12	2.14	0.43
24:O:377:VAL:HA	30:U:193:GLN:HE22	1.83	0.43
25:P:132:VAL:O	25:P:133:GLU:CB	2.66	0.43
25:P:425:HIS:CD2	30:U:225:ILE:CG1	3.00	0.43
26:Q:151:TYR:CZ	26:Q:187:LYS:CG	2.94	0.43
28:S:187:ILE:HG23	28:S:188:TYR:CD1	2.54	0.43
29:T:43:ASP:OD1	29:T:44:LEU:N	2.48	0.43
29:T:197:TYR:CG	29:T:235:PHE:CG	3.04	0.43
30:U:231:ASP:OD1	30:U:232:VAL:N	2.51	0.43
33:X:10:PHE:C	33:X:33:ILE:CG2	2.82	0.43
33:X:73:THR:CG2	33:X:91:PHE:HE1	2.30	0.43
33:X:75:TRP:CA	33:X:87:PHE:HE1	2.17	0.43
35:Z:49:LEU:HD11	35:Z:55:ARG:CZ	2.48	0.43
35:Z:64:TYR:CD1	35:Z:111:LEU:HD22	2.53	0.43
35:Z:491:LEU:CD2	35:Z:900:LEU:HD11	2.45	0.43
1:1:4:MET:O	1:1:14:LEU:HD12	2.19	0.43
1:1:122:LEU:CD2	7:7:28:PHE:CD1	2.95	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:72:TYR:HH	4:4:109:LYS:HE3	1.80	0.43
5:5:135:PHE:HB2	5:5:167:ARG:NH2	2.33	0.43
7:7:8:TYR:CE1	7:7:11:GLY:CA	3.01	0.43
7:7:54:HIS:O	7:7:58:LEU:HG	2.18	0.43
10:A:48:LYS:HD2	10:A:195:ASN:HA	2.00	0.43
10:A:74:CYS:SG	10:A:233:PHE:HD2	2.41	0.43
10:A:81:MET:SD	10:A:143:PHE:HE2	2.36	0.43
11:B:156:TYR:CD1	12:C:81:THR:HG21	2.52	0.43
15:F:31:GLN:HA	22:M:430:VAL:HG11	1.93	0.43
15:F:49:LEU:HD23	15:F:51:ARG:CZ	2.49	0.43
15:F:156:LEU:HG	16:G:58:LEU:HD23	2.01	0.43
16:G:137:PHE:CE2	16:G:148:TYR:HB2	2.53	0.43
17:H:271:PHE:CZ	17:H:273:ARG:NH2	2.87	0.43
19:J:300:LEU:C	19:J:304:LEU:HD12	2.35	0.43
19:J:329:ARG:HA	19:J:343:LEU:HD13	2.00	0.43
20:K:141:ARG:HH11	21:L:153:LEU:CD1	2.31	0.43
20:K:245:LYS:NZ	21:L:299:ARG:HE	2.16	0.43
21:L:383:SER:OG	21:L:386:PHE:CG	2.67	0.43
22:M:228:LYS:CE	22:M:326:ALA:HB1	2.45	0.43
24:O:41:LEU:HD11	24:O:47:LYS:HG2	2.01	0.43
24:O:103:LYS:CA	24:O:129:ILE:HD11	2.43	0.43
24:O:344:VAL:CB	25:P:361:THR:HG23	2.42	0.43
24:O:377:VAL:HG21	30:U:200:LEU:HD12	2.00	0.43
25:P:133:GLU:N	25:P:171:MET:SD	2.82	0.43
27:R:32:LEU:CD2	27:R:318:PRO:HA	2.48	0.43
28:S:197:SER:O	28:S:198:SER:HB3	2.18	0.43
30:U:123:VAL:CG1	30:U:125:VAL:HG13	2.48	0.43
31:V:111:HIS:CD2	31:V:140:VAL:HG21	2.51	0.43
32:W:46:GLU:HB3	32:W:106:GLN:HE22	1.81	0.43
33:X:85:ARG:NE	33:X:115:SER:CB	2.81	0.43
35:Z:367:SER:OG	35:Z:859:LYS:O	2.36	0.43
35:Z:760:HIS:HD1	35:Z:761:PHE:HD1	1.65	0.43
2:2:3:ILE:HD13	2:2:46:ALA:HB2	2.00	0.43
4:4:60:GLN:HE21	4:4:64:GLN:CD	2.21	0.43
4:4:69:ARG:CA	13:D:90:ARG:NH1	2.82	0.43
5:5:4:LEU:C	5:5:4:LEU:HD12	2.39	0.43
6:6:193:LEU:HB2	6:6:210:LEU:HD11	2.01	0.43
11:B:117:ILE:HG22	11:B:130:PHE:HE2	1.83	0.43
16:G:69:VAL:HG11	16:G:111:PHE:CE1	2.53	0.43
17:H:389:PHE:HE1	17:H:422:VAL:HB	1.84	0.43
17:H:393:SER:HB2	17:H:404:TRP:CZ2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:I:148:LEU:HD11	19:J:95:ILE:HG22	1.99	0.43
18:I:380:LEU:HD13	18:I:416:PHE:HB3	2.00	0.43
18:I:433:GLU:O	18:I:436:TYR:CE2	2.71	0.43
20:K:294:ARG:NH1	20:K:298:GLU:HB2	2.33	0.43
20:K:300:LEU:C	20:K:333:ARG:HH22	2.15	0.43
21:L:186:LEU:HD23	21:L:387:ASN:OD1	2.17	0.43
21:L:259:SER:HB3	21:L:303:ARG:NH1	2.33	0.43
22:M:312:LEU:HD11	22:M:323:VAL:HG21	2.00	0.43
23:N:208:ARG:CG	23:N:232:LEU:HD13	2.48	0.43
23:N:307:LYS:NZ	23:N:345:ASP:OD2	2.50	0.43
23:N:716:GLN:HG3	23:N:718:GLU:H	1.84	0.43
25:P:425:HIS:NE2	30:U:225:ILE:HA	2.33	0.43
27:R:252:TYR:CD1	27:R:321:TYR:CB	2.98	0.43
28:S:182:LYS:HE3	28:S:309:PHE:CZ	2.53	0.43
28:S:232:MET:HE3	28:S:268:LEU:HD13	2.01	0.43
29:T:197:TYR:CD1	29:T:235:PHE:CG	3.05	0.43
30:U:61:LYS:NZ	32:W:127:ARG:HB3	2.34	0.43
35:Z:138:ARG:NE	35:Z:203:LEU:HD11	2.34	0.43
35:Z:357:ILE:HG23	35:Z:960:GLY:C	2.38	0.43
35:Z:427:GLN:O	35:Z:428:TRP:HB2	2.19	0.43
35:Z:516:THR:HB	35:Z:554:THR:HB	1.99	0.43
4:4:118:ILE:HG12	4:4:124:LYS:HG3	2.01	0.43
5:5:135:PHE:HB2	5:5:167:ARG:HH12	1.84	0.43
7:7:169:ILE:CG2	7:7:189:LEU:HD11	2.48	0.43
11:B:85:LEU:CD2	11:B:118:MET:HE2	2.48	0.43
13:D:144:GLU:HA	13:D:145:PRO:HD3	1.64	0.43
14:E:163:THR:HB	14:E:165:TYR:CE1	2.53	0.43
14:E:165:TYR:CG	14:E:167:TYR:OH	2.71	0.43
14:E:241:LYS:O	14:E:244:LYS:HG2	2.19	0.43
17:H:175:GLY:HA2	17:H:183:ILE:HB	1.94	0.43
18:I:243:THR:HG22	18:I:245:LEU:HG	2.00	0.43
18:I:340:ARG:HH12	18:I:343:ARG:CD	2.16	0.43
19:J:324:ARG:NH2	19:J:352:GLY:N	2.61	0.43
20:K:393:ARG:HD2	20:K:410:ALA:HB1	2.00	0.43
21:L:181:ASP:OD1	21:L:182:GLY:N	2.52	0.43
22:M:221:TYR:HE1	22:M:346:LYS:HG2	1.81	0.43
25:P:101:MET:HE2	25:P:139:VAL:HG22	2.00	0.43
27:R:259:PHE:HD2	27:R:329:PHE:CE1	2.29	0.43
27:R:357:PHE:CD1	27:R:357:PHE:N	2.87	0.43
30:U:35:GLY:HA3	30:U:93:TYR:CG	2.53	0.43
33:X:41:GLU:HG3	33:X:45:PHE:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:862:MET:HG2	35:Z:910:PRO:HA	1.99	0.43
1:1:59:VAL:HG21	1:1:82:PHE:CD1	2.53	0.43
5:5:135:PHE:HB2	5:5:167:ARG:CZ	2.49	0.43
6:6:63:VAL:O	6:6:67:HIS:CD2	2.66	0.43
7:7:17:ASP:C	7:7:17:ASP:OD1	2.57	0.43
7:7:129:TYR:CE2	7:7:134:LEU:CD2	3.01	0.43
8:8:209:ASP:HA	9:9:73:LEU:O	2.19	0.43
10:A:96:ARG:HH12	10:A:137:LEU:HD11	1.82	0.43
12:C:45:VAL:HG21	12:C:189:ALA:HB3	1.98	0.43
12:C:208:TYR:CD2	12:C:236:LYS:HG2	2.54	0.43
13:D:176:GLU:HG2	14:E:58:LEU:CD1	2.49	0.43
21:L:373:GLU:C	21:L:374:PHE:HD1	2.21	0.43
23:N:321:LEU:C	23:N:321:LEU:HD12	2.39	0.43
23:N:383:LYS:CA	23:N:412:TYR:OH	2.65	0.43
23:N:433:THR:CB	23:N:439:VAL:HG21	2.49	0.43
24:O:69:PHE:CZ	24:O:77:SER:CB	3.02	0.43
24:O:270:ILE:HG22	24:O:271:LYS:HG2	2.01	0.43
25:P:241:LEU:CD1	25:P:264:ILE:HG12	2.45	0.43
29:T:226:TRP:NE1	29:T:235:PHE:CE2	2.85	0.43
30:U:142:GLN:O	30:U:142:GLN:HG3	2.19	0.43
30:U:230:GLN:HG3	30:U:231:ASP:N	2.32	0.43
33:X:111:LEU:HD23	33:X:115:SER:HA	2.00	0.43
35:Z:192:GLY:O	35:Z:193:PHE:CB	2.64	0.43
35:Z:333:GLY:O	35:Z:334:LYS:HB2	2.19	0.43
35:Z:377:ALA:HB2	35:Z:411:LYS:HD3	2.00	0.43
35:Z:985:LYS:HD2	35:Z:991:GLU:OE2	2.18	0.43
7:7:143:ALA:O	7:7:146:LEU:HB2	2.18	0.43
8:8:387:VAL:HG13	8:8:387:VAL:O	2.18	0.43
9:9:4:PHE:HB3	9:9:12:THR:CG2	2.49	0.43
10:A:69:VAL:HA	16:G:157:TRP:CZ3	2.54	0.43
11:B:177:LYS:HZ1	26:Q:168:LEU:HA	1.83	0.43
14:E:143:LEU:HG	14:E:172:ILE:HD13	1.99	0.43
15:F:80:ASP:CG	15:F:126:ARG:NH2	2.72	0.43
17:H:105:ILE:H	17:H:170:GLU:CD	2.22	0.43
17:H:420:ARG:HE	18:I:342:GLY:HA3	1.83	0.43
18:I:384:LYS:HZ1	18:I:395:MET:CE	2.31	0.43
20:K:67:TYR:CD2	23:N:572:LEU:HB3	2.53	0.43
21:L:197:ILE:O	21:L:201:LEU:HG	2.18	0.43
22:M:385:GLU:O	22:M:426:LYS:HD2	2.18	0.43
23:N:310:ASP:OD1	23:N:312:GLY:N	2.48	0.43
24:O:26:PHE:HD1	24:O:61:LEU:HG	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:P:360:ILE:HD12	25:P:365:LEU:HD13	2.01	0.43
26:Q:14:LEU:HD12	26:Q:26:VAL:CG2	2.23	0.43
26:Q:356:CYS:SG	26:Q:398:TYR:CE1	3.07	0.43
27:R:171:MET:SD	27:R:194:VAL:CG2	2.99	0.43
29:T:10:SER:O	29:T:13:ILE:HG22	2.19	0.43
29:T:48:ASN:OD1	29:T:50:ILE:HB	2.19	0.43
29:T:149:ASP:HA	29:T:152:LEU:HD12	2.00	0.43
30:U:283:ARG:NE	31:V:287:THR:HB	2.33	0.43
35:Z:61:SER:OG	35:Z:111:LEU:HD11	2.19	0.43
35:Z:99:LEU:HD22	35:Z:115:LEU:HD21	1.99	0.43
35:Z:546:ILE:HG21	35:Z:566:LEU:CD2	2.48	0.43
35:Z:889:VAL:CG2	35:Z:890:SER:N	2.82	0.43
7:7:68:TYR:O	7:7:69:ASP:HB2	2.19	0.43
10:A:46:ARG:CZ	10:A:152:PRO:O	2.67	0.43
10:A:119:LYS:CG	10:A:163:TYR:CE2	2.94	0.43
13:D:96:HIS:CE1	13:D:100:LEU:HD12	2.46	0.43
17:H:389:PHE:CE1	17:H:422:VAL:HB	2.54	0.43
21:L:174:GLU:HG2	21:L:175:GLN:HE22	1.77	0.43
22:M:77:TYR:CE2	22:M:79:VAL:CG1	3.02	0.43
22:M:256:ILE:O	22:M:258:GLU:N	2.51	0.43
23:N:721:ASP:O	23:N:897:LYS:NZ	2.52	0.43
24:O:76:LEU:CD2	24:O:121:ASP:CG	2.82	0.43
25:P:180:ILE:HD11	25:P:206:LYS:HZ1	1.83	0.43
25:P:337:HIS:O	25:P:341:LEU:HG	2.18	0.43
26:Q:51:ARG:NH2	26:Q:92:LYS:CG	2.82	0.43
26:Q:298:ALA:CB	26:Q:325:LEU:HD22	2.48	0.43
27:R:422:ARG:NH2	28:S:299:LYS:HB2	2.34	0.43
30:U:18:ALA:HB2	30:U:93:TYR:CE2	2.53	0.43
30:U:283:ARG:CZ	31:V:284:ALA:CA	2.83	0.43
35:Z:193:PHE:HE2	35:Z:200:THR:CG2	2.29	0.43
35:Z:205:LEU:HA	35:Z:232:LYS:HD3	2.00	0.43
35:Z:610:GLY:O	35:Z:748:LEU:CG	2.66	0.43
35:Z:890:SER:CB	35:Z:891:PRO:HD3	2.45	0.43
4:4:11:SER:CB	4:4:182:ILE:CG2	2.94	0.43
5:5:124:GLY:N	5:5:127:PHE:CZ	2.86	0.43
6:6:106:ASP:C	6:6:106:ASP:OD1	2.57	0.43
8:8:206:LYS:NZ	9:9:74:ARG:HG2	2.34	0.43
10:A:68:THR:O	16:G:157:TRP:CZ3	2.72	0.43
20:K:96:ILE:HG13	21:L:128:ILE:HG13	2.01	0.43
21:L:357:ARG:HB3	21:L:361:PHE:CE2	2.49	0.43
23:N:325:PHE:HA	31:V:182:LYS:CD	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:406:TYR:CE1	23:N:448:LEU:CB	3.01	0.43
23:N:482:ALA:HB1	23:N:517:LEU:HD23	2.01	0.43
24:O:380:LEU:HD22	30:U:259:ASN:HD22	1.84	0.43
25:P:299:LEU:O	25:P:303:PHE:CD2	2.71	0.43
27:R:110:ILE:CG2	27:R:114:ASN:HD21	2.32	0.43
27:R:353:MET:HE3	27:R:364:LEU:CG	2.49	0.43
29:T:110:LEU:O	29:T:114:LEU:HG	2.18	0.43
35:Z:64:TYR:OH	35:Z:115:LEU:CD2	2.64	0.43
35:Z:422:ILE:HD11	35:Z:436:LEU:HD21	2.01	0.43
35:Z:446:GLU:CD	35:Z:484:LYS:HZ3	2.22	0.43
1:1:38:HIS:HB3	1:1:41:ILE:HB	2.00	0.42
1:1:122:LEU:HB3	1:1:123:PRO:HD2	2.01	0.42
2:2:33:LYS:O	2:2:35:HIS:CD2	2.72	0.42
7:7:6:MET:HE1	7:7:165:ALA:HA	2.00	0.42
11:B:132:VAL:HG22	11:B:133:SER:N	2.33	0.42
12:C:133:VAL:HG13	12:C:135:PHE:CE1	2.54	0.42
15:F:171:TYR:CE1	15:F:196:ALA:HB2	2.53	0.42
17:H:168:ILE:HG12	17:H:186:PRO:HB3	2.01	0.42
17:H:305:ILE:CG2	17:H:352:MET:SD	3.07	0.42
17:H:430:ALA:HB1	17:H:435:ARG:HB2	2.01	0.42
17:H:430:ALA:CA	17:H:435:ARG:HH21	2.27	0.42
19:J:37:LYS:CG	20:K:58:TYR:CE1	3.01	0.42
19:J:156:GLN:HG2	19:J:160:ILE:CG1	2.49	0.42
24:O:185:PHE:CD1	24:O:279:ILE:CD1	3.02	0.42
26:Q:351:ILE:HG22	26:Q:362:ILE:HD11	2.00	0.42
26:Q:415:LEU:HD21	30:U:278:ILE:CG2	2.48	0.42
27:R:301:TYR:HA	27:R:304:TYR:HB3	2.01	0.42
28:S:284:LEU:HD13	28:S:382:ARG:NH2	2.34	0.42
32:W:162:ASN:O	32:W:163:ASN:ND2	2.52	0.42
35:Z:68:LEU:HD13	35:Z:114:SER:HB2	2.01	0.42
35:Z:568:LEU:HG	35:Z:738:TYR:OH	2.18	0.42
35:Z:581:VAL:CG2	35:Z:603:VAL:CG1	2.97	0.42
35:Z:889:VAL:HG11	35:Z:892:SER:HB3	2.01	0.42
1:1:157:HIS:NE2	1:1:161:GLN:NE2	2.67	0.42
2:2:57:GLN:HB3	11:B:99:ARG:HD3	2.01	0.42
3:3:44:ILE:HG12	3:3:98:PRO:CA	2.48	0.42
3:3:76:GLU:HA	3:3:111:PHE:CZ	2.54	0.42
4:4:95:ARG:HH21	5:5:92:GLY:HA3	1.83	0.42
6:6:138:MET:HB3	6:6:139:PRO:HD3	2.00	0.42
7:7:42:VAL:CG2	7:7:192:ILE:HD11	2.49	0.42
11:B:141:GLU:OE2	11:B:231:LYS:HD2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C:176:LEU:CD2	12:C:196:THR:HG21	2.49	0.42
18:I:252:LEU:CD2	18:I:263:LEU:HD21	2.49	0.42
19:J:167:PRO:CA	19:J:174:PHE:CZ	2.92	0.42
20:K:99:PHE:CE2	20:K:102:PRO:HD3	2.54	0.42
21:L:227:GLY:CA	22:M:339:ARG:NH2	2.82	0.42
21:L:269:TYR:CZ	21:L:273:HIS:CD2	3.06	0.42
23:N:12:LEU:HD11	29:T:40:LEU:HB3	2.01	0.42
23:N:13:LEU:HD12	23:N:21:LYS:HD3	2.00	0.42
23:N:675:VAL:HA	23:N:678:ILE:HD12	2.01	0.42
24:O:30:GLU:OE2	24:O:58:ARG:HD3	2.19	0.42
25:P:60:ALA:HA	25:P:96:MET:CE	2.49	0.42
26:Q:223:GLY:HA3	26:Q:239:PHE:CZ	2.54	0.42
30:U:5:HIS:CE1	30:U:6:GLU:O	2.71	0.42
30:U:19:LEU:HD13	31:V:209:GLU:HG3	2.00	0.42
33:X:93:SER:CB	33:X:96:ARG:NH2	2.82	0.42
35:Z:506:LEU:HD23	35:Z:506:LEU:O	2.20	0.42
3:3:42:LEU:HD22	3:3:78:PHE:CZ	2.38	0.42
3:3:75:PRO:HB3	3:3:111:PHE:CD2	2.49	0.42
8:8:326:LYS:HZ2	9:9:74:ARG:NE	2.08	0.42
12:C:34:THR:OG1	12:C:167:ALA:O	2.31	0.42
12:C:92:ARG:O	12:C:95:ALA:HB3	2.19	0.42
13:D:104:VAL:HG11	13:D:109:LEU:CD1	2.49	0.42
15:F:154:THR:CG2	15:F:156:LEU:HD11	2.49	0.42
20:K:240:SER:CB	21:L:306:MET:CE	2.88	0.42
20:K:240:SER:N	21:L:306:MET:CE	2.74	0.42
21:L:74:LEU:HD11	22:M:47:GLU:HB3	2.00	0.42
21:L:75:LYS:HA	21:L:78:ARG:HH21	1.83	0.42
21:L:174:GLU:O	21:L:175:GLN:HB2	2.19	0.42
23:N:314:LEU:CD1	23:N:336:ASN:OD1	2.67	0.42
24:O:62:TYR:CE2	24:O:82:LEU:CD1	3.01	0.42
24:O:210:ARG:HH22	24:O:242:ILE:CG1	2.32	0.42
24:O:226:LYS:HB3	24:O:226:LYS:HZ3	1.84	0.42
26:Q:90:LYS:CD	26:Q:129:LYS:HE2	2.46	0.42
26:Q:149:LYS:HG2	26:Q:149:LYS:O	2.19	0.42
27:R:93:LYS:CG	27:R:94:PHE:N	2.81	0.42
27:R:158:LEU:HD13	27:R:170:VAL:HG23	2.01	0.42
28:S:185:PHE:CD1	28:S:239:ARG:CD	3.03	0.42
30:U:19:LEU:HD22	30:U:20:ASP:OD1	2.19	0.42
30:U:38:LEU:HD21	30:U:52:PHE:HE1	1.83	0.42
33:X:69:ILE:H	33:X:73:THR:HG21	1.83	0.42
35:Z:741:LEU:CD2	35:Z:782:ILE:HD12	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:31:THR:O	1:1:174:ARG:HD2	2.18	0.42
6:6:65:TRP:CZ2	15:F:93:ASN:ND2	2.86	0.42
7:7:5:SER:OG	7:7:119:LEU:HD11	2.19	0.42
7:7:93:TYR:O	7:7:96:ARG:HG2	2.19	0.42
10:A:126:GLN:NE2	10:A:130:GLN:CD	2.72	0.42
14:E:165:TYR:OH	22:M:434:ALA:HB3	2.19	0.42
17:H:152:ILE:O	17:H:152:ILE:HG22	2.18	0.42
17:H:184:GLU:HG2	17:H:185:LEU:HG	2.00	0.42
19:J:48:ARG:HD3	20:K:68:ILE:HG23	2.00	0.42
19:J:250:ILE:HA	19:J:299:ILE:HD11	2.01	0.42
20:K:96:ILE:HD11	21:L:118:ILE:HG12	2.01	0.42
20:K:236:ARG:HE	21:L:310:THR:HG23	1.85	0.42
21:L:135:VAL:HB	21:L:158:ILE:CD1	2.49	0.42
21:L:328:ASN:HD22	21:L:329:ARG:CG	2.28	0.42
23:N:641:LEU:HB2	23:N:660:LEU:CD2	2.48	0.42
24:O:161:ASP:O	24:O:162:SER:HB2	2.19	0.42
24:O:254:LEU:HA	24:O:269:LEU:HD11	2.00	0.42
24:O:345:ASN:ND2	25:P:359:ARG:HD2	2.34	0.42
25:P:114:THR:O	25:P:118:VAL:HG23	2.19	0.42
27:R:139:GLU:O	27:R:143:GLN:HG2	2.20	0.42
27:R:382:ASP:HB2	28:S:399:TYR:HB3	2.01	0.42
27:R:422:ARG:HH21	28:S:299:LYS:HG3	1.84	0.42
28:S:421:TYR:CE2	29:T:158:GLN:HB2	2.54	0.42
28:S:439:GLU:OE1	28:S:439:GLU:N	2.53	0.42
29:T:41:ILE:HG23	29:T:43:ASP:H	1.83	0.42
31:V:261:LEU:HD13	31:V:283:THR:HG22	2.00	0.42
33:X:46:TRP:HH2	33:X:131:ASN:CB	2.33	0.42
1:1:138:CYS:O	1:1:142:PHE:HB2	2.20	0.42
2:2:188:ARG:H	11:B:227:ILE:HD12	1.84	0.42
4:4:129:TYR:CD2	4:4:143:LEU:HD13	2.55	0.42
8:8:212:GLU:CG	9:9:42:ARG:CD	2.98	0.42
10:A:104:PHE:CE2	10:A:112:MET:HA	2.54	0.42
10:A:127:ILE:O	10:A:131:ARG:HG3	2.20	0.42
11:B:64:VAL:HG22	11:B:74:VAL:HG12	2.02	0.42
14:E:178:GLY:H	17:H:409:ARG:HH12	1.66	0.42
18:I:398:GLU:OE1	18:I:419:ALA:HB1	2.20	0.42
19:J:111:GLN:CG	19:J:125:VAL:HG13	2.50	0.42
19:J:124:LYS:HZ1	20:K:103:ILE:HG21	1.83	0.42
20:K:244:HIS:CE1	20:K:250:GLY:N	2.87	0.42
22:M:289:LYS:HZ1	22:M:334:ASP:CB	2.27	0.42
23:N:25:LEU:CD1	23:N:57:ASP:HB3	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:N:309:ILE:HD12	23:N:340:HIS:HD2	1.83	0.42
23:N:455:MET:HG2	23:N:487:LEU:O	2.19	0.42
24:O:117:ASN:ND2	24:O:167:ILE:HA	2.29	0.42
24:O:230:PHE:HD1	24:O:251:LEU:HD12	1.83	0.42
25:P:181:LEU:HD12	25:P:223:LEU:CD1	2.49	0.42
27:R:191:LEU:HD12	27:R:210:TYR:CE1	2.55	0.42
27:R:372:ILE:HD11	27:R:381:ILE:HG12	2.00	0.42
30:U:22:TYR:CE1	30:U:27:THR:CG2	3.02	0.42
31:V:36:LYS:HB3	31:V:68:VAL:HG12	2.01	0.42
31:V:279:HIS:O	31:V:283:THR:N	2.42	0.42
33:X:12:ALA:HB3	33:X:33:ILE:CG2	2.49	0.42
35:Z:768:GLY:O	35:Z:769:ASN:HB3	2.19	0.42
1:1:-5:GLU:N	2:2:116:HIS:ND1	2.67	0.42
5:5:124:GLY:CA	5:5:127:PHE:CZ	3.03	0.42
14:E:219:LEU:HB2	14:E:231:TYR:HD2	1.85	0.42
16:G:37:ILE:C	16:G:37:ILE:HD12	2.39	0.42
16:G:146:HIS:HB3	16:G:148:TYR:HE1	0.83	0.42
18:I:301:GLU:CD	18:I:304:ARG:HH21	2.23	0.42
19:J:286:LYS:HZ1	19:J:289:LYS:HG2	1.84	0.42
20:K:309:SER:O	20:K:310:THR:HB	2.20	0.42
22:M:186:LEU:CB	22:M:231:LEU:HD21	2.49	0.42
23:N:142:GLU:O	23:N:146:LYS:HG3	2.19	0.42
23:N:376:LYS:HA	23:N:411:ILE:HG12	2.02	0.42
23:N:510:HIS:HD1	23:N:512:ASN:N	2.17	0.42
23:N:555:ILE:O	23:N:559:TYR:HD2	2.03	0.42
24:O:345:ASN:HD21	25:P:359:ARG:NH1	2.17	0.42
25:P:207:THR:CB	25:P:217:LYS:CE	2.95	0.42
26:Q:61:LEU:HD13	26:Q:65:TYR:HE2	1.81	0.42
26:Q:115:ILE:HD11	26:Q:148:LYS:HD2	2.01	0.42
33:X:66:LEU:HD21	33:X:91:PHE:HZ	1.84	0.42
35:Z:329:ILE:HG12	35:Z:334:LYS:O	2.20	0.42
5:5:80:SER:HA	5:5:101:ILE:CD1	2.50	0.42
6:6:152:GLU:HB2	6:6:161:LYS:HG3	2.02	0.42
8:8:212:GLU:CG	9:9:42:ARG:NE	2.81	0.42
8:8:490:LEU:HD13	9:9:73:LEU:HD12	2.01	0.42
12:C:98:TYR:CE1	12:C:106:ILE:N	2.88	0.42
14:E:52:LYS:HE2	14:E:218:GLN:HB2	2.02	0.42
15:F:78:ALA:HB3	15:F:79:PRO:HD3	2.02	0.42
16:G:183:PRO:O	16:G:184:GLU:HG2	2.19	0.42
17:H:166:THR:O	17:H:166:THR:HG22	2.20	0.42
17:H:224:VAL:HG22	17:H:243:PRO:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:279:LEU:O	17:H:281:GLN:N	2.52	0.42
20:K:122:ILE:HD12	20:K:127:ASP:HA	2.01	0.42
20:K:156:SER:HB3	20:K:253:MET:HE3	2.00	0.42
21:L:325:MET:HE2	21:L:337:LEU:HD13	2.00	0.42
21:L:354:GLU:HG2	21:L:357:ARG:NH2	2.35	0.42
23:N:361:ASN:ND2	23:N:399:PHE:CZ	2.87	0.42
23:N:641:LEU:CB	23:N:660:LEU:CD2	2.96	0.42
24:O:5:HIS:HE1	24:O:27:GLU:OE1	2.02	0.42
25:P:34:SER:O	25:P:38:GLN:HB2	2.19	0.42
25:P:196:ALA:CB	25:P:227:ILE:CD1	2.91	0.42
26:Q:24:GLU:O	26:Q:28:LEU:HG	2.19	0.42
26:Q:27:TYR:OH	26:Q:54:GLN:CG	2.62	0.42
27:R:34:THR:O	27:R:70:TYR:CE1	2.73	0.42
29:T:59:LYS:CD	29:T:97:SER:HA	2.49	0.42
29:T:59:LYS:HZ3	29:T:97:SER:HA	1.84	0.42
29:T:82:PHE:HB2	29:T:109:TYR:HE1	1.64	0.42
29:T:224:ARG:O	29:T:225:ASN:ND2	2.52	0.42
31:V:280:LEU:HA	31:V:283:THR:HB	2.01	0.42
32:W:9:VAL:HG22	32:W:52:ILE:HD11	2.01	0.42
33:X:47:ASP:OD2	33:X:65:SER:HB3	2.20	0.42
35:Z:850:LEU:CD2	35:Z:901:PHE:CE1	3.02	0.42
35:Z:985:LYS:HB2	35:Z:991:GLU:CG	2.50	0.42
4:4:37:LEU:HA	4:4:60:GLN:HE22	1.85	0.42
5:5:76:VAL:HG12	5:5:113:TYR:CD1	2.53	0.42
8:8:114:MSE:CE	8:8:180:LEU:HA	2.49	0.42
16:G:24:GLU:O	16:G:28:LYS:HG3	2.20	0.42
17:H:304:CYS:SG	17:H:349:ILE:HG12	2.60	0.42
17:H:441:LYS:O	17:H:445:LYS:HG3	2.19	0.42
18:I:354:ASP:C	18:I:354:ASP:OD1	2.57	0.42
19:J:238:ARG:HA	19:J:288:ILE:HD11	2.01	0.42
19:J:350:MET:CG	19:J:386:VAL:HG22	2.50	0.42
22:M:225:GLY:C	22:M:226:THR:CG2	2.88	0.42
24:O:261:GLY:HA3	24:O:288:ARG:HH12	1.85	0.42
26:Q:24:GLU:OE2	26:Q:77:PHE:CE2	2.55	0.42
26:Q:197:SER:O	26:Q:200:ALA:HB3	2.20	0.42
27:R:312:TYR:HE2	34:Y:73:PHE:CD1	2.34	0.42
28:S:320:ILE:HD13	28:S:323:LEU:HD12	2.00	0.42
31:V:24:LYS:NZ	31:V:197:TYR:HE2	2.09	0.42
33:X:75:TRP:CZ3	33:X:125:MET:HB3	2.55	0.42
35:Z:49:LEU:HD11	35:Z:55:ARG:NH2	2.34	0.42
35:Z:188:ALA:O	35:Z:193:PHE:HD2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:321:PHE:CE2	35:Z:351:PRO:N	2.87	0.42
1:1:-5:GLU:N	2:2:116:HIS:CE1	2.86	0.42
1:1:138:CYS:HA	1:1:154:PHE:CZ	2.54	0.42
2:2:8:PHE:CE1	2:2:12:VAL:CA	3.02	0.42
5:5:9:GLN:HA	5:5:146:TRP:CZ2	2.54	0.42
12:C:78:ALA:HB3	12:C:165:VAL:HG23	2.01	0.42
14:E:72:ARG:C	14:E:73:HIS:CG	2.93	0.42
14:E:143:LEU:HD23	14:E:157:HIS:ND1	2.34	0.42
15:F:15:PRO:HG3	16:G:25:TYR:CZ	2.55	0.42
17:H:172:MET:HE3	18:I:129:TYR:CB	2.42	0.42
18:I:188:GLU:HA	18:I:191:ILE:HD12	2.02	0.42
18:I:252:LEU:HD22	18:I:263:LEU:HD23	2.00	0.42
20:K:207:ARG:NE	20:K:307:ASP:O	2.53	0.42
20:K:347:ARG:CD	26:Q:215:VAL:HG13	2.49	0.42
21:L:392:ARG:HH21	22:M:339:ARG:HG3	1.85	0.42
22:M:170:MET:CB	22:M:244:LEU:HD11	2.31	0.42
22:M:309:LEU:HD22	22:M:342:ARG:CG	2.49	0.42
23:N:14:ARG:CZ	23:N:42:GLU:OE1	2.68	0.42
23:N:21:LYS:HE3	23:N:49:LEU:HD21	2.02	0.42
23:N:280:GLN:HG3	23:N:282:TYR:H	1.85	0.42
24:O:258:LEU:HB3	24:O:291:ILE:CG1	2.49	0.42
25:P:263:HIS:NE2	25:P:327:LEU:HB2	2.35	0.42
26:Q:429:LYS:HG2	30:U:292:ILE:CG2	2.49	0.42
27:R:199:GLU:CB	27:R:206:ARG:HE	2.29	0.42
28:S:142:VAL:HA	28:S:145:PHE:CE2	2.54	0.42
28:S:468:ALA:O	28:S:472:HIS:CB	2.66	0.42
29:T:135:ASN:O	29:T:142:LEU:HD12	2.19	0.42
30:U:5:HIS:HD1	30:U:6:GLU:C	2.21	0.42
31:V:251:TYR:O	31:V:255:ILE:HG12	2.19	0.42
35:Z:237:VAL:CG1	35:Z:245:VAL:HG12	2.40	0.42
3:3:169:ASP:CG	3:3:171:LEU:H	2.23	0.42
5:5:126:ILE:HG23	5:5:140:LEU:HD21	2.02	0.42
6:6:17:ASP:OD1	6:6:17:ASP:C	2.58	0.42
6:6:77:ILE:HD11	6:6:102:ILE:HD12	2.02	0.42
9:9:44:ILE:HD13	9:9:49:GLN:HA	2.02	0.42
11:B:37:ILE:HD11	11:B:175:LEU:CD2	2.49	0.42
12:C:54:SER:H	12:C:59:GLN:HE21	1.67	0.42
13:D:32:CYS:SG	13:D:166:ARG:HB3	2.59	0.42
13:D:179:TYR:CE1	13:D:184:PRO:CB	3.03	0.42
13:D:203:VAL:C	13:D:204:GLN:CD	2.76	0.42
14:E:157:HIS:CD2	14:E:170:LYS:CE	3.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:389:PHE:C	17:H:404:TRP:CH2	2.93	0.42
17:H:410:LEU:HB3	17:H:447:VAL:HG11	2.02	0.42
17:H:420:ARG:NE	18:I:343:ARG:NH1	2.68	0.42
18:I:102:ASN:HD21	19:J:83:LYS:HZ1	1.63	0.42
18:I:118:ALA:O	18:I:130:VAL:HG22	2.20	0.42
18:I:250:SER:HA	18:I:253:ILE:CD1	2.50	0.42
18:I:262:ARG:CG	19:J:223:ILE:HD12	2.50	0.42
19:J:208:CYS:HG	19:J:242:PRO:HB2	1.85	0.42
21:L:309:LEU:HD23	21:L:342:ARG:CD	2.22	0.42
22:M:71:ASN:HB3	31:V:75:GLY:HA3	2.02	0.42
23:N:123:PHE:CZ	23:N:129:ILE:HB	2.55	0.42
23:N:195:THR:C	23:N:196:THR:HG23	2.40	0.42
24:O:185:PHE:HB3	24:O:223:LEU:HB2	2.01	0.42
24:O:304:ASN:HB3	24:O:352:TRP:CD1	2.55	0.42
26:Q:115:ILE:HG13	26:Q:144:LEU:HD13	2.02	0.42
29:T:90:PHE:O	29:T:91:SER:HB3	2.20	0.42
30:U:97:PRO:CG	30:U:100:ARG:HH21	2.31	0.42
30:U:158:PRO:O	30:U:159:CYS:CB	2.62	0.42
4:4:179:ILE:HG21	4:4:190:GLN:NE2	2.35	0.41
5:5:174:SER:HA	5:5:193:VAL:HG13	2.02	0.41
13:D:31:THR:OG1	13:D:47:GLU:HB2	2.19	0.41
16:G:204:GLU:HA	16:G:207:LYS:CE	2.37	0.41
17:H:168:ILE:CD1	17:H:186:PRO:HB2	2.50	0.41
17:H:211:VAL:HA	17:H:218:ILE:CD1	2.50	0.41
18:I:380:LEU:HD23	18:I:420:LYS:HZ3	1.85	0.41
20:K:304:ASP:HB2	20:K:333:ARG:NH2	2.34	0.41
21:L:82:ARG:NH1	21:L:86:LYS:NZ	2.69	0.41
21:L:372:GLY:O	21:L:374:PHE:CD1	2.73	0.41
23:N:246:LYS:HE2	23:N:282:TYR:CB	2.50	0.41
23:N:479:GLU:CG	23:N:512:ASN:OD1	2.68	0.41
24:O:83:LEU:CD1	24:O:128:LEU:CD2	2.82	0.41
24:O:116:ASN:HD22	24:O:121:ASP:CB	2.31	0.41
25:P:241:LEU:HD13	25:P:264:ILE:CG1	2.46	0.41
26:Q:265:MET:HE3	26:Q:281:ILE:HG12	2.02	0.41
26:Q:412:ALA:HB2	27:R:400:TYR:CE1	2.51	0.41
27:R:292:LEU:CD2	27:R:307:TYR:HB3	2.49	0.41
27:R:352:SER:O	27:R:357:PHE:CD1	2.73	0.41
28:S:208:ILE:HG23	28:S:209:ILE:N	2.34	0.41
29:T:198:ASP:O	29:T:199:PHE:CD1	2.73	0.41
30:U:92:TRP:CD1	30:U:92:TRP:N	2.88	0.41
30:U:226:LEU:HD23	30:U:226:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:V:44:GLY:HA3	31:V:49:VAL:HG22	2.01	0.41
35:Z:126:TYR:O	35:Z:127:SER:HB3	2.16	0.41
35:Z:471:LEU:C	35:Z:471:LEU:CD2	2.88	0.41
35:Z:534:PHE:O	35:Z:573:LEU:HD22	2.19	0.41
6:6:-7:ASN:OD1	6:6:-5:TYR:HB2	2.20	0.41
7:7:19:LEU:HD21	7:7:21:SER:OG	2.20	0.41
8:8:329:ILE:C	17:H:163:VAL:HG23	2.40	0.41
10:A:199:TRP:HH2	10:A:244:ARG:HH11	1.68	0.41
11:B:139:HIS:CG	11:B:145:PHE:CE1	3.07	0.41
18:I:290:LYS:HB3	18:I:335:ASP:OD2	2.19	0.41
20:K:99:PHE:CZ	20:K:102:PRO:CD	3.04	0.41
20:K:124:SER:O	20:K:127:ASP:CG	2.58	0.41
21:L:198:GLU:HG3	21:L:239:ILE:HD11	2.01	0.41
22:M:189:GLN:OE1	22:M:189:GLN:N	2.47	0.41
22:M:361:LEU:CB	22:M:376:TRP:CE2	2.94	0.41
23:N:190:LEU:HD23	23:N:190:LEU:C	2.40	0.41
23:N:510:HIS:HD1	23:N:512:ASN:H	1.67	0.41
23:N:782:PHE:CE1	23:N:875:LEU:HD22	2.50	0.41
24:O:69:PHE:CZ	24:O:77:SER:HB3	2.55	0.41
24:O:117:ASN:HB3	24:O:166:ARG:HB3	2.01	0.41
24:O:260:VAL:HG12	24:O:262:ASP:CG	2.41	0.41
24:O:277:ILE:CG2	24:O:279:ILE:CA	2.82	0.41
26:Q:237:SER:O	26:Q:240:PHE:HB3	2.19	0.41
28:S:182:LYS:HE3	28:S:309:PHE:CE2	2.56	0.41
28:S:398:THR:OG1	28:S:402:ILE:HD11	2.20	0.41
30:U:127:GLN:CG	31:V:212:MET:HB3	2.51	0.41
32:W:69:PHE:O	32:W:73:LEU:HG	2.20	0.41
32:W:152:GLU:O	32:W:155:ASP:HB2	2.20	0.41
33:X:75:TRP:CE2	33:X:125:MET:HG3	2.50	0.41
35:Z:161:ILE:HD13	35:Z:207:ILE:HD11	2.00	0.41
35:Z:322:GLU:HG2	35:Z:323:TYR:CD2	2.56	0.41
35:Z:357:ILE:HG12	35:Z:960:GLY:CA	2.47	0.41
35:Z:610:GLY:C	35:Z:748:LEU:HD13	2.35	0.41
5:5:12:ILE:O	5:5:179:HIS:HD2	2.03	0.41
5:5:61:SER:HA	5:5:64:ARG:NH2	2.36	0.41
5:5:83:LEU:HD11	5:5:97:MET:SD	2.61	0.41
10:A:87:ILE:HD13	16:G:157:TRP:CH2	2.55	0.41
16:G:94:GLU:CD	16:G:118:TYR:OH	2.56	0.41
16:G:107:PRO:HD2	16:G:110:ALA:CB	2.50	0.41
20:K:280:LYS:HE2	20:K:325:ASP:OD2	2.19	0.41
21:L:111:GLU:CG	21:L:117:TYR:CD2	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:L:163:THR:HG21	21:L:269:TYR:CD2	2.55	0.41
23:N:517:LEU:O	23:N:521:LEU:HG	2.20	0.41
24:O:88:ASP:OD2	24:O:206:THR:HG21	2.20	0.41
26:Q:416:VAL:CG2	27:R:403:LEU:HD22	2.44	0.41
27:R:71:LEU:HD12	27:R:76:GLN:HB2	2.01	0.41
28:S:223:LEU:HD22	28:S:259:TYR:CE1	2.55	0.41
28:S:364:ILE:HG23	28:S:371:LEU:CD1	2.50	0.41
29:T:35:ILE:HA	29:T:40:LEU:HD11	2.02	0.41
30:U:32:ARG:NH1	30:U:103:ASP:OD1	2.46	0.41
34:Y:83:ARG:O	34:Y:87:GLU:HG3	2.20	0.41
35:Z:214:HIS:O	35:Z:214:HIS:CG	2.72	0.41
35:Z:471:LEU:HD23	35:Z:471:LEU:O	2.20	0.41
35:Z:809:MET:SD	35:Z:893:PHE:HB2	2.61	0.41
5:5:104:TYR:CD1	5:5:182:GLU:HA	2.55	0.41
7:7:195:ASN:C	7:7:196:THR:HG23	2.40	0.41
14:E:165:TYR:HB3	14:E:167:TYR:CZ	2.53	0.41
14:E:231:TYR:CZ	14:E:235:LYS:C	2.94	0.41
18:I:167:MET:HG2	18:I:270:VAL:HG11	2.00	0.41
18:I:358:LYS:HG2	18:I:392:ILE:HD11	2.00	0.41
19:J:320:SER:O	19:J:324:ARG:HG3	2.20	0.41
19:J:374:ARG:HH11	19:J:378:THR:CG2	2.34	0.41
20:K:152:PRO:HB3	20:K:259:ARG:HD2	2.03	0.41
20:K:244:HIS:CE1	20:K:250:GLY:H	2.39	0.41
23:N:246:LYS:HZ1	23:N:280:GLN:HB2	1.83	0.41
23:N:539:MET:HE3	23:N:547:LEU:HA	2.02	0.41
24:O:188:PHE:CD2	24:O:220:SER:CB	2.93	0.41
27:R:30:ALA:O	27:R:34:THR:HG23	2.20	0.41
27:R:63:TYR:CZ	27:R:92:ILE:O	2.72	0.41
28:S:377:TYR:CD2	29:T:132:HIS:CD2	3.08	0.41
32:W:168:THR:O	32:W:169:SER:OG	2.38	0.41
33:X:46:TRP:CH2	33:X:131:ASN:CB	3.03	0.41
35:Z:189:ALA:O	35:Z:190:THR:HB	2.21	0.41
35:Z:253:VAL:HG13	35:Z:264:PHE:HE2	1.86	0.41
35:Z:473:LEU:O	35:Z:477:TYR:CD2	2.73	0.41
35:Z:617:ILE:CD1	35:Z:747:ALA:HB2	2.50	0.41
2:2:213:LEU:HB2	3:3:192:LYS:HB2	2.03	0.41
8:8:317:PHE:HA	9:9:73:LEU:HD21	1.38	0.41
12:C:198:SER:HA	12:C:206:LEU:HD22	2.03	0.41
13:D:11:PHE:HE1	14:E:136:ARG:HD2	1.85	0.41
13:D:208:LYS:HG2	13:D:226:SER:HB3	2.02	0.41
15:F:11:VAL:HG21	16:G:126:ASN:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:40:SER:HA	15:F:180:ILE:HA	2.02	0.41
15:F:215:ILE:HG13	15:F:220:THR:CG2	2.45	0.41
16:G:197:LYS:HD3	16:G:241:PHE:HE2	1.83	0.41
17:H:318:ARG:HH11	17:H:364:ALA:HB3	1.85	0.41
17:H:414:SER:HA	17:H:418:GLU:OE2	2.20	0.41
18:I:266:GLN:NE2	19:J:223:ILE:HG21	2.35	0.41
19:J:182:PRO:O	19:J:286:LYS:NZ	2.45	0.41
20:K:268:ILE:HD13	20:K:313:LYS:HB2	2.03	0.41
23:N:406:TYR:CD1	23:N:448:LEU:CB	3.04	0.41
24:O:356:ARG:CZ	24:O:362:GLN:HG3	2.48	0.41
25:P:135:GLU:HG3	25:P:138:ARG:HH22	1.86	0.41
25:P:345:VAL:HG13	25:P:346:ILE:N	2.36	0.41
26:Q:419:LEU:O	26:Q:423:VAL:HG23	2.21	0.41
27:R:207:ARG:HH12	27:R:211:LYS:HZ2	1.65	0.41
28:S:211:ARG:NE	28:S:240:ASP:CB	2.83	0.41
29:T:68:ALA:O	29:T:72:THR:HG23	2.21	0.41
29:T:216:GLU:HG3	29:T:220:PHE:CE1	2.23	0.41
30:U:175:LEU:HD23	31:V:205:LYS:NZ	2.36	0.41
31:V:78:VAL:C	31:V:121:VAL:CG1	2.89	0.41
31:V:133:ASN:HD22	31:V:136:ALA:CB	2.32	0.41
31:V:168:LEU:HD12	31:V:182:LYS:HZ3	1.85	0.41
35:Z:381:LEU:O	35:Z:385:PHE:HD2	2.04	0.41
2:2:69:TYR:CE2	11:B:87:ASP:OD2	2.74	0.41
2:2:186:TYR:CZ	2:2:188:ARG:HB2	2.56	0.41
2:2:188:ARG:HG2	2:2:189:ASN:ND2	2.36	0.41
5:5:32:LYS:CD	5:5:45:MET:CE	2.97	0.41
7:7:59:LEU:HD23	7:7:62:LEU:HD12	2.01	0.41
10:A:162:TYR:CD1	20:K:428:LYS:HD2	2.56	0.41
17:H:449:LYS:HZ3	18:I:346:ARG:HH11	1.61	0.41
18:I:199:GLU:HA	18:I:240:THR:CG2	2.51	0.41
18:I:262:ARG:CG	19:J:223:ILE:HG21	2.50	0.41
18:I:406:GLU:O	18:I:407:ARG:HB2	2.21	0.41
19:J:339:ARG:NH1	27:R:168:ILE:HG13	2.35	0.41
20:K:99:PHE:CE1	20:K:101:GLU:C	2.92	0.41
20:K:215:PRO:HA	20:K:219:LYS:HE2	2.00	0.41
21:L:111:GLU:CG	21:L:117:TYR:CE2	3.03	0.41
23:N:717:LEU:HD23	23:N:730:VAL:HG22	2.03	0.41
24:O:377:VAL:HG13	30:U:193:GLN:CD	2.40	0.41
25:P:143:LEU:HG	25:P:147:LYS:HE3	2.03	0.41
25:P:360:ILE:HG12	25:P:402:PHE:HE2	1.77	0.41
26:Q:299:MET:HE1	26:Q:335:PHE:CZ	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Q:347:LEU:O	26:Q:351:ILE:HG12	2.21	0.41
28:S:341:SER:O	28:S:344:PRO:CG	2.62	0.41
29:T:38:ASN:O	29:T:39:LEU:HG	2.20	0.41
30:U:141:GLU:HG2	30:U:142:GLN:N	2.35	0.41
35:Z:64:TYR:CE1	35:Z:111:LEU:O	2.74	0.41
35:Z:188:ALA:HB1	35:Z:200:THR:HG22	2.02	0.41
35:Z:340:LEU:HD12	35:Z:340:LEU:C	2.41	0.41
35:Z:916:LEU:HD23	35:Z:922:PRO:HB3	2.03	0.41
1:1:64:GLU:OE1	10:A:105:ARG:HD2	2.21	0.41
2:2:104:ASP:OD1	2:2:107:GLY:N	2.54	0.41
3:3:-2:ASN:CA	3:3:19:ARG:HH12	2.33	0.41
10:A:205:PHE:CZ	10:A:209:HIS:NE2	2.88	0.41
11:B:217:GLU:OE2	11:B:234:ARG:NH2	2.54	0.41
12:C:160:TRP:CZ2	12:C:163:ILE:HD11	2.54	0.41
16:G:150:LEU:CD1	16:G:156:TYR:HB3	2.48	0.41
17:H:295:PHE:CZ	17:H:336:LEU:HD12	2.56	0.41
17:H:382:LEU:HD21	17:H:409:ARG:CZ	2.51	0.41
19:J:37:LYS:CG	20:K:58:TYR:HE1	2.34	0.41
22:M:75:LEU:HD12	22:M:77:TYR:CG	2.52	0.41
22:M:162:GLU:HB2	22:M:166:ARG:HH21	1.86	0.41
22:M:379:LEU:CD1	22:M:415:PHE:CD1	3.01	0.41
23:N:158:LEU:HD13	23:N:192:LEU:HD22	2.01	0.41
23:N:497:ALA:O	23:N:501:MET:HG3	2.20	0.41
23:N:645:THR:CG2	23:N:660:LEU:HD11	2.50	0.41
23:N:771:PHE:HE2	23:N:885:ILE:HG21	1.84	0.41
24:O:25:LEU:O	24:O:29:PHE:CB	2.69	0.41
24:O:79:VAL:CG1	24:O:118:GLY:CA	2.87	0.41
24:O:124:ASP:OD1	24:O:126:ILE:N	2.54	0.41
24:O:240:GLU:O	24:O:241:THR:CB	2.69	0.41
25:P:203:ILE:HG23	25:P:220:TYR:CD1	2.53	0.41
25:P:213:TYR:CD2	25:P:217:LYS:CE	3.04	0.41
25:P:269:VAL:HA	25:P:277:GLN:HE21	1.86	0.41
27:R:255:VAL:HG11	27:R:322:LEU:HD13	2.03	0.41
27:R:316:LEU:HD22	27:R:322:LEU:HB3	2.02	0.41
29:T:197:TYR:CD1	29:T:235:PHE:HB2	2.55	0.41
30:U:92:TRP:CE2	30:U:120:LEU:CD1	2.96	0.41
31:V:83:VAL:HG11	31:V:107:TRP:HH2	1.85	0.41
32:W:21:PHE:HE1	32:W:144:PHE:CE1	2.07	0.41
33:X:22:ARG:NE	33:X:96:ARG:HH12	2.17	0.41
35:Z:176:GLU:HB3	35:Z:177:THR:HG23	2.03	0.41
35:Z:453:LEU:HD11	35:Z:899:GLN:CB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:Z:857:LEU:CD1	35:Z:908:ILE:HG13	2.32	0.41
35:Z:970:TYR:CZ	35:Z:993:GLU:N	2.89	0.41
4:4:6:ILE:CD1	4:4:159:LEU:HD23	2.50	0.41
4:4:26:VAL:HG12	4:4:28:LYS:C	2.39	0.41
8:8:329:ILE:HG23	17:H:163:VAL:HG21	2.03	0.41
8:8:448:TYR:CE1	9:9:75:GLY:HA3	2.55	0.41
8:8:490:LEU:CD1	9:9:73:LEU:HD12	2.51	0.41
12:C:148:LEU:HB3	12:C:160:TRP:O	2.21	0.41
12:C:164:SER:HB2	12:C:169:THR:HG23	2.03	0.41
13:D:179:TYR:CZ	13:D:184:PRO:HB3	2.55	0.41
14:E:201:LEU:CD1	14:E:239:LEU:CG	2.78	0.41
15:F:74:LEU:C	15:F:74:LEU:HD12	2.41	0.41
18:I:100:ARG:HH21	19:J:95:ILE:CD1	2.33	0.41
18:I:197:SER:OG	18:I:219:VAL:HG11	2.20	0.41
19:J:159:GLU:O	19:J:163:VAL:HG23	2.20	0.41
20:K:96:ILE:CG1	21:L:128:ILE:HG13	2.50	0.41
20:K:100:LEU:HB2	20:K:109:ILE:HG23	2.03	0.41
21:L:107:GLU:O	21:L:109:MET:HE2	2.21	0.41
22:M:162:GLU:CB	22:M:166:ARG:HE	2.32	0.41
24:O:87:LYS:HD2	24:O:135:ARG:HD3	2.03	0.41
24:O:260:VAL:CG1	24:O:262:ASP:CG	2.88	0.41
26:Q:326:MET:HE3	26:Q:332:ARG:CG	2.51	0.41
27:R:50:VAL:O	27:R:54:ILE:HG23	2.21	0.41
31:V:265:GLU:HG2	31:V:269:ARG:HE	1.86	0.41
32:W:101:ARG:NH1	32:W:104:LYS:HA	2.36	0.41
32:W:168:THR:CG2	32:W:169:SER:HB3	2.39	0.41
35:Z:60:ASP:OD2	35:Z:63:LEU:HD12	2.21	0.41
35:Z:493:LEU:CD1	35:Z:497:PHE:HD2	2.18	0.41
35:Z:612:GLY:HA2	35:Z:616:LEU:CD1	2.50	0.41
35:Z:888:LEU:N	35:Z:894:MET:SD	2.90	0.41
1:1:6:VAL:O	1:1:13:ILE:HG22	2.21	0.41
1:1:45:ARG:NH2	1:1:52:THR:C	2.70	0.41
1:1:90:LYS:NZ	7:7:-7:GLN:HB3	2.35	0.41
9:9:71:LEU:HB3	9:9:72:ARG:H	1.55	0.41
11:B:140:ASP:CG	11:B:143:ASN:HB2	2.41	0.41
13:D:47:GLU:OE2	13:D:203:VAL:HG22	2.20	0.41
14:E:166:ARG:C	14:E:167:TYR:CD1	2.94	0.41
14:E:208:MET:HE1	14:E:212:LEU:HA	2.02	0.41
15:F:72:LEU:HD12	15:F:72:LEU:C	2.40	0.41
15:F:87:TYR:O	15:F:91:GLN:HG3	2.21	0.41
15:F:154:THR:HG22	15:F:156:LEU:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:155:GLU:C	15:F:156:LEU:HD12	2.41	0.41
16:G:140:VAL:CG2	16:G:225:GLY:HA2	2.49	0.41
16:G:146:HIS:ND1	16:G:148:TYR:OH	2.41	0.41
16:G:170:SER:HB3	16:G:201:LEU:HG	2.02	0.41
16:G:176:GLU:O	16:G:179:VAL:HG12	2.21	0.41
17:H:175:GLY:N	17:H:183:ILE:HB	2.36	0.41
17:H:208:TYR:H	17:H:262:ALA:CB	2.33	0.41
19:J:252:SER:CA	19:J:258:VAL:HG22	2.51	0.41
19:J:266:SER:O	19:J:270:ARG:HG3	2.21	0.41
20:K:280:LYS:HG2	20:K:325:ASP:OD2	2.20	0.41
22:M:75:LEU:HD21	22:M:77:TYR:CE1	2.50	0.41
23:N:447:SER:O	23:N:450:ILE:HG22	2.21	0.41
24:O:8:ASP:OD1	24:O:41:LEU:HD23	2.21	0.41
24:O:47:LYS:CE	24:O:65:PHE:HE2	2.31	0.41
24:O:87:LYS:HD3	24:O:135:ARG:HD2	2.02	0.41
24:O:292:CYS:SG	24:O:317:THR:OG1	2.72	0.41
24:O:362:GLN:NE2	30:U:223:HIS:N	2.69	0.41
24:O:379:LYS:HE2	24:O:383:LYS:HZ2	1.85	0.41
25:P:132:VAL:C	25:P:171:MET:HE1	2.41	0.41
25:P:234:TYR:O	25:P:267:PHE:HE2	2.04	0.41
25:P:281:ILE:CG1	25:P:300:VAL:HG21	2.43	0.41
25:P:311:TRP:CH2	25:P:338:TRP:CD1	3.08	0.41
25:P:435:LYS:NZ	30:U:153:THR:HA	2.36	0.41
26:Q:317:ALA:O	26:Q:321:TYR:HB2	2.21	0.41
27:R:51:LEU:O	27:R:55:LYS:HG2	2.21	0.41
27:R:79:LEU:HB2	27:R:93:LYS:CE	2.51	0.41
27:R:304:TYR:CE1	27:R:337:VAL:HG11	2.55	0.41
28:S:185:PHE:CD1	28:S:239:ARG:NE	2.89	0.41
28:S:230:LYS:HZ1	28:S:256:LYS:HE2	1.86	0.41
29:T:72:THR:O	29:T:73:PHE:HB2	2.21	0.41
31:V:37:MET:HE3	31:V:139:VAL:CG1	2.51	0.41
31:V:93:ASP:O	31:V:97:GLN:HG3	2.21	0.41
32:W:60:ARG:HD2	32:W:60:ARG:C	2.40	0.41
33:X:24:CYS:CB	33:X:79:LYS:O	2.69	0.41
35:Z:237:VAL:HB	35:Z:275:GLN:OE1	2.20	0.41
35:Z:396:ASN:OD1	35:Z:396:ASN:O	2.38	0.41
35:Z:439:TYR:O	35:Z:447:VAL:HG12	2.21	0.41
35:Z:490:ILE:HD11	35:Z:523:ALA:HA	2.02	0.41
1:1:8:PHE:CE2	1:1:10:ASP:N	2.88	0.41
5:5:120:THR:CG2	5:5:122:LEU:HG	2.49	0.41
6:6:-2:ASN:ND2	6:6:48:PHE:CD1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:271:PHE:HE1	17:H:273:ARG:CB	2.20	0.41
17:H:389:PHE:CB	17:H:404:TRP:CZ3	2.80	0.41
18:I:215:PRO:HA	18:I:216:PRO:HD3	1.94	0.41
18:I:362:LEU:CD2	18:I:377:LEU:CD2	2.96	0.41
18:I:377:LEU:O	18:I:381:VAL:HG23	2.21	0.41
19:J:115:LEU:CD2	19:J:116:ARG:O	2.66	0.41
19:J:362:CYS:HA	19:J:382:PHE:HE1	1.85	0.41
20:K:240:SER:N	21:L:306:MET:HE1	2.14	0.41
21:L:298:ASP:HA	21:L:301:ILE:HD12	2.03	0.41
22:M:292:ASP:C	22:M:292:ASP:OD1	2.59	0.41
23:N:28:ILE:CG2	23:N:64:ILE:HD13	2.51	0.41
24:O:62:TYR:CE2	24:O:66:VAL:CG2	3.04	0.41
25:P:218:LEU:O	25:P:221:TYR:HB2	2.21	0.41
26:Q:186:HIS:HE1	26:Q:228:GLU:HG3	1.85	0.41
29:T:132:HIS:O	29:T:136:LEU:HG	2.21	0.41
30:U:107:ASN:O	30:U:111:LYS:HG3	2.20	0.41
35:Z:303:ASP:C	35:Z:303:ASP:OD1	2.59	0.41
35:Z:382:ALA:O	35:Z:386:VAL:HG23	2.20	0.41
35:Z:741:LEU:HD22	35:Z:782:ILE:HD12	2.02	0.41
1:1:72:THR:HG23	1:1:72:THR:O	2.21	0.40
7:7:28:PHE:HB3	7:7:31:VAL:HG23	2.04	0.40
7:7:51:ASP:OD2	7:7:103:TRP:HB3	2.20	0.40
7:7:116:ASP:C	7:7:116:ASP:OD1	2.58	0.40
7:7:121:TYR:CD1	7:7:129:TYR:CE1	3.08	0.40
10:A:70:SER:O	10:A:71:TYR:CG	2.74	0.40
10:A:135:ARG:CZ	16:G:124:LEU:HD23	2.51	0.40
10:A:157:THR:HG22	10:A:163:TYR:HB2	2.02	0.40
12:C:111:LEU:O	12:C:115:LEU:HG	2.22	0.40
13:D:176:GLU:CG	14:E:58:LEU:CD1	3.00	0.40
15:F:201:LEU:O	15:F:202:ARG:CG	2.69	0.40
18:I:361:ILE:O	18:I:365:HIS:HD2	2.04	0.40
20:K:280:LYS:NZ	20:K:293:GLN:HG2	2.36	0.40
21:L:249:SER:O	21:L:252:VAL:HB	2.21	0.40
21:L:336:ALA:CB	21:L:339:ARG:HH21	2.34	0.40
21:L:357:ARG:NE	21:L:380:VAL:HG13	2.32	0.40
23:N:463:TYR:CE2	23:N:485:MET:SD	3.14	0.40
23:N:638:ILE:HD12	23:N:664:LEU:HD11	2.03	0.40
24:O:356:ARG:HE	24:O:362:GLN:HG3	1.85	0.40
24:O:359:SER:O	24:O:363:ILE:CD1	2.69	0.40
26:Q:135:HIS:CD2	26:Q:164:GLU:HG3	2.56	0.40
27:R:169:ASP:O	27:R:173:THR:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:U:94:HIS:HD1	30:U:96:GLY:N	2.18	0.40
32:W:139:VAL:HG13	32:W:169:SER:HA	2.01	0.40
2:2:149:GLU:HG2	2:2:153:LYS:HE3	2.03	0.40
5:5:114:TYR:CE1	5:5:129:VAL:HG11	2.51	0.40
6:6:77:ILE:HG23	6:6:78:ASN:N	2.35	0.40
12:C:50:ARG:HD2	12:C:212:GLU:CD	2.42	0.40
21:L:70:TYR:CD2	22:M:45:ARG:HG3	2.56	0.40
21:L:140:LEU:HD23	21:L:158:ILE:HG12	2.03	0.40
22:M:167:VAL:HG23	22:M:167:VAL:O	2.21	0.40
22:M:257:GLY:O	22:M:260:ALA:CB	2.68	0.40
23:N:782:PHE:CE1	23:N:875:LEU:CD2	3.04	0.40
24:O:287:LEU:HD23	24:O:287:LEU:O	2.21	0.40
24:O:294:MET:SD	24:O:357:ILE:CG2	3.10	0.40
25:P:425:HIS:HD2	30:U:225:ILE:HG12	1.81	0.40
26:Q:138:SER:HB2	26:Q:161:LEU:CD1	2.50	0.40
27:R:376:GLN:O	27:R:377:LEU:HB2	2.21	0.40
27:R:422:ARG:NH2	28:S:299:LYS:HB3	2.36	0.40
35:Z:963:ALA:O	35:Z:964:GLU:HG3	2.21	0.40
2:2:8:PHE:CZ	2:2:11:GLY:C	2.95	0.40
2:2:104:ASP:OD1	2:2:106:THR:N	2.54	0.40
8:8:114:MSE:HE1	8:8:180:LEU:HA	2.03	0.40
13:D:30:GLY:HA2	18:I:436:TYR:CD2	2.56	0.40
16:G:46:VAL:CG1	16:G:215:ILE:HD11	2.51	0.40
19:J:218:LEU:HG	19:J:230:VAL:HG22	2.04	0.40
20:K:396:ARG:HH11	21:L:215:PRO:HG3	1.86	0.40
21:L:104:LEU:HD12	22:M:127:VAL:HA	2.03	0.40
23:N:19:SER:HB3	29:T:35:ILE:CG1	2.52	0.40
23:N:235:ALA:O	23:N:238:ALA:HB3	2.21	0.40
23:N:301:THR:OG1	23:N:920:VAL:HG13	2.21	0.40
23:N:399:PHE:CE1	23:N:441:VAL:HB	2.50	0.40
23:N:490:LEU:CD1	23:N:731:VAL:HG21	2.51	0.40
24:O:118:GLY:C	24:O:166:ARG:HG2	2.32	0.40
25:P:177:ILE:CD1	25:P:216:LEU:HD22	2.52	0.40
25:P:202:LYS:HE2	25:P:206:LYS:CE	2.52	0.40
25:P:270:LEU:HD22	25:P:340:ASP:CB	2.41	0.40
26:Q:31:LEU:CD2	26:Q:50:ARG:NH2	2.84	0.40
26:Q:135:HIS:HB3	26:Q:161:LEU:CD2	2.36	0.40
27:R:258:LEU:CD1	27:R:266:LEU:CD1	2.98	0.40
27:R:285:ALA:HB3	27:R:314:ASN:HD22	1.86	0.40
28:S:315:LYS:CG	28:S:345:TYR:OH	2.64	0.40
28:S:435:LYS:HZ1	29:T:238:GLN:CD	2.11	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:T:144:TYR:HD2	29:T:169:GLN:HE21	1.69	0.40
29:T:216:GLU:HG2	29:T:220:PHE:CD1	2.53	0.40
35:Z:227:ILE:O	35:Z:227:ILE:HG22	2.21	0.40
35:Z:970:TYR:CZ	35:Z:993:GLU:CA	3.05	0.40
1:1:143:ARG:H	1:1:146:MET:CE	2.33	0.40
3:3:60:TYR:CD1	12:C:96:GLN:CG	3.05	0.40
5:5:150:VAL:CG2	5:5:179:HIS:ND1	2.84	0.40
6:6:3:ILE:HG13	6:6:101:ILE:HD12	2.03	0.40
6:6:20:ASN:HB3	6:6:28:SER:HB3	2.04	0.40
7:7:90:THR:O	7:7:94:GLN:HG3	2.21	0.40
9:9:55:THR:O	9:9:58:ASP:HB2	2.21	0.40
10:A:104:PHE:HE2	10:A:111:ASP:C	2.23	0.40
11:B:12:PHE:CZ	12:C:129:ARG:NH2	2.79	0.40
11:B:178:ARG:HD3	11:B:191:ILE:HG23	2.04	0.40
13:D:11:PHE:HA	13:D:17:ILE:HD13	2.02	0.40
16:G:140:VAL:HB	16:G:220:LEU:CD2	2.50	0.40
17:H:340:LEU:CD1	17:H:370:ARG:HD2	2.51	0.40
19:J:364:GLU:CD	19:J:388:LYS:HD3	2.42	0.40
20:K:200:GLN:NE2	27:R:204:TRP:CH2	2.87	0.40
21:L:114:GLU:HA	21:L:117:TYR:OH	2.22	0.40
22:M:186:LEU:HD13	22:M:231:LEU:HG	2.03	0.40
22:M:361:LEU:O	22:M:376:TRP:CE2	2.74	0.40
24:O:305:ILE:CG2	24:O:306:ARG:N	2.85	0.40
25:P:259:PRO:O	25:P:263:HIS:ND1	2.23	0.40
25:P:265:VAL:HA	25:P:280:LEU:HD23	2.03	0.40
25:P:342:GLN:O	25:P:346:ILE:HG13	2.21	0.40
25:P:346:ILE:HG21	25:P:379:TYR:CD2	2.57	0.40
26:Q:51:ARG:O	26:Q:54:GLN:HB3	2.22	0.40
26:Q:220:LEU:O	26:Q:224:ILE:HG13	2.21	0.40
27:R:43:ARG:HE	27:R:70:TYR:HH	1.61	0.40
27:R:71:LEU:HA	27:R:76:GLN:HB2	2.04	0.40
28:S:425:ARG:HG3	28:S:429:ASP:OD2	2.21	0.40
29:T:190:ALA:HB1	29:T:224:ARG:CD	2.51	0.40
29:T:193:THR:HG22	29:T:235:PHE:CE2	2.56	0.40
30:U:273:LEU:CG	30:U:277:TYR:CZ	3.03	0.40
31:V:109:HIS:H	31:V:140:VAL:HG22	1.87	0.40
32:W:162:ASN:O	32:W:163:ASN:CG	2.60	0.40
35:Z:357:ILE:O	35:Z:361:HIS:HB2	2.21	0.40
35:Z:551:LEU:HD11	35:Z:591:ILE:HG23	1.98	0.40
1:1:19:ARG:CZ	1:1:29:ARG:HA	2.49	0.40
1:1:60:GLN:O	1:1:64:GLU:HG3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:112:THR:CG2	7:7:27:ARG:NH2	2.84	0.40
2:2:75:ARG:NH2	10:A:110:TYR:HB3	2.37	0.40
2:2:109:HIS:CB	2:2:111:PHE:HE2	2.12	0.40
5:5:8:PHE:CE1	5:5:13:ILE:CD1	3.05	0.40
5:5:95:LEU:HD13	5:5:95:LEU:C	2.41	0.40
10:A:30:TYR:O	16:G:14:PHE:HE2	2.04	0.40
12:C:33:GLY:HA3	12:C:65:LYS:HZ3	1.82	0.40
14:E:157:HIS:HD2	14:E:170:LYS:HZ1	1.68	0.40
15:F:16:THR:OG1	15:F:18:ARG:O	2.40	0.40
15:F:40:SER:O	15:F:41:ASN:CG	2.60	0.40
18:I:404:LEU:HD21	19:J:166:LEU:HD13	2.03	0.40
19:J:126:LEU:HD21	20:K:103:ILE:CD1	2.52	0.40
20:K:404:GLN:O	20:K:408:GLU:HG3	2.22	0.40
21:L:201:LEU:HG	21:L:322:LYS:HE2	2.03	0.40
22:M:221:TYR:CE1	22:M:346:LYS:HG3	2.53	0.40
22:M:306:LEU:HG	22:M:310:ASN:HD21	1.86	0.40
23:N:21:LYS:HE3	23:N:55:PHE:CD2	2.57	0.40
24:O:134:ALA:CB	24:O:153:LEU:HD21	2.51	0.40
24:O:147:ARG:NH2	24:O:178:TYR:OH	2.53	0.40
24:O:178:TYR:CZ	24:O:182:LYS:HD2	2.57	0.40
25:P:55:SER:OG	25:P:57:GLU:HB3	2.22	0.40
25:P:204:LEU:HD13	25:P:220:TYR:HE2	1.86	0.40
25:P:299:LEU:HA	25:P:302:LEU:HD12	2.02	0.40
29:T:35:ILE:HG23	29:T:36:LYS:N	2.36	0.40
30:U:38:LEU:CG	30:U:87:GLU:HG2	2.51	0.40
30:U:92:TRP:NE1	30:U:120:LEU:CB	2.84	0.40
31:V:78:VAL:HG12	31:V:78:VAL:O	2.21	0.40
33:X:66:LEU:HD13	33:X:99:PHE:HE1	1.74	0.40
35:Z:132:HIS:C	35:Z:137:TYR:CE1	2.95	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	1	203/215 (94%)	189 (93%)	13 (6%)	1 (0%)	25	64
2	2	221/261 (85%)	207 (94%)	10 (4%)	4 (2%)	7	35
3	3	202/205 (98%)	188 (93%)	12 (6%)	2 (1%)	13	49
4	4	196/198 (99%)	181 (92%)	13 (7%)	2 (1%)	13	49
5	5	210/287 (73%)	194 (92%)	11 (5%)	5 (2%)	5	27
6	6	220/241 (91%)	206 (94%)	11 (5%)	3 (1%)	9	41
7	7	231/266 (87%)	208 (90%)	16 (7%)	7 (3%)	3	23
8	8	368/416 (88%)	364 (99%)	4 (1%)	0	100	100
9	9	74/76 (97%)	71 (96%)	3 (4%)	0	100	100
10	A	241/252 (96%)	217 (90%)	20 (8%)	4 (2%)	7	37
11	B	248/250 (99%)	227 (92%)	15 (6%)	6 (2%)	5	27
12	C	243/258 (94%)	224 (92%)	16 (7%)	3 (1%)	11	44
13	D	240/254 (94%)	221 (92%)	16 (7%)	3 (1%)	10	43
14	E	241/260 (93%)	225 (93%)	13 (5%)	3 (1%)	11	44
15	F	231/234 (99%)	209 (90%)	19 (8%)	3 (1%)	10	43
16	G	243/288 (84%)	224 (92%)	16 (7%)	3 (1%)	11	44
17	H	353/467 (76%)	298 (84%)	36 (10%)	19 (5%)	1	15
18	I	358/437 (82%)	326 (91%)	25 (7%)	7 (2%)	6	32
19	J	367/405 (91%)	337 (92%)	21 (6%)	9 (2%)	4	26
20	K	377/428 (88%)	336 (89%)	29 (8%)	12 (3%)	3	21
21	L	357/437 (82%)	326 (91%)	18 (5%)	13 (4%)	3	20
22	M	363/434 (84%)	322 (89%)	29 (8%)	12 (3%)	3	21
23	N	843/945 (89%)	786 (93%)	37 (4%)	20 (2%)	5	27
24	O	385/393 (98%)	309 (80%)	44 (11%)	32 (8%)	0	9
25	P	413/445 (93%)	374 (91%)	22 (5%)	17 (4%)	2	18
26	Q	429/434 (99%)	390 (91%)	28 (6%)	11 (3%)	4	26
27	R	398/429 (93%)	345 (87%)	36 (9%)	17 (4%)	2	17
28	S	351/523 (67%)	308 (88%)	31 (9%)	12 (3%)	3	21
29	T	270/274 (98%)	235 (87%)	16 (6%)	19 (7%)	1	11
30	U	245/338 (72%)	226 (92%)	9 (4%)	10 (4%)	2	18
31	V	239/306 (78%)	212 (89%)	18 (8%)	9 (4%)	2	19
32	W	193/268 (72%)	156 (81%)	17 (9%)	20 (10%)	0	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	X	125/156 (80%)	101 (81%)	19 (15%)	5 (4%)	2	18
34	Y	17/89 (19%)	17 (100%)	0	0	100	100
35	Z	807/993 (81%)	690 (86%)	68 (8%)	49 (6%)	1	13
All	All	10502/12162 (86%)	9449 (90%)	711 (7%)	342 (3%)	5	21

All (342) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	4	150	ASP
11	B	203	GLU
13	D	31	THR
13	D	204	GLN
17	H	183	ILE
17	H	185	LEU
17	H	188	PRO
17	H	303	ALA
18	I	125	MET
18	I	430	GLU
19	J	151	GLY
19	J	249	GLU
19	J	310	ILE
20	K	281	ARG
20	K	283	ASP
20	K	366	ALA
21	L	81	ILE
21	L	134	SER
21	L	170	MET
21	L	282	GLU
21	L	297	ALA
22	M	252	VAL
22	M	258	GLU
22	M	433	TYR
23	N	16	ASN
23	N	53	ASP
23	N	415	PHE
23	N	915	ALA
24	O	20	PRO
24	O	43	GLU
24	O	73	ILE
24	O	82	LEU
24	O	103	LYS

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Mol	Chain	Res	Type
24	O	107	GLN
24	O	243	VAL
24	O	277	ILE
24	O	304	ASN
24	O	338	LYS
24	O	340	SER
24	O	345	ASN
24	O	358	ILE
25	P	232	ARG
26	Q	149	LYS
26	Q	402	THR
26	Q	404	ASN
27	R	203	ASP
27	R	240	SER
28	S	328	PRO
29	T	5	ALA
29	T	156	SER
29	T	239	SER
29	T	245	TYR
29	T	251	HIS
30	U	7	LYS
30	U	86	LYS
30	U	87	GLU
30	U	113	TYR
30	U	161	ILE
31	V	45	VAL
31	V	48	GLU
31	V	61	TYR
31	V	117	TRP
31	V	135	ARG
32	W	11	ASP
32	W	12	ASN
32	W	18	ASN
32	W	59	PRO
32	W	147	ILE
32	W	179	ARG
32	W	183	GLU
32	W	192	LEU
33	X	29	VAL
33	X	41	GLU
35	Z	82	MET
35	Z	127	SER

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Mol	Chain	Res	Type
35	Z	134	SER
35	Z	187	SER
35	Z	189	ALA
35	Z	193	PHE
35	Z	277	GLU
35	Z	318	LYS
35	Z	337	GLU
35	Z	353	VAL
35	Z	430	LEU
35	Z	553	ARG
35	Z	558	LEU
35	Z	787	ASP
35	Z	825	ALA
35	Z	955	VAL
35	Z	966	GLU
2	2	31	CYS
5	5	19	ARG
5	5	46	ALA
5	5	208	ASN
7	7	77	GLU
7	7	152	ASP
10	A	160	ALA
11	B	181	ASP
13	D	7	ALA
14	E	249	ALA
15	F	11	VAL
15	F	103	LEU
17	H	179	SER
17	H	323	ALA
19	J	354	SER
19	J	395	GLU
20	K	422	ASP
21	L	290	ARG
23	N	50	TYR
23	N	128	ILE
23	N	249	ASN
23	N	324	LYS
23	N	394	ARG
23	N	395	ALA
23	N	745	LEU
24	O	18	ALA
24	O	58	ARG

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Mol	Chain	Res	Type
24	O	120	LYS
24	O	346	GLU
25	P	47	ARG
25	P	133	GLU
25	P	231	LYS
25	P	283	LYS
25	P	289	ASN
25	P	321	VAL
25	P	328	ALA
26	Q	38	SER
26	Q	128	GLU
26	Q	131	VAL
26	Q	189	ARG
26	Q	387	TYR
26	Q	403	PRO
27	R	162	ILE
27	R	197	MET
27	R	244	THR
27	R	290	SER
27	R	421	VAL
28	S	193	THR
29	T	117	ASN
29	T	197	TYR
29	T	198	ASP
29	T	225	ASN
29	T	243	ALA
29	T	248	GLU
29	T	250	MET
30	U	141	GLU
30	U	159	CYS
31	V	134	SER
32	W	21	PHE
32	W	54	GLY
32	W	114	VAL
32	W	153	LEU
32	W	191	ILE
33	X	72	GLU
35	Z	110	ASN
35	Z	185	ASP
35	Z	188	ALA
35	Z	320	SER
35	Z	482	ASP

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Mol	Chain	Res	Type
35	Z	769	ASN
35	Z	990	ARG
1	1	19	ARG
2	2	193	PRO
2	2	196	ARG
5	5	148	LEU
6	6	10	ASP
7	7	2	SER
7	7	74	ASP
7	7	75	ALA
10	A	150	LEU
11	B	40	THR
11	B	215	GLY
12	C	52	VAL
14	E	54	ALA
14	E	73	HIS
16	G	208	GLU
17	H	97	LEU
17	H	172	MET
17	H	310	GLU
17	H	343	PHE
18	I	164	ALA
18	I	320	GLY
19	J	131	ASP
19	J	194	GLY
20	K	153	ASP
20	K	288	SER
20	K	377	SER
21	L	319	GLY
22	M	162	GLU
22	M	336	ALA
22	M	424	ALA
22	M	429	SER
23	N	529	GLN
23	N	614	ASN
23	N	863	SER
24	O	56	PRO
24	O	183	ASN
24	O	228	TYR
24	O	248	TYR
25	P	168	TYR
25	P	319	GLU

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Mol	Chain	Res	Type
26	Q	109	ASP
27	R	37	LYS
27	R	76	GLN
27	R	124	ASP
27	R	326	ALA
27	R	377	LEU
28	S	172	ASN
28	S	177	ASN
28	S	195	ALA
28	S	225	HIS
28	S	299	LYS
29	T	40	LEU
29	T	91	SER
29	T	92	ASN
29	T	237	ASN
31	V	59	ASP
31	V	73	GLN
32	W	101	ARG
32	W	136	ASN
32	W	143	ASN
32	W	164	PRO
33	X	28	PRO
35	Z	186	GLY
35	Z	230	ILE
35	Z	333	GLY
35	Z	352	LYS
35	Z	396	ASN
35	Z	523	ALA
35	Z	895	LEU
3	3	-5	SER
6	6	157	GLY
7	7	221	GLY
10	A	231	ASP
11	B	2	THR
16	G	222	GLU
17	H	166	THR
17	H	168	ILE
17	H	318	ARG
17	H	358	PRO
18	I	166	PRO
20	K	341	PRO
21	L	164	ASP

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Mol	Chain	Res	Type
21	L	289	ARG
21	L	385	GLY
23	N	283	ASP
23	N	458	ALA
23	N	670	LYS
24	O	36	LYS
24	O	204	SER
24	O	353	VAL
25	P	87	GLY
25	P	322	LEU
26	Q	354	PHE
27	R	83	GLU
27	R	241	ILE
27	R	262	GLU
28	S	144	LEU
28	S	192	GLU
28	S	375	ASP
29	T	90	PHE
30	U	230	GLN
35	Z	133	ASP
35	Z	215	ASN
35	Z	259	PRO
35	Z	964	GLU
2	2	201	LYS
3	3	107	SER
10	A	168	ALA
11	B	233	PRO
16	G	185	GLY
17	H	104	LYS
18	I	117	HIS
19	J	126	LEU
20	K	286	THR
20	K	397	LYS
21	L	284	ASP
22	M	431	SER
23	N	786	ARG
24	O	114	GLN
24	O	239	MET
25	P	89	LEU
25	P	172	GLU
25	P	306	ASN
28	S	198	SER

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Mol	Chain	Res	Type
29	T	172	SER
29	T	242	LYS
30	U	162	GLU
31	V	247	ILE
32	W	142	ILE
35	Z	143	VAL
35	Z	556	ILE
35	Z	975	SER
4	4	194	PHE
12	C	3	SER
15	F	202	ARG
17	H	187	LEU
17	H	378	SER
18	I	116	ASP
20	K	278	ALA
22	M	143	ASN
22	M	175	LYS
22	M	226	THR
23	N	771	PHE
24	O	230	PHE
24	O	272	VAL
25	P	290	LEU
27	R	74	ASN
27	R	393	PRO
32	W	196	SER
33	X	24	CYS
35	Z	109	PRO
35	Z	328	ASP
35	Z	351	PRO
35	Z	578	GLY
5	5	173	GLY
17	H	211	VAL
21	L	350	PRO
24	O	355	PRO
25	P	124	VAL
35	Z	87	LYS
35	Z	326	VAL
7	7	70	ASN
12	C	225	VAL
30	U	125	VAL
35	Z	373	GLY
19	J	299	ILE

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Mol	Chain	Res	Type
20	K	215	PRO
22	M	83	VAL
24	O	237	PRO
24	O	278	PRO
24	O	360	GLY
28	S	165	PRO
35	Z	192	GLY
17	H	105	ILE
21	L	287	GLY
23	N	353	LEU
35	Z	481	PRO
35	Z	925	VAL
6	6	154	GLY
32	W	176	PRO
35	Z	519	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	1	169/178 (95%)	169 (100%)	0	100	100
2	2	182/214 (85%)	181 (100%)	1 (0%)	86	89
3	3	172/173 (99%)	172 (100%)	0	100	100
4	4	175/175 (100%)	175 (100%)	0	100	100
5	5	169/235 (72%)	168 (99%)	1 (1%)	84	88
6	6	185/201 (92%)	185 (100%)	0	100	100
7	7	199/224 (89%)	199 (100%)	0	100	100
8	8	331/369 (90%)	325 (98%)	6 (2%)	54	71
9	9	68/68 (100%)	64 (94%)	4 (6%)	16	37
10	A	207/210 (99%)	207 (100%)	0	100	100
11	B	209/209 (100%)	209 (100%)	0	100	100
12	C	204/216 (94%)	204 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
13	D	214/226 (95%)	214 (100%)	0	100	100
14	E	199/215 (93%)	199 (100%)	0	100	100
15	F	192/193 (100%)	192 (100%)	0	100	100
16	G	201/239 (84%)	200 (100%)	1 (0%)	86	89
17	H	303/399 (76%)	302 (100%)	1 (0%)	91	92
18	I	319/385 (83%)	318 (100%)	1 (0%)	91	92
19	J	325/352 (92%)	324 (100%)	1 (0%)	91	92
20	K	334/374 (89%)	333 (100%)	1 (0%)	91	92
21	L	308/377 (82%)	308 (100%)	0	100	100
22	M	315/375 (84%)	315 (100%)	0	100	100
23	N	713/797 (90%)	710 (100%)	3 (0%)	89	91
24	O	363/368 (99%)	361 (99%)	2 (1%)	84	88
25	P	388/415 (94%)	380 (98%)	8 (2%)	48	66
26	Q	388/391 (99%)	388 (100%)	0	100	100
27	R	351/379 (93%)	351 (100%)	0	100	100
28	S	330/489 (68%)	330 (100%)	0	100	100
29	T	254/256 (99%)	254 (100%)	0	100	100
30	U	234/308 (76%)	228 (97%)	6 (3%)	41	59
31	V	217/268 (81%)	214 (99%)	3 (1%)	62	75
32	W	171/230 (74%)	169 (99%)	2 (1%)	67	78
33	X	116/144 (81%)	114 (98%)	2 (2%)	56	72
34	Y	18/81 (22%)	18 (100%)	0	100	100
35	Z	692/850 (81%)	692 (100%)	0	100	100
All	All	9215/10583 (87%)	9172 (100%)	43 (0%)	85	89

All (43) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	2	72	ARG
5	5	104	TYR
8	8	180	LEU
8	8	260	LYS
8	8	324	ASN
8	8	369	GLU

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Mol	Chain	Res	Type
8	8	422	LYS
8	8	456	LEU
9	9	18	GLU
9	9	40	GLN
9	9	60	ASN
9	9	71	LEU
16	G	217	TRP
17	H	198	MET
18	I	257	LEU
19	J	221	LYS
20	K	288	SER
23	N	780	ASP
23	N	866	TYR
23	N	905	LEU
24	O	20	PRO
24	O	58	ARG
25	P	31	ASP
25	P	33	ASN
25	P	43	GLU
25	P	57	GLU
25	P	58	VAL
25	P	69	ARG
25	P	85	LYS
25	P	88	GLN
30	U	71	ASN
30	U	74	GLU
30	U	75	ASN
30	U	77	ASN
30	U	92	TRP
30	U	154	PHE
31	V	68	VAL
31	V	85	ASP
31	V	109	HIS
32	W	8	LEU
32	W	101	ARG
33	X	11	ARG
33	X	48	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (173) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	38	HIS

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Mol	Chain	Res	Type
1	1	89	ASN
1	1	157	HIS
1	1	161	GLN
2	2	35	HIS
2	2	66	HIS
2	2	85	GLN
2	2	86	HIS
2	2	114	HIS
2	2	116	HIS
2	2	141	HIS
3	3	63	ASN
3	3	160	GLN
4	4	36	GLN
4	4	60	GLN
4	4	64	GLN
4	4	117	GLN
4	4	145	HIS
4	4	146	HIS
5	5	179	HIS
6	6	-2	ASN
6	6	27	ASN
6	6	46	ASN
6	6	67	HIS
6	6	85	GLN
7	7	18	ASN
7	7	54	HIS
7	7	195	ASN
9	9	25	ASN
9	9	60	ASN
10	A	36	ASN
10	A	37	GLN
10	A	39	ASN
10	A	126	GLN
10	A	130	GLN
11	B	119	GLN
11	B	123	GLN
12	C	59	GLN
12	C	94	HIS
12	C	147	GLN
12	C	173	GLN
13	D	40	ASN
13	D	70	HIS

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Mol	Chain	Res	Type
13	D	96	HIS
13	D	118	GLN
14	E	108	ASN
14	E	114	GLN
14	E	157	HIS
15	F	31	GLN
15	F	69	HIS
15	F	91	GLN
15	F	117	GLN
15	F	143	HIS
16	G	42	ASN
16	G	67	GLN
16	G	120	GLN
16	G	122	HIS
16	G	182	HIS
17	H	95	HIS
17	H	339	GLN
18	I	102	ASN
18	I	312	GLN
18	I	365	HIS
19	J	111	GLN
19	J	205	HIS
19	J	277	ASN
19	J	287	ASN
19	J	336	ASN
19	J	342	ASN
20	K	72	GLN
20	K	90	GLN
20	K	105	GLN
20	K	106	ASN
20	K	144	ASN
20	K	180	GLN
20	K	264	ASN
20	K	293	GLN
20	K	419	ASN
21	L	67	HIS
21	L	73	GLN
21	L	80	ASN
21	L	311	GLN
21	L	320	GLN
21	L	328	ASN
22	M	302	GLN

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Mol	Chain	Res	Type
22	M	311	GLN
22	M	390	GLN
23	N	71	ASN
23	N	96	GLN
23	N	182	ASN
23	N	280	GLN
23	N	300	ASN
23	N	306	ASN
23	N	329	HIS
23	N	375	HIS
23	N	667	GLN
23	N	707	ASN
23	N	719	ASN
23	N	738	GLN
23	N	747	HIS
24	O	4	ASN
24	O	5	HIS
24	O	28	GLN
24	O	40	GLN
24	O	116	ASN
24	O	117	ASN
24	O	141	ASN
24	O	169	ASN
24	O	186	ASN
24	O	211	GLN
24	O	229	ASN
24	O	323	ASN
24	O	345	ASN
24	O	362	GLN
24	O	376	GLN
25	P	76	ASN
25	P	164	GLN
25	P	210	ASN
25	P	306	ASN
25	P	315	GLN
25	P	342	GLN
25	P	425	HIS
26	Q	54	GLN
26	Q	114	GLN
26	Q	226	HIS
26	Q	247	HIS
26	Q	252	HIS

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Mol	Chain	Res	Type
26	Q	253	ASN
27	R	81	HIS
27	R	89	ASN
27	R	114	ASN
27	R	143	GLN
27	R	182	ASN
27	R	208	ASN
27	R	314	ASN
27	R	391	ASN
28	S	143	GLN
28	S	235	ASN
28	S	378	GLN
29	T	47	GLN
29	T	80	ASN
29	T	93	ASN
29	T	94	HIS
29	T	225	ASN
29	T	236	ASN
30	U	21	HIS
30	U	107	ASN
30	U	117	ASN
30	U	173	HIS
30	U	234	ASN
30	U	259	ASN
30	U	280	ASN
31	V	88	GLN
31	V	109	HIS
31	V	133	ASN
31	V	145	GLN
31	V	291	ASN
32	W	44	ASN
32	W	58	ASN
32	W	103	ASN
32	W	108	GLN
32	W	136	ASN
32	W	143	ASN
32	W	162	ASN
32	W	163	ASN
33	X	38	ASN
33	X	105	ASN
35	Z	309	GLN
35	Z	361	HIS

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Mol	Chain	Res	Type
35	Z	429	ASN
35	Z	435	GLN
35	Z	532	HIS
35	Z	899	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

1 non-standard protein/DNA/RNA residue is modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
9	GLZ	9	76	-	3,3,3	2.42	1 (33%)	0,2,2	-	-

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
9	GLZ	9	76	-	-	0/0/1/1	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	9	76	GLZ	O-C	4.14	1.43	1.19

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 18 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
9	9	76	GLZ	18	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
32	W	3
19	J	2
20	K	2
21	L	2
22	M	2
31	V	2
18	I	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	J	218:LEU	C	219:VAL	N	3.99
1	K	248:GLY	C	249:GLU	N	3.09
1	L	251:ILE	C	252:VAL	N	2.52
1	I	252:LEU	C	253:ILE	N	2.13
1	J	224:GLY	C	225:GLU	N	2.03
1	W	120:ASP	C	121:SER	N	2.02
1	K	242:PHE	C	243:VAL	N	1.83

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	M	257:GLY	C	258:GLU	N	1.81
1	V	99:GLY	C	100:ARG	N	1.65
1	L	257:GLY	C	258:GLU	N	1.64
1	V	282:GLU	C	283:THR	N	1.62
1	M	58:MET	C	59:LEU	N	1.16
1	W	154:LEU	C	155:ASP	N	1.05
1	W	38:GLN	C	39:ALA	N	0.46

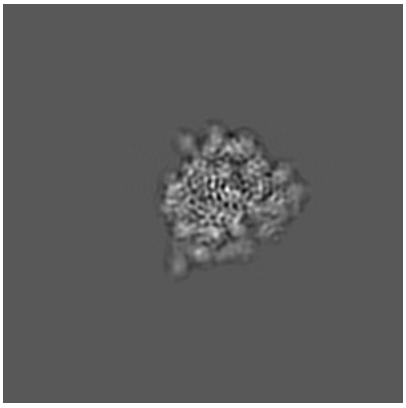
6 Map visualisation (i)

This section contains visualisations of the EMDB entry EMD-3034. These allow visual inspection of the internal detail of the map and identification of artifacts.

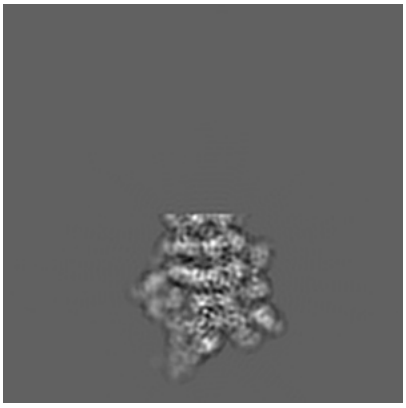
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections (i)

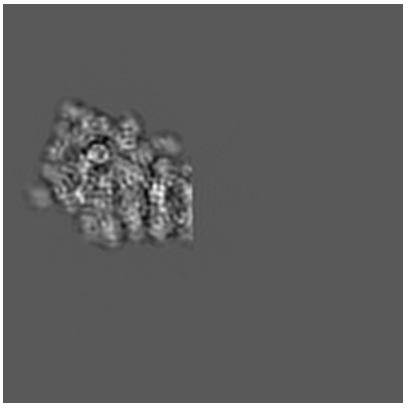
6.1.1 Primary map



X



Y

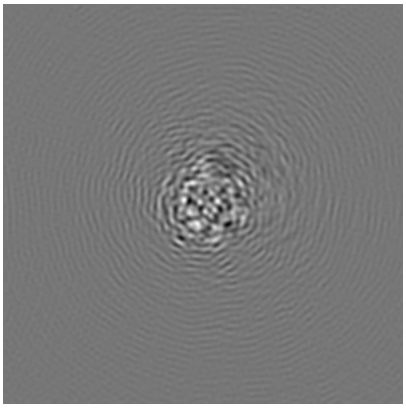


Z

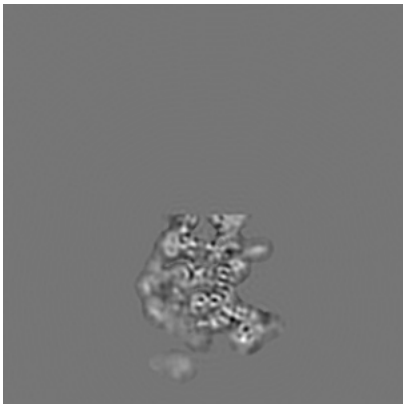
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

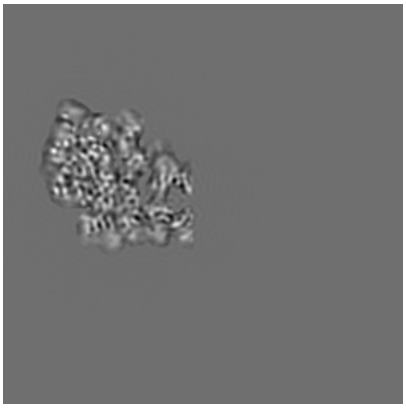
6.2.1 Primary map



X Index: 140



Y Index: 140



Z Index: 140

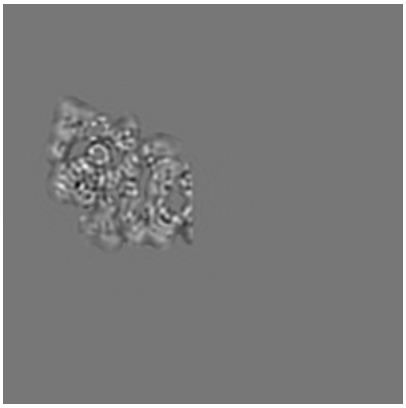
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map

X Index: 91

Y Index: 157

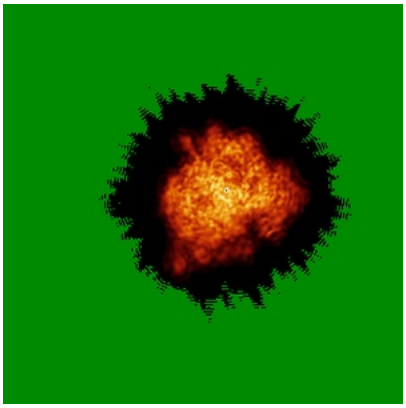


Z Index: 145

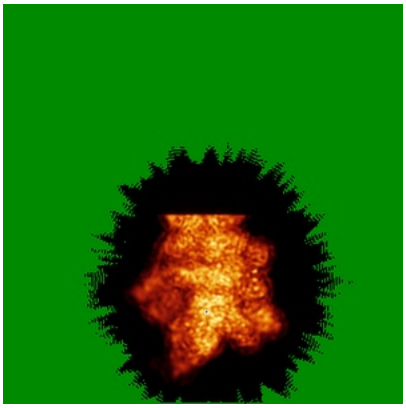
The images above show the largest variance slices of the map in three orthogonal directions.

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

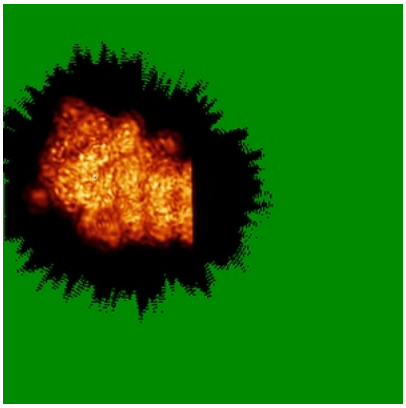
6.4.1 Primary map



X



Y

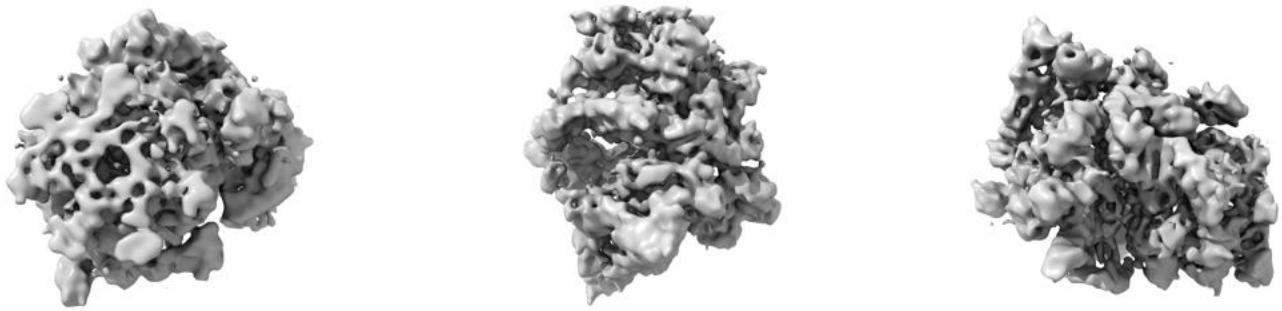


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 1.17. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

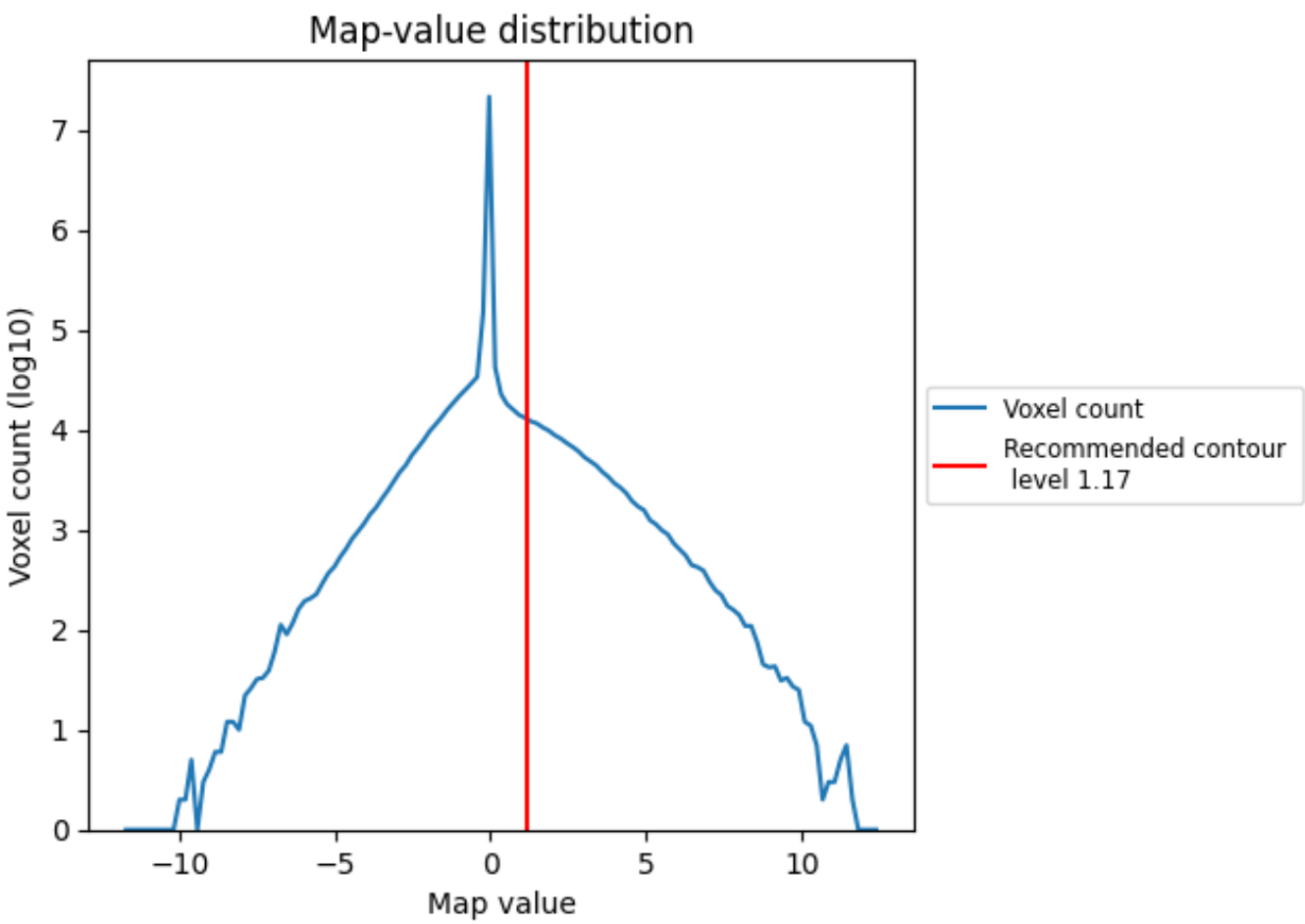
6.6 Mask visualisation (i)

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

7 Map analysis (i)

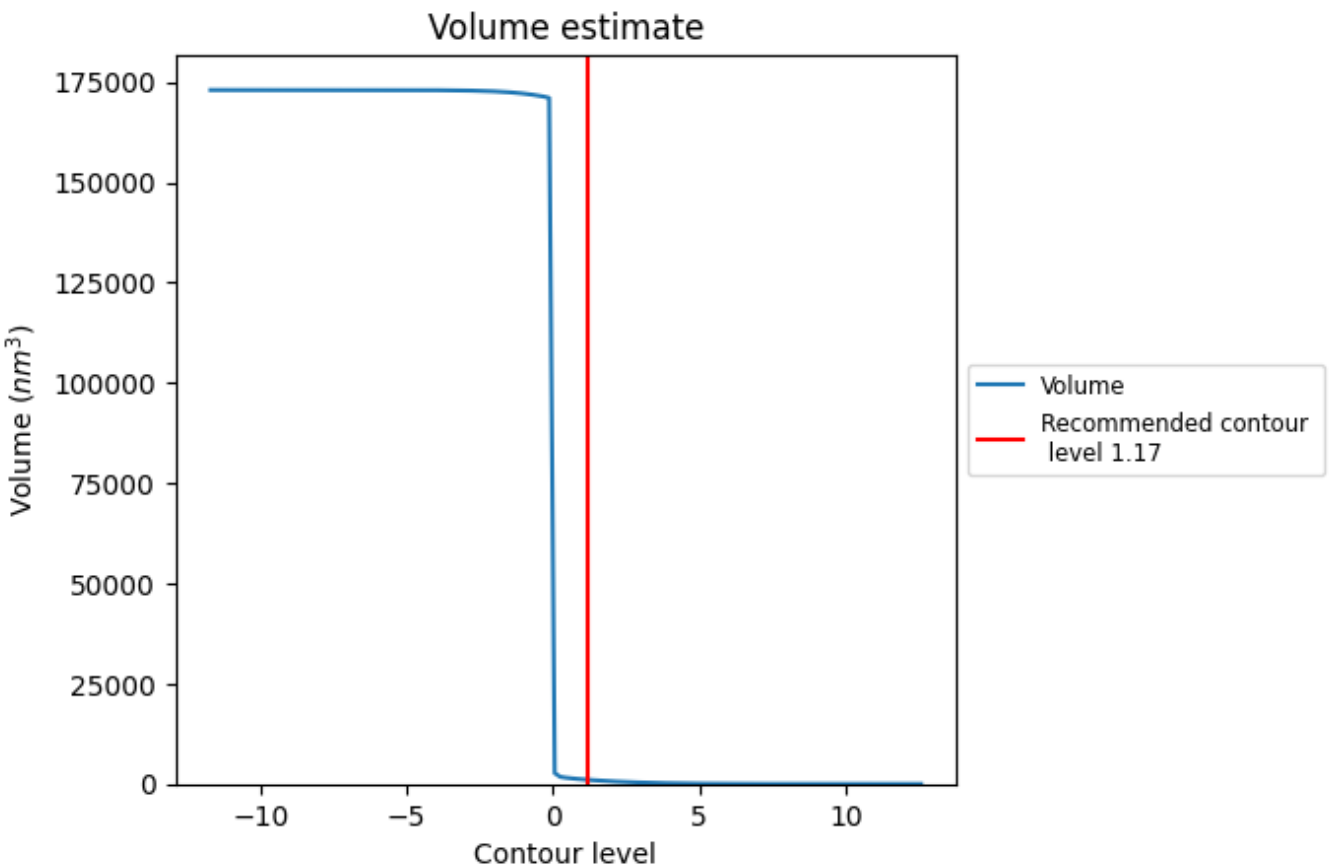
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution (i)



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

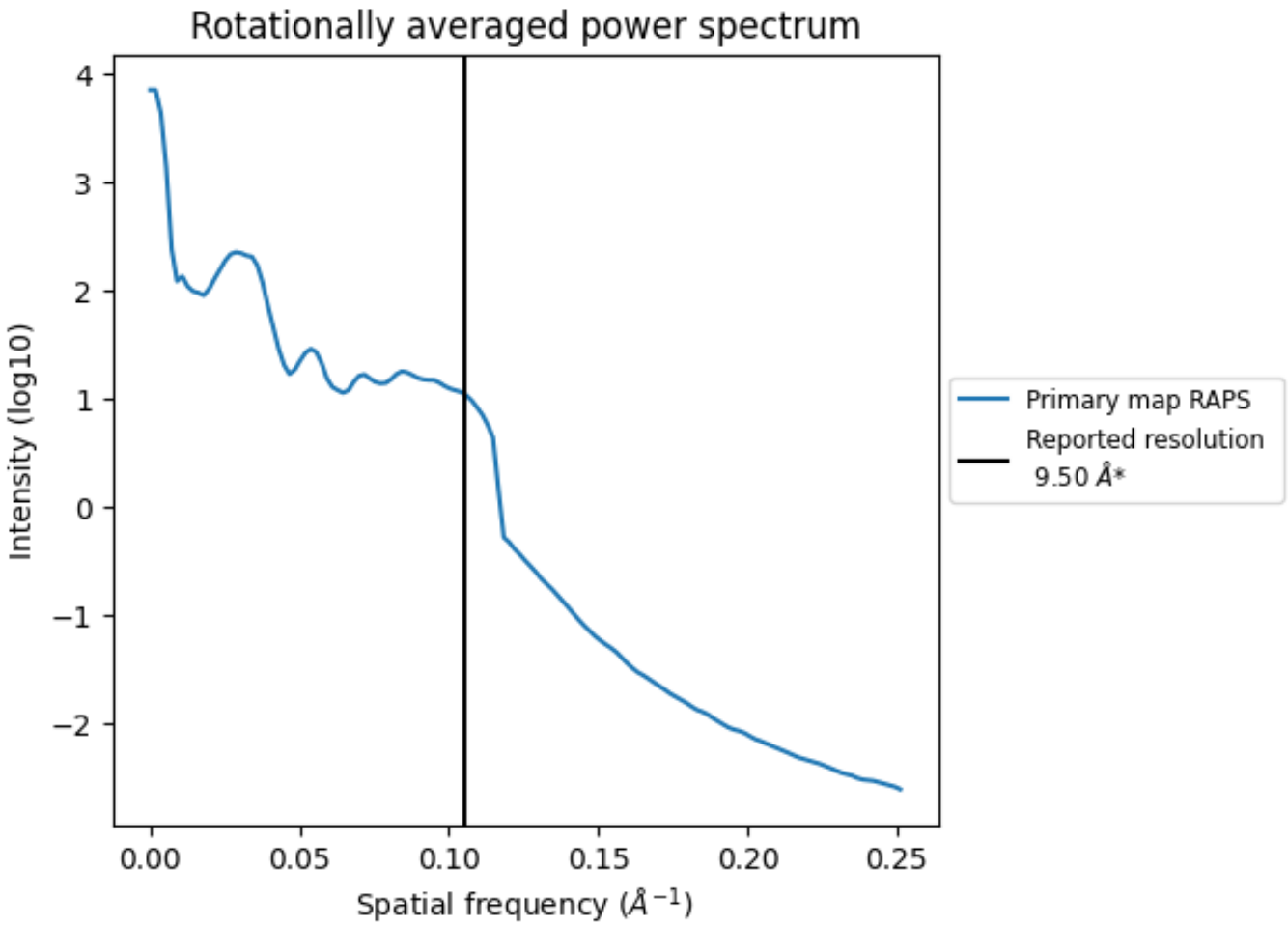
7.2 Volume estimate (i)



The volume at the recommended contour level is 1054 nm^3; this corresponds to an approximate mass of 952 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 0.105 Å^{-1}

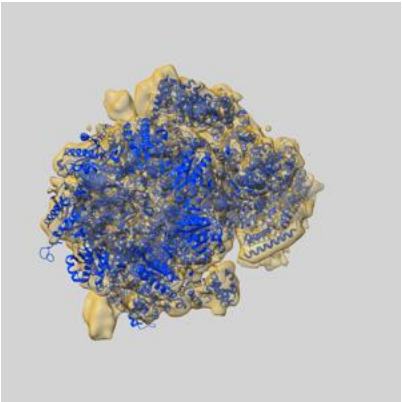
8 Fourier-Shell correlation (i)

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

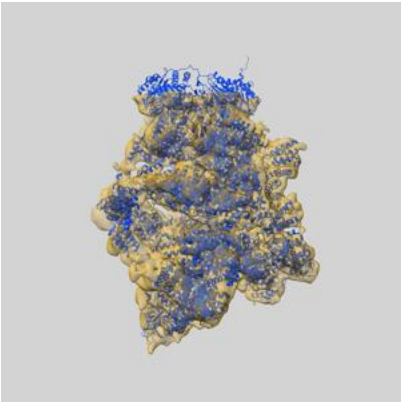
9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-3034 and PDB model 5A5B. Per-residue inclusion information can be found in section 3 on page 11.

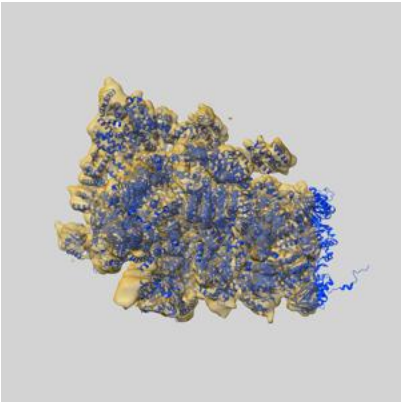
9.1 Map-model overlay (i)



X



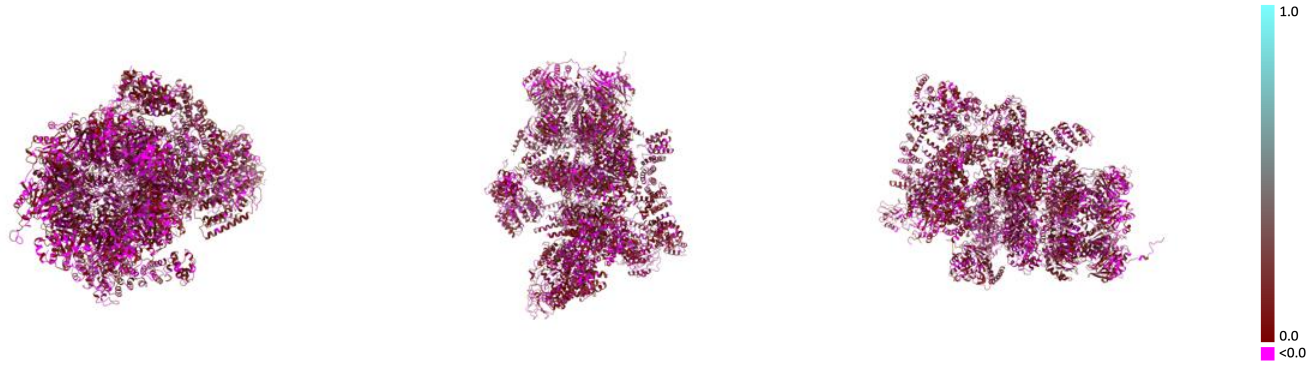
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 1.17 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.

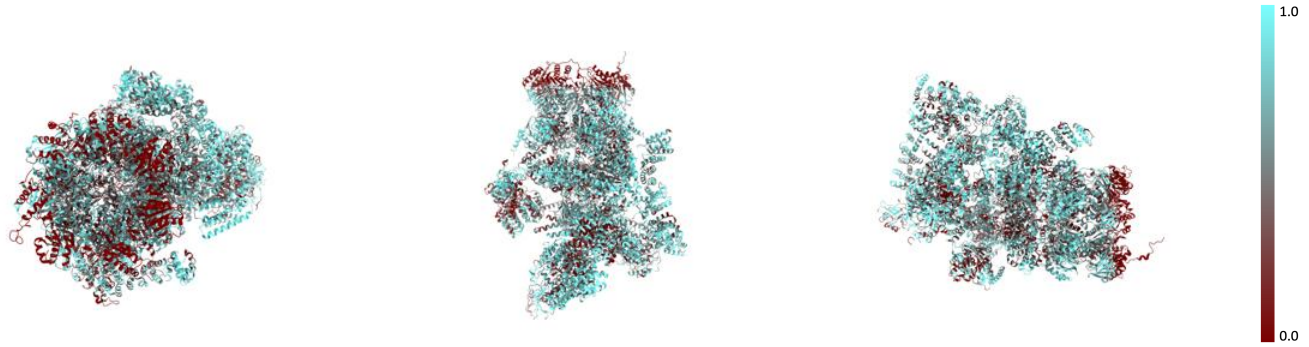
9.2 Q-score mapped to coordinate model (i)



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.

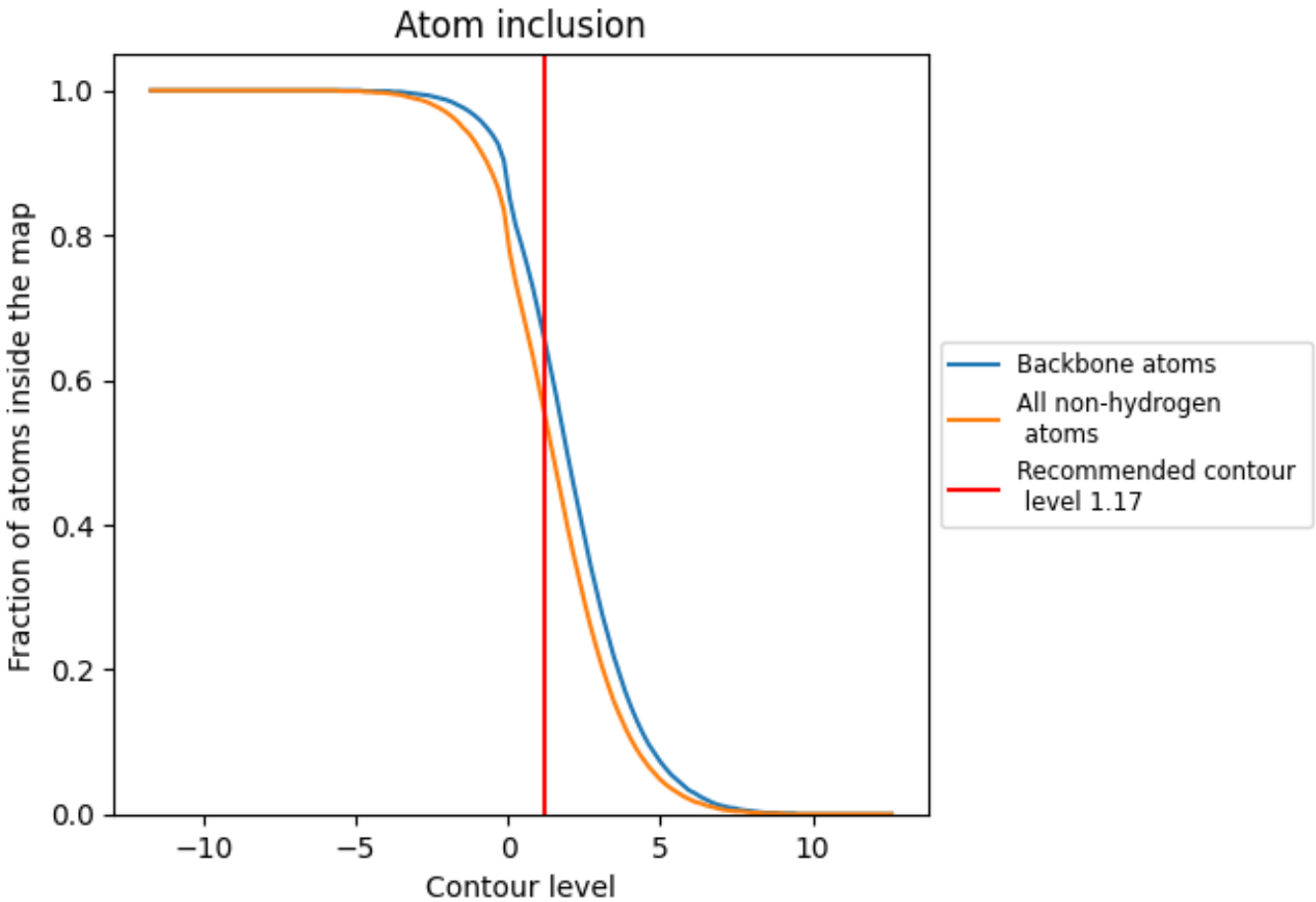
9.3 Atom inclusion mapped to coordinate model (i)



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 (1.17).

9.4 Atom inclusion (i)



At the recommended contour level, 66% of all backbone atoms, 56% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (1.17) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5600	0.0710
1	0.3510	0.0390
2	0.2590	0.0270
3	0.2560	0.0390
4	0.3590	0.0410
5	0.4020	0.0540
6	0.3900	0.0510
7	0.3960	0.0590
8	0.5410	0.0900
9	0.4480	0.0500
A	0.6180	0.0790
B	0.5530	0.0690
C	0.5690	0.0840
D	0.6600	0.1000
E	0.6270	0.0900
F	0.6600	0.0830
G	0.6240	0.0810
H	0.4620	0.0380
I	0.4990	0.0700
J	0.5640	0.0670
K	0.5200	0.0710
L	0.5680	0.0690
M	0.4950	0.0180
N	0.6470	0.0910
O	0.7100	0.0950
P	0.7460	0.0990
Q	0.7080	0.0990
R	0.6920	0.0860
S	0.5420	0.0710
T	0.6530	0.0800
U	0.4850	0.0760
V	0.5680	0.0830
W	0.5810	0.0500
X	0.5400	0.0430
Y	0.7360	0.0980
Z	0.5480	0.0520