



# Full wwPDB X-ray Structure Validation Report ⓘ

Jun 12, 2024 – 01:46 AM EDT

PDB ID : 1NQT  
Title : Crystal structure of bovine Glutamate dehydrogenase-ADP complex  
Authors : Banerjee, S.; Schmidt, T.; Fang, J.; Stanley, C.A.; Smith, T.J.  
Deposited on : 2003-01-23  
Resolution : 3.50 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467  
Mogul : 2022.3.0, CSD as543be (2022)  
Xtrriage (Phenix) : **NOT EXECUTED**  
EDS : **NOT EXECUTED**  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36.2

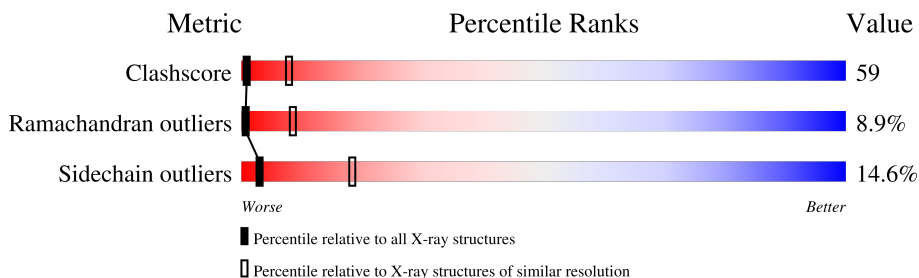
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.50 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)	Similar resolution (#Entries, resolution range(Å))
Clashscore	141614	1036 (3.58-3.42)
Ramachandran outliers	138981	1005 (3.58-3.42)
Sidechain outliers	138945	1006 (3.58-3.42)




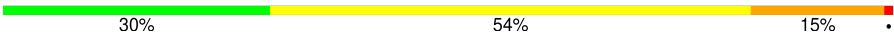
The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria 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  $\leq 5\%$ .

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	496	33% 54% 12% .
1	B	496	34% 50% 14% .
1	C	496	26% 54% 18% .
1	D	496	29% 55% 15% .
1	E	496	33% 49% 17% .
1	F	496	36% 51% 12% .
1	G	496	32% 52% 15% .
1	H	496	30% 55% 14% .

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Mol	Chain	Length	Quality of chain
1	I	496	 31% 52% 16% .
1	J	496	 34% 49% 15% .
1	K	496	 24% 60% 15% .
1	L	496	 30% 54% 15% .

## 2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 46812 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Glutamate dehydrogenase 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	496	3874	2450	679	726	19	0	0	0
1	B	496	3874	2450	679	726	19	0	0	0
1	C	496	3874	2450	679	726	19	0	0	0
1	D	496	3874	2450	679	726	19	0	0	0
1	E	496	3874	2450	679	726	19	0	0	0
1	F	496	3874	2450	679	726	19	0	0	0
1	G	496	3874	2450	679	726	19	0	0	0
1	H	496	3874	2450	679	726	19	0	0	0
1	I	496	3874	2450	679	726	19	0	0	0
1	J	496	3874	2450	679	726	19	0	0	0
1	K	496	3874	2450	679	726	19	0	0	0
1	L	496	3874	2450	679	726	19	0	0	0

- Molecule 2 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula:  $C_{10}H_{15}N_5O_{10}P_2$ ).



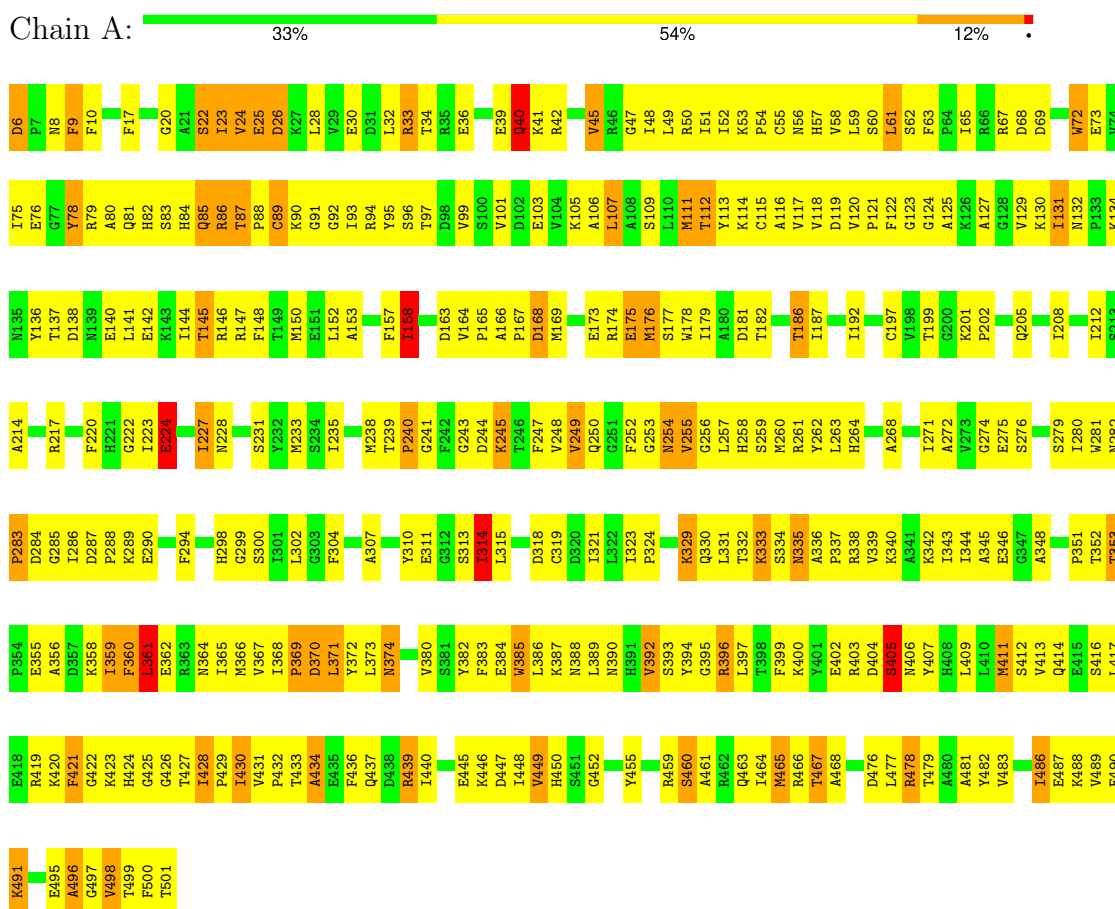
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
2	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	C	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	D	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	E	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	F	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	G	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	H	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	I	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	J	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	K	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	L	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

### 3 Residue-property plots

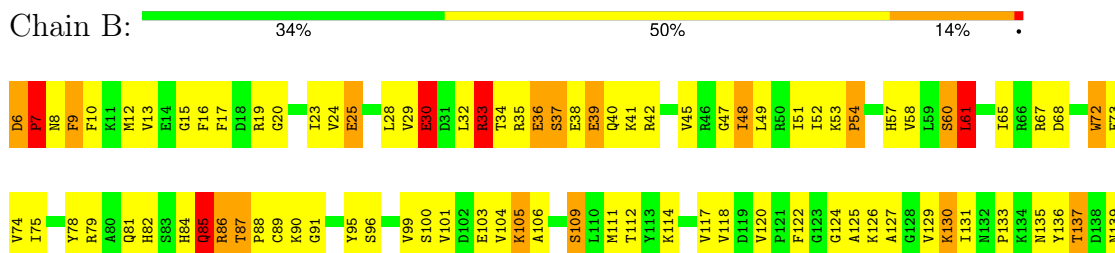
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded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

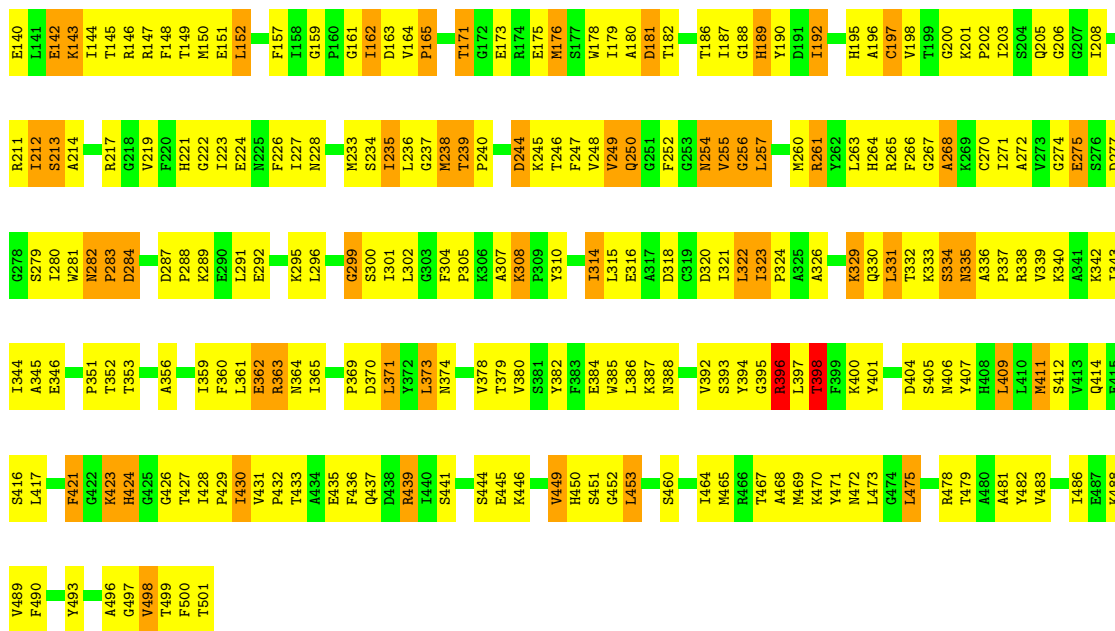
Note EDS was not executed.

- Molecule 1: Glutamate dehydrogenase 1

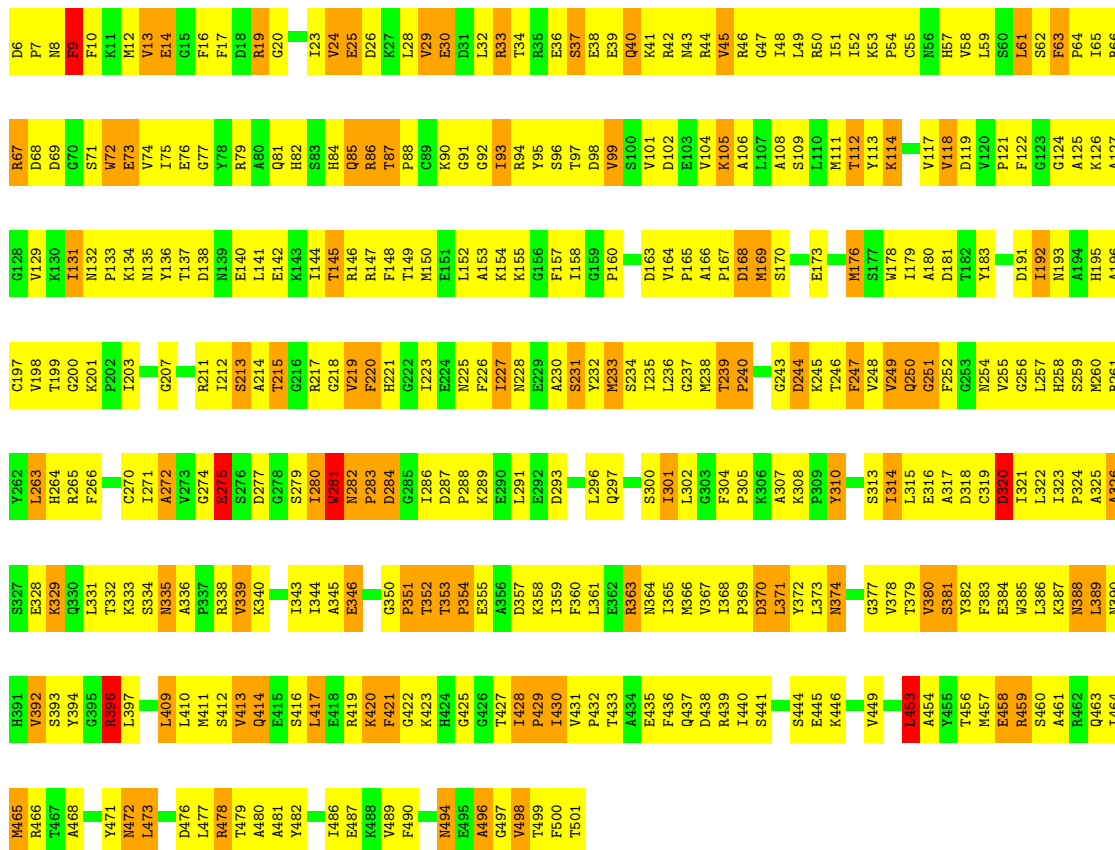
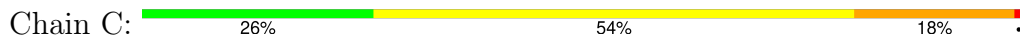


- Molecule 1: Glutamate dehydrogenase 1




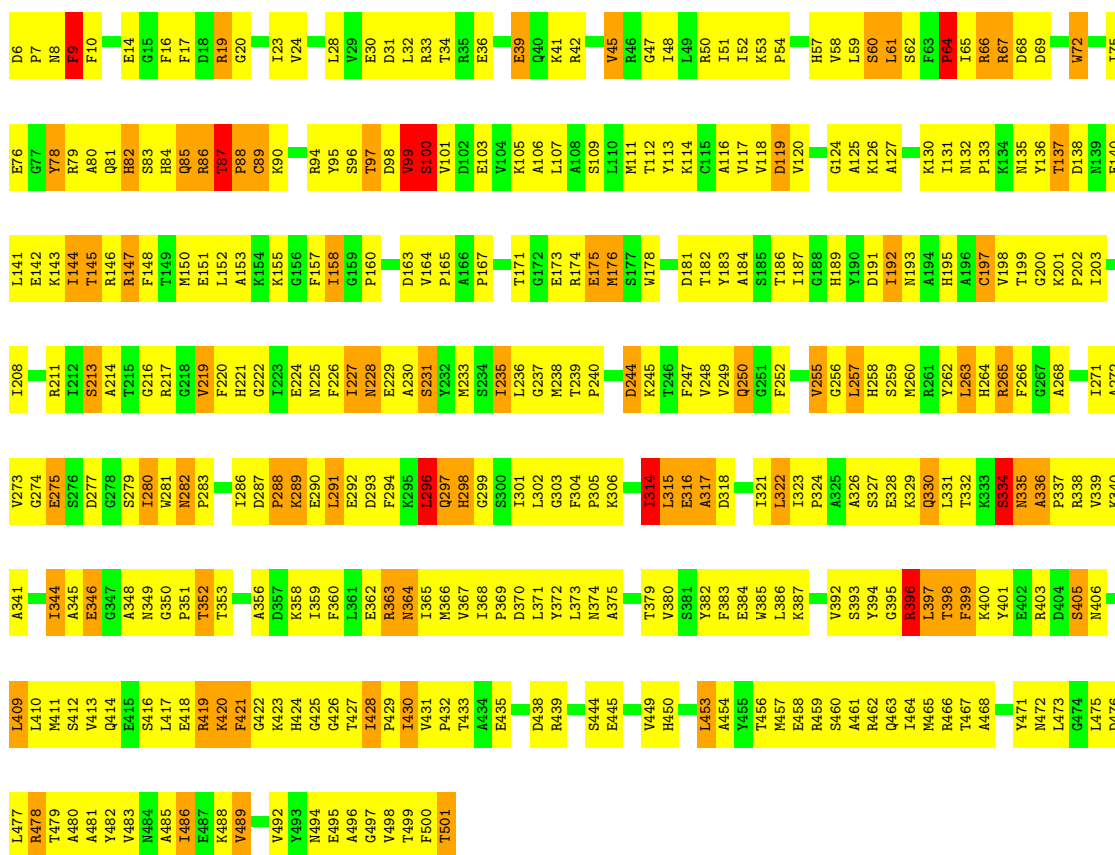


• Molecule 1: Glutamate dehydrogenase 1



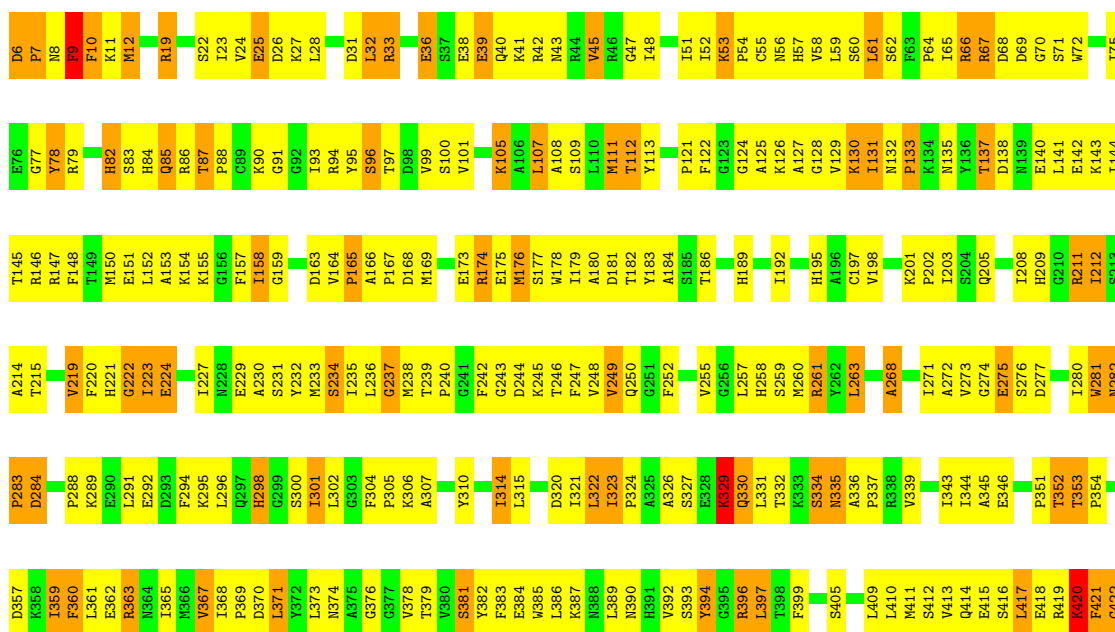
• Molecule 1: Glutamate dehydrogenase 1

Chain D:  29% 55% 15%

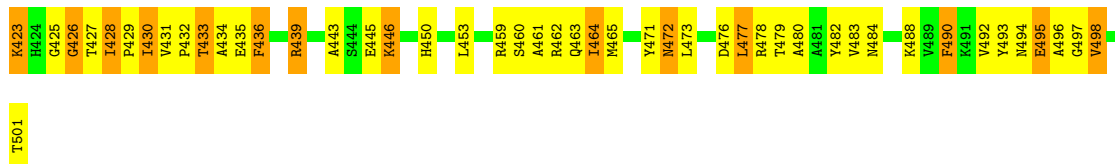


• Molecule 1: Glutamate dehydrogenase 1

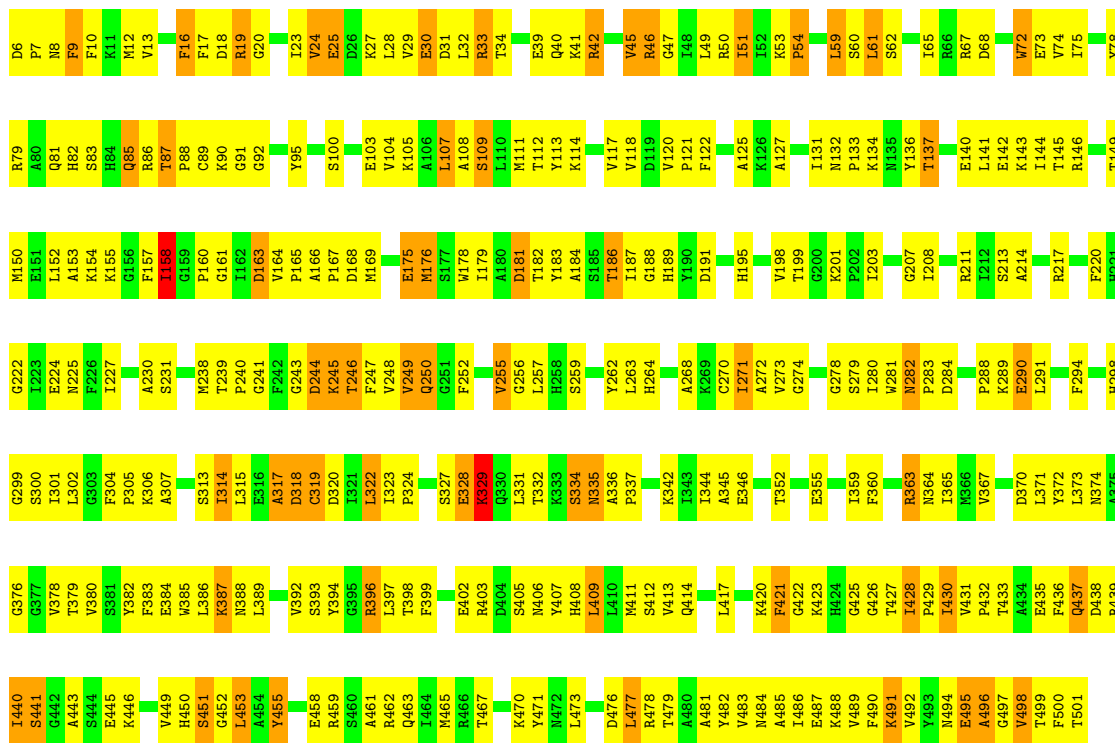
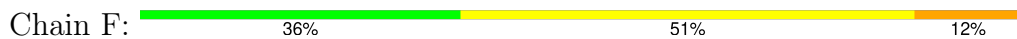
Chain E:  33% 49% 17%



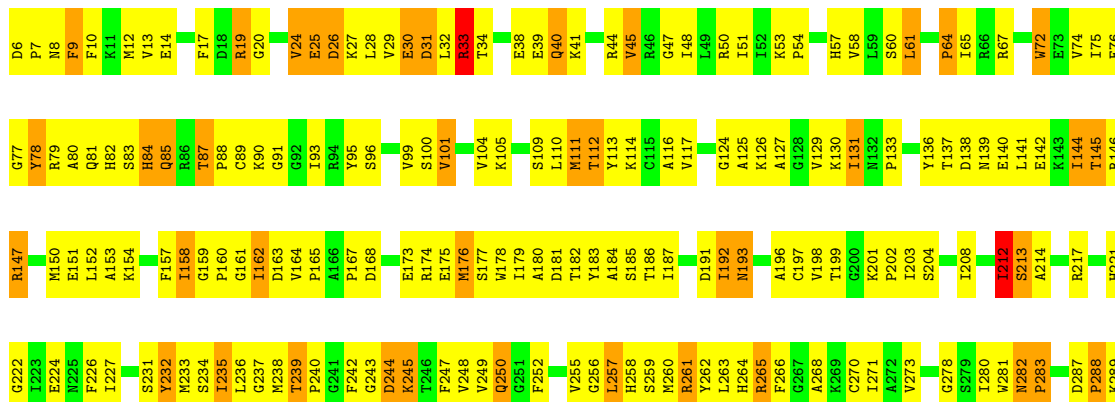
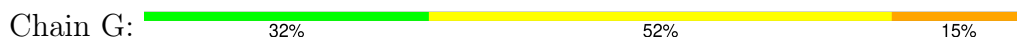


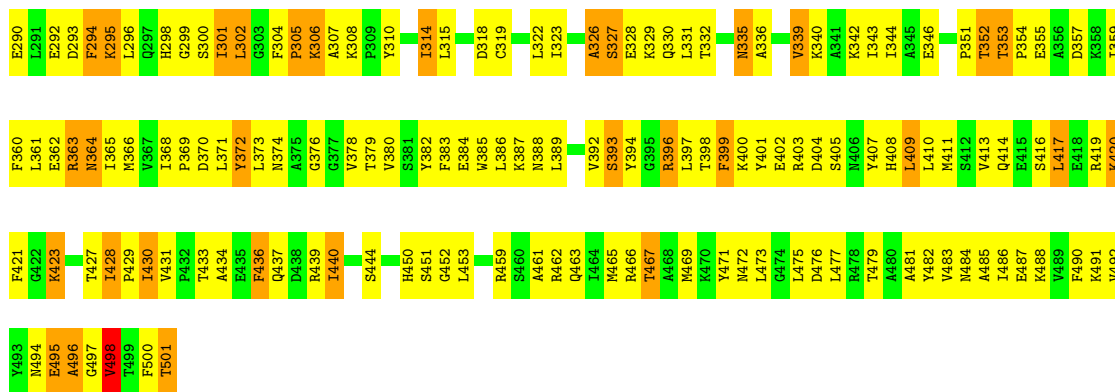


• Molecule 1: Glutamate dehydrogenase 1



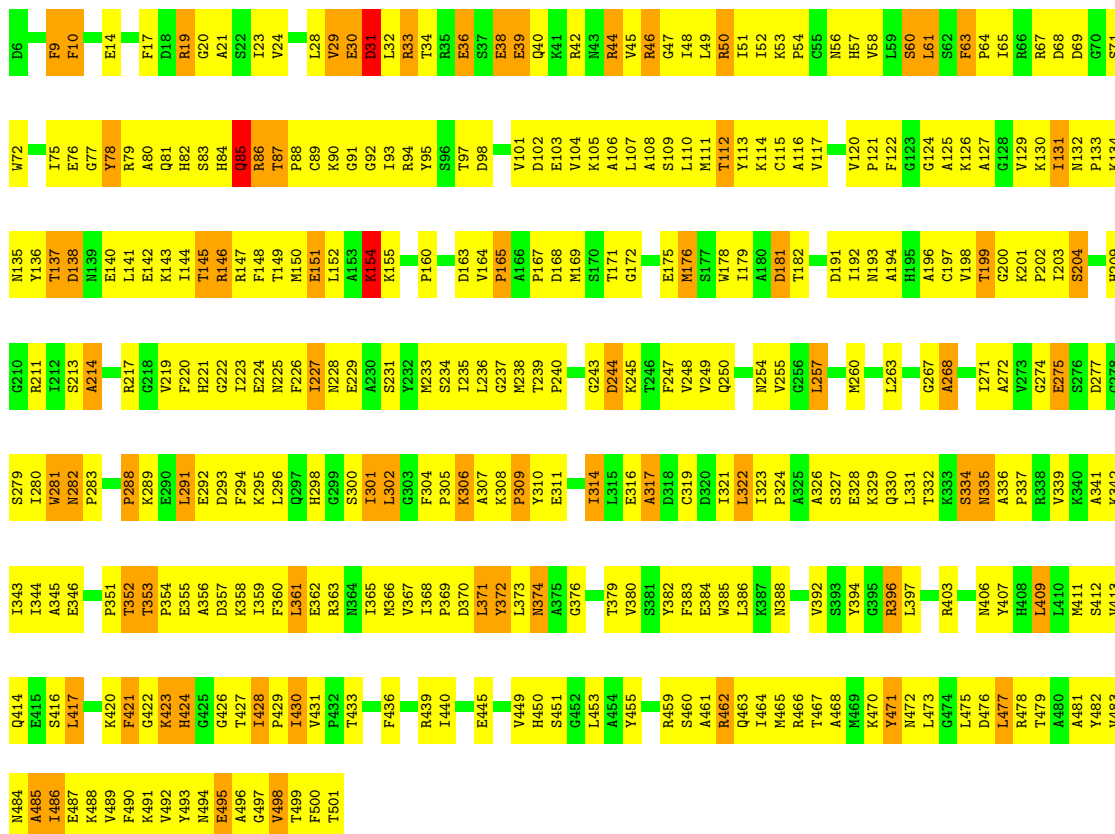
• Molecule 1: Glutamate dehydrogenase 1





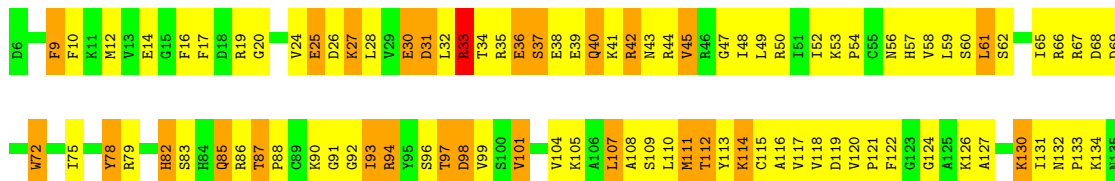
● Molecule 1: Glutamate dehydrogenase 1

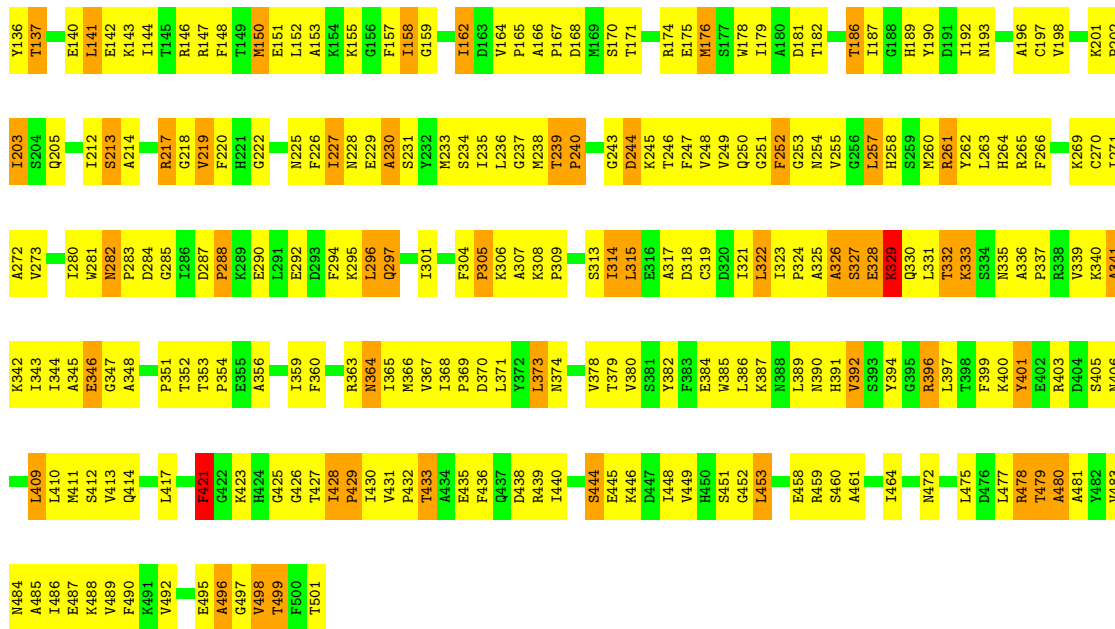
Chain H: 30% 55% 14%



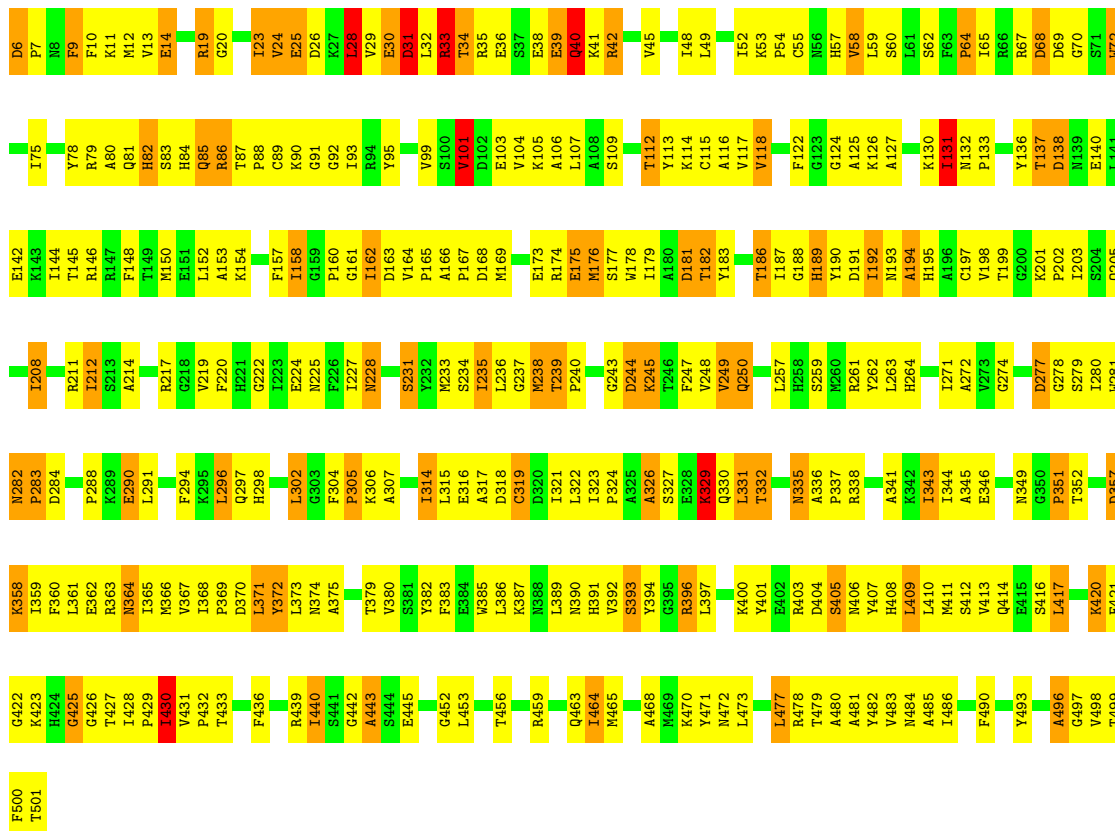
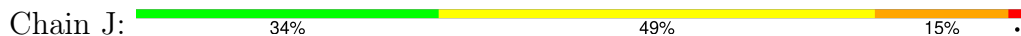
● Molecule 1: Glutamate dehydrogenase 1

Chain I: 31% 52% 16%



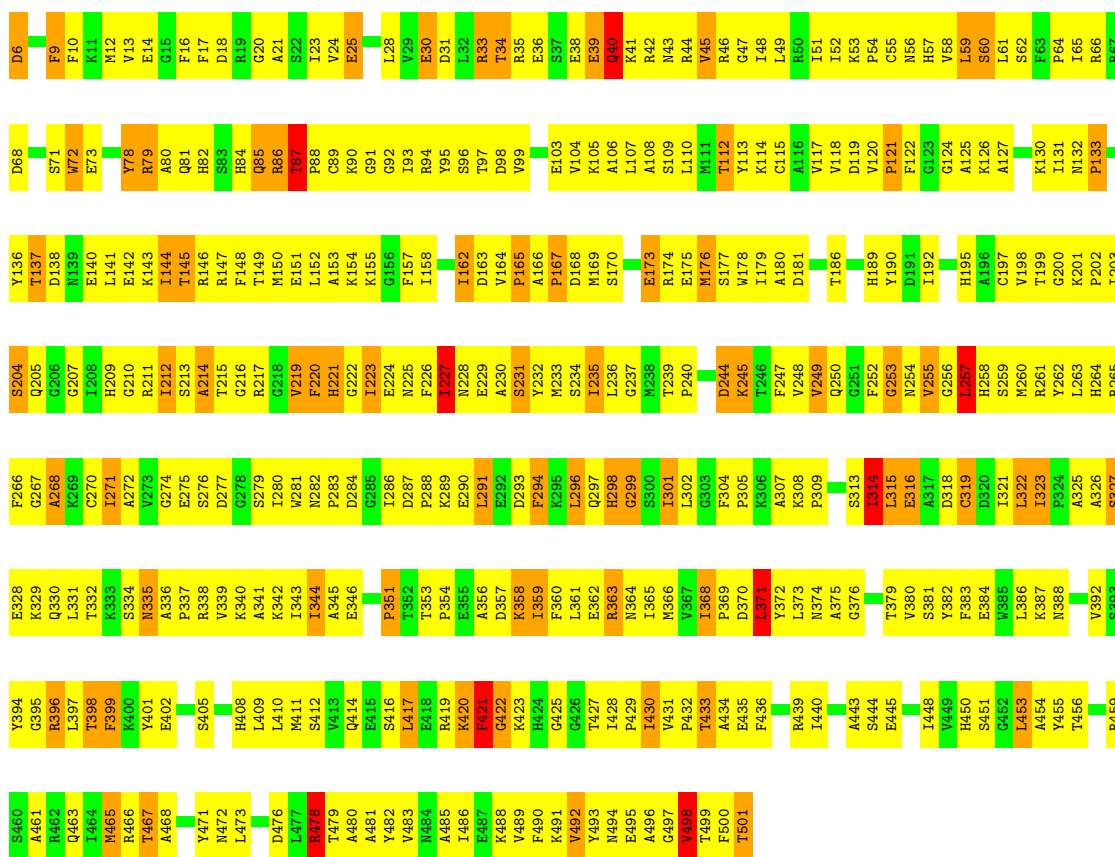


● Molecule 1: Glutamate dehydrogenase 1



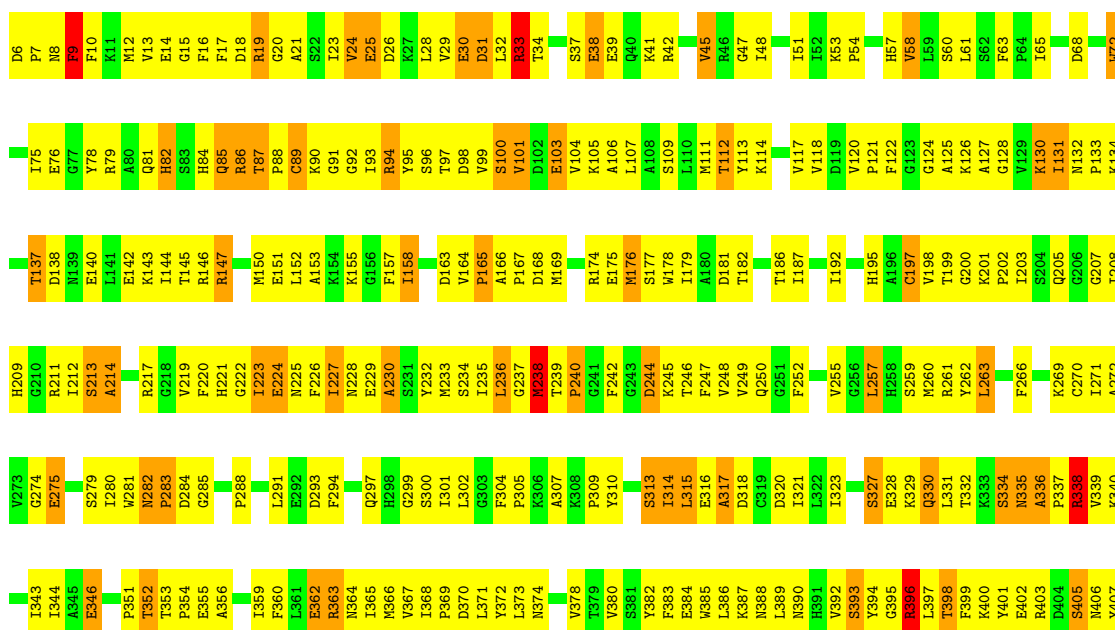
● Molecule 1: Glutamate dehydrogenase 1

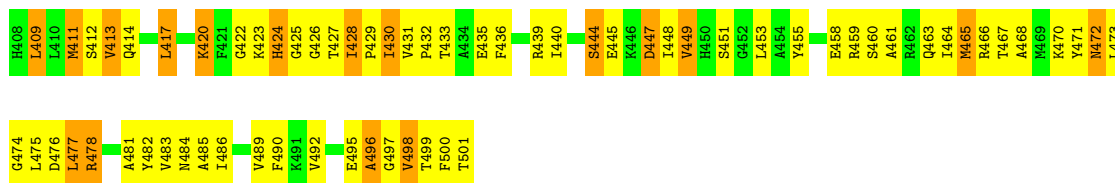
Chain K: 24% 60% 15%



• Molecule 1: Glutamate dehydrogenase 1

Chain L: 30% 54% 15%





## 4 Data and refinement statistics

Xtrriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	96.46Å 171.93Å 439.68Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.97 – 3.50	Depositor
% Data completeness (in resolution range)	94.0 (19.97-3.50)	Depositor
$R_{merge}$	0.07	Depositor
$R_{sym}$	(Not available)	Depositor
Refinement program	CNS	Depositor
R, $R_{free}$	0.207 , 0.276	Depositor
Estimated twinning fraction	No twinning to report.	Xtrriage
Total number of atoms	46812	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	59.0	wwPDB-VP

## 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: ADP

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.70	1/3958 (0.0%)	0.89	2/5340 (0.0%)
1	B	0.76	1/3958 (0.0%)	0.91	2/5340 (0.0%)
1	C	0.72	1/3958 (0.0%)	0.91	2/5340 (0.0%)
1	D	0.69	2/3958 (0.1%)	0.89	4/5340 (0.1%)
1	E	0.71	0/3958	0.91	2/5340 (0.0%)
1	F	0.73	0/3958	0.89	0/5340
1	G	0.79	0/3958	0.95	2/5340 (0.0%)
1	H	0.78	1/3958 (0.0%)	0.89	1/5340 (0.0%)
1	I	0.71	1/3958 (0.0%)	0.88	1/5340 (0.0%)
1	J	0.74	1/3958 (0.0%)	0.91	1/5340 (0.0%)
1	K	0.70	0/3958	0.89	2/5340 (0.0%)
1	L	0.73	2/3958 (0.1%)	0.88	0/5340
All	All	0.73	10/47496 (0.0%)	0.90	19/64080 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	E	0	2
1	F	0	1
1	G	0	1
1	H	0	1
All	All	0	5

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	197	CYS	CB-SG	-7.54	1.69	1.82
1	B	197	CYS	CB-SG	-6.96	1.70	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	89	CYS	CB-SG	-6.15	1.71	1.82
1	C	55	CYS	CB-SG	-6.08	1.72	1.82
1	L	89	CYS	CB-SG	-5.47	1.73	1.81
1	D	197	CYS	CB-SG	-5.41	1.73	1.81
1	H	151	GLU	CG-CD	5.32	1.59	1.51
1	J	101	VAL	CA-CB	-5.24	1.43	1.54
1	L	197	CYS	CB-SG	-5.22	1.73	1.81
1	A	89	CYS	CB-SG	-5.03	1.73	1.81

All (19) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	245	LYS	CD-CE-NZ	7.41	128.75	111.70
1	J	296	LEU	CA-CB-CG	6.82	130.98	115.30
1	B	61	LEU	CA-CB-CG	6.37	129.94	115.30
1	D	87	THR	N-CA-C	6.27	127.92	111.00
1	H	146	ARG	NE-CZ-NH2	-6.19	117.20	120.30
1	D	235	ILE	N-CA-C	-6.12	94.48	111.00
1	A	361	LEU	CA-CB-CG	5.97	129.03	115.30
1	D	296	LEU	CA-CB-CG	5.88	128.81	115.30
1	G	239	THR	N-CA-C	-5.76	95.43	111.00
1	E	237	GLY	N-CA-C	-5.67	98.93	113.10
1	E	420	LYS	N-CA-C	-5.48	96.21	111.00
1	C	30	GLU	N-CA-C	5.45	125.72	111.00
1	K	268	ALA	N-CA-C	-5.29	96.72	111.00
1	D	489	VAL	CB-CA-C	-5.23	101.47	111.40
1	B	299	GLY	N-CA-C	5.22	126.14	113.10
1	A	87	THR	N-CA-C	5.09	124.75	111.00
1	K	299	GLY	N-CA-C	5.04	125.69	113.10
1	C	453	LEU	CA-CB-CG	5.03	126.88	115.30
1	I	322	LEU	CA-CB-CG	5.00	126.81	115.30

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	E	310	TYR	Sidechain
1	E	490	PHE	Sidechain
1	F	455	TYR	Sidechain
1	G	113	TYR	Sidechain
1	H	310	TYR	Sidechain



## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3874	0	3841	456	0
1	B	3874	0	3841	464	0
1	C	3874	0	3841	527	0
1	D	3874	0	3841	499	0
1	E	3874	0	3841	437	0
1	F	3874	0	3841	420	0
1	G	3874	0	3841	453	0
1	H	3874	0	3841	481	0
1	I	3874	0	3841	509	0
1	J	3874	0	3841	446	0
1	K	3874	0	3841	569	0
1	L	3874	0	3841	508	0
2	A	27	0	12	6	0
2	B	27	0	12	5	0
2	C	27	0	12	6	0
2	D	27	0	12	5	0
2	E	27	0	12	6	0
2	F	27	0	12	3	0
2	G	27	0	12	4	0
2	H	27	0	12	2	0
2	I	27	0	12	5	0
2	J	27	0	12	3	0
2	K	27	0	12	2	0
2	L	27	0	12	4	0
All	All	46812	0	46236	5447	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 59.

All (5447) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:423:LYS:HD3	1:A:426:GLY:HA3	1.23	1.17
1:B:95:TYR:OH	1:B:145:THR:HG22	1.44	1.16
1:L:57:HIS:CD2	1:L:84:HIS:HE1	1.62	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:235:ILE:HG22	1:C:364:ASN:HD21	1.12	1.13
1:C:396:ARG:HH11	1:C:396:ARG:HG3	1.14	1.12
1:B:336:ALA:HB1	1:B:359:ILE:HG21	1.22	1.11
1:E:82:HIS:HD2	1:E:109:SER:HA	0.98	1.11
1:B:79:ARG:HD3	1:B:127:ALA:HB2	1.32	1.10
1:B:33:ARG:HH11	1:B:33:ARG:HB2	1.05	1.10
1:G:167:PRO:HG3	1:G:176:MET:SD	1.91	1.10
1:E:414:GLN:HB2	1:E:429:PRO:HD2	1.29	1.09
1:I:186:THR:HG22	1:I:187:ILE:H	1.16	1.09
1:E:314:ILE:H	1:E:314:ILE:HD13	1.16	1.09
1:G:30:GLU:HG3	1:G:31:ASP:H	0.95	1.09
1:C:335:ASN:HB2	1:C:338:ARG:HH22	1.08	1.09
1:J:212:ILE:H	1:J:212:ILE:HD12	1.16	1.08
1:B:29:VAL:HA	1:B:33:ARG:HD2	1.31	1.08
1:C:65:ILE:HD13	1:C:144:ILE:HG12	1.34	1.08
1:C:314:ILE:HD13	1:C:314:ILE:H	1.01	1.08
1:K:30:GLU:HG3	1:K:31:ASP:H	1.10	1.08
1:K:40:GLN:HA	1:K:40:GLN:HE21	1.17	1.08
1:C:87:THR:HB	1:C:88:PRO:HD3	1.36	1.07
1:B:212:ILE:H	1:B:212:ILE:HD12	1.18	1.07
1:L:250:GLN:HG3	1:L:315:LEU:HD11	1.32	1.07
1:I:82:HIS:CD2	1:I:112:THR:HG21	1.88	1.07
1:K:20:GLY:O	1:K:24:VAL:HG23	1.55	1.07
1:L:33:ARG:HB2	1:L:33:ARG:NH1	1.70	1.07
1:J:479:THR:O	1:J:483:VAL:HG23	1.52	1.06
1:L:33:ARG:HB2	1:L:33:ARG:HH11	0.90	1.06
1:L:79:ARG:HD2	1:L:127:ALA:HB2	1.34	1.06
1:C:52:ILE:HD13	1:C:489:VAL:HG12	1.36	1.06
1:I:323:ILE:HG22	1:I:345:ALA:HB3	1.38	1.06
1:L:29:VAL:O	1:L:33:ARG:HG3	1.54	1.06
1:L:118:VAL:HG23	1:L:120:VAL:HG23	1.37	1.06
1:E:82:HIS:CD2	1:E:109:SER:HA	1.90	1.05
1:H:427:THR:HG22	1:H:429:PRO:HD3	1.37	1.05
1:A:186:THR:HG22	1:A:187:ILE:H	0.96	1.05
1:C:239:THR:N	1:C:240:PRO:HD3	1.71	1.05
1:I:213:SER:HB2	1:I:217:ARG:HD2	1.37	1.05
1:B:439:ARG:HG3	1:B:439:ARG:HH11	1.16	1.04
1:B:261:ARG:HH11	1:B:261:ARG:HG3	1.22	1.04
1:L:250:GLN:HG2	1:L:314:ILE:HD11	1.40	1.04
1:K:314:ILE:HD13	1:K:314:ILE:H	1.22	1.04
1:H:332:THR:HG22	1:H:353:THR:HG21	1.35	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:45:VAL:HG23	1:J:72:TRP:HZ3	1.22	1.03
1:K:478:ARG:HH11	1:K:478:ARG:HG2	1.23	1.03
1:B:249:VAL:HB	1:B:323:ILE:HG12	1.41	1.03
1:C:429:PRO:O	1:C:431:VAL:N	1.91	1.02
1:F:396:ARG:HH11	1:F:396:ARG:HG3	1.24	1.02
1:A:323:ILE:HG22	1:A:345:ALA:HB3	1.42	1.01
1:H:314:ILE:H	1:H:314:ILE:HD13	1.20	1.01
1:D:137:THR:HG23	1:D:140:GLU:HG3	1.43	1.01
1:C:82:HIS:CD2	1:C:112:THR:HG21	1.95	1.01
1:I:93:ILE:HG23	1:I:127:ALA:HB3	1.42	1.01
1:K:260:MET:HE3	1:K:288:PRO:HA	1.40	1.01
1:B:73:GLU:HA	1:D:50:ARG:HH12	1.22	1.01
1:D:336:ALA:HB3	1:D:337:PRO:HD3	1.40	1.01
1:D:47:GLY:HA2	1:D:50:ARG:HG2	1.39	1.01
1:H:396:ARG:HG3	1:H:396:ARG:HH11	1.24	1.01
1:D:19:ARG:HD3	1:D:23:ILE:HD11	1.43	1.00
1:H:498:VAL:HG23	1:H:499:THR:H	1.25	1.00
1:J:250:GLN:HE21	1:J:326:ALA:HB3	1.27	1.00
1:F:498:VAL:HG23	1:F:499:THR:H	1.23	1.00
1:A:186:THR:CG2	1:A:187:ILE:H	1.75	1.00
1:G:30:GLU:HG3	1:G:31:ASP:N	1.74	1.00
1:D:286:ILE:HG21	1:D:291:LEU:HD12	1.42	0.99
1:D:323:ILE:HG22	1:D:345:ALA:HB3	1.43	0.99
1:A:250:GLN:HG2	1:A:314:ILE:HD11	1.43	0.99
1:F:423:LYS:HE3	1:F:426:GLY:HA3	1.44	0.99
1:D:346:GLU:HG2	1:D:351:PRO:HG2	1.44	0.99
1:E:53:LYS:HB3	1:E:54:PRO:HD3	1.45	0.99
1:B:186:THR:HG22	1:B:187:ILE:HD13	1.43	0.98
1:I:219:VAL:HA	1:I:373:LEU:CD2	1.93	0.98
1:I:72:TRP:HE1	1:L:498:VAL:HG11	1.26	0.98
1:B:137:THR:HG23	1:B:140:GLU:HG3	1.44	0.98
1:C:498:VAL:HG23	1:C:499:THR:H	1.29	0.98
1:E:65:ILE:HA	1:E:147:ARG:CZ	1.94	0.98
1:F:482:TYR:O	1:F:486:ILE:HG12	1.64	0.98
1:G:137:THR:HG22	1:G:139:ASN:H	1.24	0.98
1:C:351:PRO:HG2	1:C:352:THR:HG22	1.46	0.97
1:L:57:HIS:CD2	1:L:84:HIS:CE1	2.53	0.97
1:E:329:LYS:HB3	1:E:329:LYS:NZ	1.79	0.97
1:G:47:GLY:HA2	1:G:50:ARG:HG2	1.46	0.97
1:I:368:ILE:CG2	1:I:373:LEU:HD12	1.94	0.97
1:L:33:ARG:HH11	1:L:33:ARG:CB	1.76	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:67:ARG:HB3	1:D:67:ARG:HH11	1.25	0.97
1:G:436:PHE:O	1:G:440:ILE:HG13	1.62	0.97
1:K:107:LEU:HA	1:K:110:LEU:HD13	1.46	0.97
1:K:216:GLY:O	1:K:219:VAL:HG12	1.65	0.96
1:G:112:THR:HG22	1:G:124:GLY:HA3	1.47	0.96
1:H:9:PHE:HD1	1:H:10:PHE:H	1.03	0.96
1:L:233:MET:HE1	1:L:343:ILE:HD11	1.45	0.96
1:C:57:HIS:HD2	1:C:84:HIS:HE1	1.12	0.96
1:A:186:THR:HG22	1:A:187:ILE:N	1.80	0.96
1:G:142:GLU:HG2	1:G:146:ARG:HD2	1.46	0.96
1:L:239:THR:N	1:L:240:PRO:HD3	1.78	0.96
1:C:496:ALA:HB1	1:C:501:THR:OXT	1.65	0.96
1:L:57:HIS:HD2	1:L:84:HIS:CE1	1.83	0.95
1:C:314:ILE:H	1:C:314:ILE:CD1	1.80	0.95
1:L:313:SER:HB2	1:L:315:LEU:HD13	1.45	0.95
1:F:427:THR:HG22	1:F:429:PRO:HD3	1.46	0.95
1:G:429:PRO:O	1:G:431:VAL:N	1.98	0.95
1:I:233:MET:HE1	1:I:236:LEU:HD12	1.44	0.95
1:B:260:MET:HG2	1:B:288:PRO:HG3	1.50	0.94
1:I:37:SER:HA	1:I:42:ARG:NH1	1.82	0.94
1:G:30:GLU:CG	1:G:31:ASP:H	1.79	0.94
1:L:482:TYR:O	1:L:486:ILE:HG12	1.66	0.94
1:D:150:MET:SD	1:D:186:THR:HG21	2.08	0.94
1:L:314:ILE:HD13	1:L:314:ILE:H	1.32	0.94
1:B:33:ARG:HB2	1:B:33:ARG:NH1	1.82	0.94
1:I:186:THR:HG22	1:I:187:ILE:N	1.83	0.94
1:K:387:LYS:HE3	1:K:445:GLU:OE2	1.69	0.94
1:I:118:VAL:HG23	1:I:120:VAL:HG23	1.50	0.93
1:I:167:PRO:HG3	1:I:176:MET:SD	2.08	0.93
1:L:57:HIS:HD2	1:L:84:HIS:HE1	0.95	0.93
1:D:87:THR:HG22	1:D:88:PRO:HD3	1.50	0.93
1:G:260:MET:HG2	1:G:288:PRO:HG3	1.51	0.93
1:C:335:ASN:HB2	1:C:338:ARG:NH2	1.83	0.93
1:L:65:ILE:HD13	1:L:144:ILE:HG13	1.46	0.93
1:I:371:LEU:HD23	1:I:481:ALA:HB1	1.49	0.93
1:H:57:HIS:ND1	1:H:84:HIS:HE1	1.65	0.93
1:D:427:THR:HG22	1:D:429:PRO:HD3	1.50	0.93
1:C:360:PHE:HD1	1:C:365:ILE:HG13	1.30	0.93
1:D:275:GLU:OE1	1:D:301:ILE:HG13	1.68	0.93
1:B:227:ILE:HD12	1:B:233:MET:SD	2.08	0.92
1:H:154:LYS:HD2	1:K:189:HIS:HD2	1.35	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:498:VAL:HG23	1:B:499:THR:H	1.32	0.92
1:G:41:LYS:O	1:G:44:ARG:HB3	1.70	0.92
1:I:219:VAL:HA	1:I:373:LEU:HD21	1.51	0.92
1:F:429:PRO:O	1:F:431:VAL:N	2.01	0.92
1:F:47:GLY:HA2	1:F:50:ARG:HG2	1.52	0.92
1:K:53:LYS:HB3	1:K:54:PRO:HD3	1.50	0.92
1:G:482:TYR:O	1:G:486:ILE:HG12	1.69	0.92
1:J:432:PRO:HB3	1:J:436:PHE:HD1	1.36	0.91
1:A:65:ILE:HD13	1:A:144:ILE:HG12	1.53	0.91
1:H:82:HIS:CD2	1:H:109:SER:HA	2.05	0.91
1:A:260:MET:HE3	1:A:288:PRO:HA	1.52	0.91
1:D:468:ALA:HA	1:D:473:LEU:HD12	1.50	0.91
1:F:414:GLN:OE1	1:F:428:ILE:HA	1.71	0.91
1:K:314:ILE:HD13	1:K:314:ILE:N	1.86	0.91
1:C:314:ILE:HD13	1:C:314:ILE:N	1.86	0.91
1:D:250:GLN:HG2	1:D:314:ILE:CD1	2.01	0.91
1:F:166:ALA:HB1	1:F:167:PRO:HD2	1.51	0.91
1:K:414:GLN:HB2	1:K:429:PRO:HD2	1.51	0.91
1:G:87:THR:HB	1:G:88:PRO:HD3	1.52	0.90
1:I:396:ARG:HH11	1:I:396:ARG:HG3	1.33	0.90
1:B:24:VAL:HG22	1:B:483:VAL:HG13	1.51	0.90
1:E:176:MET:HE3	1:E:179:ILE:HD12	1.53	0.90
1:H:82:HIS:HD2	1:H:109:SER:HA	1.36	0.90
1:J:414:GLN:HG3	1:J:429:PRO:HD2	1.50	0.90
1:L:112:THR:HB	1:L:124:GLY:H	1.36	0.90
1:B:212:ILE:H	1:B:212:ILE:CD1	1.77	0.90
1:B:275:GLU:HB2	1:B:301:ILE:HD11	1.51	0.90
1:B:331:LEU:HD13	1:B:360:PHE:HZ	1.37	0.90
1:H:233:MET:HE1	1:H:236:LEU:HD12	1.52	0.90
1:J:250:GLN:NE2	1:J:326:ALA:HB3	1.86	0.90
1:L:9:PHE:HD1	1:L:10:PHE:N	1.70	0.90
1:C:217:ARG:HH12	1:C:221:HIS:HE1	1.08	0.90
1:G:29:VAL:HA	1:G:33:ARG:HD2	1.52	0.90
1:J:91:GLY:HA3	1:J:125:ALA:O	1.72	0.90
1:K:239:THR:N	1:K:240:PRO:HD3	1.87	0.90
1:A:397:LEU:HD13	1:F:394:TYR:HE2	1.35	0.90
1:C:65:ILE:HG12	1:C:75:ILE:HD11	1.54	0.90
1:C:181:ASP:OD1	1:E:501:THR:HG23	1.72	0.90
1:D:90:LYS:HZ3	1:D:199:THR:HG23	1.37	0.90
1:L:96:SER:O	1:L:99:VAL:HG13	1.71	0.90
1:G:82:HIS:CD2	1:G:112:THR:HG21	2.07	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:498:VAL:HG23	1:A:499:THR:H	1.36	0.89
1:D:332:THR:HG22	1:D:353:THR:HG21	1.54	0.89
1:I:313:SER:HB2	1:I:315:LEU:HD13	1.53	0.89
1:K:174:ARG:HG3	1:K:175:GLU:H	1.35	0.89
1:C:396:ARG:O	1:C:396:ARG:HD3	1.73	0.89
1:J:212:ILE:H	1:J:212:ILE:CD1	1.82	0.89
1:K:88:PRO:HA	1:K:162:ILE:O	1.72	0.89
1:A:59:LEU:CD2	1:A:61:LEU:HD21	2.01	0.89
1:C:280:ILE:HG22	1:C:281:TRP:H	1.35	0.89
1:K:59:LEU:HD21	1:K:61:LEU:HD21	1.54	0.89
1:K:314:ILE:H	1:K:314:ILE:CD1	1.83	0.89
1:H:331:LEU:HD22	1:H:360:PHE:HZ	1.37	0.89
1:D:99:VAL:HG22	1:D:130:LYS:HD3	1.55	0.88
1:K:40:GLN:HA	1:K:40:GLN:NE2	1.87	0.88
1:K:107:LEU:HD13	1:K:126:LYS:HE2	1.55	0.88
1:D:82:HIS:ND1	1:D:109:SER:HA	1.88	0.88
1:J:29:VAL:O	1:J:33:ARG:HB2	1.73	0.88
1:L:150:MET:HE1	1:L:186:THR:HG21	1.55	0.88
1:D:99:VAL:HG23	1:D:100:SER:N	1.86	0.88
1:G:19:ARG:NH1	1:G:479:THR:HG21	1.88	0.88
1:L:281:TRP:NE1	1:L:283:PRO:HD3	1.88	0.88
1:B:429:PRO:O	1:B:431:VAL:N	2.06	0.88
1:C:239:THR:H	1:C:240:PRO:HD3	1.38	0.88
1:G:47:GLY:O	1:G:51:ILE:HG13	1.72	0.88
1:G:208:ILE:HG13	1:G:387:LYS:HD2	1.56	0.88
1:K:30:GLU:HA	1:K:34:THR:HG23	1.54	0.88
1:A:247:PHE:HB2	1:A:321:ILE:HG22	1.53	0.88
1:H:19:ARG:HD3	1:H:23:ILE:HD11	1.56	0.88
1:F:59:LEU:HD21	1:F:61:LEU:HD21	1.54	0.88
1:K:301:ILE:HD12	1:K:302:LEU:HD12	1.56	0.88
1:H:368:ILE:HG21	1:H:373:LEU:HD13	1.56	0.88
1:H:414:GLN:OE1	1:H:430:ILE:HG12	1.74	0.88
1:C:280:ILE:O	1:C:281:TRP:HB2	1.72	0.88
1:D:98:ASP:N	1:D:130:LYS:HE3	1.88	0.88
1:A:106:ALA:O	1:A:109:SER:HB3	1.73	0.88
1:B:277:ASP:HB2	1:B:302:LEU:HD11	1.54	0.88
1:E:332:THR:HA	1:E:353:THR:CG2	2.04	0.87
1:B:52:ILE:HD13	1:B:489:VAL:HG12	1.57	0.87
1:D:186:THR:HG22	1:D:187:ILE:N	1.89	0.87
1:G:47:GLY:HA2	1:G:50:ARG:CG	2.04	0.87
1:H:346:GLU:HG2	1:H:351:PRO:HG2	1.54	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:42:ARG:O	1:J:45:VAL:HG12	1.74	0.87
1:A:479:THR:O	1:A:483:VAL:HG23	1.75	0.87
1:L:338:ARG:NH1	1:L:338:ARG:HB3	1.88	0.87
1:C:360:PHE:HB3	1:C:365:ILE:HB	1.56	0.87
1:L:9:PHE:HD1	1:L:10:PHE:H	0.89	0.87
1:B:20:GLY:O	1:B:24:VAL:HG23	1.75	0.87
1:B:65:ILE:HA	1:B:147:ARG:NH1	1.89	0.87
1:C:168:ASP:O	1:C:170:SER:N	2.07	0.87
1:A:386:LEU:HD13	1:B:392:VAL:HG21	1.57	0.87
1:C:49:LEU:HD12	1:C:49:LEU:H	1.38	0.87
1:L:6:ASP:HB2	1:L:329:LYS:HD2	1.55	0.87
1:L:82:HIS:CD2	1:L:112:THR:HG21	2.09	0.87
1:H:308:LYS:HD2	1:H:309:PRO:HD2	1.54	0.86
1:C:106:ALA:O	1:C:109:SER:HB3	1.74	0.86
1:A:186:THR:HG22	1:A:187:ILE:HG12	1.54	0.86
1:I:30:GLU:HG3	1:I:31:ASP:H	1.40	0.86
1:C:235:ILE:HG22	1:C:364:ASN:ND2	1.90	0.86
1:C:275:GLU:HB2	1:C:301:ILE:HD11	1.58	0.86
1:D:314:ILE:HD13	1:D:314:ILE:H	1.38	0.86
1:J:344:ILE:HB	1:J:367:VAL:HG22	1.58	0.86
1:D:239:THR:N	1:D:240:PRO:HD3	1.88	0.86
1:C:79:ARG:HD2	1:C:127:ALA:HB2	1.57	0.86
1:C:176:MET:CE	1:C:179:ILE:HD12	2.04	0.86
1:C:387:LYS:HE3	1:C:445:GLU:OE2	1.75	0.86
1:J:33:ARG:CZ	1:J:33:ARG:HA	2.06	0.86
1:H:291:LEU:HD12	1:H:291:LEU:O	1.76	0.85
1:L:396:ARG:HH11	1:L:396:ARG:HG3	1.38	0.85
1:G:50:ARG:HH12	1:K:73:GLU:HA	1.40	0.85
1:K:233:MET:HE1	1:K:343:ILE:HD11	1.57	0.85
1:G:212:ILE:H	1:G:212:ILE:HD12	1.38	0.85
1:F:478:ARG:HG3	1:F:478:ARG:HH11	1.38	0.85
1:E:12:MET:HE3	1:E:353:THR:HA	1.59	0.85
1:H:45:VAL:HG23	1:J:72:TRP:CZ3	2.10	0.85
1:A:130:LYS:O	1:A:131:ILE:HD12	1.76	0.85
1:C:19:ARG:NE	1:C:479:THR:HG21	1.91	0.85
1:D:186:THR:HG22	1:D:187:ILE:H	1.39	0.85
1:D:316:GLU:HA	1:D:316:GLU:OE1	1.76	0.85
1:H:496:ALA:HB1	1:H:501:THR:OXT	1.77	0.85
1:C:316:GLU:HG3	1:C:338:ARG:HH21	1.39	0.85
1:B:482:TYR:O	1:B:486:ILE:HG12	1.77	0.84
1:H:429:PRO:O	1:H:431:VAL:N	2.09	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:186:THR:CG2	1:I:187:ILE:N	2.40	0.84
1:A:55:CYS:SG	1:A:105:LYS:HG2	2.17	0.84
1:E:137:THR:HG23	1:E:140:GLU:HG3	1.59	0.84
1:A:397:LEU:HD13	1:F:394:TYR:CE2	2.11	0.84
1:B:65:ILE:HD13	1:B:144:ILE:HD11	1.60	0.84
1:F:79:ARG:HD2	1:F:127:ALA:HB2	1.58	0.84
1:K:131:ILE:HG12	1:K:136:TYR:HE2	1.42	0.84
1:K:87:THR:HB	1:K:88:PRO:HD3	1.58	0.84
1:C:93:ILE:HD11	1:C:165:PRO:HB3	1.58	0.84
1:C:338:ARG:HB3	1:C:338:ARG:NH1	1.93	0.84
1:H:500:PHE:HB3	1:L:142:GLU:OE1	1.78	0.84
1:B:255:VAL:HG13	1:B:256:GLY:H	1.42	0.84
1:D:501:THR:OXT	1:E:146:ARG:NH2	2.10	0.84
1:L:19:ARG:O	1:L:23:ILE:HG13	1.77	0.84
1:L:260:MET:HG2	1:L:288:PRO:HG3	1.59	0.84
1:A:423:LYS:CD	1:A:426:GLY:HA3	2.06	0.84
1:C:300:SER:O	1:C:302:LEU:N	2.10	0.84
1:C:233:MET:HA	1:C:236:LEU:HD12	1.58	0.84
1:I:131:ILE:HG23	1:I:136:TYR:CE2	2.12	0.84
1:I:107:LEU:HD13	1:I:126:LYS:HE3	1.60	0.83
1:I:269:LYS:HD3	1:I:285:GLY:HA3	1.59	0.83
1:K:30:GLU:HG3	1:K:31:ASP:N	1.92	0.83
1:C:52:ILE:CD1	1:C:489:VAL:HG12	2.08	0.83
1:E:33:ARG:HB2	1:E:36:GLU:OE1	1.78	0.83
1:G:335:ASN:HD22	1:G:336:ALA:N	1.75	0.83
1:H:36:GLU:CD	1:H:42:ARG:HH12	1.82	0.83
1:H:42:ARG:O	1:H:45:VAL:HG12	1.77	0.83
1:I:260:MET:HE3	1:I:288:PRO:HA	1.57	0.83
1:A:482:TYR:O	1:A:486:ILE:HG12	1.78	0.83
1:C:498:VAL:HG11	1:F:72:TRP:NE1	1.93	0.83
1:E:79:ARG:HH11	1:E:127:ALA:HB2	1.44	0.83
1:H:9:PHE:HD1	1:H:10:PHE:N	1.76	0.83
1:K:336:ALA:HB3	1:K:359:ILE:HD12	1.59	0.83
1:C:82:HIS:CG	1:C:112:THR:HG21	2.13	0.83
1:E:339:VAL:HG21	1:E:360:PHE:HE1	1.43	0.83
1:H:314:ILE:H	1:H:314:ILE:CD1	1.91	0.83
1:L:293:ASP:O	1:L:297:GLN:HG3	1.78	0.83
1:C:52:ILE:HD13	1:C:489:VAL:CG1	2.08	0.83
1:F:396:ARG:HG3	1:F:396:ARG:NH1	1.87	0.83
1:J:192:ILE:O	1:J:192:ILE:HG12	1.79	0.83
1:B:57:HIS:CE1	1:D:155:LYS:HE2	2.14	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:249:VAL:HG13	1:F:273:VAL:HG22	1.59	0.83
1:J:177:SER:OG	1:J:205:GLN:HG3	1.79	0.83
1:E:53:LYS:HB3	1:E:54:PRO:CD	2.07	0.83
1:K:274:GLY:HA3	1:K:314:ILE:HD12	1.60	0.83
1:B:212:ILE:HD12	1:B:212:ILE:N	1.93	0.82
1:B:291:LEU:HD11	1:B:301:ILE:HG22	1.61	0.82
1:E:19:ARG:HH11	1:E:19:ARG:HG3	1.44	0.82
1:E:39:GLU:HB3	1:E:41:LYS:HG3	1.59	0.82
1:G:192:ILE:O	1:G:192:ILE:HG12	1.78	0.82
1:J:82:HIS:CG	1:J:112:THR:HG21	2.14	0.82
1:I:445:GLU:O	1:I:449:VAL:HG23	1.78	0.82
1:B:396:ARG:HH11	1:B:396:ARG:HG3	1.44	0.82
1:C:414:GLN:OE1	1:C:430:ILE:HG12	1.79	0.82
1:H:247:PHE:HB3	1:H:321:ILE:HG13	1.60	0.82
1:B:414:GLN:OE1	1:B:430:ILE:HG12	1.79	0.82
1:H:321:ILE:HG22	1:H:343:ILE:HB	1.59	0.82
1:J:346:GLU:OE2	1:J:352:THR:HG22	1.80	0.82
1:C:57:HIS:CD2	1:C:84:HIS:HE1	1.97	0.82
1:C:118:VAL:HG12	1:C:456:THR:HG22	1.62	0.82
1:J:212:ILE:HD12	1:J:212:ILE:N	1.94	0.82
1:K:346:GLU:OE1	1:K:369:PRO:HA	1.78	0.82
1:C:335:ASN:CB	1:C:338:ARG:HH22	1.91	0.82
1:D:90:LYS:NZ	1:D:199:THR:HG23	1.94	0.82
1:I:236:LEU:HD22	1:I:342:LYS:HB3	1.62	0.81
1:A:57:HIS:ND1	1:A:84:HIS:HE1	1.77	0.81
1:H:501:THR:O	1:L:146:ARG:NH1	2.13	0.81
1:L:82:HIS:CG	1:L:112:THR:HG21	2.15	0.81
1:L:85:GLN:HE22	1:L:489:VAL:HG22	1.44	0.81
1:B:423:LYS:HG2	1:B:426:GLY:H	1.45	0.81
1:D:411:MET:HA	1:D:430:ILE:HG22	1.61	0.81
1:E:346:GLU:OE1	1:E:478:ARG:NH2	2.14	0.81
1:L:427:THR:C	1:L:428:ILE:HD13	2.01	0.81
1:F:345:ALA:HB1	1:F:373:LEU:HD21	1.61	0.81
1:G:82:HIS:HD2	1:G:112:THR:HG21	1.44	0.81
1:G:33:ARG:HH11	1:G:33:ARG:HB2	1.44	0.81
1:H:121:PRO:HD2	1:H:382:TYR:CE2	2.16	0.81
1:B:336:ALA:CB	1:B:359:ILE:HG21	2.08	0.81
1:C:217:ARG:HB3	1:C:217:ARG:HH11	1.43	0.81
1:C:392:VAL:HG22	1:E:386:LEU:HD22	1.61	0.81
1:F:53:LYS:HB3	1:F:54:PRO:HD3	1.63	0.81
1:F:428:ILE:HD13	1:F:428:ILE:N	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:501:THR:OXT	1:K:146:ARG:NH2	2.12	0.81
1:L:280:ILE:HG23	1:L:307:ALA:HB1	1.63	0.81
1:B:176:MET:HE3	1:B:179:ILE:HD12	1.63	0.81
1:F:19:ARG:HD3	1:F:23:ILE:HD11	1.63	0.81
1:J:20:GLY:O	1:J:24:VAL:HG22	1.79	0.81
1:J:368:ILE:HG21	1:J:373:LEU:HD13	1.62	0.81
1:K:220:PHE:HD1	1:K:221:HIS:N	1.79	0.81
1:B:439:ARG:HH11	1:B:439:ARG:CG	1.91	0.80
1:C:217:ARG:HH12	1:C:221:HIS:CE1	1.95	0.80
1:H:67:ARG:HB3	1:H:67:ARG:HH11	1.46	0.80
1:I:344:ILE:HD11	1:I:360:PHE:CE1	2.16	0.80
1:C:396:ARG:HH11	1:C:396:ARG:CG	1.92	0.80
1:E:6:ASP:N	1:E:7:PRO:HD3	1.96	0.80
1:J:30:GLU:HA	1:J:34:THR:HG23	1.63	0.80
1:A:72:TRP:HE1	1:E:498:VAL:HG21	1.45	0.80
1:A:501:THR:OG1	1:B:146:ARG:NH2	2.13	0.80
1:C:414:GLN:HB2	1:C:429:PRO:HD2	1.63	0.80
1:D:249:VAL:HG23	1:D:323:ILE:O	1.82	0.80
1:F:30:GLU:HG3	1:F:31:ASP:H	1.44	0.80
1:I:159:GLY:HA3	1:I:162:ILE:HD12	1.62	0.80
1:I:252:PHE:HE2	1:I:260:MET:HE1	1.46	0.80
1:E:167:PRO:HG3	1:E:176:MET:SD	2.22	0.80
1:I:57:HIS:CD2	1:L:155:LYS:HE3	2.17	0.80
1:I:96:SER:O	1:I:99:VAL:HG13	1.82	0.80
1:L:339:VAL:HG21	1:L:360:PHE:HE1	1.47	0.80
1:A:437:GLN:NE2	1:H:423:LYS:HG2	1.96	0.80
1:B:19:ARG:O	1:B:23:ILE:HG13	1.82	0.80
1:E:346:GLU:HG2	1:E:351:PRO:HG2	1.64	0.80
1:J:85:GLN:HG2	1:J:86:ARG:N	1.97	0.80
1:K:49:LEU:HD12	1:K:49:LEU:H	1.47	0.80
1:A:227:ILE:O	1:A:233:MET:HG3	1.82	0.80
1:E:429:PRO:O	1:E:431:VAL:N	2.14	0.80
1:J:336:ALA:HB3	1:J:337:PRO:HD3	1.63	0.80
1:K:291:LEU:HD11	1:K:301:ILE:HG22	1.63	0.80
1:K:436:PHE:O	1:K:440:ILE:HG13	1.82	0.80
1:C:39:GLU:HG2	1:C:41:LYS:HG2	1.61	0.80
1:I:72:TRP:NE1	1:L:498:VAL:HG11	1.96	0.80
1:J:500:PHE:HB3	1:K:142:GLU:OE1	1.81	0.80
1:A:429:PRO:O	1:A:431:VAL:N	2.15	0.79
1:C:411:MET:SD	1:C:430:ILE:HG21	2.22	0.79
1:J:90:LYS:HZ3	1:J:199:THR:HG23	1.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:96:SER:O	1:C:99:VAL:HG22	1.81	0.79
1:K:131:ILE:HG12	1:K:136:TYR:CE2	2.17	0.79
1:L:21:ALA:O	1:L:24:VAL:HG23	1.83	0.79
1:A:403:ARG:HG3	1:A:440:ILE:CG2	2.12	0.79
1:C:87:THR:CB	1:C:88:PRO:HD3	2.12	0.79
1:E:433:THR:CG2	1:E:436:PHE:HB2	2.12	0.79
1:G:414:GLN:OE1	1:G:430:ILE:HG12	1.82	0.79
2:G:502:ADP:O1A	2:G:502:ADP:H3'	1.82	0.79
1:I:24:VAL:HG12	1:I:28:LEU:HD22	1.64	0.79
1:A:239:THR:N	1:A:240:PRO:HD3	1.95	0.79
1:D:227:ILE:HA	1:D:233:MET:SD	2.22	0.79
1:B:339:VAL:HG21	1:B:360:PHE:HE1	1.47	0.79
1:B:346:GLU:OE1	1:B:370:ASP:N	2.15	0.79
1:C:322:LEU:HD22	1:C:323:ILE:H	1.46	0.79
1:D:250:GLN:HG2	1:D:314:ILE:HD11	1.64	0.79
1:E:291:LEU:HG	1:E:291:LEU:O	1.81	0.79
1:J:150:MET:SD	1:J:186:THR:HG21	2.23	0.79
1:K:227:ILE:CG2	1:K:227:ILE:O	2.29	0.79
1:C:346:GLU:HG3	1:C:368:ILE:O	1.82	0.79
1:H:220:PHE:HD2	1:H:263:LEU:HD23	1.48	0.79
1:A:201:LYS:NZ	1:A:388:ASN:HD21	1.80	0.79
1:D:67:ARG:HH11	1:D:67:ARG:CB	1.95	0.79
1:A:91:GLY:HA3	1:A:125:ALA:O	1.82	0.79
1:C:79:ARG:CD	1:C:127:ALA:HB2	2.13	0.79
1:C:316:GLU:CG	1:C:338:ARG:HE	1.95	0.79
1:C:372:TYR:CD2	1:C:464:ILE:HD11	2.18	0.79
1:D:371:LEU:HD22	1:D:482:TYR:CD2	2.18	0.79
1:A:167:PRO:HG3	1:A:176:MET:SD	2.23	0.79
1:D:57:HIS:HD2	1:D:84:HIS:NE2	1.81	0.79
1:G:142:GLU:HG3	1:G:178:TRP:CD2	2.17	0.79
1:K:227:ILE:O	1:K:227:ILE:HG23	1.82	0.79
1:G:142:GLU:OE1	1:L:500:PHE:HB3	1.82	0.78
1:K:336:ALA:CB	1:K:359:ILE:HD12	2.13	0.78
1:C:420:LYS:O	1:C:420:LYS:HG2	1.81	0.78
1:G:462:ARG:HB3	1:G:466:ARG:NH1	1.98	0.78
1:H:430:ILE:HG13	1:H:430:ILE:O	1.83	0.78
1:L:336:ALA:HB3	1:L:337:PRO:HD3	1.65	0.78
1:D:280:ILE:HD11	1:D:304:PHE:HB3	1.65	0.78
1:G:250:GLN:HG2	1:G:314:ILE:HD11	1.63	0.78
1:C:192:ILE:HG12	1:C:192:ILE:O	1.83	0.78
1:G:27:LYS:O	1:G:32:LEU:HD12	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:250:GLN:HG2	1:H:314:ILE:HD11	1.64	0.78
1:K:414:GLN:CB	1:K:429:PRO:HD2	2.12	0.78
1:F:40:GLN:O	1:F:40:GLN:HG3	1.83	0.78
1:I:24:VAL:CG1	1:I:28:LEU:HD22	2.14	0.78
1:J:48:ILE:O	1:J:52:ILE:HG13	1.83	0.78
1:A:59:LEU:HD21	1:A:61:LEU:HD21	1.65	0.78
1:A:336:ALA:HB3	1:A:337:PRO:HD3	1.66	0.78
1:L:201:LYS:O	1:L:211:ARG:NH1	2.17	0.78
1:L:411:MET:HA	1:L:430:ILE:HG22	1.65	0.78
1:A:118:VAL:HG23	1:A:120:VAL:HG23	1.64	0.78
1:J:90:LYS:NZ	1:J:164:VAL:HG12	1.98	0.78
1:L:498:VAL:HG23	1:L:499:THR:H	1.48	0.78
1:A:428:ILE:HG21	1:H:428:ILE:HG21	1.66	0.78
2:A:1:ADP:O1A	2:A:1:ADP:H3'	1.84	0.78
1:E:433:THR:HG23	1:E:436:PHE:HB2	1.65	0.78
1:L:91:GLY:HA3	1:L:125:ALA:O	1.83	0.78
1:A:85:GLN:OE1	2:A:1:ADP:N1	2.17	0.78
1:C:360:PHE:CD1	1:C:365:ILE:HG13	2.18	0.78
1:H:90:LYS:HE2	1:H:199:THR:HG21	1.66	0.78
1:J:90:LYS:HE2	1:J:199:THR:HG21	1.65	0.78
1:B:52:ILE:HD13	1:B:489:VAL:CG1	2.13	0.78
1:C:90:LYS:HZ3	1:C:164:VAL:HG12	1.49	0.78
1:J:95:TYR:OH	1:J:145:THR:HG22	1.83	0.78
1:A:500:PHE:O	1:A:501:THR:O	2.02	0.77
1:C:75:ILE:HD12	1:C:75:ILE:N	2.00	0.77
1:H:314:ILE:HD13	1:H:314:ILE:N	1.98	0.77
1:H:346:GLU:HG2	1:H:351:PRO:CG	2.13	0.77
1:L:33:ARG:NH1	1:L:33:ARG:CB	2.38	0.77
1:L:65:ILE:HD13	1:L:144:ILE:CG1	2.15	0.77
1:L:294:PHE:HA	1:L:297:GLN:NE2	1.98	0.77
1:B:137:THR:HG23	1:B:140:GLU:CG	2.14	0.77
1:C:57:HIS:HD2	1:C:84:HIS:CE1	1.99	0.77
1:H:106:ALA:O	1:H:109:SER:HB3	1.83	0.77
1:J:420:LYS:HZ2	1:J:420:LYS:HB3	1.49	0.77
1:K:48:ILE:HG13	1:K:490:PHE:HE1	1.49	0.77
1:D:366:MET:HB2	1:D:475:LEU:HD23	1.66	0.77
1:D:387:LYS:HE3	1:D:445:GLU:OE2	1.85	0.77
1:D:428:ILE:HD13	1:D:428:ILE:H	1.49	0.77
1:E:414:GLN:CB	1:E:429:PRO:HD2	2.13	0.77
1:I:323:ILE:CG2	1:I:345:ALA:HB3	2.13	0.77
1:H:91:GLY:HA3	1:H:125:ALA:O	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:9:PHE:HD1	1:I:10:PHE:H	1.30	0.77
1:B:65:ILE:HG12	1:B:75:ILE:HD11	1.64	0.77
1:D:87:THR:HG22	1:D:88:PRO:CD	2.14	0.77
1:F:95:TYR:OH	1:F:145:THR:HG22	1.83	0.77
1:J:414:GLN:NE2	1:J:430:ILE:HG12	1.99	0.77
1:A:372:TYR:CD2	1:A:464:ILE:HD11	2.20	0.77
1:B:330:GLN:O	1:B:331:LEU:HD23	1.84	0.77
1:I:37:SER:HA	1:I:42:ARG:CZ	2.14	0.77
1:K:436:PHE:CE2	1:K:440:ILE:HD11	2.19	0.77
1:A:52:ILE:HD13	1:A:489:VAL:HG12	1.67	0.77
1:A:59:LEU:HD23	1:A:61:LEU:HD21	1.67	0.77
1:B:45:VAL:HG13	1:B:45:VAL:O	1.84	0.77
1:G:95:TYR:OH	1:G:145:THR:HG22	1.84	0.77
1:L:68:ASP:OD2	1:L:140:GLU:HG3	1.85	0.77
1:A:24:VAL:CG1	1:A:28:LEU:HD22	2.15	0.77
1:C:436:PHE:O	1:C:440:ILE:HG13	1.85	0.77
1:B:176:MET:CE	1:B:179:ILE:HD12	2.15	0.77
1:B:222:GLY:HA3	1:B:373:LEU:HD13	1.65	0.77
1:B:222:GLY:HA3	1:B:373:LEU:CD1	2.15	0.77
1:J:386:LEU:HD13	1:K:392:VAL:HG11	1.65	0.77
1:L:186:THR:HG22	1:L:187:ILE:N	1.99	0.77
1:C:396:ARG:HG3	1:C:396:ARG:NH1	1.95	0.76
1:L:17:PHE:CE1	1:L:486:ILE:HD12	2.20	0.76
1:D:274:GLY:O	1:D:275:GLU:HB2	1.83	0.76
1:K:52:ILE:HG12	1:K:493:TYR:CE2	2.20	0.76
1:L:29:VAL:HA	1:L:33:ARG:HD2	1.67	0.76
1:B:336:ALA:HB1	1:B:359:ILE:CG2	2.11	0.76
1:I:147:ARG:CZ	1:L:499:THR:HB	2.14	0.76
1:J:7:PRO:O	1:J:329:LYS:HE2	1.86	0.76
1:J:32:LEU:O	1:J:33:ARG:HG2	1.86	0.76
1:A:332:THR:H	1:A:335:ASN:HD21	1.30	0.76
1:C:240:PRO:HD2	1:C:245:LYS:NZ	2.00	0.76
2:D:4:ADP:O1A	2:D:4:ADP:H3'	1.85	0.76
1:I:236:LEU:HD13	1:I:238:MET:HG3	1.67	0.76
1:B:95:TYR:HH	1:B:145:THR:HG22	1.48	0.76
1:J:414:GLN:HA	1:J:429:PRO:HG2	1.68	0.76
1:K:220:PHE:CD1	1:K:221:HIS:N	2.53	0.76
1:G:396:ARG:HH11	1:G:396:ARG:HG3	1.49	0.76
1:H:239:THR:N	1:H:240:PRO:HD3	2.00	0.76
1:J:459:ARG:O	1:J:463:GLN:HG3	1.85	0.76
1:K:87:THR:CB	1:K:88:PRO:HD3	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:82:HIS:ND1	1:A:109:SER:HA	2.01	0.76
1:B:73:GLU:HA	1:D:50:ARG:NH1	2.01	0.76
1:H:44:ARG:CB	1:H:44:ARG:HH11	1.98	0.76
1:B:65:ILE:O	1:B:65:ILE:HG13	1.83	0.76
1:I:219:VAL:HA	1:I:373:LEU:HD23	1.68	0.76
1:L:167:PRO:HG3	1:L:176:MET:HG2	1.68	0.76
1:C:414:GLN:HA	1:C:429:PRO:HG2	1.68	0.76
1:I:146:ARG:NH2	1:K:501:THR:OXT	2.13	0.76
1:B:379:THR:HG21	1:B:453:LEU:HD23	1.68	0.76
1:D:394:TYR:HB2	1:D:445:GLU:HG3	1.67	0.76
1:I:281:TRP:CD1	1:I:283:PRO:HD3	2.21	0.76
2:E:5:ADP:H3'	2:E:5:ADP:O1A	1.86	0.75
1:I:75:ILE:CG1	1:I:131:ILE:HD11	2.16	0.75
1:J:68:ASP:OD1	1:J:140:GLU:HG3	1.87	0.75
1:J:432:PRO:HB3	1:J:436:PHE:CD1	2.20	0.75
1:K:339:VAL:HG21	1:K:360:PHE:HE1	1.50	0.75
1:E:19:ARG:O	1:E:23:ILE:HG13	1.85	0.75
1:G:45:VAL:HG13	1:G:45:VAL:O	1.87	0.75
1:A:427:THR:HG22	1:A:429:PRO:HD3	1.68	0.75
1:F:20:GLY:O	1:F:24:VAL:HG22	1.86	0.75
1:D:296:LEU:HD13	1:D:297:GLN:N	2.02	0.75
1:B:65:ILE:HG12	1:B:75:ILE:CD1	2.17	0.75
1:E:370:ASP:OD1	1:E:371:LEU:N	2.19	0.75
1:G:150:MET:SD	1:G:186:THR:HG21	2.27	0.75
1:K:286:ILE:HG21	1:K:291:LEU:HD22	1.68	0.75
1:A:142:GLU:O	1:A:146:ARG:HG3	1.86	0.75
1:E:164:VAL:HG13	1:E:197:CYS:O	1.85	0.75
1:E:396:ARG:HG3	1:E:396:ARG:HH11	1.50	0.75
1:L:428:ILE:O	1:L:431:VAL:HG12	1.87	0.75
1:C:325:ALA:O	1:C:326:ALA:HB2	1.85	0.75
1:D:250:GLN:HG2	1:D:314:ILE:HD13	1.68	0.75
1:G:90:LYS:HD2	1:G:164:VAL:HB	1.66	0.75
1:H:52:ILE:HD13	1:H:489:VAL:HG12	1.68	0.75
1:H:331:LEU:O	1:H:353:THR:HG23	1.86	0.75
1:I:239:THR:N	1:I:240:PRO:HD3	2.02	0.75
1:A:403:ARG:HG3	1:A:440:ILE:HG22	1.68	0.75
1:B:315:LEU:HD11	1:B:330:GLN:HG2	1.68	0.75
1:C:217:ARG:HB3	1:C:217:ARG:NH1	2.02	0.75
1:D:20:GLY:O	1:D:24:VAL:HG23	1.87	0.75
1:J:145:THR:HG21	1:J:175:GLU:HG2	1.66	0.75
1:J:176:MET:HE3	1:J:198:VAL:HG21	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:219:VAL:HG22	1:L:373:LEU:HD21	1.68	0.75
1:A:222:GLY:HA3	1:A:373:LEU:HD12	1.67	0.75
1:A:498:VAL:HG11	1:E:72:TRP:HE1	1.52	0.75
1:B:33:ARG:HH11	1:B:33:ARG:CB	1.94	0.75
1:D:233:MET:HE1	1:D:236:LEU:HD12	1.67	0.75
1:J:82:HIS:CD2	1:J:112:THR:HG21	2.22	0.75
1:J:343:ILE:HD11	1:J:366:MET:HE2	1.66	0.75
1:A:175:GLU:HA	1:A:178:TRP:CE3	2.22	0.74
1:C:72:TRP:NE1	1:F:498:VAL:HG11	2.02	0.74
1:J:24:VAL:HG13	1:J:483:VAL:CG1	2.17	0.74
1:K:52:ILE:HD13	1:K:489:VAL:HG12	1.69	0.74
1:L:192:ILE:O	1:L:192:ILE:HG12	1.87	0.74
1:C:240:PRO:HD2	1:C:245:LYS:HZ2	1.52	0.74
1:K:360:PHE:HD1	1:K:365:ILE:HD12	1.52	0.74
1:B:53:LYS:HB3	1:B:54:PRO:HD3	1.70	0.74
1:B:148:PHE:O	1:B:152:LEU:HB2	1.88	0.74
1:E:236:LEU:HB2	1:E:238:MET:HG3	1.67	0.74
1:B:147:ARG:CZ	1:D:499:THR:OG1	2.35	0.74
1:E:314:ILE:H	1:E:314:ILE:CD1	1.97	0.74
1:H:67:ARG:HB3	1:H:67:ARG:NH1	2.01	0.74
1:K:118:VAL:HG11	1:K:375:ALA:HB1	1.68	0.74
1:B:501:THR:HG23	1:F:181:ASP:OD1	1.85	0.74
1:E:8:ASN:O	1:E:10:PHE:N	2.21	0.74
1:F:145:THR:HG21	1:F:175:GLU:HG2	1.68	0.74
1:I:332:THR:HG22	1:I:353:THR:HG21	1.69	0.74
1:K:87:THR:HB	1:K:88:PRO:CD	2.15	0.74
1:A:24:VAL:HG11	1:A:28:LEU:HD22	1.69	0.74
1:E:212:ILE:HG22	1:E:258:HIS:HE1	1.51	0.74
1:F:387:LYS:HE3	1:F:445:GLU:OE2	1.87	0.74
1:G:78:TYR:CE2	1:G:101:VAL:HG22	2.22	0.74
1:G:112:THR:HG22	1:G:124:GLY:CA	2.17	0.74
1:D:195:HIS:O	1:D:201:LYS:HE3	1.87	0.74
1:E:130:LYS:O	1:E:131:ILE:HD12	1.87	0.74
1:E:249:VAL:HG13	1:E:273:VAL:HG22	1.69	0.74
1:I:136:TYR:HB2	1:I:141:LEU:HD23	1.68	0.74
1:A:332:THR:HA	1:A:353:THR:CG2	2.18	0.74
1:B:424:HIS:CD2	1:B:424:HIS:H	2.05	0.74
1:C:380:VAL:HG12	1:C:381:SER:N	2.01	0.74
1:E:277:ASP:O	1:E:302:LEU:HD21	1.88	0.74
1:J:337:PRO:HA	1:J:363:ARG:HE	1.51	0.74
1:L:25:GLU:O	1:L:29:VAL:HG23	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:57:HIS:CD2	1:C:84:HIS:CE1	2.75	0.74
1:D:346:GLU:HG2	1:D:351:PRO:CG	2.17	0.74
1:L:177:SER:OG	1:L:205:GLN:HG3	1.87	0.74
1:C:360:PHE:CD1	1:C:365:ILE:HG21	2.23	0.73
1:J:239:THR:N	1:J:240:PRO:HD3	2.01	0.73
1:J:420:LYS:HB3	1:J:420:LYS:NZ	2.03	0.73
1:K:93:ILE:HD11	1:K:165:PRO:HB3	1.70	0.73
1:K:384:GLU:O	1:K:388:ASN:ND2	2.21	0.73
1:B:42:ARG:O	1:B:45:VAL:HG12	1.88	0.73
1:D:459:ARG:O	1:D:463:GLN:HG3	1.87	0.73
1:K:212:ILE:CD1	1:K:213:SER:H	2.00	0.73
1:G:17:PHE:HE2	1:G:53:LYS:HB2	1.54	0.73
1:H:428:ILE:O	1:H:431:VAL:HG12	1.87	0.73
1:J:150:MET:O	1:J:154:LYS:HG3	1.86	0.73
1:G:423:LYS:HA	1:G:423:LYS:HE2	1.68	0.73
1:G:437:GLN:HA	1:G:440:ILE:HD12	1.71	0.73
1:I:181:ASP:OD1	1:K:501:THR:OXT	2.06	0.73
1:I:368:ILE:HG21	1:I:373:LEU:HD12	1.70	0.73
1:K:219:VAL:HG11	1:K:259:SER:OG	1.88	0.73
1:L:246:THR:N	1:L:320:ASP:OD2	2.22	0.73
1:B:162:ILE:N	1:B:162:ILE:HD12	2.04	0.73
1:C:114:LYS:HE2	1:C:374:ASN:ND2	2.03	0.73
1:F:473:LEU:HD22	1:F:479:THR:OG1	1.88	0.73
1:H:19:ARG:HH22	1:H:358:LYS:NZ	1.87	0.73
1:B:217:ARG:HG2	1:B:221:HIS:HE1	1.54	0.73
1:B:249:VAL:HB	1:B:323:ILE:CG1	2.16	0.73
1:E:19:ARG:HG3	1:E:19:ARG:NH1	2.03	0.73
1:J:498:VAL:N	1:J:501:THR:HB	2.04	0.73
1:L:252:PHE:CE2	1:L:260:MET:HE1	2.23	0.73
1:L:321:ILE:HG22	1:L:343:ILE:CG2	2.17	0.73
1:A:146:ARG:NH2	1:F:501:THR:OXT	2.18	0.73
1:G:34:THR:HG22	1:G:34:THR:O	1.88	0.73
1:G:250:GLN:HG2	1:G:314:ILE:CD1	2.19	0.73
1:J:112:THR:HG22	1:J:124:GLY:HA3	1.69	0.73
1:L:260:MET:CE	1:L:288:PRO:HA	2.18	0.73
1:C:316:GLU:HG2	1:C:338:ARG:HE	1.54	0.73
1:E:329:LYS:HB3	1:E:329:LYS:HZ2	1.53	0.73
1:F:131:ILE:HD11	1:F:136:TYR:CE2	2.23	0.73
1:I:427:THR:HG22	1:I:429:PRO:HD3	1.71	0.73
1:D:53:LYS:HB3	1:D:54:PRO:HD3	1.71	0.73
1:D:247:PHE:CE1	1:D:263:LEU:HB3	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:291:LEU:HD11	1:H:301:ILE:CG2	2.18	0.73
1:L:355:GLU:O	1:L:359:ILE:HD13	1.88	0.73
1:B:314:ILE:H	1:B:314:ILE:HD13	1.53	0.73
1:I:79:ARG:HD2	1:I:127:ALA:HB2	1.68	0.73
1:L:93:ILE:HD11	1:L:165:PRO:HB3	1.71	0.73
1:A:28:LEU:HD12	1:A:32:LEU:HD22	1.70	0.72
1:H:332:THR:H	1:H:335:ASN:HD21	1.37	0.72
1:H:382:TYR:CE1	1:H:386:LEU:HD11	2.24	0.72
1:L:394:TYR:HB2	1:L:445:GLU:HG3	1.71	0.72
1:D:286:ILE:CG2	1:D:291:LEU:HD12	2.19	0.72
1:D:358:LYS:O	1:D:362:GLU:HG3	1.89	0.72
1:D:498:VAL:HG23	1:D:499:THR:H	1.55	0.72
1:F:9:PHE:CE1	1:F:103:GLU:HA	2.24	0.72
1:K:30:GLU:HA	1:K:34:THR:CG2	2.18	0.72
1:K:331:LEU:HD23	1:K:331:LEU:N	2.04	0.72
1:L:17:PHE:HE1	1:L:486:ILE:HD12	1.54	0.72
1:A:146:ARG:HH12	1:F:501:THR:C	1.92	0.72
1:F:344:ILE:HB	1:F:367:VAL:HG22	1.71	0.72
1:H:459:ARG:O	1:H:463:GLN:HG3	1.89	0.72
1:I:236:LEU:CD2	1:I:342:LYS:HB3	2.19	0.72
1:L:366:MET:HE3	1:L:368:ILE:HD11	1.70	0.72
1:B:332:THR:N	1:B:335:ASN:HD21	1.87	0.72
1:C:9:PHE:HD1	1:C:10:PHE:N	1.88	0.72
1:E:396:ARG:O	1:E:396:ARG:HD3	1.89	0.72
1:H:90:LYS:HE2	1:H:199:THR:CG2	2.20	0.72
1:H:154:LYS:HD2	1:K:189:HIS:CD2	2.20	0.72
1:J:146:ARG:HG2	1:J:182:THR:OG1	1.88	0.72
1:J:250:GLN:HB2	1:J:314:ILE:HD11	1.71	0.72
1:K:274:GLY:HA3	1:K:314:ILE:CD1	2.20	0.72
1:D:250:GLN:HG3	1:D:315:LEU:HD13	1.71	0.72
1:H:223:ILE:HD12	1:H:263:LEU:HD21	1.72	0.72
1:H:501:THR:HG23	1:L:181:ASP:OD1	1.88	0.72
1:J:234:SER:O	1:J:237:GLY:N	2.22	0.72
1:L:20:GLY:O	1:L:24:VAL:HG22	1.90	0.72
1:F:239:THR:N	1:F:240:PRO:HD3	2.04	0.72
1:H:24:VAL:HG23	1:H:483:VAL:HG22	1.70	0.72
1:H:154:LYS:HB3	1:K:189:HIS:NE2	2.04	0.72
1:J:305:PRO:O	1:J:307:ALA:N	2.22	0.72
2:J:502:ADP:O1A	2:J:502:ADP:H3'	1.87	0.72
1:B:471:TYR:O	1:B:473:LEU:HD23	1.89	0.72
1:I:392:VAL:HG13	1:K:382:TYR:OH	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:158:ILE:HD12	1:K:165:PRO:CD	2.20	0.72
1:A:109:SER:O	1:A:112:THR:HG23	1.90	0.72
1:C:271:ILE:O	1:C:272:ALA:HB2	1.90	0.72
1:D:137:THR:HG23	1:D:140:GLU:CG	2.20	0.72
1:E:329:LYS:HB3	1:E:329:LYS:HZ3	1.55	0.72
1:G:501:THR:OXT	1:H:181:ASP:HB3	1.90	0.72
1:H:61:LEU:HD12	1:H:77:GLY:O	1.90	0.72
1:H:396:ARG:HG3	1:H:396:ARG:NH1	2.00	0.72
1:J:167:PRO:HG3	1:J:176:MET:HG2	1.69	0.72
1:L:9:PHE:O	1:L:12:MET:HB2	1.89	0.72
1:B:323:ILE:O	1:B:323:ILE:HG13	1.89	0.72
1:C:289:LYS:HE2	1:C:293:ASP:OD2	1.89	0.72
1:F:498:VAL:HG23	1:F:499:THR:N	2.03	0.72
1:G:271:ILE:HD11	1:G:283:PRO:HA	1.72	0.72
1:G:392:VAL:HG21	1:L:386:LEU:HD13	1.71	0.72
1:H:137:THR:HG23	1:H:140:GLU:HB2	1.72	0.72
1:H:436:PHE:CE1	1:L:409:LEU:HD22	2.25	0.72
1:J:38:GLU:O	1:J:40:GLN:N	2.23	0.72
1:A:476:ASP:OD1	1:A:479:THR:HG23	1.90	0.71
1:E:65:ILE:HA	1:E:147:ARG:NH2	2.05	0.71
1:G:61:LEU:HD12	1:G:77:GLY:O	1.90	0.71
1:G:495:GLU:OE1	1:H:204:SER:HB3	1.90	0.71
1:H:280:ILE:HD12	1:H:301:ILE:HD12	1.70	0.71
1:K:68:ASP:OD2	1:K:137:THR:HG21	1.90	0.71
1:A:90:LYS:HB2	1:A:122:PHE:CD1	2.24	0.71
1:B:99:VAL:HA	1:B:103:GLU:OE2	1.90	0.71
1:B:249:VAL:CB	1:B:323:ILE:HG12	2.18	0.71
1:D:337:PRO:HA	1:D:363:ARG:HE	1.54	0.71
1:G:260:MET:HE3	1:G:288:PRO:HA	1.71	0.71
1:I:42:ARG:O	1:I:45:VAL:HG12	1.90	0.71
1:I:251:GLY:O	1:I:253:GLY:N	2.23	0.71
1:L:360:PHE:HB3	1:L:365:ILE:HB	1.72	0.71
1:B:397:LEU:O	1:B:398:THR:HG23	1.90	0.71
1:B:501:THR:C	1:F:146:ARG:HH22	1.94	0.71
1:E:153:ALA:HA	1:E:158:ILE:HG22	1.70	0.71
1:E:246:THR:HG22	1:E:320:ASP:OD1	1.90	0.71
1:G:250:GLN:HA	1:G:314:ILE:HD11	1.71	0.71
1:I:48:ILE:HG21	1:I:490:PHE:HD1	1.54	0.71
1:L:219:VAL:HG11	1:L:259:SER:OG	1.90	0.71
1:C:104:VAL:HG23	1:C:105:LYS:N	2.04	0.71
1:C:501:THR:HG23	1:D:181:ASP:OD1	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:9:PHE:HD1	1:E:10:PHE:H	1.39	0.71
1:E:335:ASN:HD22	1:E:336:ALA:N	1.87	0.71
1:G:411:MET:HA	1:G:430:ILE:HG22	1.72	0.71
1:I:371:LEU:HD23	1:I:481:ALA:CB	2.19	0.71
1:K:104:VAL:HG23	1:K:105:LYS:N	2.05	0.71
1:H:110:LEU:HD12	1:H:110:LEU:O	1.90	0.71
1:A:150:MET:SD	1:A:186:THR:HG21	2.31	0.71
1:B:114:LYS:O	1:B:117:VAL:HB	1.89	0.71
1:C:238:MET:O	1:C:239:THR:HG22	1.90	0.71
1:C:277:ASP:CB	1:C:302:LEU:HD11	2.21	0.71
1:H:82:HIS:CG	1:H:112:THR:HG21	2.26	0.71
1:L:9:PHE:CD1	1:L:10:PHE:N	2.50	0.71
1:C:47:GLY:HA2	1:C:50:ARG:HD3	1.72	0.71
1:F:19:ARG:HH11	1:F:19:ARG:HG3	1.55	0.71
1:L:227:ILE:O	1:L:227:ILE:HG12	1.90	0.71
1:A:499:THR:OG1	1:E:147:ARG:HD3	1.90	0.71
1:E:314:ILE:HD13	1:E:314:ILE:N	2.00	0.71
1:H:332:THR:HG22	1:H:353:THR:CG2	2.17	0.71
2:H:502:ADP:O1A	2:H:502:ADP:H3'	1.91	0.71
1:C:257:LEU:HA	1:C:260:MET:HE2	1.71	0.71
1:D:106:ALA:O	1:D:109:SER:HB3	1.91	0.71
1:E:6:ASP:N	1:E:6:ASP:OD2	2.23	0.71
1:J:436:PHE:CD2	1:K:408:HIS:HB3	2.26	0.71
1:K:174:ARG:HG3	1:K:175:GLU:N	2.06	0.71
1:A:53:LYS:HB3	1:A:54:PRO:HD3	1.72	0.71
1:C:226:PHE:CD1	1:C:366:MET:HE3	2.25	0.71
1:E:257:LEU:HD11	1:E:292:GLU:OE1	1.91	0.71
1:F:315:LEU:HD23	1:F:331:LEU:CD1	2.21	0.71
1:K:173:GLU:HB2	1:K:202:PRO:HG3	1.71	0.71
1:K:229:GLU:OE1	1:K:229:GLU:HA	1.89	0.71
1:L:316:GLU:HB3	1:L:338:ARG:HH21	1.55	0.71
1:F:250:GLN:HA	1:F:314:ILE:HD11	1.72	0.70
1:H:281:TRP:CD1	1:H:283:PRO:HD3	2.25	0.70
1:I:332:THR:O	1:I:336:ALA:HB2	1.91	0.70
1:J:318:ASP:O	1:J:319:CYS:HB3	1.91	0.70
1:J:331:LEU:HD22	1:J:360:PHE:CZ	2.26	0.70
1:J:414:GLN:CG	1:J:429:PRO:HD2	2.20	0.70
1:A:414:GLN:OE1	1:A:430:ILE:HG12	1.91	0.70
1:C:67:ARG:HD2	1:C:73:GLU:OE1	1.91	0.70
1:L:90:LYS:HB2	1:L:122:PHE:CD1	2.26	0.70
1:F:224:GLU:HA	1:F:227:ILE:HG22	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:104:VAL:HG23	1:H:105:LYS:N	2.06	0.70
1:K:13:VAL:HG21	1:K:110:LEU:HD11	1.73	0.70
1:K:162:ILE:HG22	1:K:163:ASP:N	2.06	0.70
1:K:203:ILE:HD12	1:K:209:HIS:CE1	2.27	0.70
1:A:75:ILE:HG23	1:A:131:ILE:HD13	1.74	0.70
1:B:9:PHE:HD1	1:B:10:PHE:H	1.38	0.70
1:C:61:LEU:HD12	1:C:77:GLY:O	1.91	0.70
1:C:351:PRO:HG2	1:C:352:THR:H	1.55	0.70
1:E:208:ILE:HG13	1:E:445:GLU:OE2	1.91	0.70
1:F:274:GLY:N	1:F:314:ILE:HD12	2.05	0.70
1:I:236:LEU:HB3	1:I:238:MET:HG2	1.73	0.70
1:I:368:ILE:HG22	1:I:373:LEU:HD12	1.73	0.70
1:A:314:ILE:HD13	1:A:314:ILE:N	2.06	0.70
1:A:346:GLU:OE2	1:A:478:ARG:NH2	2.24	0.70
1:C:437:GLN:HA	1:C:440:ILE:HD12	1.73	0.70
1:F:315:LEU:HD23	1:F:331:LEU:HD12	1.73	0.70
1:H:75:ILE:HD12	1:H:75:ILE:N	2.07	0.70
1:L:53:LYS:HB3	1:L:54:PRO:HD3	1.71	0.70
1:C:248:VAL:HG12	1:C:249:VAL:N	2.06	0.70
1:C:392:VAL:CG2	1:E:386:LEU:HD22	2.21	0.70
1:G:429:PRO:C	1:G:431:VAL:H	1.95	0.70
1:G:492:VAL:HG21	2:G:502:ADP:C2	2.26	0.70
1:H:72:TRP:HE1	1:J:498:VAL:HG11	1.55	0.70
1:I:459:ARG:NH2	2:I:502:ADP:O3B	2.25	0.70
1:J:414:GLN:HE22	1:J:430:ILE:HG12	1.56	0.70
1:K:236:LEU:HA	1:K:342:LYS:NZ	2.06	0.70
1:C:370:ASP:N	1:C:370:ASP:OD2	2.23	0.70
1:F:131:ILE:HD11	1:F:136:TYR:HE2	1.56	0.70
1:I:101:VAL:HG13	1:I:105:LYS:HE3	1.73	0.70
1:A:52:ILE:CD1	1:A:489:VAL:HG12	2.21	0.70
1:A:163:ASP:O	1:A:165:PRO:HD3	1.90	0.70
1:L:112:THR:HG22	1:L:124:GLY:HA3	1.74	0.70
1:C:322:LEU:HD22	1:C:323:ILE:N	2.05	0.70
1:F:478:ARG:HG3	1:F:478:ARG:NH1	2.02	0.70
1:L:250:GLN:HG3	1:L:315:LEU:CD1	2.17	0.70
1:E:86:ARG:NH1	1:E:492:VAL:CG2	2.55	0.70
1:H:471:TYR:HB2	1:H:473:LEU:HD11	1.74	0.70
1:K:250:GLN:HG2	1:K:314:ILE:HD11	1.74	0.70
1:A:181:ASP:OD1	1:F:501:THR:HG23	1.92	0.69
1:A:393:SER:HB3	2:F:502:ADP:O3A	1.91	0.69
1:A:498:VAL:O	1:A:501:THR:HG22	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:160:PRO:HG3	1:F:191:ASP:OD1	1.92	0.69
1:H:57:HIS:CE1	1:H:84:HIS:HE1	2.09	0.69
1:H:239:THR:O	1:H:239:THR:HG23	1.92	0.69
1:I:38:GLU:HB2	1:I:42:ARG:HH21	1.56	0.69
1:B:331:LEU:HD13	1:B:360:PHE:CZ	2.24	0.69
1:E:421:PHE:HE1	1:E:423:LYS:HG3	1.58	0.69
1:G:240:PRO:HG2	1:G:244:ASP:O	1.91	0.69
1:L:239:THR:N	1:L:240:PRO:CD	2.54	0.69
1:A:137:THR:HG23	1:A:140:GLU:HG3	1.73	0.69
1:B:277:ASP:HB2	1:B:302:LEU:CD1	2.21	0.69
1:C:380:VAL:O	1:C:383:PHE:N	2.22	0.69
1:D:96:SER:O	1:D:99:VAL:HG13	1.90	0.69
1:G:250:GLN:CG	1:G:314:ILE:HD11	2.22	0.69
1:L:153:ALA:HA	1:L:158:ILE:HG22	1.73	0.69
1:A:39:GLU:O	1:A:41:LYS:HG3	1.92	0.69
1:F:318:ASP:O	1:F:319:CYS:HB3	1.93	0.69
1:G:397:LEU:HD22	1:L:394:TYR:CE2	2.28	0.69
1:H:220:PHE:CD2	1:H:263:LEU:HD23	2.27	0.69
1:B:424:HIS:CD2	1:B:424:HIS:N	2.59	0.69
1:F:386:LEU:O	1:F:389:LEU:N	2.25	0.69
1:H:498:VAL:HG23	1:H:499:THR:N	2.03	0.69
2:I:502:ADP:H3'	2:I:502:ADP:O1A	1.92	0.69
1:L:471:TYR:O	1:L:473:LEU:N	2.26	0.69
1:A:260:MET:CE	1:A:288:PRO:HA	2.21	0.69
1:B:9:PHE:CZ	1:B:103:GLU:HG3	2.26	0.69
1:B:9:PHE:CE2	1:B:103:GLU:HG3	2.27	0.69
1:B:292:GLU:O	1:B:296:LEU:HG	1.93	0.69
1:C:284:ASP:OD2	1:C:284:ASP:N	2.25	0.69
1:C:310:TYR:C	1:C:310:TYR:CD2	2.66	0.69
1:C:353:THR:HB	1:C:354:PRO:CD	2.23	0.69
1:F:250:GLN:HG2	1:F:314:ILE:CD1	2.23	0.69
1:H:79:ARG:HH11	1:H:127:ALA:HB2	1.56	0.69
1:H:300:SER:HB3	1:H:302:LEU:HD22	1.75	0.69
1:I:143:LYS:HG3	1:K:500:PHE:HE2	1.57	0.69
1:I:181:ASP:OD1	1:K:501:THR:HG23	1.93	0.69
1:J:264:HIS:CD2	1:J:288:PRO:HD3	2.26	0.69
1:J:281:TRP:NE1	1:J:283:PRO:HD3	2.08	0.69
1:L:250:GLN:CG	1:L:314:ILE:HD11	2.19	0.69
1:A:360:PHE:O	1:A:365:ILE:HB	1.91	0.69
1:B:239:THR:N	1:B:240:PRO:HD3	2.07	0.69
1:C:19:ARG:CZ	1:C:479:THR:HG21	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:344:ILE:HD11	1:C:360:PHE:CE1	2.28	0.69
2:C:3:ADP:O1A	2:C:3:ADP:H3'	1.93	0.69
1:I:40:GLN:HG3	1:I:40:GLN:O	1.93	0.69
1:I:83:SER:OG	1:I:85:GLN:NE2	2.26	0.69
1:I:444:SER:HB2	1:I:446:LYS:HG2	1.75	0.69
1:J:370:ASP:OD1	1:J:371:LEU:N	2.25	0.69
1:B:57:HIS:ND1	1:D:155:LYS:HE2	2.08	0.69
1:B:81:GLN:HG3	1:B:157:PHE:CE1	2.27	0.69
1:B:118:VAL:HG23	1:B:120:VAL:HG23	1.75	0.69
1:C:101:VAL:O	1:C:104:VAL:HG22	1.93	0.69
1:E:95:TYR:OH	1:E:145:THR:HG22	1.93	0.69
1:F:104:VAL:HG23	1:F:105:LYS:N	2.06	0.69
1:F:250:GLN:HG3	1:F:315:LEU:HD11	1.74	0.69
1:F:250:GLN:HG3	1:F:315:LEU:CD1	2.23	0.69
1:J:331:LEU:HD22	1:J:360:PHE:HZ	1.55	0.69
1:J:411:MET:HA	1:J:430:ILE:CG2	2.22	0.69
1:K:195:HIS:O	1:K:201:LYS:HE3	1.93	0.69
1:K:500:PHE:CE1	1:L:500:PHE:HZ	2.09	0.69
1:A:280:ILE:HG23	1:A:307:ALA:HB1	1.74	0.69
1:C:240:PRO:CD	1:C:245:LYS:HZ2	2.04	0.69
1:D:114:LYS:HG3	1:D:371:LEU:O	1.92	0.69
1:D:192:ILE:O	1:D:192:ILE:HG12	1.92	0.69
1:D:249:VAL:HG23	1:D:323:ILE:HG13	1.74	0.69
1:E:61:LEU:N	1:E:61:LEU:HD23	2.06	0.69
2:F:502:ADP:H3'	2:F:502:ADP:O1A	1.93	0.69
1:H:482:TYR:O	1:H:486:ILE:HG12	1.93	0.69
1:K:346:GLU:OE2	1:K:351:PRO:HD2	1.93	0.69
1:B:129:VAL:O	1:B:131:ILE:HG22	1.92	0.69
1:E:250:GLN:HG3	1:E:315:LEU:HD11	1.75	0.69
1:L:247:PHE:CB	1:L:321:ILE:HG13	2.23	0.69
1:B:295:LYS:HG2	1:B:295:LYS:O	1.92	0.68
1:D:24:VAL:HG12	1:D:28:LEU:HD22	1.75	0.68
1:G:65:ILE:HD13	1:G:144:ILE:HG12	1.75	0.68
1:J:233:MET:HE1	1:J:236:LEU:HD12	1.74	0.68
1:L:260:MET:HE2	1:L:288:PRO:HA	1.74	0.68
1:L:371:LEU:HD22	1:L:482:TYR:CD2	2.28	0.68
1:C:319:CYS:SG	1:C:320:ASP:N	2.65	0.68
1:E:67:ARG:NH2	1:E:135:ASN:O	2.25	0.68
1:G:368:ILE:HG21	1:G:373:LEU:HD13	1.74	0.68
1:G:409:LEU:HD13	1:L:436:PHE:CE1	2.28	0.68
1:H:147:ARG:HH11	1:H:147:ARG:HG3	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:233:MET:HE1	1:H:236:LEU:CD1	2.22	0.68
1:I:57:HIS:HD2	1:L:155:LYS:HE3	1.56	0.68
1:K:158:ILE:HG23	1:K:158:ILE:O	1.93	0.68
1:L:248:VAL:HG22	1:L:271:ILE:HG22	1.76	0.68
1:B:248:VAL:HG13	1:B:272:ALA:O	1.94	0.68
1:B:271:ILE:HG13	1:B:283:PRO:HA	1.75	0.68
1:F:244:ASP:OD1	1:F:245:LYS:HG3	1.93	0.68
1:J:250:GLN:OE1	1:J:330:GLN:HG2	1.93	0.68
1:K:291:LEU:CD1	1:K:301:ILE:HG22	2.23	0.68
1:L:314:ILE:HD13	1:L:314:ILE:N	2.08	0.68
1:A:411:MET:HG2	1:A:430:ILE:CG2	2.23	0.68
1:C:359:ILE:HD12	1:C:359:ILE:H	1.59	0.68
1:E:246:THR:HG22	1:E:320:ASP:CG	2.14	0.68
1:I:27:LYS:HG2	1:I:31:ASP:OD2	1.93	0.68
1:I:478:ARG:O	1:I:479:THR:C	2.30	0.68
1:K:252:PHE:HB3	1:K:275:GLU:OE1	1.93	0.68
1:B:196:ALA:HA	1:B:388:ASN:HD22	1.59	0.68
1:D:337:PRO:O	1:D:363:ARG:NH2	2.26	0.68
1:F:414:GLN:OE1	1:F:430:ILE:HG12	1.93	0.68
1:G:39:GLU:O	1:G:41:LYS:N	2.26	0.68
1:H:339:VAL:HG21	1:H:360:PHE:HE1	1.59	0.68
1:J:87:THR:HG22	1:J:88:PRO:N	2.08	0.68
1:J:429:PRO:O	1:J:431:VAL:N	2.25	0.68
1:K:394:TYR:HB2	1:K:445:GLU:HG3	1.76	0.68
1:L:217:ARG:HB3	1:L:217:ARG:HH11	1.58	0.68
1:A:433:THR:HG23	1:B:412:SER:OG	1.92	0.68
1:B:49:LEU:H	1:B:49:LEU:HD12	1.58	0.68
1:B:257:LEU:HD21	1:B:292:GLU:HG3	1.76	0.68
1:G:17:PHE:CE1	1:G:486:ILE:HD12	2.28	0.68
1:G:19:ARG:HH11	1:G:479:THR:HG21	1.57	0.68
1:K:93:ILE:CD1	1:K:165:PRO:HB3	2.24	0.68
1:A:34:THR:HG22	1:A:34:THR:O	1.92	0.68
1:D:213:SER:HB2	1:D:217:ARG:HD2	1.75	0.68
1:H:355:GLU:O	1:H:359:ILE:HD13	1.94	0.68
1:K:150:MET:O	1:K:154:LYS:HG3	1.93	0.68
1:A:24:VAL:HG12	1:A:28:LEU:HB2	1.74	0.68
1:A:186:THR:CG2	1:A:187:ILE:HG12	2.24	0.68
1:B:261:ARG:HG3	1:B:261:ARG:NH1	2.01	0.68
1:B:346:GLU:OE2	1:B:478:ARG:NH2	2.26	0.68
1:B:424:HIS:H	1:B:424:HIS:HD2	1.41	0.68
1:C:49:LEU:HD12	1:C:49:LEU:N	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:176:MET:HG3	1:C:198:VAL:HG21	1.76	0.68
1:C:335:ASN:HA	1:C:338:ARG:HH12	1.59	0.68
1:J:281:TRP:CD1	1:J:283:PRO:HD3	2.29	0.68
1:C:239:THR:N	1:C:240:PRO:CD	2.45	0.68
1:I:68:ASP:OD1	1:I:140:GLU:HG3	1.93	0.68
1:I:412:SER:HA	1:K:433:THR:HG22	1.76	0.68
2:L:502:ADP:O1A	2:L:502:ADP:H3'	1.92	0.68
1:A:417:LEU:HD11	1:F:417:LEU:CD2	2.23	0.68
1:C:142:GLU:OE1	1:C:178:TRP:CE2	2.46	0.68
1:C:239:THR:O	1:C:239:THR:HG23	1.94	0.68
1:D:501:THR:C	1:E:146:ARG:HH22	1.97	0.68
1:F:281:TRP:CZ2	1:F:283:PRO:HG3	2.29	0.68
1:G:260:MET:CE	1:G:288:PRO:HA	2.24	0.68
1:I:75:ILE:HG13	1:I:131:ILE:HD11	1.76	0.68
1:J:33:ARG:O	1:J:35:ARG:N	2.27	0.68
2:K:502:ADP:O1A	2:K:502:ADP:H3'	1.93	0.68
1:C:346:GLU:C	1:C:373:LEU:HD23	2.15	0.67
1:D:403:ARG:HH11	1:D:403:ARG:HG2	1.59	0.67
1:E:432:PRO:HB3	1:E:436:PHE:CD1	2.29	0.67
1:H:274:GLY:O	1:H:301:ILE:HD11	1.94	0.67
1:J:314:ILE:HD13	1:J:314:ILE:N	2.10	0.67
1:J:436:PHE:CZ	1:J:440:ILE:HD11	2.29	0.67
1:K:239:THR:O	1:K:239:THR:HG23	1.93	0.67
1:K:478:ARG:HG2	1:K:478:ARG:NH1	1.99	0.67
1:L:16:PHE:CE2	1:L:478:ARG:HD2	2.28	0.67
1:L:167:PRO:CG	1:L:176:MET:HG2	2.23	0.67
1:L:316:GLU:HB3	1:L:338:ARG:NH2	2.09	0.67
1:C:53:LYS:HB3	1:C:54:PRO:HD3	1.76	0.67
1:G:193:ASN:OD1	1:G:389:LEU:HD23	1.94	0.67
1:J:363:ARG:O	1:J:365:ILE:HG12	1.95	0.67
1:K:199:THR:HA	1:K:384:GLU:OE1	1.93	0.67
1:K:335:ASN:HA	1:K:338:ARG:HD3	1.76	0.67
1:L:436:PHE:O	1:L:440:ILE:HG13	1.94	0.67
1:C:87:THR:HB	1:C:88:PRO:CD	2.20	0.67
1:F:142:GLU:HG3	1:F:178:TRP:CD2	2.29	0.67
1:F:246:THR:HG23	1:F:320:ASP:OD1	1.93	0.67
1:G:459:ARG:O	1:G:463:GLN:HG3	1.94	0.67
1:I:227:ILE:CD1	1:I:343:ILE:HD12	2.23	0.67
1:A:339:VAL:HG21	1:A:360:PHE:HE1	1.58	0.67
1:E:33:ARG:HB2	1:E:33:ARG:HH11	1.60	0.67
1:I:327:SER:OG	1:I:330:GLN:NE2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:323:ILE:HG23	1:K:345:ALA:HB3	1.76	0.67
1:K:354:PRO:O	1:K:357:ASP:HB2	1.95	0.67
1:K:360:PHE:HB3	1:K:365:ILE:HB	1.76	0.67
1:L:335:ASN:HD22	1:L:335:ASN:N	1.93	0.67
1:A:348:ALA:O	1:A:351:PRO:HD3	1.94	0.67
1:B:175:GLU:HA	1:B:178:TRP:CE3	2.29	0.67
1:C:344:ILE:HD11	1:C:365:ILE:HG21	1.76	0.67
1:D:393:SER:OG	1:D:396:ARG:HB2	1.94	0.67
1:E:371:LEU:HD22	1:E:482:TYR:CE2	2.30	0.67
1:G:201:LYS:NZ	1:G:388:ASN:HD21	1.93	0.67
1:H:29:VAL:O	1:H:30:GLU:O	2.12	0.67
1:H:436:PHE:CZ	1:L:409:LEU:HD22	2.29	0.67
1:I:212:ILE:N	1:I:212:ILE:HD12	2.10	0.67
1:I:386:LEU:HD13	1:J:392:VAL:HG21	1.75	0.67
1:J:501:THR:OXT	1:K:181:ASP:OD1	2.12	0.67
1:K:141:LEU:O	1:K:145:THR:CG2	2.43	0.67
1:L:315:LEU:HD12	1:L:315:LEU:H	1.60	0.67
1:B:498:VAL:HG23	1:B:499:THR:N	2.08	0.67
1:C:280:ILE:HG22	1:C:281:TRP:N	2.10	0.67
1:D:213:SER:HB2	1:D:217:ARG:CD	2.24	0.67
1:F:329:LYS:H	1:F:329:LYS:HZ2	1.41	0.67
1:H:121:PRO:CG	1:H:382:TYR:HE2	2.07	0.67
1:I:33:ARG:O	1:I:33:ARG:HD3	1.95	0.67
1:A:250:GLN:HG2	1:A:314:ILE:CD1	2.21	0.67
1:A:387:LYS:HE3	1:A:445:GLU:OE2	1.95	0.67
1:B:316:GLU:OE2	1:B:338:ARG:HB3	1.95	0.67
1:D:99:VAL:HG23	1:D:100:SER:H	1.59	0.67
1:D:371:LEU:HD23	1:D:481:ALA:CB	2.24	0.67
1:E:223:ILE:HD12	1:E:263:LEU:HD21	1.76	0.67
1:E:479:THR:O	1:E:483:VAL:HG23	1.94	0.67
1:G:331:LEU:O	1:G:353:THR:HG23	1.94	0.67
1:I:217:ARG:HB3	1:I:217:ARG:HH11	1.59	0.67
1:K:52:ILE:HG12	1:K:493:TYR:HE2	1.60	0.67
1:K:79:ARG:HD2	1:K:127:ALA:HB2	1.77	0.67
1:A:164:VAL:HA	1:A:197:CYS:O	1.94	0.67
1:A:498:VAL:HG23	1:A:499:THR:N	2.09	0.67
1:B:75:ILE:HG12	1:B:144:ILE:CD1	2.25	0.67
1:B:137:THR:CG2	1:B:140:GLU:HG3	2.24	0.67
1:D:59:LEU:HD21	1:D:61:LEU:HD22	1.75	0.67
1:D:371:LEU:HD23	1:D:481:ALA:HB1	1.77	0.67
1:E:336:ALA:HB3	1:E:337:PRO:HD3	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:421:PHE:CD1	1:J:422:GLY:N	2.63	0.67
1:K:356:ALA:HB1	1:K:360:PHE:HE2	1.59	0.67
1:B:394:TYR:HB2	1:B:445:GLU:HG3	1.77	0.67
1:C:498:VAL:HG23	1:C:499:THR:N	2.08	0.67
1:G:17:PHE:CE2	1:G:53:LYS:HB2	2.30	0.67
1:H:87:THR:HB	1:H:88:PRO:HD3	1.77	0.67
1:I:59:LEU:HB2	1:I:157:PHE:CE2	2.30	0.67
1:J:99:VAL:HG23	1:J:130:LYS:HD3	1.76	0.67
1:K:360:PHE:HA	1:K:365:ILE:HG13	1.77	0.67
1:L:219:VAL:HG22	1:L:373:LEU:CD2	2.25	0.67
1:G:181:ASP:OD1	1:L:501:THR:HG23	1.94	0.66
1:K:99:VAL:HG23	1:K:130:LYS:HG3	1.76	0.66
1:K:411:MET:HG2	1:K:430:ILE:HG22	1.77	0.66
1:A:501:THR:OG1	1:B:181:ASP:OD1	2.12	0.66
1:B:79:ARG:HH22	1:B:165:PRO:HA	1.60	0.66
1:B:257:LEU:C	1:B:257:LEU:HD12	2.14	0.66
1:E:90:LYS:HD2	1:E:164:VAL:O	1.95	0.66
1:E:221:HIS:O	1:E:222:GLY:C	2.34	0.66
1:F:332:THR:N	1:F:335:ASN:HD21	1.93	0.66
1:K:248:VAL:O	1:K:322:LEU:HD23	1.95	0.66
1:B:217:ARG:HG2	1:B:221:HIS:CE1	2.30	0.66
1:B:280:ILE:CG2	1:B:281:TRP:N	2.57	0.66
1:C:410:LEU:O	1:C:413:VAL:HG23	1.95	0.66
1:D:453:LEU:HD23	1:D:457:MET:HG2	1.76	0.66
1:E:239:THR:HG23	1:E:239:THR:O	1.95	0.66
1:F:90:LYS:HE2	1:F:199:THR:CG2	2.25	0.66
1:F:331:LEU:HD23	1:F:360:PHE:CZ	2.30	0.66
1:H:175:GLU:O	1:H:179:ILE:HG12	1.95	0.66
1:I:296:LEU:HD13	1:I:297:GLN:N	2.10	0.66
1:J:498:VAL:HG23	1:J:499:THR:N	2.10	0.66
2:B:2:ADP:H3'	2:B:2:ADP:O1A	1.96	0.66
1:E:176:MET:HE3	1:E:179:ILE:CD1	2.25	0.66
1:E:238:MET:O	1:E:239:THR:C	2.33	0.66
1:G:233:MET:HE1	1:G:236:LEU:HD12	1.78	0.66
1:H:57:HIS:ND1	1:H:84:HIS:CE1	2.57	0.66
1:H:72:TRP:NE1	1:J:498:VAL:HG11	2.10	0.66
1:J:304:PHE:CD1	1:J:305:PRO:HD2	2.30	0.66
1:K:59:LEU:CD2	1:K:61:LEU:HD21	2.26	0.66
1:L:101:VAL:O	1:L:104:VAL:HG22	1.94	0.66
1:A:281:TRP:HD1	1:A:282:ASN:H	1.43	0.66
1:C:220:PHE:CD1	1:C:221:HIS:N	2.63	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:345:ALA:HB1	1:E:373:LEU:CD2	2.26	0.66
1:G:57:HIS:HD2	1:G:84:HIS:CE1	2.13	0.66
1:I:92:GLY:HA2	1:I:166:ALA:O	1.93	0.66
1:I:485:ALA:O	1:I:489:VAL:HG23	1.95	0.66
1:J:346:GLU:OE2	1:J:351:PRO:HD2	1.95	0.66
1:K:219:VAL:O	1:K:220:PHE:O	2.14	0.66
1:K:497:GLY:O	1:K:498:VAL:HG13	1.95	0.66
1:L:104:VAL:HG23	1:L:105:LYS:N	2.10	0.66
1:A:96:SER:O	1:A:99:VAL:HG13	1.95	0.66
1:D:294:PHE:CZ	1:D:304:PHE:HA	2.29	0.66
1:F:92:GLY:HA2	1:F:166:ALA:O	1.96	0.66
1:G:212:ILE:H	1:G:212:ILE:CD1	2.00	0.66
1:B:250:GLN:HG2	1:B:314:ILE:HD11	1.77	0.66
1:B:314:ILE:H	1:B:314:ILE:CD1	2.09	0.66
1:C:90:LYS:NZ	1:C:164:VAL:HG12	2.10	0.66
1:E:332:THR:HA	1:E:353:THR:HG21	1.78	0.66
1:H:257:LEU:C	1:H:257:LEU:HD12	2.16	0.66
1:H:281:TRP:NE1	1:H:283:PRO:HD3	2.11	0.66
1:I:406:ASN:HD22	1:J:409:LEU:CD2	2.08	0.66
1:I:410:LEU:HD21	1:J:409:LEU:CD1	2.26	0.66
1:I:417:LEU:HD11	1:K:417:LEU:HD23	1.77	0.66
1:J:65:ILE:HG12	1:J:75:ILE:HD11	1.78	0.66
1:K:203:ILE:HD12	1:K:209:HIS:ND1	2.11	0.66
1:L:39:GLU:CB	1:L:41:LYS:HG3	2.26	0.66
1:A:396:ARG:HH11	1:A:396:ARG:HG3	1.60	0.66
1:E:137:THR:HG23	1:E:140:GLU:CG	2.24	0.66
1:I:396:ARG:O	1:I:396:ARG:HD3	1.96	0.66
1:K:118:VAL:HG11	1:K:375:ALA:CB	2.26	0.66
1:A:20:GLY:O	1:A:24:VAL:HG23	1.96	0.66
2:A:1:ADP:O1B	1:B:396:ARG:NH1	2.29	0.66
1:D:500:PHE:HB3	1:E:142:GLU:OE2	1.95	0.66
1:E:143:LYS:NZ	1:E:147:ARG:HH21	1.94	0.66
1:F:239:THR:HG23	1:F:239:THR:O	1.96	0.66
1:I:32:LEU:O	1:I:33:ARG:CB	2.44	0.66
1:K:87:THR:CB	1:K:88:PRO:CD	2.71	0.66
1:A:28:LEU:HD12	1:A:32:LEU:CD2	2.26	0.66
1:A:274:GLY:HA3	1:A:314:ILE:HD12	1.76	0.66
1:A:386:LEU:CD1	1:B:392:VAL:HG21	2.26	0.66
1:C:155:LYS:NZ	1:F:81:GLN:OE1	2.26	0.66
1:C:346:GLU:O	1:C:373:LEU:HD23	1.96	0.66
1:D:316:GLU:O	1:D:317:ALA:O	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:263:LEU:O	1:E:268:ALA:HB3	1.95	0.66
1:K:118:VAL:HG23	1:K:120:VAL:HG23	1.78	0.66
1:L:223:ILE:O	1:L:227:ILE:HG22	1.96	0.66
1:B:471:TYR:CE2	1:B:483:VAL:HG11	2.31	0.65
1:C:43:ASN:O	1:C:46:ARG:HG2	1.94	0.65
1:C:118:VAL:HG12	1:C:456:THR:CG2	2.26	0.65
1:D:421:PHE:CD2	1:D:422:GLY:N	2.64	0.65
1:E:390:ASN:O	1:E:392:VAL:HG23	1.95	0.65
1:I:114:LYS:HG3	1:I:371:LEU:O	1.96	0.65
1:J:81:GLN:HG2	1:J:89:CYS:SG	2.36	0.65
1:K:17:PHE:HE2	1:K:53:LYS:HB2	1.61	0.65
1:K:153:ALA:HA	1:K:158:ILE:HG22	1.78	0.65
1:L:39:GLU:HB2	1:L:41:LYS:HG3	1.77	0.65
1:L:335:ASN:N	1:L:335:ASN:ND2	2.44	0.65
1:C:280:ILE:O	1:C:281:TRP:CB	2.44	0.65
1:E:86:ARG:NH1	1:E:492:VAL:HG22	2.11	0.65
1:E:246:THR:HG23	1:E:320:ASP:H	1.61	0.65
1:H:274:GLY:HA3	1:H:314:ILE:HD12	1.77	0.65
1:H:476:ASP:OD2	1:H:479:THR:OG1	2.13	0.65
1:K:141:LEU:O	1:K:145:THR:HG23	1.96	0.65
1:K:345:ALA:HB1	1:K:373:LEU:HD21	1.78	0.65
1:L:92:GLY:HA2	1:L:166:ALA:O	1.96	0.65
1:L:300:SER:OG	1:L:301:ILE:N	2.29	0.65
1:A:201:LYS:HD3	1:A:205:GLN:O	1.96	0.65
1:C:12:MET:O	1:C:16:PHE:HD1	1.80	0.65
1:C:274:GLY:O	1:C:275:GLU:HB2	1.96	0.65
1:G:250:GLN:HE21	1:G:314:ILE:CD1	2.10	0.65
1:G:416:SER:OG	1:L:431:VAL:HG13	1.96	0.65
1:C:201:LYS:NZ	1:C:388:ASN:HD21	1.93	0.65
1:D:19:ARG:O	1:D:23:ILE:HG13	1.96	0.65
1:D:47:GLY:HA2	1:D:50:ARG:CG	2.20	0.65
1:E:280:ILE:HG23	1:E:307:ALA:HB1	1.78	0.65
1:E:281:TRP:O	1:E:282:ASN:HB2	1.96	0.65
1:H:50:ARG:CZ	1:H:50:ARG:HB2	2.25	0.65
1:I:9:PHE:HA	1:I:12:MET:HE2	1.79	0.65
1:I:337:PRO:O	1:I:363:ARG:NH2	2.29	0.65
1:J:421:PHE:CE1	1:J:423:LYS:HB2	2.31	0.65
1:K:318:ASP:O	1:K:319:CYS:HB3	1.95	0.65
1:K:344:ILE:HD11	1:K:365:ILE:HG21	1.78	0.65
1:A:72:TRP:NE1	1:E:498:VAL:HG21	2.12	0.65
1:A:201:LYS:HG2	1:A:384:GLU:OE1	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:411:MET:HA	1:A:430:ILE:HG22	1.78	0.65
1:B:386:LEU:HD13	1:F:392:VAL:HG21	1.77	0.65
1:F:315:LEU:H	1:F:315:LEU:HD12	1.62	0.65
1:F:497:GLY:CA	1:F:501:THR:HA	2.27	0.65
1:H:260:MET:HE3	1:H:288:PRO:HA	1.77	0.65
1:J:432:PRO:HA	1:K:412:SER:OG	1.96	0.65
1:J:501:THR:HG23	1:K:181:ASP:OD1	1.96	0.65
1:B:363:ARG:O	1:B:365:ILE:HG12	1.96	0.65
1:D:414:GLN:OE1	1:D:430:ILE:HG12	1.96	0.65
1:H:343:ILE:HG12	1:H:366:MET:HB3	1.79	0.65
1:H:368:ILE:CG2	1:H:373:LEU:HD13	2.27	0.65
1:J:131:ILE:HD11	1:J:136:TYR:OH	1.97	0.65
1:J:497:GLY:HA3	1:J:501:THR:HA	1.78	0.65
1:K:229:GLU:HG3	1:K:231:SER:OG	1.95	0.65
1:L:339:VAL:HG21	1:L:360:PHE:CE1	2.31	0.65
1:A:433:THR:O	1:A:436:PHE:N	2.29	0.65
1:C:344:ILE:HD12	1:C:367:VAL:HG22	1.77	0.65
1:C:420:LYS:O	1:C:420:LYS:CG	2.44	0.65
1:C:482:TYR:O	1:C:486:ILE:HG12	1.97	0.65
1:D:396:ARG:HG2	1:D:396:ARG:HH11	1.62	0.65
1:E:75:ILE:HG23	1:E:131:ILE:HD13	1.78	0.65
1:G:208:ILE:HG13	1:G:387:LYS:CD	2.26	0.65
1:D:47:GLY:CA	1:D:50:ARG:HG2	2.21	0.65
1:D:86:ARG:NH2	2:D:4:ADP:O4'	2.29	0.65
1:E:150:MET:SD	1:E:186:THR:HG21	2.36	0.65
1:G:176:MET:CE	1:G:179:ILE:HD12	2.27	0.65
1:I:477:LEU:H	1:I:477:LEU:HD22	1.61	0.65
1:K:301:ILE:CD1	1:K:302:LEU:HD12	2.27	0.65
1:B:423:LYS:HG2	1:B:426:GLY:N	2.11	0.65
1:C:32:LEU:O	1:C:33:ARG:HB3	1.97	0.65
1:C:227:ILE:O	1:C:233:MET:HG3	1.96	0.65
1:G:165:PRO:O	1:G:198:VAL:HG23	1.97	0.65
1:J:259:SER:O	1:J:263:LEU:HB2	1.97	0.65
1:K:146:ARG:O	1:K:149:THR:N	2.29	0.65
1:K:332:THR:O	1:K:336:ALA:HB2	1.97	0.65
1:C:119:ASP:OD1	2:C:3:ADP:H2'	1.97	0.65
1:D:498:VAL:N	1:D:501:THR:HB	2.12	0.65
1:G:33:ARG:HH11	1:G:33:ARG:CB	2.10	0.65
1:H:68:ASP:OD2	1:H:137:THR:HG21	1.97	0.65
1:I:406:ASN:ND2	1:J:409:LEU:HD23	2.12	0.65
1:K:49:LEU:HD12	1:K:49:LEU:N	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:264:HIS:O	1:K:266:PHE:N	2.29	0.65
1:L:247:PHE:HZ	1:L:260:MET:HG3	1.60	0.65
1:B:75:ILE:HG12	1:B:144:ILE:HD13	1.78	0.64
1:C:217:ARG:NH1	1:C:221:HIS:HE1	1.90	0.64
1:D:396:ARG:HH11	1:D:396:ARG:CG	2.10	0.64
1:F:19:ARG:O	1:F:23:ILE:HG13	1.97	0.64
1:G:61:LEU:HD12	1:G:61:LEU:H	1.62	0.64
1:H:45:VAL:HG13	1:H:45:VAL:O	1.97	0.64
1:H:94:ARG:HB2	1:H:168:ASP:OD2	1.97	0.64
1:J:90:LYS:HZ3	1:J:164:VAL:HG12	1.62	0.64
1:J:332:THR:O	1:J:336:ALA:HB2	1.97	0.64
1:C:20:GLY:O	1:C:24:VAL:HG23	1.97	0.64
1:E:82:HIS:CG	1:E:112:THR:HG21	2.32	0.64
1:F:250:GLN:HG2	1:F:314:ILE:HD11	1.79	0.64
1:I:238:MET:HE1	1:I:342:LYS:HG3	1.79	0.64
1:J:387:LYS:HE3	1:J:393:SER:HA	1.80	0.64
1:K:174:ARG:HG3	1:K:175:GLU:OE1	1.97	0.64
1:A:429:PRO:C	1:A:431:VAL:H	2.01	0.64
1:B:396:ARG:HG3	1:B:396:ARG:NH1	2.07	0.64
1:H:85:GLN:HG3	1:H:492:VAL:HG21	1.79	0.64
1:K:168:ASP:O	1:K:170:SER:N	2.29	0.64
1:L:42:ARG:O	1:L:45:VAL:HG12	1.97	0.64
1:L:252:PHE:HE2	1:L:260:MET:HE1	1.63	0.64
1:L:294:PHE:HE2	1:L:301:ILE:C	1.99	0.64
1:B:335:ASN:HD22	1:B:336:ALA:H	1.45	0.64
1:C:200:GLY:N	1:C:384:GLU:OE1	2.29	0.64
1:D:39:GLU:HB3	1:D:41:LYS:HG2	1.78	0.64
1:F:47:GLY:CA	1:F:50:ARG:HG2	2.24	0.64
1:H:305:PRO:O	1:H:306:LYS:HB2	1.96	0.64
1:I:37:SER:O	1:I:38:GLU:HG3	1.97	0.64
1:I:280:ILE:HG23	1:I:307:ALA:HB1	1.77	0.64
1:J:181:ASP:O	1:J:182:THR:C	2.34	0.64
1:A:428:ILE:CG2	1:H:428:ILE:HG21	2.28	0.64
1:B:497:GLY:CA	1:B:501:THR:HA	2.27	0.64
1:C:13:VAL:HG12	1:C:14:GLU:N	2.13	0.64
1:C:371:LEU:HD23	1:C:481:ALA:HB1	1.78	0.64
1:D:281:TRP:O	1:D:282:ASN:HB2	1.98	0.64
1:E:143:LYS:HE3	1:E:147:ARG:HH21	1.62	0.64
1:I:175:GLU:HA	1:I:178:TRP:CE3	2.32	0.64
1:I:217:ARG:HG2	1:I:262:TYR:CE2	2.32	0.64
1:I:250:GLN:HG3	1:I:315:LEU:HD11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:85:GLN:OE1	2:J:502:ADP:N1	2.31	0.64
1:B:250:GLN:HG2	1:B:314:ILE:CD1	2.28	0.64
1:I:75:ILE:HG12	1:I:131:ILE:HD11	1.79	0.64
1:I:436:PHE:O	1:I:440:ILE:HG13	1.97	0.64
1:K:226:PHE:O	1:K:228:ASN:N	2.26	0.64
1:L:414:GLN:OE1	1:L:428:ILE:HA	1.97	0.64
1:A:353:THR:HG23	1:A:356:ALA:H	1.61	0.64
1:B:65:ILE:HD13	1:B:144:ILE:CD1	2.28	0.64
1:B:433:THR:HG23	1:F:412:SER:OG	1.97	0.64
1:D:227:ILE:HD11	1:D:321:ILE:HD11	1.78	0.64
1:E:420:LYS:O	1:E:420:LYS:NZ	2.19	0.64
1:F:431:VAL:O	1:F:431:VAL:HG13	1.98	0.64
1:H:248:VAL:HG11	1:H:314:ILE:HB	1.80	0.64
1:H:274:GLY:O	1:H:275:GLU:HB2	1.96	0.64
1:I:484:ASN:ND2	1:I:488:LYS:HE3	2.13	0.64
1:K:227:ILE:HD11	1:K:321:ILE:HD11	1.79	0.64
1:K:280:ILE:HG22	1:K:281:TRP:N	2.13	0.64
1:C:42:ARG:O	1:C:45:VAL:HG12	1.97	0.64
1:D:301:ILE:C	1:D:301:ILE:HD12	2.18	0.64
1:E:111:MET:HB3	1:E:124:GLY:HA2	1.79	0.64
1:H:356:ALA:O	1:H:360:PHE:CD2	2.51	0.64
1:I:148:PHE:O	1:I:152:LEU:HB2	1.98	0.64
1:J:349:ASN:OD1	1:J:374:ASN:ND2	2.31	0.64
1:J:428:ILE:O	1:J:428:ILE:HG22	1.97	0.64
1:K:465:MET:O	1:K:468:ALA:N	2.31	0.64
1:A:345:ALA:HB1	1:A:373:LEU:HD21	1.80	0.64
1:C:331:LEU:HD23	1:C:335:ASN:HD21	1.61	0.64
1:C:429:PRO:C	1:C:431:VAL:H	1.94	0.64
1:F:68:ASP:N	1:F:140:GLU:OE2	2.29	0.64
1:I:261:ARG:NH1	1:I:292:GLU:OE1	2.31	0.64
1:J:68:ASP:OD2	1:J:137:THR:HG21	1.97	0.64
1:J:379:THR:O	1:J:382:TYR:HB3	1.97	0.64
1:K:13:VAL:HG21	1:K:110:LEU:CD1	2.28	0.64
1:L:176:MET:HE3	1:L:179:ILE:HD12	1.80	0.64
1:L:423:LYS:HG3	1:L:425:GLY:H	1.63	0.64
1:L:428:ILE:HD13	1:L:428:ILE:N	2.12	0.64
1:A:65:ILE:HD13	1:A:144:ILE:CG1	2.27	0.64
1:B:147:ARG:NE	1:D:499:THR:OG1	2.31	0.64
1:C:131:ILE:HG13	1:C:136:TYR:CE2	2.33	0.64
1:D:98:ASP:CA	1:D:130:LYS:HE3	2.26	0.64
1:D:314:ILE:CD1	1:D:314:ILE:H	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:33:ARG:HH12	1:F:45:VAL:HG11	1.62	0.64
1:I:202:PRO:HD2	1:I:205:GLN:HB2	1.80	0.64
1:I:339:VAL:HG21	1:I:360:PHE:HE1	1.61	0.64
1:I:501:THR:HG23	1:J:181:ASP:OD1	1.97	0.64
1:A:331:LEU:O	1:A:353:THR:HG22	1.98	0.63
1:D:360:PHE:HD1	1:D:365:ILE:HG21	1.63	0.63
1:F:414:GLN:HE22	1:F:430:ILE:CD1	2.11	0.63
1:G:232:TYR:HD1	1:G:232:TYR:H	1.45	0.63
1:G:281:TRP:CZ2	1:G:283:PRO:HG3	2.33	0.63
1:I:484:ASN:HD21	1:I:488:LYS:NZ	1.96	0.63
1:L:239:THR:HG23	1:L:239:THR:O	1.97	0.63
1:B:65:ILE:HA	1:B:147:ARG:CZ	2.28	0.63
1:B:498:VAL:HG11	1:D:72:TRP:NE1	2.13	0.63
1:D:352:THR:HG23	1:D:478:ARG:NH2	2.13	0.63
1:E:79:ARG:NH1	1:E:127:ALA:HB2	2.12	0.63
1:E:378:VAL:HA	1:E:381:SER:OG	1.98	0.63
1:F:252:PHE:CE2	1:F:257:LEU:HB2	2.33	0.63
1:G:61:LEU:HD12	1:G:61:LEU:N	2.13	0.63
1:I:93:ILE:HG23	1:I:127:ALA:CB	2.23	0.63
1:I:238:MET:CE	1:I:342:LYS:HG3	2.28	0.63
1:I:322:LEU:HD12	1:I:344:ILE:HG23	1.79	0.63
1:J:101:VAL:O	1:J:104:VAL:HG22	1.98	0.63
1:K:45:VAL:C	1:K:47:GLY:H	2.02	0.63
1:A:261:ARG:HH11	1:A:261:ARG:HG3	1.63	0.63
1:B:24:VAL:CG2	1:B:483:VAL:HG13	2.27	0.63
1:H:487:GLU:O	1:H:490:PHE:HB3	1.99	0.63
1:L:233:MET:HA	1:L:236:LEU:HD12	1.81	0.63
1:B:271:ILE:HD11	1:B:283:PRO:HG3	1.80	0.63
1:B:439:ARG:HG3	1:B:439:ARG:NH1	1.97	0.63
1:C:498:VAL:HG11	1:F:72:TRP:HE1	1.61	0.63
1:E:164:VAL:HG13	1:E:197:CYS:C	2.19	0.63
1:G:322:LEU:HB3	1:G:344:ILE:HD13	1.80	0.63
1:I:229:GLU:O	1:I:230:ALA:C	2.37	0.63
1:J:10:PHE:HD1	1:J:106:ALA:HB2	1.63	0.63
1:K:96:SER:HA	1:K:131:ILE:O	1.99	0.63
1:L:315:LEU:CD1	1:L:315:LEU:H	2.11	0.63
1:A:437:GLN:HG2	1:H:423:LYS:HD3	1.80	0.63
1:B:171:THR:HG22	1:B:175:GLU:OE2	1.99	0.63
1:C:217:ARG:HH11	1:C:217:ARG:CB	2.12	0.63
1:D:249:VAL:CG2	1:D:323:ILE:HG13	2.29	0.63
1:E:463:GLN:HE22	1:E:488:LYS:NZ	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:332:THR:H	1:G:335:ASN:HD21	1.45	0.63
1:I:414:GLN:OE1	1:I:428:ILE:HA	1.99	0.63
1:K:255:VAL:HG13	1:K:256:GLY:N	2.14	0.63
1:L:336:ALA:O	1:L:339:VAL:HG22	1.97	0.63
1:A:313:SER:O	1:A:315:LEU:N	2.32	0.63
1:C:310:TYR:C	1:C:310:TYR:HD2	2.02	0.63
1:E:24:VAL:CG2	1:E:483:VAL:HG13	2.28	0.63
1:G:212:ILE:HD12	1:G:212:ILE:N	2.11	0.63
1:I:78:TYR:CD2	1:I:101:VAL:HG23	2.33	0.63
1:L:223:ILE:CD1	1:L:263:LEU:HD21	2.29	0.63
1:B:13:VAL:HA	1:B:16:PHE:HD1	1.63	0.63
1:B:87:THR:OG1	1:B:88:PRO:CD	2.47	0.63
1:B:432:PRO:HB3	1:B:436:PHE:CD1	2.34	0.63
1:C:277:ASP:HB2	1:C:302:LEU:HD11	1.81	0.63
1:D:59:LEU:HG	1:D:61:LEU:HD23	1.81	0.63
1:E:94:ARG:HD2	1:E:168:ASP:OD1	1.99	0.63
1:F:252:PHE:HD1	1:F:301:ILE:HG21	1.64	0.63
1:H:217:ARG:HD2	1:H:450:HIS:CE1	2.33	0.63
1:J:360:PHE:HB3	1:J:365:ILE:HB	1.81	0.63
1:J:386:LEU:HD13	1:K:392:VAL:CG1	2.28	0.63
1:J:501:THR:C	1:K:146:ARG:HH22	2.01	0.63
1:L:248:VAL:HG13	1:L:272:ALA:O	1.98	0.63
1:D:479:THR:O	1:D:483:VAL:HG23	1.99	0.63
1:E:219:VAL:HG22	1:E:373:LEU:HG	1.80	0.63
1:F:423:LYS:CE	1:F:426:GLY:HA3	2.25	0.63
1:G:30:GLU:HA	1:G:34:THR:OG1	1.98	0.63
1:G:88:PRO:HA	1:G:162:ILE:O	1.98	0.63
1:G:414:GLN:CB	1:G:429:PRO:HD2	2.29	0.63
1:G:500:PHE:HZ	1:J:500:PHE:HZ	1.46	0.63
1:I:14:GLU:HG3	1:I:53:LYS:HZ2	1.63	0.63
1:I:109:SER:O	1:I:113:TYR:CD2	2.52	0.63
1:J:217:ARG:HG3	1:J:262:TYR:CE2	2.33	0.63
1:L:121:PRO:O	1:L:122:PHE:HD2	1.80	0.63
1:L:274:GLY:O	1:L:275:GLU:HB2	1.98	0.63
1:A:186:THR:CG2	1:A:187:ILE:N	2.43	0.63
1:A:287:ASP:OD2	1:A:290:GLU:HG3	1.98	0.63
1:D:79:ARG:HG2	1:D:157:PHE:HB3	1.80	0.63
1:D:225:ASN:ND2	1:D:458:GLU:HA	2.13	0.63
1:E:24:VAL:CG1	1:E:28:LEU:HD13	2.28	0.63
1:E:232:TYR:CE1	1:E:465:MET:HG2	2.33	0.63
1:E:368:ILE:HG22	1:E:373:LEU:HB2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:142:GLU:HG2	1:H:146:ARG:HD2	1.81	0.63
1:J:222:GLY:HA3	1:J:373:LEU:CD1	2.29	0.63
1:K:85:GLN:CG	1:K:492:VAL:HG11	2.28	0.63
1:L:335:ASN:ND2	1:L:335:ASN:H	1.95	0.63
1:L:396:ARG:HG3	1:L:396:ARG:NH1	2.10	0.63
1:B:159:GLY:HA3	1:B:162:ILE:HD13	1.80	0.62
1:C:117:VAL:HG21	1:C:371:LEU:HG	1.80	0.62
1:C:176:MET:HG3	1:C:198:VAL:CG2	2.29	0.62
1:F:217:ARG:HG3	1:F:262:TYR:CE2	2.34	0.62
1:I:329:LYS:HD3	1:I:329:LYS:H	1.63	0.62
1:K:371:LEU:HD22	1:K:482:TYR:CE2	2.33	0.62
1:B:34:THR:HG23	1:B:35:ARG:NH2	2.13	0.62
1:B:342:LYS:HA	1:B:365:ILE:HD12	1.81	0.62
1:B:453:LEU:O	1:B:453:LEU:HD22	1.99	0.62
1:C:176:MET:CE	1:C:176:MET:HA	2.30	0.62
1:D:238:MET:HE2	1:D:238:MET:HA	1.80	0.62
1:D:398:THR:O	1:D:400:LYS:N	2.32	0.62
1:G:414:GLN:OE1	1:G:428:ILE:HA	1.99	0.62
1:H:260:MET:CE	1:H:288:PRO:HA	2.28	0.62
1:L:321:ILE:HG22	1:L:343:ILE:HG22	1.80	0.62
1:B:53:LYS:O	1:B:82:HIS:HE1	1.82	0.62
1:B:280:ILE:HG22	1:B:281:TRP:N	2.14	0.62
1:F:313:SER:HB2	1:F:315:LEU:HD13	1.80	0.62
1:F:360:PHE:HB3	1:F:365:ILE:HB	1.79	0.62
1:F:403:ARG:HH21	1:G:242:PHE:HD1	1.45	0.62
1:F:437:GLN:HG2	1:G:244:ASP:HB2	1.80	0.62
1:G:280:ILE:CG2	1:G:307:ALA:HB1	2.29	0.62
1:H:24:VAL:O	1:H:28:LEU:HB2	1.97	0.62
1:H:280:ILE:HD11	1:H:301:ILE:O	2.00	0.62
1:J:281:TRP:HZ3	1:J:317:ALA:HB1	1.64	0.62
1:K:500:PHE:HE1	1:L:500:PHE:HZ	1.46	0.62
1:D:371:LEU:HD22	1:D:482:TYR:CE2	2.34	0.62
1:E:75:ILE:HG23	1:E:131:ILE:CD1	2.30	0.62
1:H:321:ILE:CG2	1:H:343:ILE:HB	2.28	0.62
1:I:9:PHE:HA	1:I:12:MET:CE	2.29	0.62
1:J:90:LYS:CE	1:J:199:THR:HG21	2.30	0.62
1:J:386:LEU:HA	1:J:389:LEU:HD12	1.80	0.62
1:K:248:VAL:HG22	1:K:272:ALA:H	1.64	0.62
1:A:335:ASN:HD22	1:A:336:ALA:N	1.98	0.62
1:B:201:LYS:CE	1:B:388:ASN:HD21	2.11	0.62
1:C:65:ILE:HD13	1:C:144:ILE:CG1	2.22	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:142:GLU:O	1:E:146:ARG:HG3	2.00	0.62
1:F:331:LEU:CB	1:F:352:THR:HG22	2.29	0.62
1:K:95:TYR:OH	1:K:145:THR:HB	1.99	0.62
1:K:371:LEU:CD2	1:K:481:ALA:HB1	2.30	0.62
1:L:275:GLU:HG3	1:L:301:ILE:HG12	1.81	0.62
1:A:360:PHE:HB3	1:A:365:ILE:HB	1.81	0.62
1:C:414:GLN:CB	1:C:429:PRO:HD2	2.30	0.62
1:C:421:PHE:HE1	1:C:423:LYS:HB3	1.65	0.62
1:E:47:GLY:O	1:E:51:ILE:HG13	1.99	0.62
1:K:217:ARG:O	1:K:220:PHE:HB3	2.00	0.62
1:K:239:THR:N	1:K:240:PRO:CD	2.62	0.62
1:L:203:ILE:HD12	1:L:209:HIS:CE1	2.34	0.62
1:B:13:VAL:HA	1:B:16:PHE:CD1	2.35	0.62
1:D:476:ASP:O	1:D:477:LEU:C	2.38	0.62
1:D:492:VAL:HG21	2:D:4:ADP:H2	1.63	0.62
1:E:497:GLY:CA	1:E:501:THR:HA	2.29	0.62
1:F:104:VAL:CG2	1:F:105:LYS:N	2.62	0.62
1:J:53:LYS:HB3	1:J:54:PRO:HD3	1.80	0.62
1:K:316:GLU:HG3	1:K:338:ARG:O	1.98	0.62
1:K:467:THR:O	1:K:467:THR:HG22	2.00	0.62
1:L:61:LEU:HD12	1:L:63:PHE:HD2	1.64	0.62
1:A:24:VAL:O	1:A:25:GLU:C	2.38	0.62
1:D:346:GLU:CD	1:D:478:ARG:HH22	2.03	0.62
1:E:78:TYR:OH	1:E:130:LYS:NZ	2.28	0.62
1:E:95:TYR:CE2	1:E:129:VAL:HG21	2.35	0.62
1:E:371:LEU:HD22	1:E:482:TYR:CD2	2.34	0.62
1:H:58:VAL:HG22	1:H:80:ALA:CB	2.30	0.62
1:H:131:ILE:CD1	1:H:144:ILE:HD13	2.30	0.62
1:H:248:VAL:CG2	1:H:271:ILE:HG23	2.29	0.62
1:H:424:HIS:ND1	1:H:424:HIS:N	2.48	0.62
1:I:411:MET:HA	1:I:430:ILE:HG22	1.80	0.62
1:J:368:ILE:CG2	1:J:373:LEU:HD13	2.30	0.62
1:K:142:GLU:O	1:K:146:ARG:HG3	2.00	0.62
1:L:167:PRO:HG3	1:L:176:MET:SD	2.39	0.62
1:A:201:LYS:CD	1:A:205:GLN:O	2.48	0.62
1:A:371:LEU:HD22	1:A:482:TYR:CD2	2.34	0.62
1:C:112:THR:HB	1:C:124:GLY:H	1.65	0.62
1:D:90:LYS:HD2	1:D:164:VAL:O	2.00	0.62
1:E:57:HIS:ND1	1:E:84:HIS:CE1	2.68	0.62
1:E:143:LYS:CE	1:E:147:ARG:HH21	2.12	0.62
1:J:249:VAL:HB	1:J:323:ILE:HG23	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:411:MET:SD	1:J:430:ILE:HG21	2.40	0.62
1:K:81:GLN:HG3	1:K:157:PHE:HE1	1.65	0.62
1:K:380:VAL:O	1:K:383:PHE:N	2.33	0.62
1:A:238:MET:O	1:A:239:THR:HG22	2.00	0.62
1:C:203:ILE:HG22	2:E:5:ADP:H5'2	1.82	0.62
1:C:378:VAL:O	1:C:381:SER:HB3	2.00	0.62
1:F:88:PRO:HG2	1:F:122:PHE:HD2	1.64	0.62
1:F:355:GLU:O	1:F:359:ILE:HD13	2.00	0.62
1:F:421:PHE:CE1	1:F:423:LYS:HD3	2.35	0.62
1:G:346:GLU:OE2	1:G:352:THR:HG23	1.99	0.62
1:H:201:LYS:NZ	1:H:388:ASN:HD21	1.97	0.62
1:I:213:SER:CB	1:I:217:ARG:HD2	2.24	0.62
1:I:477:LEU:O	1:I:478:ARG:O	2.18	0.62
1:J:88:PRO:HG2	1:J:122:PHE:HD2	1.65	0.62
1:K:45:VAL:O	1:K:48:ILE:HG12	2.00	0.62
1:K:137:THR:OG1	1:K:140:GLU:HG3	2.00	0.62
1:C:30:GLU:O	1:C:34:THR:HB	2.00	0.61
1:D:140:GLU:O	1:D:144:ILE:HD12	2.00	0.61
1:D:314:ILE:HD13	1:D:314:ILE:N	2.13	0.61
1:H:370:ASP:OD2	1:H:371:LEU:N	2.32	0.61
1:J:30:GLU:HA	1:J:34:THR:CG2	2.29	0.61
1:J:371:LEU:HD23	1:J:481:ALA:HB1	1.80	0.61
1:K:219:VAL:CG1	1:K:220:PHE:N	2.62	0.61
1:B:444:SER:OG	1:B:446:LYS:HG2	2.00	0.61
1:C:223:ILE:HD11	1:C:345:ALA:CB	2.29	0.61
1:C:281:TRP:O	1:C:282:ASN:HB2	2.00	0.61
1:I:260:MET:CE	1:I:288:PRO:HA	2.30	0.61
1:I:360:PHE:HB3	1:I:365:ILE:HB	1.82	0.61
1:J:281:TRP:CZ3	1:J:317:ALA:HB1	2.35	0.61
1:K:6:ASP:C	1:K:6:ASP:OD2	2.38	0.61
1:B:332:THR:H	1:B:335:ASN:HD21	1.47	0.61
1:C:142:GLU:HA	1:C:178:TRP:CZ3	2.34	0.61
1:C:461:ALA:HA	1:C:464:ILE:HD12	1.81	0.61
1:C:494:ASN:HD22	1:C:494:ASN:C	2.03	0.61
1:D:117:VAL:HG21	1:D:371:LEU:HG	1.81	0.61
1:E:86:ARG:HH11	1:E:492:VAL:HG21	1.64	0.61
1:E:428:ILE:HD13	1:E:428:ILE:N	2.15	0.61
1:G:371:LEU:HD23	1:G:481:ALA:HB1	1.83	0.61
1:K:106:ALA:O	1:K:109:SER:HB3	2.01	0.61
1:L:29:VAL:O	1:L:30:GLU:O	2.18	0.61
1:A:201:LYS:NZ	1:A:388:ASN:ND2	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:186:THR:HG23	1:E:186:THR:HG23	1.82	0.61
1:B:201:LYS:NZ	1:B:388:ASN:HD21	1.98	0.61
1:C:215:THR:HG23	1:C:377:GLY:HA3	1.81	0.61
1:D:90:LYS:HZ3	1:D:164:VAL:HG12	1.66	0.61
1:D:95:TYR:OH	1:D:145:THR:HB	2.00	0.61
1:D:344:ILE:HG22	1:D:344:ILE:O	1.99	0.61
1:E:345:ALA:HB1	1:E:373:LEU:HD21	1.83	0.61
1:E:386:LEU:HB2	1:E:394:TYR:OH	2.00	0.61
1:F:280:ILE:HD11	1:F:301:ILE:O	2.00	0.61
1:I:82:HIS:CD2	1:I:112:THR:CG2	2.76	0.61
1:I:94:ARG:HG2	1:I:94:ARG:HH11	1.64	0.61
1:K:85:GLN:HG3	1:K:492:VAL:HG11	1.80	0.61
1:K:142:GLU:HG3	1:K:178:TRP:CD2	2.34	0.61
1:L:186:THR:HG22	1:L:187:ILE:H	1.65	0.61
1:A:371:LEU:HD22	1:A:482:TYR:CE2	2.36	0.61
1:A:436:PHE:CE2	1:A:440:ILE:HD11	2.36	0.61
1:B:234:SER:O	1:B:236:LEU:N	2.33	0.61
1:C:338:ARG:HB3	1:C:338:ARG:CZ	2.30	0.61
1:C:498:VAL:CG2	1:C:499:THR:H	2.10	0.61
1:D:382:TYR:CE2	1:D:386:LEU:HD21	2.35	0.61
1:E:86:ARG:HH12	1:E:492:VAL:HG22	1.66	0.61
1:E:271:ILE:HD11	1:E:283:PRO:HG3	1.82	0.61
1:E:389:LEU:N	1:E:389:LEU:HD23	2.15	0.61
1:E:421:PHE:CE1	1:E:423:LYS:HG3	2.36	0.61
1:J:88:PRO:HG2	1:J:122:PHE:CD2	2.35	0.61
1:L:167:PRO:HG3	1:L:176:MET:CG	2.30	0.61
1:L:234:SER:O	1:L:236:LEU:N	2.27	0.61
1:L:338:ARG:HB3	1:L:338:ARG:CZ	2.31	0.61
1:A:53:LYS:HB3	1:A:54:PRO:CD	2.30	0.61
1:A:487:GLU:O	1:A:490:PHE:HB3	2.01	0.61
1:B:233:MET:HE2	1:B:236:LEU:HD12	1.81	0.61
1:C:252:PHE:CE2	1:C:260:MET:HE1	2.35	0.61
1:D:225:ASN:HD21	1:D:458:GLU:HA	1.65	0.61
1:D:249:VAL:CB	1:D:323:ILE:HG13	2.31	0.61
1:H:44:ARG:HH11	1:H:44:ARG:HB3	1.64	0.61
1:H:104:VAL:CG2	1:H:105:LYS:N	2.63	0.61
1:J:79:ARG:HG3	1:J:127:ALA:HB2	1.81	0.61
1:A:403:ARG:HG3	1:A:440:ILE:HG21	1.83	0.61
1:B:195:HIS:O	1:B:201:LYS:HE3	2.00	0.61
1:B:414:GLN:HB2	1:B:429:PRO:HD2	1.82	0.61
1:D:141:LEU:O	1:D:145:THR:HG23	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:411:MET:SD	1:D:430:ILE:HG21	2.41	0.61
1:E:275:GLU:OE2	1:E:276:SER:N	2.33	0.61
1:F:294:PHE:CE1	1:F:298:HIS:HE1	2.18	0.61
1:H:497:GLY:HA3	1:H:501:THR:HA	1.82	0.61
1:I:137:THR:HG23	1:I:140:GLU:HG3	1.83	0.61
1:I:213:SER:O	1:I:217:ARG:HG3	2.00	0.61
1:J:331:LEU:CD2	1:J:360:PHE:HZ	2.14	0.61
1:K:371:LEU:HD21	1:K:481:ALA:HB1	1.83	0.61
1:L:315:LEU:HD12	1:L:315:LEU:N	2.16	0.61
1:A:58:VAL:HG12	1:E:60:SER:HB2	1.82	0.61
1:B:469:MET:O	1:G:308:LYS:HD2	2.00	0.61
1:C:146:ARG:HH22	1:E:501:THR:C	2.04	0.61
1:C:272:ALA:HB1	1:C:314:ILE:HG21	1.83	0.61
1:C:392:VAL:HG22	1:E:386:LEU:CD2	2.30	0.61
1:D:131:ILE:HG13	1:D:136:TYR:CE2	2.36	0.61
1:D:186:THR:CG2	1:D:187:ILE:N	2.60	0.61
1:E:82:HIS:C	1:E:82:HIS:ND1	2.54	0.61
1:E:239:THR:N	1:E:240:PRO:HD3	2.14	0.61
1:J:24:VAL:HG13	1:J:483:VAL:HG13	1.83	0.61
1:J:346:GLU:HG2	1:J:351:PRO:CG	2.31	0.61
1:L:274:GLY:HA3	1:L:314:ILE:HD12	1.82	0.61
1:A:73:GLU:OE1	1:A:136:TYR:OH	2.17	0.61
1:B:57:HIS:ND1	1:D:155:LYS:CE	2.63	0.61
1:B:332:THR:O	1:B:336:ALA:HB2	2.00	0.61
1:D:132:ASN:HB3	1:D:135:ASN:HD22	1.65	0.61
1:E:143:LYS:NZ	1:E:147:ARG:NH2	2.49	0.61
1:F:34:THR:O	1:F:34:THR:HG22	2.01	0.61
1:H:497:GLY:CA	1:H:501:THR:HA	2.31	0.61
1:I:38:GLU:H	1:I:42:ARG:CZ	2.14	0.61
1:J:358:LYS:O	1:J:362:GLU:HG3	2.00	0.61
1:J:497:GLY:CA	1:J:501:THR:HA	2.31	0.61
1:K:315:LEU:HG	1:K:331:LEU:HD21	1.83	0.61
1:A:346:GLU:CD	1:A:478:ARG:NH2	2.55	0.61
1:B:91:GLY:HA3	1:B:125:ALA:O	2.00	0.61
1:C:432:PRO:HB3	1:C:436:PHE:CD1	2.35	0.61
1:D:428:ILE:H	1:D:428:ILE:CD1	2.13	0.61
1:E:208:ILE:HG23	1:E:208:ILE:O	2.00	0.61
1:E:334:SER:O	1:E:337:PRO:HD2	2.01	0.61
1:F:90:LYS:HE2	1:F:199:THR:HG21	1.82	0.61
1:I:14:GLU:CG	1:I:53:LYS:NZ	2.64	0.61
1:J:14:GLU:HG3	1:J:53:LYS:HE2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:234:SER:O	1:J:235:ILE:C	2.39	0.61
1:L:153:ALA:CA	1:L:158:ILE:HG22	2.31	0.61
1:L:260:MET:CE	1:L:291:LEU:HD23	2.31	0.61
1:B:439:ARG:NH2	1:F:405:SER:OG	2.32	0.60
1:C:17:PHE:CE1	1:C:486:ILE:HD12	2.35	0.60
1:C:332:THR:HG22	1:C:353:THR:HG21	1.81	0.60
1:C:497:GLY:CA	1:C:501:THR:HA	2.31	0.60
1:D:79:ARG:HD2	1:D:127:ALA:HB2	1.82	0.60
1:D:214:ALA:HB1	1:D:380:VAL:HG21	1.83	0.60
1:D:335:ASN:HD22	1:D:335:ASN:N	1.98	0.60
1:F:324:PRO:HD2	1:F:345:ALA:O	2.01	0.60
1:G:72:TRP:HE1	1:K:498:VAL:HG11	1.66	0.60
1:G:79:ARG:HG2	1:G:157:PHE:HB3	1.83	0.60
1:H:44:ARG:HB3	1:H:44:ARG:NH1	2.16	0.60
1:H:423:LYS:HE2	1:H:423:LYS:HA	1.83	0.60
1:H:468:ALA:HA	1:H:473:LEU:CD1	2.31	0.60
1:K:497:GLY:HA3	1:K:501:THR:HA	1.83	0.60
1:B:342:LYS:HA	1:B:365:ILE:CD1	2.31	0.60
1:C:374:ASN:CG	1:C:374:ASN:O	2.39	0.60
1:F:9:PHE:CD1	1:F:10:PHE:N	2.69	0.60
1:F:83:SER:OG	1:F:85:GLN:NE2	2.35	0.60
1:F:372:TYR:OH	1:F:461:ALA:HB2	2.01	0.60
1:H:214:ALA:HB1	1:H:380:VAL:HG21	1.81	0.60
1:H:379:THR:HG21	1:H:453:LEU:HD23	1.82	0.60
1:I:201:LYS:HB2	1:I:202:PRO:CD	2.31	0.60
1:J:233:MET:HA	1:J:233:MET:HE2	1.83	0.60
1:L:90:LYS:HB2	1:L:122:PHE:HD1	1.65	0.60
1:A:281:TRP:CD1	1:A:283:PRO:HD3	2.36	0.60
1:C:226:PHE:HB3	1:C:366:MET:HE1	1.83	0.60
1:C:355:GLU:O	1:C:359:ILE:HD12	2.01	0.60
1:C:497:GLY:O	1:C:498:VAL:HG13	2.01	0.60
1:G:117:VAL:HG11	1:G:372:TYR:HB2	1.83	0.60
1:H:439:ARG:HH12	1:L:405:SER:CA	2.14	0.60
1:I:9:PHE:HD1	1:I:10:PHE:N	1.98	0.60
1:I:42:ARG:C	1:I:44:ARG:H	2.04	0.60
1:I:87:THR:HB	1:I:88:PRO:HD3	1.83	0.60
1:I:205:GLN:NE2	1:K:495:GLU:HB2	2.17	0.60
1:A:114:LYS:O	1:A:117:VAL:HB	2.01	0.60
1:A:499:THR:OG1	1:E:147:ARG:CD	2.49	0.60
1:D:346:GLU:OE1	1:D:478:ARG:NH2	2.35	0.60
1:G:9:PHE:HD1	1:G:10:PHE:H	1.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:404:ASP:O	1:G:405:SER:C	2.39	0.60
1:G:436:PHE:O	1:G:439:ARG:HB3	2.00	0.60
1:K:107:LEU:CA	1:K:110:LEU:HD13	2.28	0.60
1:K:153:ALA:HA	1:K:158:ILE:CG2	2.32	0.60
1:K:497:GLY:CA	1:K:501:THR:HA	2.31	0.60
1:A:384:GLU:O	1:A:385:TRP:C	2.39	0.60
1:D:78:TYR:HE1	1:D:99:VAL:HG21	1.66	0.60
1:E:274:GLY:HA3	1:E:314:ILE:HD12	1.82	0.60
1:F:497:GLY:HA3	1:F:501:THR:HA	1.83	0.60
1:G:44:ARG:HD2	1:K:71:SER:HA	1.84	0.60
1:G:471:TYR:O	1:G:473:LEU:N	2.34	0.60
1:H:379:THR:O	1:H:382:TYR:HB3	2.01	0.60
1:I:484:ASN:HD21	1:I:488:LYS:HE3	1.66	0.60
1:J:239:THR:CG2	1:J:239:THR:O	2.49	0.60
1:K:17:PHE:CE1	1:K:486:ILE:HD12	2.36	0.60
1:K:113:TYR:O	1:K:117:VAL:HG23	2.01	0.60
1:A:52:ILE:HD13	1:A:489:VAL:CG1	2.30	0.60
1:A:84:HIS:HD2	1:A:89:CYS:SG	2.25	0.60
1:B:224:GLU:HA	1:B:227:ILE:HG22	1.84	0.60
1:B:247:PHE:HZ	1:B:260:MET:HG3	1.67	0.60
1:C:113:TYR:O	1:C:117:VAL:HG23	2.01	0.60
1:D:322:LEU:O	1:D:324:PRO:HD3	2.02	0.60
1:E:224:GLU:O	1:E:227:ILE:HG22	2.01	0.60
1:G:60:SER:HB2	1:K:58:VAL:HG13	1.81	0.60
1:H:294:PHE:CG	1:H:298:HIS:NE2	2.64	0.60
1:H:321:ILE:HG22	1:H:343:ILE:CB	2.31	0.60
1:I:118:VAL:HA	1:I:460:SER:OG	2.02	0.60
1:I:382:TYR:OH	1:J:392:VAL:HG22	2.00	0.60
1:L:234:SER:O	1:L:237:GLY:N	2.34	0.60
1:D:144:ILE:HG22	1:D:145:THR:N	2.16	0.60
1:G:142:GLU:O	1:G:146:ARG:HG3	2.02	0.60
1:G:407:TYR:O	1:G:411:MET:HB2	2.01	0.60
1:H:429:PRO:O	1:H:431:VAL:HG12	2.01	0.60
1:I:390:ASN:O	1:I:391:HIS:HB2	2.01	0.60
1:I:399:PHE:CE2	1:I:448:ILE:HD11	2.37	0.60
1:I:427:THR:O	1:I:428:ILE:HD13	2.01	0.60
1:L:130:LYS:O	1:L:131:ILE:HD12	2.01	0.60
1:L:260:MET:HE3	1:L:291:LEU:HD23	1.82	0.60
1:B:331:LEU:CD1	1:B:360:PHE:HZ	2.13	0.60
1:C:287:ASP:OD2	1:C:289:LYS:HB3	2.02	0.60
1:E:433:THR:HG23	1:E:436:PHE:H	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:382:TYR:O	1:G:385:TRP:HB3	2.02	0.60
1:G:409:LEU:HD13	1:L:436:PHE:HE1	1.64	0.60
1:H:248:VAL:CG1	1:H:272:ALA:HB3	2.31	0.60
1:I:339:VAL:HG21	1:I:360:PHE:CE1	2.36	0.60
1:J:58:VAL:HG23	1:J:80:ALA:CB	2.32	0.60
1:A:201:LYS:HZ2	1:A:388:ASN:HD21	1.49	0.60
1:B:359:ILE:CG2	1:B:360:PHE:N	2.64	0.60
1:B:359:ILE:HG22	1:B:360:PHE:H	1.67	0.60
1:B:501:THR:C	1:F:146:ARG:HH12	2.04	0.60
1:D:8:ASN:ND2	1:D:10:PHE:HB3	2.17	0.60
1:F:429:PRO:C	1:F:431:VAL:H	2.03	0.60
1:G:293:ASP:O	1:G:294:PHE:C	2.40	0.60
1:I:167:PRO:CG	1:I:176:MET:SD	2.87	0.60
1:I:313:SER:HB2	1:I:315:LEU:CD1	2.30	0.60
1:K:176:MET:CE	1:K:179:ILE:HD12	2.31	0.60
1:C:9:PHE:CD1	1:C:10:PHE:N	2.68	0.60
1:D:336:ALA:HB3	1:D:337:PRO:CD	2.24	0.60
1:J:337:PRO:C	1:J:363:ARG:HH21	2.05	0.60
1:J:371:LEU:HD23	1:J:481:ALA:CB	2.32	0.60
1:K:53:LYS:HB3	1:K:54:PRO:CD	2.29	0.60
1:K:478:ARG:O	1:K:481:ALA:HB3	2.02	0.60
1:A:331:LEU:HB2	1:A:352:THR:HG22	1.84	0.59
1:A:394:TYR:HB2	1:A:445:GLU:HG3	1.84	0.59
1:C:59:LEU:HB2	1:C:157:PHE:CE2	2.37	0.59
1:C:114:LYS:HE2	1:C:374:ASN:HD21	1.65	0.59
1:F:141:LEU:O	1:F:145:THR:HG23	2.01	0.59
1:H:155:LYS:HD2	1:J:157:PHE:CE2	2.37	0.59
1:H:176:MET:CE	1:H:179:ILE:HG13	2.32	0.59
1:I:353:THR:HB	1:I:354:PRO:CD	2.32	0.59
1:I:399:PHE:HB2	1:K:455:TYR:CE2	2.37	0.59
1:J:239:THR:O	1:J:239:THR:HG23	2.00	0.59
1:J:421:PHE:CD1	1:J:423:LYS:HB2	2.37	0.59
1:K:94:ARG:HG2	1:K:94:ARG:HH11	1.66	0.59
1:K:398:THR:O	1:K:399:PHE:C	2.39	0.59
1:L:244:ASP:O	1:L:245:LYS:HG3	2.02	0.59
1:A:271:ILE:HD11	1:A:283:PRO:HG3	1.83	0.59
1:A:332:THR:HA	1:A:353:THR:HG22	1.83	0.59
1:B:87:THR:OG1	1:B:88:PRO:HD2	2.01	0.59
1:B:234:SER:O	1:B:237:GLY:N	2.35	0.59
1:C:338:ARG:O	1:C:339:VAL:HG13	2.02	0.59
1:E:219:VAL:HG11	1:E:259:SER:OG	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:59:LEU:HD21	1:F:61:LEU:CD2	2.31	0.59
1:F:414:GLN:CB	1:F:429:PRO:HD2	2.32	0.59
1:G:197:CYS:SG	1:G:198:VAL:HG12	2.42	0.59
1:G:222:GLY:HA3	1:G:373:LEU:HD12	1.84	0.59
1:C:19:ARG:HH11	1:C:19:ARG:HG3	1.66	0.59
1:C:75:ILE:N	1:C:75:ILE:CD1	2.65	0.59
1:C:271:ILE:O	1:C:272:ALA:CB	2.50	0.59
1:C:322:LEU:C	1:C:322:LEU:HD13	2.23	0.59
1:C:328:GLU:O	1:C:329:LYS:HG2	2.02	0.59
1:D:335:ASN:N	1:D:335:ASN:ND2	2.50	0.59
1:E:87:THR:HB	1:E:88:PRO:CD	2.32	0.59
1:H:414:GLN:OE1	1:H:428:ILE:HA	2.01	0.59
1:I:484:ASN:HD21	1:I:488:LYS:CE	2.14	0.59
1:K:252:PHE:O	1:K:253:GLY:O	2.20	0.59
1:L:8:ASN:O	1:L:9:PHE:C	2.40	0.59
1:C:281:TRP:CH2	1:C:283:PRO:HG3	2.36	0.59
1:C:367:VAL:O	1:C:477:LEU:HB2	2.01	0.59
1:C:498:VAL:N	1:C:501:THR:HB	2.17	0.59
1:D:97:THR:C	1:D:130:LYS:HE3	2.22	0.59
1:D:344:ILE:HB	1:D:367:VAL:HG22	1.84	0.59
1:F:19:ARG:HG3	1:F:19:ARG:NH1	2.16	0.59
1:H:38:GLU:C	1:H:39:GLU:HG3	2.23	0.59
1:I:202:PRO:O	1:I:205:GLN:N	2.31	0.59
1:K:330:GLN:C	1:K:331:LEU:HD23	2.22	0.59
1:L:100:SER:O	1:L:101:VAL:C	2.39	0.59
1:C:360:PHE:HD1	1:C:365:ILE:CG1	2.10	0.59
1:D:67:ARG:NH1	1:D:140:GLU:OE2	2.35	0.59
1:D:118:VAL:HG23	1:D:120:VAL:HG23	1.85	0.59
1:G:414:GLN:HB2	1:G:429:PRO:HD2	1.84	0.59
1:I:213:SER:HB2	1:I:217:ARG:CD	2.23	0.59
1:J:436:PHE:CE1	1:J:440:ILE:HD11	2.37	0.59
1:K:9:PHE:CE1	1:K:103:GLU:HA	2.36	0.59
1:K:81:GLN:HG3	1:K:157:PHE:CE1	2.38	0.59
1:K:323:ILE:CG2	1:K:345:ALA:HB3	2.31	0.59
1:C:72:TRP:HE1	1:F:498:VAL:HG11	1.67	0.59
1:I:101:VAL:CG1	1:I:105:LYS:HE3	2.32	0.59
1:J:244:ASP:C	1:J:245:LYS:HG3	2.22	0.59
1:A:437:GLN:HE22	1:H:426:GLY:HA2	1.68	0.59
1:B:239:THR:HG23	1:B:239:THR:O	2.02	0.59
1:C:453:LEU:O	1:C:457:MET:HG2	2.02	0.59
1:C:498:VAL:HG21	1:F:72:TRP:HE1	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:501:THR:O	1:D:146:ARG:NH2	2.34	0.59
1:D:497:GLY:HA3	1:D:501:THR:HA	1.84	0.59
1:E:87:THR:HB	1:E:88:PRO:HD3	1.84	0.59
1:E:446:LYS:HG3	1:E:450:HIS:CE1	2.37	0.59
1:H:335:ASN:N	1:H:335:ASN:HD22	2.00	0.59
1:H:462:ARG:HB3	1:H:466:ARG:HH12	1.66	0.59
1:I:17:PHE:CE2	1:I:53:LYS:HB2	2.38	0.59
1:I:34:THR:O	1:I:35:ARG:HG3	2.02	0.59
1:I:249:VAL:HG23	1:I:323:ILE:HG13	1.84	0.59
1:I:281:TRP:CD1	1:I:282:ASN:N	2.69	0.59
1:I:318:ASP:HA	1:I:340:LYS:HG3	1.85	0.59
1:I:321:ILE:HD12	1:I:321:ILE:N	2.17	0.59
1:I:330:GLN:OE1	1:I:330:GLN:HA	2.01	0.59
1:J:498:VAL:HG23	1:J:499:THR:H	1.68	0.59
1:L:47:GLY:O	1:L:51:ILE:HG13	2.03	0.59
1:L:429:PRO:O	1:L:431:VAL:N	2.35	0.59
1:B:369:PRO:CG	1:B:478:ARG:HA	2.32	0.59
1:C:277:ASP:HB3	1:C:302:LEU:HD11	1.83	0.59
1:F:322:LEU:HD22	1:F:322:LEU:C	2.23	0.59
1:F:322:LEU:HD22	1:F:323:ILE:N	2.17	0.59
1:F:411:MET:SD	1:F:430:ILE:HG21	2.43	0.59
1:F:453:LEU:O	1:F:453:LEU:HD22	2.03	0.59
1:G:500:PHE:CZ	1:J:500:PHE:HZ	2.20	0.59
1:H:411:MET:HA	1:H:430:ILE:HG22	1.84	0.59
1:J:65:ILE:HD13	1:J:144:ILE:CG1	2.33	0.59
1:J:195:HIS:O	1:J:201:LYS:HE2	2.03	0.59
1:K:175:GLU:O	1:K:178:TRP:N	2.35	0.59
1:K:371:LEU:HD22	1:K:482:TYR:CD2	2.37	0.59
1:L:234:SER:C	1:L:236:LEU:H	2.04	0.59
1:L:396:ARG:O	1:L:396:ARG:HD3	2.03	0.59
1:A:36:GLU:OE1	1:A:42:ARG:NH2	2.36	0.59
1:B:33:ARG:NH1	1:B:33:ARG:CB	2.59	0.59
1:B:142:GLU:OE2	1:B:178:TRP:NE1	2.34	0.59
1:B:274:GLY:HA2	1:B:279:SER:HA	1.84	0.59
1:D:259:SER:O	1:D:263:LEU:HB2	2.03	0.59
1:D:489:VAL:O	1:D:489:VAL:HG12	2.03	0.59
1:E:414:GLN:O	1:E:418:GLU:HG3	2.03	0.59
1:H:69:ASP:OD1	1:H:71:SER:N	2.30	0.59
1:I:94:ARG:HG2	1:I:94:ARG:NH1	2.17	0.59
1:I:405:SER:OG	1:K:439:ARG:NH2	2.36	0.59
1:K:38:GLU:HG2	1:K:42:ARG:NH2	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:161:GLY:C	1:B:162:ILE:HD12	2.22	0.59
1:B:436:PHE:CZ	1:F:409:LEU:HD22	2.38	0.59
1:C:286:ILE:HD12	1:C:286:ILE:N	2.18	0.59
1:D:360:PHE:CD1	1:D:365:ILE:HG21	2.36	0.59
1:E:227:ILE:HD12	1:E:233:MET:HE3	1.85	0.59
1:G:201:LYS:HB2	1:G:202:PRO:HD2	1.85	0.59
1:H:332:THR:CG2	1:H:353:THR:HG21	2.22	0.59
1:I:433:THR:HG22	1:J:412:SER:HA	1.85	0.59
1:L:497:GLY:CA	1:L:501:THR:HA	2.33	0.59
1:B:227:ILE:HD13	1:B:343:ILE:CD1	2.32	0.58
1:D:138:ASP:O	1:D:141:LEU:HB2	2.03	0.58
1:D:237:GLY:O	1:D:238:MET:HE3	2.03	0.58
1:E:346:GLU:HG2	1:E:351:PRO:CG	2.32	0.58
1:E:439:ARG:HG2	1:E:439:ARG:O	2.03	0.58
1:H:468:ALA:HA	1:H:473:LEU:HD13	1.84	0.58
1:I:158:ILE:HG23	1:I:158:ILE:O	2.04	0.58
1:I:176:MET:HE3	1:I:179:ILE:HD12	1.84	0.58
1:L:429:PRO:C	1:L:431:VAL:H	2.07	0.58
1:A:496:ALA:C	1:A:501:THR:C	2.62	0.58
1:B:90:LYS:NZ	1:B:164:VAL:O	2.34	0.58
1:C:114:LYS:CE	1:C:374:ASN:HD21	2.17	0.58
1:E:250:GLN:HG3	1:E:315:LEU:CD1	2.33	0.58
1:E:336:ALA:O	1:E:339:VAL:HG22	2.03	0.58
1:F:259:SER:O	1:F:263:LEU:HB2	2.03	0.58
1:H:33:ARG:HB2	1:H:36:GLU:OE2	2.02	0.58
1:H:376:GLY:O	1:H:380:VAL:HG23	2.03	0.58
1:J:281:TRP:O	1:J:282:ASN:HB2	2.03	0.58
1:J:401:TYR:O	1:J:404:ASP:HB2	2.03	0.58
1:A:281:TRP:HD1	1:A:282:ASN:N	2.01	0.58
1:C:93:ILE:HD11	1:C:165:PRO:CB	2.31	0.58
1:C:314:ILE:CD1	1:C:314:ILE:N	2.54	0.58
1:C:316:GLU:HG3	1:C:338:ARG:NH2	2.15	0.58
1:C:328:GLU:C	1:C:329:LYS:HG2	2.23	0.58
1:G:131:ILE:HG12	1:G:136:TYR:CE2	2.39	0.58
1:G:305:PRO:O	1:G:307:ALA:N	2.36	0.58
1:H:165:PRO:O	1:H:198:VAL:HG23	2.03	0.58
1:I:219:VAL:CA	1:I:373:LEU:HD21	2.31	0.58
1:I:244:ASP:C	1:I:245:LYS:HG3	2.23	0.58
1:K:12:MET:O	1:K:16:PHE:HD1	1.86	0.58
1:K:147:ARG:HH11	1:K:147:ARG:HG3	1.66	0.58
1:K:336:ALA:HB3	1:K:337:PRO:HD3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:313:SER:CB	1:L:315:LEU:HD13	2.28	0.58
1:L:356:ALA:O	1:L:360:PHE:HD2	1.86	0.58
1:A:437:GLN:CD	1:H:423:LYS:HG2	2.23	0.58
1:C:24:VAL:O	1:C:25:GLU:C	2.42	0.58
1:I:271:ILE:HG13	1:I:283:PRO:HA	1.84	0.58
1:J:81:GLN:OE1	1:J:84:HIS:HE1	1.86	0.58
1:J:142:GLU:HG2	1:J:146:ARG:HD2	1.85	0.58
1:K:94:ARG:HG2	1:K:94:ARG:NH1	2.18	0.58
1:K:467:THR:O	1:K:467:THR:CG2	2.51	0.58
1:K:473:LEU:HD13	1:K:480:ALA:HB2	1.84	0.58
1:A:289:LYS:HG3	1:A:289:LYS:O	2.04	0.58
1:A:343:ILE:HG12	1:A:366:MET:HE2	1.85	0.58
1:A:498:VAL:HG11	1:E:72:TRP:NE1	2.19	0.58
1:C:25:GLU:O	1:C:29:VAL:HG23	2.04	0.58
1:C:386:LEU:HD13	1:D:392:VAL:HG21	1.86	0.58
1:C:396:ARG:CG	1:C:396:ARG:NH1	2.57	0.58
1:D:6:ASP:O	1:D:6:ASP:OD2	2.22	0.58
1:F:131:ILE:CG1	1:F:136:TYR:CE2	2.86	0.58
1:F:394:TYR:HB2	1:F:445:GLU:HG3	1.85	0.58
1:G:461:ALA:O	1:G:465:MET:HG3	2.04	0.58
1:H:501:THR:C	1:L:146:ARG:HH22	2.06	0.58
1:I:38:GLU:HB2	1:I:42:ARG:NH2	2.18	0.58
1:I:501:THR:OXT	1:J:146:ARG:NH2	2.28	0.58
1:J:173:GLU:HB2	1:J:202:PRO:HG3	1.85	0.58
1:J:414:GLN:NE2	1:J:430:ILE:CG2	2.67	0.58
1:J:414:GLN:CD	1:J:430:ILE:HG12	2.24	0.58
1:K:117:VAL:HG21	1:K:371:LEU:HG	1.84	0.58
1:K:212:ILE:HD12	1:K:213:SER:H	1.69	0.58
1:K:280:ILE:HG22	1:K:281:TRP:H	1.68	0.58
1:A:358:LYS:O	1:A:361:LEU:HB3	2.03	0.58
1:C:40:GLN:O	1:C:40:GLN:NE2	2.32	0.58
1:C:133:PRO:O	1:C:135:ASN:N	2.37	0.58
1:C:466:ARG:NH1	1:C:466:ARG:HB2	2.19	0.58
1:D:189:HIS:CE1	1:F:154:LYS:HD3	2.39	0.58
1:D:498:VAL:HG23	1:D:499:THR:N	2.18	0.58
1:E:460:SER:O	1:E:463:GLN:HB2	2.02	0.58
1:F:331:LEU:HD23	1:F:360:PHE:CE2	2.39	0.58
1:F:488:LYS:O	1:F:492:VAL:HG23	2.03	0.58
1:G:141:LEU:O	1:G:145:THR:HG23	2.04	0.58
1:G:239:THR:HG23	1:G:239:THR:O	2.03	0.58
1:H:24:VAL:CG2	1:H:483:VAL:HG22	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:146:ARG:O	1:H:149:THR:HB	2.03	0.58
1:H:294:PHE:CE2	1:H:304:PHE:HA	2.39	0.58
1:I:39:GLU:O	1:I:41:LYS:N	2.36	0.58
1:I:212:ILE:HD12	1:I:212:ILE:H	1.68	0.58
1:K:226:PHE:C	1:K:228:ASN:H	2.05	0.58
1:A:411:MET:HG2	1:A:430:ILE:HG22	1.85	0.58
1:B:24:VAL:HG12	1:B:28:LEU:HB2	1.85	0.58
1:C:239:THR:HA	1:C:245:LYS:HZ2	1.69	0.58
1:G:359:ILE:HA	1:G:362:GLU:HG3	1.85	0.58
1:I:16:PHE:O	1:I:19:ARG:HB3	2.04	0.58
1:I:370:ASP:OD2	1:I:370:ASP:N	2.36	0.58
1:I:371:LEU:CD2	1:I:481:ALA:HB1	2.30	0.58
1:L:85:GLN:HE21	1:L:489:VAL:HA	1.68	0.58
1:L:420:LYS:HZ2	1:L:420:LYS:HB3	1.69	0.58
1:B:7:PRO:O	1:B:329:LYS:HD3	2.03	0.58
1:B:314:ILE:HD13	1:B:314:ILE:N	2.19	0.58
1:D:363:ARG:O	1:D:365:ILE:HG12	2.04	0.58
1:F:160:PRO:HG2	1:F:161:GLY:H	1.69	0.58
1:G:20:GLY:O	1:G:24:VAL:HG23	2.03	0.58
1:G:176:MET:HE3	1:G:179:ILE:HD12	1.84	0.58
1:G:250:GLN:HE21	1:G:314:ILE:HD13	1.67	0.58
1:G:339:VAL:HG21	1:G:360:PHE:HE1	1.69	0.58
1:I:48:ILE:HG21	1:I:490:PHE:CD1	2.38	0.58
1:I:250:GLN:CB	1:I:314:ILE:HD11	2.34	0.58
1:J:79:ARG:HH11	1:J:127:ALA:HB2	1.69	0.58
1:J:238:MET:O	1:J:239:THR:C	2.41	0.58
1:K:180:ALA:HA	1:K:197:CYS:SG	2.44	0.58
1:K:370:ASP:O	1:K:372:TYR:N	2.37	0.58
1:K:416:SER:HA	1:K:419:ARG:CZ	2.33	0.58
1:L:100:SER:O	1:L:103:GLU:HB3	2.04	0.58
1:L:330:GLN:O	1:L:331:LEU:HD23	2.04	0.58
1:A:248:VAL:O	1:A:323:ILE:HG12	2.04	0.58
1:B:111:MET:O	1:B:112:THR:C	2.41	0.58
1:B:291:LEU:HD11	1:B:301:ILE:CG2	2.32	0.58
1:E:24:VAL:HG12	1:E:28:LEU:HB2	1.86	0.58
1:E:428:ILE:HG22	1:E:430:ILE:HG12	1.85	0.58
1:F:47:GLY:HA2	1:F:50:ARG:HH11	1.69	0.58
1:F:248:VAL:CG1	1:F:314:ILE:HG13	2.33	0.58
1:G:96:SER:HB3	1:G:99:VAL:HG13	1.85	0.58
1:G:413:VAL:HG22	1:L:413:VAL:HG11	1.86	0.58
1:I:111:MET:O	1:I:112:THR:C	2.42	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:335:ASN:C	1:J:335:ASN:HD22	2.07	0.58
1:K:260:MET:CE	1:K:288:PRO:HA	2.24	0.58
1:A:141:LEU:O	1:A:145:THR:HG23	2.03	0.58
1:A:247:PHE:CB	1:A:321:ILE:HG22	2.29	0.58
1:B:332:THR:HG22	1:B:353:THR:HG21	1.86	0.58
1:C:47:GLY:HA2	1:C:50:ARG:CD	2.34	0.58
1:C:64:PRO:CB	1:F:51:ILE:HD11	2.33	0.58
1:D:258:HIS:O	1:D:262:TYR:HD2	1.86	0.58
1:E:327:SER:HB2	1:E:330:GLN:OE1	2.03	0.58
1:G:65:ILE:CD1	1:G:75:ILE:HD11	2.33	0.58
1:J:482:TYR:O	1:J:486:ILE:HG12	2.04	0.58
1:K:346:GLU:HG2	1:K:351:PRO:HG3	1.85	0.58
1:C:414:GLN:HE22	1:C:430:ILE:HD13	1.67	0.57
1:G:232:TYR:HD1	1:G:232:TYR:N	2.02	0.57
1:H:291:LEU:HD11	1:H:301:ILE:HG22	1.86	0.57
1:H:380:VAL:HG13	1:H:449:VAL:CG1	2.34	0.57
1:J:58:VAL:HG23	1:J:80:ALA:HB2	1.85	0.57
1:J:192:ILE:O	1:J:192:ILE:CG1	2.51	0.57
1:J:343:ILE:HD11	1:J:366:MET:CE	2.34	0.57
1:K:482:TYR:O	1:K:486:ILE:HG12	2.03	0.57
1:L:85:GLN:NE2	1:L:489:VAL:HA	2.18	0.57
1:L:114:LYS:NZ	1:L:374:ASN:HD22	2.03	0.57
1:L:222:GLY:HA3	1:L:373:LEU:CD1	2.34	0.57
1:L:359:ILE:O	1:L:363:ARG:HG2	2.03	0.57
1:A:55:CYS:SG	1:A:105:LYS:CG	2.90	0.57
1:B:321:ILE:HG23	1:B:343:ILE:HB	1.86	0.57
1:E:6:ASP:N	1:E:7:PRO:CD	2.67	0.57
1:E:19:ARG:NH1	1:E:479:THR:HG21	2.18	0.57
1:E:184:ALA:O	1:E:189:HIS:HA	2.04	0.57
1:I:45:VAL:HG23	1:L:72:TRP:CZ3	2.38	0.57
1:I:247:PHE:CZ	1:I:270:CYS:HB2	2.38	0.57
1:K:12:MET:O	1:K:16:PHE:CD1	2.57	0.57
1:K:158:ILE:HD12	1:K:165:PRO:HD2	1.86	0.57
1:K:248:VAL:CG1	1:K:272:ALA:HB3	2.34	0.57
1:L:103:GLU:HG2	1:L:104:VAL:N	2.16	0.57
1:L:229:GLU:O	1:L:230:ALA:C	2.41	0.57
1:C:112:THR:HG22	1:C:124:GLY:HA3	1.85	0.57
1:F:113:TYR:O	1:F:117:VAL:HG23	2.03	0.57
1:F:164:VAL:HG13	1:F:198:VAL:HA	1.86	0.57
1:H:28:LEU:HA	1:H:32:LEU:HD12	1.85	0.57
1:I:497:GLY:CA	1:I:501:THR:HA	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:379:THR:CG2	1:K:456:THR:HG21	2.34	0.57
1:A:192:ILE:O	1:A:192:ILE:HG12	2.03	0.57
1:C:225:ASN:ND2	1:C:458:GLU:HA	2.19	0.57
1:C:370:ASP:O	1:C:372:TYR:N	2.37	0.57
1:D:30:GLU:O	1:D:31:ASP:HB2	2.04	0.57
1:G:264:HIS:C	1:G:266:PHE:H	2.07	0.57
1:G:295:LYS:HD3	1:G:301:ILE:HG22	1.85	0.57
1:H:17:PHE:CE2	1:H:53:LYS:HB2	2.39	0.57
1:I:56:ASN:C	1:I:57:HIS:HD1	2.07	0.57
1:J:182:THR:O	1:J:186:THR:OG1	2.17	0.57
1:K:137:THR:HG23	1:K:140:GLU:CD	2.24	0.57
1:K:416:SER:HA	1:K:419:ARG:NH2	2.19	0.57
1:L:257:LEU:C	1:L:257:LEU:HD12	2.24	0.57
1:L:356:ALA:O	1:L:360:PHE:CD2	2.58	0.57
1:L:420:LYS:HB3	1:L:420:LYS:NZ	2.18	0.57
1:A:332:THR:N	1:A:335:ASN:HD21	2.01	0.57
1:C:104:VAL:CG2	1:C:105:LYS:N	2.68	0.57
1:C:140:GLU:O	1:C:144:ILE:HG13	2.04	0.57
1:C:164:VAL:HG13	1:C:198:VAL:HA	1.85	0.57
1:D:57:HIS:CD2	1:D:84:HIS:NE2	2.69	0.57
1:E:346:GLU:CD	1:E:478:ARG:HH22	2.07	0.57
1:E:359:ILE:HG22	1:E:360:PHE:N	2.20	0.57
1:F:264:HIS:CD2	1:F:288:PRO:HD3	2.40	0.57
1:F:436:PHE:O	1:F:439:ARG:HB3	2.03	0.57
1:G:214:ALA:CB	1:G:380:VAL:HG21	2.34	0.57
1:H:248:VAL:HG13	1:H:272:ALA:HB3	1.85	0.57
1:H:277:ASP:CB	1:H:302:LEU:HD11	2.34	0.57
1:I:164:VAL:HG13	1:I:198:VAL:HA	1.86	0.57
1:I:495:GLU:O	1:I:496:ALA:HB2	2.04	0.57
2:I:502:ADP:H5'2	1:J:203:ILE:CG2	2.35	0.57
1:A:332:THR:HA	1:A:353:THR:HG21	1.85	0.57
1:B:322:LEU:O	1:B:324:PRO:HD3	2.05	0.57
1:B:331:LEU:CD1	1:B:360:PHE:CZ	2.87	0.57
1:B:335:ASN:HD22	1:B:336:ALA:N	2.03	0.57
1:D:216:GLY:O	1:D:219:VAL:HG23	2.05	0.57
1:D:330:GLN:CA	1:D:330:GLN:HE21	2.17	0.57
1:E:173:GLU:HB2	1:E:202:PRO:HD3	1.86	0.57
1:F:184:ALA:O	1:F:189:HIS:HA	2.04	0.57
1:G:137:THR:HB	1:G:140:GLU:HG3	1.87	0.57
1:G:271:ILE:CD1	1:G:283:PRO:HA	2.35	0.57
1:I:238:MET:C	1:I:240:PRO:HD3	2.24	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:316:GLU:HG2	1:J:338:ARG:O	2.05	0.57
1:J:357:ASP:O	1:J:358:LYS:C	2.41	0.57
1:K:247:PHE:CZ	1:K:270:CYS:HB2	2.40	0.57
1:L:232:TYR:O	1:L:236:LEU:HG	2.04	0.57
1:B:414:GLN:CB	1:B:429:PRO:HD2	2.35	0.57
1:C:28:LEU:HD12	1:C:32:LEU:HD23	1.86	0.57
1:C:95:TYR:CE2	1:C:129:VAL:HG21	2.40	0.57
1:C:272:ALA:HB1	1:C:314:ILE:CG2	2.35	0.57
1:C:338:ARG:HB3	1:C:338:ARG:HH11	1.65	0.57
1:E:86:ARG:NH1	1:E:492:VAL:HG21	2.19	0.57
1:E:344:ILE:HD11	1:E:360:PHE:CE1	2.40	0.57
1:F:208:ILE:HD11	1:F:449:VAL:HG22	1.85	0.57
1:F:315:LEU:CD2	1:F:331:LEU:HD12	2.35	0.57
1:G:248:VAL:HG12	1:G:249:VAL:N	2.19	0.57
1:I:250:GLN:HA	1:I:314:ILE:HD11	1.87	0.57
1:I:360:PHE:CD1	1:I:365:ILE:HG21	2.39	0.57
1:J:359:ILE:HA	1:J:362:GLU:HG3	1.87	0.57
1:L:81:GLN:HG3	1:L:157:PHE:CE1	2.39	0.57
1:L:114:LYS:NZ	1:L:374:ASN:ND2	2.53	0.57
1:L:186:THR:CG2	1:L:187:ILE:H	2.18	0.57
1:B:101:VAL:O	1:B:104:VAL:HG22	2.04	0.57
1:C:181:ASP:CG	1:E:501:THR:HG23	2.25	0.57
1:E:244:ASP:O	1:E:245:LYS:HG3	2.04	0.57
1:E:273:VAL:O	1:E:273:VAL:HG12	2.04	0.57
1:E:376:GLY:O	1:E:379:THR:HB	2.04	0.57
1:F:33:ARG:NH1	1:F:45:VAL:HG11	2.20	0.57
1:F:421:PHE:CD1	1:F:423:LYS:HD3	2.40	0.57
1:G:137:THR:HG22	1:G:139:ASN:N	2.08	0.57
1:G:500:PHE:HB3	1:H:142:GLU:OE1	2.04	0.57
1:H:121:PRO:CD	1:H:382:TYR:CE2	2.87	0.57
1:I:30:GLU:HG3	1:I:31:ASP:N	2.16	0.57
1:I:34:THR:HG23	1:I:37:SER:OG	2.05	0.57
1:I:233:MET:HE3	1:I:343:ILE:HD11	1.86	0.57
1:K:18:ASP:O	1:K:21:ALA:HB3	2.05	0.57
1:L:65:ILE:HG21	1:L:144:ILE:HG12	1.86	0.57
1:L:104:VAL:HG23	1:L:105:LYS:H	1.69	0.57
1:L:387:LYS:HA	1:L:390:ASN:HD22	1.70	0.57
1:B:424:HIS:N	1:B:424:HIS:HD2	2.02	0.57
1:D:331:LEU:O	1:D:356:ALA:HB2	2.05	0.57
1:F:19:ARG:CD	1:F:23:ILE:HD11	2.33	0.57
1:J:153:ALA:HA	1:J:158:ILE:HG22	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:293:ASP:HB3	1:K:297:GLN:NE2	2.20	0.57
1:K:465:MET:O	1:K:468:ALA:HB3	2.05	0.57
1:L:247:PHE:HB2	1:L:321:ILE:HG13	1.85	0.57
1:L:281:TRP:CD1	1:L:283:PRO:HD3	2.39	0.57
1:A:414:GLN:HG3	1:A:429:PRO:HD2	1.87	0.57
1:E:471:TYR:O	1:E:473:LEU:N	2.38	0.57
1:F:483:VAL:O	1:F:487:GLU:HG3	2.05	0.57
1:G:371:LEU:CD2	1:G:481:ALA:HB1	2.35	0.57
1:G:492:VAL:CG2	2:G:502:ADP:C2	2.87	0.57
1:H:52:ILE:CD1	1:H:489:VAL:HG12	2.34	0.57
1:J:337:PRO:HA	1:J:363:ARG:HH21	1.70	0.57
1:L:112:THR:HB	1:L:124:GLY:N	2.15	0.57
1:A:86:ARG:NH2	2:A:1:ADP:O4'	2.38	0.56
1:C:261:ARG:HG2	1:C:288:PRO:HB3	1.87	0.56
1:D:165:PRO:HD2	1:D:197:CYS:O	2.05	0.56
1:G:346:GLU:HG2	1:G:351:PRO:CG	2.34	0.56
1:G:467:THR:HG21	1:G:484:ASN:HB2	1.86	0.56
1:K:316:GLU:OE2	1:K:338:ARG:HB2	2.05	0.56
1:K:321:ILE:HD13	1:K:343:ILE:HB	1.86	0.56
1:L:360:PHE:HD1	1:L:365:ILE:HG13	1.70	0.56
1:A:148:PHE:O	1:A:152:LEU:HB2	2.04	0.56
1:A:217:ARG:HG3	1:A:262:TYR:CE2	2.40	0.56
1:B:9:PHE:O	1:B:13:VAL:HG23	2.05	0.56
1:D:90:LYS:NZ	1:D:164:VAL:HG12	2.20	0.56
1:F:53:LYS:O	1:F:82:HIS:HE1	1.87	0.56
1:F:89:CYS:O	1:F:163:ASP:HA	2.05	0.56
1:G:232:TYR:N	1:G:232:TYR:CD1	2.73	0.56
1:G:233:MET:CE	1:G:343:ILE:HD11	2.34	0.56
1:K:68:ASP:OD2	1:K:137:THR:CG2	2.52	0.56
1:K:141:LEU:HA	1:K:144:ILE:HD12	1.86	0.56
1:K:272:ALA:HB1	1:K:314:ILE:HG21	1.86	0.56
1:K:272:ALA:HB1	1:K:314:ILE:CG2	2.35	0.56
1:L:338:ARG:HB3	1:L:338:ARG:HH11	1.66	0.56
1:A:222:GLY:HA3	1:A:373:LEU:CD1	2.34	0.56
1:A:416:SER:OG	1:F:429:PRO:HA	2.06	0.56
1:A:459:ARG:O	1:A:463:GLN:HG3	2.05	0.56
1:C:153:ALA:HB2	1:C:158:ILE:CG2	2.35	0.56
1:C:427:THR:C	1:C:428:ILE:HD13	2.25	0.56
1:D:67:ARG:HH11	1:D:67:ARG:CG	2.17	0.56
1:D:403:ARG:O	1:D:406:ASN:HB2	2.05	0.56
1:E:153:ALA:CA	1:E:158:ILE:HG22	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:291:LEU:O	1:E:291:LEU:CG	2.50	0.56
1:F:74:VAL:HG23	1:F:74:VAL:O	2.04	0.56
1:F:313:SER:HB2	1:F:315:LEU:CD1	2.35	0.56
1:F:328:GLU:O	1:F:329:LYS:C	2.44	0.56
1:G:414:GLN:HB2	1:G:430:ILE:HG23	1.86	0.56
1:H:87:THR:CB	1:H:88:PRO:HD3	2.36	0.56
1:H:394:TYR:HE2	1:L:397:LEU:HD13	1.68	0.56
1:I:439:ARG:HH12	1:J:404:ASP:CB	2.18	0.56
1:I:501:THR:H	1:J:146:ARG:NH2	2.03	0.56
1:J:106:ALA:O	1:J:109:SER:HB3	2.06	0.56
1:L:75:ILE:HG23	1:L:131:ILE:HD13	1.87	0.56
1:L:217:ARG:HB3	1:L:217:ARG:NH1	2.20	0.56
1:L:330:GLN:HA	1:L:330:GLN:HE21	1.70	0.56
1:C:69:ASP:C	1:C:69:ASP:OD2	2.44	0.56
1:D:118:VAL:HA	1:D:460:SER:OG	2.05	0.56
1:D:336:ALA:HB1	1:D:359:ILE:HG21	1.88	0.56
1:E:280:ILE:CG2	1:E:307:ALA:HB1	2.35	0.56
1:F:89:CYS:HB2	1:F:163:ASP:HB2	1.86	0.56
1:F:239:THR:O	1:F:239:THR:CG2	2.53	0.56
1:F:485:ALA:O	1:F:489:VAL:HG23	2.05	0.56
1:H:82:HIS:HD2	1:H:109:SER:CA	2.15	0.56
1:H:219:VAL:O	1:H:223:ILE:HG13	2.04	0.56
1:I:14:GLU:HG3	1:I:53:LYS:NZ	2.21	0.56
1:I:30:GLU:CG	1:I:31:ASP:H	2.16	0.56
1:I:325:ALA:O	1:I:326:ALA:HB2	2.06	0.56
1:J:371:LEU:HD13	1:J:482:TYR:CE1	2.39	0.56
1:K:65:ILE:HD13	1:K:144:ILE:HG13	1.87	0.56
1:K:131:ILE:CG1	1:K:136:TYR:CE2	2.86	0.56
1:L:32:LEU:O	1:L:33:ARG:CB	2.54	0.56
1:L:393:SER:O	1:L:394:TYR:C	2.43	0.56
1:B:161:GLY:H	1:B:162:ILE:HD12	1.70	0.56
1:D:244:ASP:C	1:D:245:LYS:HG3	2.26	0.56
1:F:79:ARG:HG2	1:F:157:PHE:HB3	1.88	0.56
1:G:471:TYR:O	1:G:473:LEU:CD2	2.53	0.56
1:J:9:PHE:CD2	1:J:9:PHE:N	2.72	0.56
1:L:281:TRP:HE1	1:L:283:PRO:HD3	1.66	0.56
1:L:346:GLU:HG2	1:L:351:PRO:CG	2.35	0.56
1:B:217:ARG:CG	1:B:221:HIS:HE1	2.18	0.56
1:B:433:THR:HG22	1:F:412:SER:HA	1.86	0.56
1:B:497:GLY:HA3	1:B:501:THR:HA	1.87	0.56
1:B:498:VAL:HG11	1:D:72:TRP:HE1	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:74:VAL:C	1:C:75:ILE:HD12	2.26	0.56
1:D:99:VAL:CG2	1:D:100:SER:N	2.59	0.56
1:D:229:GLU:HA	1:D:229:GLU:OE2	2.04	0.56
1:D:462:ARG:HD3	1:D:466:ARG:HH21	1.70	0.56
1:E:208:ILE:O	1:E:208:ILE:CG2	2.53	0.56
1:F:168:ASP:OD1	1:F:169:MET:N	2.36	0.56
1:F:403:ARG:NH1	1:F:440:ILE:HB	2.21	0.56
1:G:91:GLY:HA3	1:G:125:ALA:O	2.05	0.56
1:G:104:VAL:CG2	1:G:105:LYS:N	2.68	0.56
1:G:198:VAL:O	1:G:201:LYS:CE	2.53	0.56
1:G:396:ARG:HG3	1:G:396:ARG:NH1	2.17	0.56
1:H:23:ILE:O	1:H:471:TYR:CE1	2.59	0.56
1:H:403:ARG:HG2	1:H:403:ARG:HH11	1.69	0.56
1:I:201:LYS:HB2	1:I:202:PRO:HD3	1.87	0.56
1:I:396:ARG:HH11	1:I:396:ARG:CG	2.11	0.56
1:J:222:GLY:HA3	1:J:373:LEU:HD12	1.88	0.56
1:K:212:ILE:HD13	1:K:213:SER:H	1.71	0.56
1:K:359:ILE:O	1:K:362:GLU:HB2	2.05	0.56
1:L:260:MET:HE3	1:L:288:PRO:HA	1.88	0.56
1:L:269:LYS:HD2	1:L:285:GLY:HA3	1.86	0.56
1:A:67:ARG:NH1	1:A:140:GLU:OE1	2.39	0.56
1:C:316:GLU:HG2	1:C:338:ARG:NE	2.19	0.56
1:C:322:LEU:HD13	1:C:323:ILE:N	2.20	0.56
1:D:456:THR:CG2	1:E:396:ARG:HH21	2.18	0.56
1:E:315:LEU:O	1:E:339:VAL:HG12	2.05	0.56
1:F:211:ARG:O	1:F:211:ARG:HG2	2.05	0.56
1:F:252:PHE:HE2	1:F:257:LEU:HB2	1.70	0.56
1:F:414:GLN:HG3	1:F:427:THR:O	2.06	0.56
1:F:414:GLN:HB2	1:F:429:PRO:HD2	1.88	0.56
1:F:498:VAL:CG2	1:F:499:THR:H	2.07	0.56
1:I:30:GLU:HG3	1:I:31:ASP:OD2	2.05	0.56
1:J:104:VAL:HG23	1:J:105:LYS:N	2.20	0.56
1:A:153:ALA:HA	1:A:158:ILE:HG22	1.88	0.56
1:C:354:PRO:O	1:C:357:ASP:HB2	2.05	0.56
1:D:372:TYR:OH	1:D:461:ALA:HB2	2.06	0.56
1:D:429:PRO:O	1:D:431:VAL:N	2.38	0.56
1:E:165:PRO:C	1:E:198:VAL:HG23	2.26	0.56
1:F:149:THR:OG1	1:F:179:ILE:HD13	2.06	0.56
1:F:451:SER:OG	1:F:452:GLY:N	2.37	0.56
1:H:247:PHE:CB	1:H:321:ILE:HG13	2.31	0.56
1:K:23:ILE:HG22	1:K:471:TYR:CD1	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:55:CYS:SG	1:K:82:HIS:HA	2.46	0.56
1:L:475:LEU:HD12	1:L:475:LEU:N	2.20	0.56
1:A:24:VAL:HG22	1:A:483:VAL:HG13	1.87	0.56
1:C:163:ASP:O	1:C:165:PRO:HD3	2.06	0.56
1:C:250:GLN:HE21	1:C:314:ILE:CD1	2.19	0.56
1:E:484:ASN:O	1:E:488:LYS:HG3	2.06	0.56
1:F:436:PHE:O	1:F:439:ARG:N	2.35	0.56
1:H:117:VAL:HG11	1:H:372:TYR:HB2	1.87	0.56
1:I:24:VAL:CG1	1:I:28:LEU:HD13	2.35	0.56
1:I:400:LYS:HE2	1:I:403:ARG:HH21	1.71	0.56
1:J:53:LYS:HB3	1:J:54:PRO:CD	2.36	0.56
1:K:236:LEU:HB3	1:K:342:LYS:HE3	1.87	0.56
1:K:248:VAL:HG11	1:K:314:ILE:HB	1.88	0.56
1:L:294:PHE:CE2	1:L:301:ILE:HA	2.41	0.56
1:L:353:THR:O	1:L:356:ALA:HB3	2.06	0.56
1:C:108:ALA:O	1:C:112:THR:HG22	2.06	0.56
1:C:233:MET:HE2	1:C:236:LEU:HD11	1.88	0.56
1:C:500:PHE:HB3	1:D:142:GLU:OE1	2.05	0.56
1:D:346:GLU:OE2	1:D:352:THR:HG23	2.06	0.56
1:D:439:ARG:NH2	1:E:405:SER:OG	2.38	0.56
1:D:462:ARG:CD	1:D:466:ARG:HH21	2.19	0.56
1:E:224:GLU:HA	1:E:227:ILE:HG22	1.88	0.56
1:F:79:ARG:NH1	1:F:165:PRO:HB3	2.21	0.56
1:H:9:PHE:CD1	1:H:10:PHE:N	2.63	0.56
1:H:141:LEU:O	1:H:145:THR:HG23	2.06	0.56
1:H:203:ILE:HD12	1:H:209:HIS:CD2	2.40	0.56
1:I:91:GLY:HA2	1:I:111:MET:CE	2.36	0.56
1:J:324:PRO:HD2	1:J:345:ALA:O	2.06	0.56
1:K:53:LYS:CB	1:K:54:PRO:HD3	2.32	0.56
1:L:294:PHE:HA	1:L:297:GLN:CD	2.26	0.56
1:L:338:ARG:HH11	1:L:338:ARG:CB	2.19	0.56
1:C:497:GLY:HA3	1:C:501:THR:HA	1.87	0.55
1:D:421:PHE:HD2	1:D:422:GLY:H	1.53	0.55
1:F:153:ALA:HA	1:F:158:ILE:HG22	1.88	0.55
1:G:314:ILE:HD13	1:G:314:ILE:H	1.71	0.55
1:H:176:MET:HE2	1:H:179:ILE:HG13	1.87	0.55
1:I:431:VAL:O	1:I:431:VAL:HG13	2.06	0.55
1:J:459:ARG:NH2	2:J:502:ADP:O3B	2.39	0.55
1:A:239:THR:N	1:A:240:PRO:CD	2.68	0.55
1:A:259:SER:O	1:A:263:LEU:HB2	2.06	0.55
1:A:460:SER:O	1:A:464:ILE:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:336:ALA:HB3	1:B:337:PRO:HD3	1.87	0.55
1:C:28:LEU:HD11	1:C:490:PHE:CD2	2.42	0.55
1:C:236:LEU:HD13	1:C:343:ILE:HD11	1.89	0.55
1:F:282:ASN:ND2	1:F:306:LYS:O	2.38	0.55
1:G:6:ASP:O	1:G:6:ASP:OD1	2.23	0.55
1:G:131:ILE:HD13	1:G:144:ILE:HD13	1.88	0.55
1:H:374:ASN:ND2	1:H:374:ASN:O	2.39	0.55
1:I:96:SER:HA	1:I:131:ILE:O	2.06	0.55
1:I:282:ASN:OD1	1:I:282:ASN:O	2.24	0.55
1:I:363:ARG:O	1:I:365:ILE:HG12	2.06	0.55
1:K:38:GLU:O	1:K:40:GLN:N	2.39	0.55
1:K:282:ASN:OD1	1:K:284:ASP:HB2	2.06	0.55
1:K:420:LYS:O	1:K:421:PHE:HB2	2.04	0.55
1:K:466:ARG:C	1:K:468:ALA:H	2.10	0.55
1:L:244:ASP:C	1:L:245:LYS:HG3	2.27	0.55
1:A:368:ILE:CG2	1:A:373:LEU:HD13	2.36	0.55
1:C:417:LEU:HD11	1:E:417:LEU:HD23	1.88	0.55
1:D:17:PHE:CE1	1:D:486:ILE:HD13	2.41	0.55
1:G:214:ALA:HB2	1:G:380:VAL:HG21	1.88	0.55
1:I:314:ILE:HD13	1:I:314:ILE:H	1.71	0.55
1:K:258:HIS:HA	1:K:261:ARG:HB2	1.88	0.55
1:L:87:THR:OG1	1:L:88:PRO:CD	2.54	0.55
1:L:467:THR:O	1:L:467:THR:CG2	2.54	0.55
1:A:22:SER:O	1:A:23:ILE:C	2.44	0.55
1:A:202:PRO:HD2	1:A:205:GLN:HB2	1.89	0.55
1:A:285:GLY:C	1:A:286:ILE:HG13	2.25	0.55
1:A:360:PHE:HB3	1:A:365:ILE:CG2	2.37	0.55
1:B:302:LEU:H	1:B:302:LEU:HD12	1.71	0.55
1:C:164:VAL:HA	1:C:197:CYS:O	2.06	0.55
1:C:316:GLU:CG	1:C:338:ARG:HH21	2.16	0.55
1:D:249:VAL:HB	1:D:323:ILE:HG13	1.88	0.55
1:E:476:ASP:OD2	1:E:479:THR:OG1	2.16	0.55
1:G:281:TRP:O	1:G:282:ASN:HB2	2.05	0.55
1:H:58:VAL:HG22	1:H:80:ALA:HB1	1.86	0.55
1:H:277:ASP:HB3	1:H:302:LEU:HD11	1.88	0.55
1:H:319:CYS:O	1:H:341:ALA:HA	2.07	0.55
1:H:439:ARG:HH12	1:L:405:SER:N	2.05	0.55
1:I:174:ARG:HG3	1:I:175:GLU:H	1.71	0.55
1:J:49:LEU:H	1:J:49:LEU:HD12	1.70	0.55
1:J:314:ILE:N	1:J:314:ILE:CD1	2.69	0.55
1:K:436:PHE:CZ	1:K:440:ILE:HD11	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:90:LYS:HD2	1:A:164:VAL:O	2.06	0.55
1:A:137:THR:CG2	1:A:140:GLU:HG3	2.37	0.55
1:A:427:THR:O	1:A:428:ILE:HD13	2.07	0.55
1:B:308:LYS:HA	1:B:308:LYS:HE3	1.87	0.55
1:C:104:VAL:HG23	1:C:105:LYS:H	1.72	0.55
1:D:100:SER:O	1:D:103:GLU:N	2.38	0.55
1:F:114:LYS:HG3	1:F:371:LEU:O	2.06	0.55
1:I:24:VAL:HG22	1:I:483:VAL:HG13	1.87	0.55
1:I:234:SER:C	1:I:236:LEU:H	2.09	0.55
1:I:305:PRO:O	1:I:307:ALA:N	2.40	0.55
1:I:336:ALA:O	1:I:339:VAL:HG22	2.06	0.55
1:J:33:ARG:HA	1:J:33:ARG:NE	2.21	0.55
1:J:92:GLY:HA2	1:J:166:ALA:O	2.07	0.55
1:J:456:THR:HG23	1:K:396:ARG:HH21	1.72	0.55
1:K:96:SER:O	1:K:98:ASP:N	2.40	0.55
1:K:107:LEU:CD1	1:K:126:LYS:HE2	2.32	0.55
1:L:163:ASP:O	1:L:165:PRO:HD3	2.07	0.55
1:A:62:SER:OG	1:E:56:ASN:HA	2.07	0.55
1:A:423:LYS:HD3	1:A:426:GLY:CA	2.16	0.55
1:B:161:GLY:N	1:B:162:ILE:HD12	2.21	0.55
1:B:186:THR:HG22	1:B:187:ILE:N	2.20	0.55
1:C:19:ARG:HG3	1:C:19:ARG:NH1	2.21	0.55
1:C:91:GLY:HA3	1:C:125:ALA:O	2.07	0.55
1:C:252:PHE:HE2	1:C:260:MET:HE1	1.72	0.55
1:C:380:VAL:CG1	1:C:381:SER:N	2.70	0.55
1:D:294:PHE:HZ	1:D:303:GLY:O	1.88	0.55
1:E:33:ARG:O	1:E:33:ARG:HG3	2.07	0.55
1:F:158:ILE:HG23	1:F:158:ILE:O	2.06	0.55
1:G:328:GLU:HG2	1:G:329:LYS:HG3	1.89	0.55
1:G:331:LEU:HD12	1:G:352:THR:HG22	1.89	0.55
1:I:61:LEU:HD12	1:I:61:LEU:N	2.21	0.55
1:I:153:ALA:CA	1:I:158:ILE:HG22	2.37	0.55
1:K:492:VAL:HG12	1:K:493:TYR:N	2.21	0.55
1:L:81:GLN:HG3	1:L:157:PHE:HE1	1.72	0.55
1:A:59:LEU:HD21	1:A:61:LEU:CD2	2.35	0.55
1:A:368:ILE:HG21	1:A:373:LEU:HD13	1.88	0.55
1:B:100:SER:OG	1:B:103:GLU:HB2	2.07	0.55
1:B:271:ILE:CD1	1:B:283:PRO:HA	2.36	0.55
1:C:248:VAL:CG1	1:C:249:VAL:N	2.69	0.55
1:C:280:ILE:HD11	1:C:301:ILE:HB	1.88	0.55
1:C:428:ILE:O	1:D:416:SER:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:113:TYR:O	1:D:117:VAL:HG23	2.07	0.55
1:D:335:ASN:ND2	1:D:335:ASN:H	2.04	0.55
1:H:112:THR:HB	1:H:124:GLY:H	1.72	0.55
1:I:24:VAL:HG12	1:I:28:LEU:HB2	1.87	0.55
1:I:153:ALA:HA	1:I:158:ILE:HG22	1.87	0.55
1:J:431:VAL:HG13	1:J:431:VAL:O	2.07	0.55
1:K:59:LEU:HB2	1:K:157:PHE:CE2	2.42	0.55
1:K:245:LYS:HG3	1:K:267:GLY:O	2.06	0.55
1:K:255:VAL:HG13	1:K:256:GLY:H	1.72	0.55
1:L:201:LYS:HB2	1:L:202:PRO:HD2	1.89	0.55
1:A:386:LEU:HD13	1:B:392:VAL:CG2	2.33	0.55
1:B:36:GLU:HG3	1:B:37:SER:N	2.20	0.55
1:D:497:GLY:CA	1:D:501:THR:HA	2.36	0.55
1:E:24:VAL:O	1:E:25:GLU:C	2.46	0.55
1:E:248:VAL:HG11	1:E:314:ILE:HB	1.89	0.55
1:E:305:PRO:O	1:E:306:LYS:HB2	2.07	0.55
1:F:6:ASP:N	1:F:7:PRO:HD3	2.20	0.55
1:G:29:VAL:CA	1:G:33:ARG:HD2	2.30	0.55
1:G:259:SER:O	1:G:263:LEU:HD23	2.07	0.55
1:G:408:HIS:HB3	1:L:436:PHE:CD2	2.42	0.55
1:G:427:THR:C	1:G:428:ILE:HD13	2.27	0.55
1:H:160:PRO:HG3	1:H:191:ASP:OD1	2.07	0.55
1:H:167:PRO:HG3	1:H:176:MET:SD	2.47	0.55
1:C:358:LYS:O	1:C:361:LEU:HB2	2.06	0.55
1:C:494:ASN:O	1:C:494:ASN:ND2	2.36	0.55
1:D:34:THR:O	1:D:34:THR:CG2	2.55	0.55
1:D:257:LEU:C	1:D:257:LEU:HD12	2.27	0.55
1:H:56:ASN:HA	1:J:62:SER:OG	2.06	0.55
1:H:111:MET:HB3	1:H:124:GLY:HA2	1.89	0.55
1:H:121:PRO:HG2	1:H:382:TYR:HE2	1.71	0.55
1:I:475:LEU:C	1:I:477:LEU:HD22	2.27	0.55
1:I:479:THR:O	1:I:480:ALA:C	2.45	0.55
1:J:314:ILE:CD1	1:J:314:ILE:H	2.20	0.55
1:K:59:LEU:HD22	1:K:157:PHE:CD2	2.42	0.55
1:K:371:LEU:HD13	1:K:482:TYR:CE2	2.42	0.55
1:L:281:TRP:O	1:L:282:ASN:HB2	2.07	0.55
1:L:369:PRO:CD	1:L:477:LEU:HB3	2.37	0.55
1:A:58:VAL:HG23	1:A:80:ALA:HB2	1.89	0.55
1:C:114:LYS:NZ	1:C:374:ASN:HD21	2.05	0.55
1:D:147:ARG:NH1	1:D:151:GLU:OE2	2.40	0.55
1:E:211:ARG:HH11	1:E:211:ARG:HG3	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:52:ILE:HD13	1:H:489:VAL:CG1	2.36	0.55
1:I:151:GLU:HB3	1:L:57:HIS:HE1	1.72	0.55
1:I:281:TRP:NE1	1:I:283:PRO:HD3	2.21	0.55
1:K:379:THR:HG21	1:K:456:THR:HG21	1.89	0.55
1:L:213:SER:HB2	1:L:217:ARG:HD2	1.89	0.55
1:B:165:PRO:C	1:B:198:VAL:HG23	2.27	0.54
1:C:45:VAL:HG23	1:F:72:TRP:CZ3	2.41	0.54
1:C:247:PHE:CE1	1:C:270:CYS:N	2.75	0.54
1:D:158:ILE:HG12	1:D:165:PRO:HG2	1.88	0.54
1:D:296:LEU:CD1	1:D:297:GLN:N	2.69	0.54
1:D:453:LEU:HD23	1:D:453:LEU:C	2.27	0.54
1:D:453:LEU:CD2	1:D:457:MET:HG2	2.36	0.54
1:E:219:VAL:HA	1:E:373:LEU:CD1	2.37	0.54
1:F:45:VAL:C	1:F:47:GLY:H	2.08	0.54
1:F:240:PRO:O	1:G:431:VAL:HG23	2.06	0.54
1:H:34:THR:O	1:H:34:THR:HG22	2.07	0.54
1:H:274:GLY:CA	1:H:314:ILE:HD12	2.37	0.54
1:I:252:PHE:CE2	1:I:260:MET:HE1	2.35	0.54
1:J:161:GLY:O	1:J:162:ILE:HD12	2.06	0.54
1:J:498:VAL:CG2	1:J:499:THR:H	2.19	0.54
1:A:446:LYS:HG3	1:A:450:HIS:CE1	2.42	0.54
1:B:238:MET:O	1:B:239:THR:C	2.45	0.54
1:B:281:TRP:O	1:B:282:ASN:HB2	2.07	0.54
1:C:94:ARG:HD3	1:C:168:ASP:OD2	2.06	0.54
1:C:413:VAL:CG1	1:E:413:VAL:HG11	2.38	0.54
1:D:30:GLU:O	1:D:30:GLU:HG3	2.07	0.54
1:D:250:GLN:HE21	1:D:274:GLY:HA3	1.71	0.54
1:E:69:ASP:OD1	1:E:71:SER:N	2.37	0.54
1:E:222:GLY:HA3	1:E:373:LEU:CD1	2.37	0.54
1:F:335:ASN:HD22	1:F:336:ALA:H	1.54	0.54
1:G:201:LYS:HB2	1:G:202:PRO:CD	2.37	0.54
1:H:219:VAL:HG13	1:H:373:LEU:HD21	1.89	0.54
1:L:328:GLU:O	1:L:329:LYS:HB2	2.07	0.54
1:B:100:SER:O	1:B:103:GLU:HB3	2.07	0.54
1:B:165:PRO:HD2	1:B:197:CYS:O	2.07	0.54
1:C:30:GLU:HA	1:C:34:THR:OG1	2.07	0.54
1:C:142:GLU:HA	1:C:178:TRP:CE3	2.42	0.54
1:C:281:TRP:O	1:C:282:ASN:CB	2.55	0.54
1:C:318:ASP:HA	1:C:340:LYS:HB2	1.87	0.54
1:C:374:ASN:ND2	1:C:374:ASN:O	2.40	0.54
1:C:380:VAL:HG22	1:C:449:VAL:CG1	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:435:GLU:O	1:C:438:ASP:N	2.41	0.54
1:D:24:VAL:CG1	1:D:28:LEU:HD22	2.36	0.54
1:D:335:ASN:HA	1:D:338:ARG:HD3	1.87	0.54
1:E:239:THR:O	1:E:239:THR:CG2	2.54	0.54
1:F:335:ASN:HD22	1:F:335:ASN:N	2.05	0.54
1:H:57:HIS:CE1	1:H:84:HIS:CE1	2.94	0.54
1:H:294:PHE:O	1:H:298:HIS:CE1	2.61	0.54
1:I:406:ASN:ND2	1:J:409:LEU:CD2	2.69	0.54
1:J:165:PRO:HD2	1:J:197:CYS:O	2.06	0.54
1:L:65:ILE:HG12	1:L:75:ILE:HD11	1.89	0.54
1:L:65:ILE:HG23	1:L:75:ILE:HD13	1.88	0.54
1:L:247:PHE:HE2	1:L:249:VAL:CG1	2.21	0.54
1:L:498:VAL:N	1:L:501:THR:HB	2.22	0.54
1:A:411:MET:HG2	1:A:430:ILE:HG21	1.88	0.54
1:A:496:ALA:C	1:A:501:THR:O	2.46	0.54
1:B:246:THR:O	1:B:320:ASP:HB2	2.08	0.54
1:C:239:THR:CA	1:C:245:LYS:HZ2	2.21	0.54
1:C:249:VAL:HG22	1:C:249:VAL:O	2.07	0.54
1:G:72:TRP:NE1	1:K:498:VAL:HG11	2.22	0.54
1:G:213:SER:HB2	1:G:217:ARG:HD2	1.90	0.54
1:G:224:GLU:O	1:G:227:ILE:HG22	2.07	0.54
1:J:104:VAL:CG2	1:J:105:LYS:N	2.70	0.54
1:K:66:ARG:HG3	1:K:72:TRP:CE2	2.42	0.54
1:K:360:PHE:CD1	1:K:365:ILE:HD12	2.37	0.54
1:L:6:ASP:CB	1:L:329:LYS:HD2	2.34	0.54
1:A:22:SER:OG	1:A:23:ILE:N	2.40	0.54
1:A:153:ALA:CA	1:A:158:ILE:HG22	2.36	0.54
1:B:411:MET:HG2	1:B:430:ILE:HG22	1.89	0.54
1:B:501:THR:OXT	1:F:181:ASP:CG	2.46	0.54
1:C:248:VAL:HG11	1:C:314:ILE:HB	1.90	0.54
1:D:281:TRP:CD1	1:D:283:PRO:HD3	2.43	0.54
1:F:294:PHE:CE1	1:F:298:HIS:CE1	2.96	0.54
1:G:221:HIS:O	1:G:222:GLY:C	2.46	0.54
1:J:244:ASP:CG	1:J:245:LYS:HG3	2.28	0.54
1:A:496:ALA:O	1:A:501:THR:O	2.25	0.54
1:B:162:ILE:N	1:B:162:ILE:CD1	2.71	0.54
1:B:164:VAL:HA	1:B:197:CYS:O	2.08	0.54
1:B:213:SER:HB2	1:B:217:ARG:HH21	1.73	0.54
1:B:295:LYS:HA	1:B:300:SER:O	2.07	0.54
1:B:324:PRO:HD2	1:B:345:ALA:O	2.06	0.54
1:C:215:THR:HG23	1:C:377:GLY:CA	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:175:GLU:HA	1:D:178:TRP:CE3	2.43	0.54
1:D:274:GLY:HA2	1:D:279:SER:HA	1.90	0.54
1:F:25:GLU:O	1:F:29:VAL:HG23	2.08	0.54
1:F:150:MET:SD	1:F:186:THR:HG21	2.48	0.54
1:F:336:ALA:HB3	1:F:337:PRO:HD3	1.90	0.54
1:G:7:PRO:O	1:G:329:LYS:HE3	2.07	0.54
1:H:332:THR:HA	1:H:353:THR:CG2	2.37	0.54
1:H:455:TYR:HB2	1:L:400:LYS:HB2	1.89	0.54
1:J:137:THR:HG22	1:J:140:GLU:OE1	2.08	0.54
1:K:291:LEU:HD11	1:K:301:ILE:CG2	2.35	0.54
1:L:459:ARG:O	1:L:463:GLN:HG3	2.08	0.54
1:A:25:GLU:O	1:A:26:ASP:C	2.46	0.54
1:A:417:LEU:HD11	1:F:417:LEU:HD22	1.88	0.54
1:B:117:VAL:HG21	1:B:371:LEU:HG	1.88	0.54
1:B:291:LEU:CD1	1:B:301:ILE:HG22	2.35	0.54
1:C:414:GLN:CA	1:C:429:PRO:HG2	2.37	0.54
1:D:53:LYS:N	1:D:54:PRO:HD2	2.23	0.54
1:D:59:LEU:CD2	1:D:61:LEU:HD22	2.37	0.54
1:D:97:THR:C	1:D:130:LYS:CE	2.76	0.54
1:D:372:TYR:CD2	1:D:464:ILE:CD1	2.90	0.54
1:E:232:TYR:HE1	1:E:465:MET:HG2	1.72	0.54
1:F:332:THR:H	1:F:335:ASN:HD21	1.55	0.54
1:G:87:THR:HB	1:G:88:PRO:CD	2.34	0.54
1:G:392:VAL:HG12	1:G:393:SER:O	2.07	0.54
1:G:487:GLU:O	1:G:490:PHE:HB3	2.07	0.54
1:H:229:GLU:OE2	1:H:229:GLU:HA	2.07	0.54
1:H:331:LEU:HD22	1:H:360:PHE:CZ	2.28	0.54
1:I:410:LEU:CD2	1:J:409:LEU:CD1	2.85	0.54
1:I:414:GLN:CG	1:I:429:PRO:HD2	2.38	0.54
1:I:475:LEU:HD12	1:I:475:LEU:N	2.23	0.54
1:K:248:VAL:HG13	1:K:272:ALA:O	2.08	0.54
1:L:247:PHE:HB3	1:L:321:ILE:HG13	1.90	0.54
1:B:176:MET:O	1:B:179:ILE:HB	2.08	0.54
1:C:410:LEU:HB3	1:C:430:ILE:HA	1.90	0.54
1:E:148:PHE:O	1:E:152:LEU:HB2	2.08	0.54
1:E:369:PRO:HG2	1:E:478:ARG:HA	1.90	0.54
1:F:17:PHE:CE2	1:F:53:LYS:HB2	2.43	0.54
1:F:225:ASN:ND2	1:F:458:GLU:HA	2.23	0.54
1:H:289:LYS:HG2	1:H:293:ASP:OD2	2.08	0.54
1:H:394:TYR:CE2	1:L:397:LEU:HD13	2.42	0.54
1:I:92:GLY:CA	1:I:166:ALA:O	2.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:24:VAL:O	1:K:25:GLU:C	2.45	0.54
1:L:165:PRO:HD2	1:L:197:CYS:O	2.08	0.54
1:L:411:MET:HA	1:L:430:ILE:CG2	2.35	0.54
1:A:158:ILE:O	1:A:158:ILE:HG23	2.06	0.54
1:A:314:ILE:N	1:A:314:ILE:CD1	2.71	0.54
1:B:19:ARG:CZ	1:B:479:THR:HG21	2.38	0.54
1:C:460:SER:O	1:C:464:ILE:HG13	2.07	0.54
1:E:33:ARG:HB2	1:E:33:ARG:NH1	2.22	0.54
1:E:112:THR:HG22	1:E:124:GLY:HA3	1.89	0.54
1:F:371:LEU:HD23	1:F:481:ALA:CB	2.38	0.54
1:H:90:LYS:CE	1:H:199:THR:HG21	2.35	0.54
1:H:114:LYS:NZ	1:H:374:ASN:HD21	2.06	0.54
1:H:492:VAL:HG23	1:H:493:TYR:H	1.73	0.54
1:I:250:GLN:HB2	1:I:314:ILE:HD11	1.89	0.54
1:J:425:GLY:O	1:J:428:ILE:HD11	2.08	0.54
1:K:6:ASP:OD2	1:K:329:LYS:HE2	2.07	0.54
1:K:93:ILE:HD11	1:K:165:PRO:CB	2.38	0.54
1:L:367:VAL:HG23	1:L:367:VAL:O	2.07	0.54
1:B:104:VAL:HG23	1:B:105:LYS:N	2.23	0.54
1:B:181:ASP:O	1:B:182:THR:C	2.45	0.54
1:B:335:ASN:HD22	1:B:335:ASN:N	2.05	0.54
1:B:339:VAL:HG21	1:B:360:PHE:CE1	2.36	0.54
1:C:351:PRO:CG	1:C:352:THR:H	2.20	0.54
1:C:355:GLU:O	1:C:359:ILE:CD1	2.56	0.54
1:G:9:PHE:HA	1:G:12:MET:CE	2.38	0.54
1:H:65:ILE:C	1:H:65:ILE:HD12	2.29	0.54
1:I:78:TYR:CE2	1:I:101:VAL:HG23	2.43	0.54
1:I:315:LEU:H	1:I:315:LEU:HD12	1.72	0.54
1:J:33:ARG:CZ	1:J:33:ARG:CA	2.84	0.54
1:J:380:VAL:O	1:J:380:VAL:CG1	2.56	0.54
1:K:236:LEU:O	1:K:342:LYS:HE2	2.08	0.54
1:K:248:VAL:HG11	1:K:272:ALA:HB3	1.89	0.54
1:K:336:ALA:HB3	1:K:359:ILE:CD1	2.35	0.54
1:A:208:ILE:CG2	1:A:208:ILE:O	2.56	0.53
1:A:386:LEU:O	1:A:389:LEU:N	2.41	0.53
1:B:73:GLU:HG2	1:B:74:VAL:N	2.23	0.53
1:C:61:LEU:HD12	1:C:61:LEU:N	2.22	0.53
1:D:214:ALA:CB	1:D:380:VAL:HG21	2.37	0.53
1:D:249:VAL:HB	1:D:323:ILE:CG1	2.38	0.53
1:E:421:PHE:O	1:E:422:GLY:C	2.47	0.53
1:G:17:PHE:HE1	1:G:486:ILE:HD12	1.70	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:90:LYS:NZ	1:G:199:THR:OG1	2.40	0.53
1:J:244:ASP:OD2	1:J:245:LYS:HG3	2.08	0.53
1:K:248:VAL:HG22	1:K:272:ALA:N	2.22	0.53
1:L:247:PHE:CE2	1:L:249:VAL:HG12	2.43	0.53
1:L:386:LEU:O	1:L:389:LEU:N	2.42	0.53
1:B:257:LEU:HD12	1:B:257:LEU:O	2.09	0.53
1:D:260:MET:HE3	1:D:288:PRO:HA	1.89	0.53
1:E:173:GLU:OE2	1:E:211:ARG:NH2	2.41	0.53
1:G:326:ALA:O	1:G:327:SER:O	2.26	0.53
1:H:75:ILE:HD12	1:H:75:ILE:H	1.74	0.53
1:I:382:TYR:CE2	1:I:386:LEU:HD21	2.43	0.53
1:J:81:GLN:NE2	1:J:157:PHE:CD1	2.76	0.53
1:J:174:ARG:HG3	1:J:175:GLU:H	1.73	0.53
1:K:49:LEU:H	1:K:49:LEU:CD1	2.20	0.53
1:K:104:VAL:CG2	1:K:105:LYS:N	2.71	0.53
1:L:219:VAL:HA	1:L:373:LEU:HD11	1.90	0.53
1:A:24:VAL:CG2	1:A:483:VAL:HG13	2.38	0.53
1:A:132:ASN:OD1	1:A:134:LYS:HB2	2.09	0.53
1:B:247:PHE:CE1	1:B:263:LEU:HB3	2.44	0.53
1:D:19:ARG:NH1	1:D:479:THR:HG21	2.23	0.53
1:D:20:GLY:HA2	1:D:23:ILE:HD12	1.90	0.53
1:D:287:ASP:OD1	1:D:288:PRO:HD2	2.08	0.53
1:D:335:ASN:O	1:D:336:ALA:C	2.47	0.53
1:F:263:LEU:O	1:F:268:ALA:HB3	2.07	0.53
1:G:483:VAL:HG12	1:G:484:ASN:N	2.23	0.53
1:J:413:VAL:O	1:J:417:LEU:HB2	2.09	0.53
1:K:162:ILE:CG2	1:K:163:ASP:N	2.66	0.53
1:K:417:LEU:O	1:K:420:LYS:HG3	2.09	0.53
1:L:94:ARG:O	1:L:128:GLY:HA2	2.08	0.53
1:L:223:ILE:HD13	1:L:263:LEU:HD21	1.90	0.53
1:L:492:VAL:HG21	2:L:502:ADP:C2	2.43	0.53
1:C:499:THR:HG1	1:C:500:PHE:HD1	1.54	0.53
1:D:219:VAL:HG13	1:D:373:LEU:HD21	1.90	0.53
1:D:293:ASP:O	1:D:296:LEU:HB3	2.07	0.53
1:E:368:ILE:CG2	1:E:373:LEU:HD22	2.39	0.53
1:H:51:ILE:HD13	1:J:64:PRO:HG3	1.89	0.53
1:I:41:LYS:O	1:I:44:ARG:HB3	2.09	0.53
1:I:379:THR:O	1:I:382:TYR:HB3	2.09	0.53
1:I:499:THR:HG23	1:L:147:ARG:CZ	2.38	0.53
1:J:343:ILE:CD1	1:J:366:MET:HE2	2.36	0.53
1:L:247:PHE:CZ	1:L:270:CYS:HB2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:420:LYS:NZ	1:A:420:LYS:HB3	2.22	0.53
1:A:431:VAL:HG13	1:B:416:SER:OG	2.08	0.53
1:C:53:LYS:HB3	1:C:54:PRO:CD	2.37	0.53
1:C:114:LYS:CE	1:C:374:ASN:ND2	2.71	0.53
1:C:168:ASP:O	1:C:169:MET:C	2.46	0.53
1:D:336:ALA:CB	1:D:337:PRO:HD3	2.24	0.53
1:F:88:PRO:HG2	1:F:122:PHE:CD2	2.42	0.53
1:F:131:ILE:CD1	1:F:136:TYR:HE2	2.22	0.53
1:F:250:GLN:HG2	1:F:314:ILE:HG12	1.89	0.53
1:G:82:HIS:CD2	1:G:112:THR:CG2	2.85	0.53
1:G:244:ASP:OD1	1:G:245:LYS:HG3	2.08	0.53
1:I:17:PHE:HE2	1:I:53:LYS:HB2	1.73	0.53
1:I:49:LEU:HA	1:I:52:ILE:HG13	1.90	0.53
1:I:69:ASP:C	1:I:69:ASP:OD1	2.46	0.53
2:I:502:ADP:H5'2	1:J:203:ILE:HG22	1.90	0.53
1:K:23:ILE:HG22	1:K:23:ILE:O	2.08	0.53
1:K:315:LEU:HD21	1:K:330:GLN:HG3	1.89	0.53
1:L:142:GLU:HG3	1:L:178:TRP:CD2	2.44	0.53
1:L:497:GLY:O	1:L:498:VAL:HG13	2.08	0.53
1:B:52:ILE:CD1	1:B:489:VAL:HG12	2.32	0.53
1:B:142:GLU:O	1:B:145:THR:N	2.42	0.53
1:B:498:VAL:O	1:B:501:THR:HB	2.09	0.53
1:C:38:GLU:O	1:C:39:GLU:HB3	2.08	0.53
1:C:363:ARG:NH1	1:C:363:ARG:HB2	2.23	0.53
1:D:294:PHE:CE1	1:D:305:PRO:HD3	2.44	0.53
1:E:330:GLN:NE2	1:E:330:GLN:HA	2.22	0.53
1:F:131:ILE:CD1	1:F:136:TYR:CE2	2.92	0.53
1:F:386:LEU:O	1:F:388:ASN:N	2.42	0.53
1:G:7:PRO:O	1:G:329:LYS:CE	2.56	0.53
1:G:153:ALA:HA	1:G:158:ILE:HG23	1.90	0.53
1:G:451:SER:OG	1:G:452:GLY:N	2.40	0.53
1:H:332:THR:HA	1:H:353:THR:HG23	1.89	0.53
1:H:485:ALA:O	1:H:486:ILE:C	2.46	0.53
1:I:360:PHE:HD1	1:I:365:ILE:HG21	1.73	0.53
1:I:394:TYR:HB2	1:I:445:GLU:HG3	1.91	0.53
1:K:17:PHE:CE2	1:K:53:LYS:HB2	2.42	0.53
1:K:252:PHE:CZ	1:K:260:MET:HE1	2.43	0.53
1:L:146:ARG:NE	1:L:182:THR:OG1	2.40	0.53
1:A:201:LYS:HZ3	1:A:388:ASN:ND2	2.07	0.53
1:A:208:ILE:HG13	1:A:387:LYS:HD2	1.90	0.53
1:A:396:ARG:O	1:A:396:ARG:HD3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:38:GLU:O	1:B:42:ARG:HD3	2.08	0.53
1:B:371:LEU:HD23	1:B:481:ALA:HB3	1.90	0.53
1:D:403:ARG:HG2	1:D:403:ARG:NH1	2.22	0.53
1:E:429:PRO:C	1:E:431:VAL:H	2.12	0.53
1:F:160:PRO:HG2	1:F:161:GLY:N	2.24	0.53
1:F:166:ALA:HB1	1:F:167:PRO:CD	2.32	0.53
1:F:271:ILE:HD11	1:F:319:CYS:HB2	1.91	0.53
1:G:29:VAL:O	1:G:30:GLU:O	2.27	0.53
1:G:39:GLU:O	1:G:41:LYS:HG3	2.09	0.53
1:G:252:PHE:CD2	1:G:273:VAL:HG11	2.44	0.53
1:H:84:HIS:O	1:H:85:GLN:C	2.47	0.53
1:H:226:PHE:CE2	1:H:477:LEU:HD21	2.43	0.53
1:H:234:SER:O	1:H:237:GLY:N	2.40	0.53
1:H:379:THR:CG2	1:H:453:LEU:HD23	2.38	0.53
1:H:407:TYR:O	1:H:411:MET:HB2	2.08	0.53
1:J:498:VAL:CG2	1:J:499:THR:N	2.71	0.53
1:L:336:ALA:HB1	1:L:359:ILE:HG21	1.91	0.53
1:A:137:THR:OG1	1:A:140:GLU:HG3	2.08	0.53
1:A:294:PHE:CE2	1:A:298:HIS:HE1	2.26	0.53
1:B:280:ILE:HD11	1:B:304:PHE:HB3	1.89	0.53
1:B:359:ILE:HG22	1:B:360:PHE:N	2.22	0.53
1:D:462:ARG:NE	1:D:466:ARG:HH21	2.06	0.53
1:F:280:ILE:HD12	1:F:301:ILE:HD12	1.91	0.53
1:F:363:ARG:O	1:F:365:ILE:HG12	2.08	0.53
1:G:57:HIS:CD2	1:G:84:HIS:CE1	2.96	0.53
1:H:211:ARG:CB	1:H:211:ARG:HH11	2.22	0.53
1:I:394:TYR:CE1	1:J:397:LEU:HD23	2.43	0.53
1:I:501:THR:N	1:J:146:ARG:NH2	2.56	0.53
1:J:65:ILE:CG1	1:J:75:ILE:HD11	2.39	0.53
1:J:224:GLU:HG2	1:J:225:ASN:N	2.24	0.53
1:K:478:ARG:NH1	1:K:478:ARG:CG	2.67	0.53
1:L:294:PHE:HE2	1:L:301:ILE:CA	2.21	0.53
1:A:45:VAL:C	1:A:47:GLY:H	2.12	0.53
1:A:386:LEU:O	1:A:387:LYS:C	2.47	0.53
1:C:109:SER:O	1:C:112:THR:HG23	2.09	0.53
1:C:244:ASP:O	1:C:245:LYS:HD3	2.09	0.53
1:D:411:MET:HA	1:D:430:ILE:CG2	2.36	0.53
1:E:9:PHE:HD1	1:E:10:PHE:N	2.03	0.53
1:E:411:MET:HA	1:E:430:ILE:HG22	1.91	0.53
1:F:280:ILE:CG2	1:F:307:ALA:HB1	2.38	0.53
1:F:396:ARG:NH1	1:F:396:ARG:CG	2.63	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:420:LYS:O	1:F:421:PHE:HB2	2.09	0.53
1:G:89:CYS:N	1:G:162:ILE:O	2.42	0.53
1:H:460:SER:O	1:H:461:ALA:C	2.46	0.53
1:H:475:LEU:N	1:H:475:LEU:HD12	2.24	0.53
1:I:38:GLU:N	1:I:42:ARG:NH2	2.56	0.53
1:I:314:ILE:HD13	1:I:314:ILE:N	2.23	0.53
1:I:339:VAL:O	1:I:363:ARG:NH2	2.41	0.53
1:I:475:LEU:HD12	1:I:475:LEU:H	1.73	0.53
1:J:115:CYS:O	1:J:116:ALA:C	2.48	0.53
1:K:104:VAL:HG23	1:K:105:LYS:H	1.73	0.53
1:L:85:GLN:HG2	1:L:86:ARG:N	2.23	0.53
1:A:300:SER:HB3	1:A:302:LEU:HG	1.91	0.53
1:A:433:THR:O	1:A:434:ALA:C	2.47	0.53
1:D:132:ASN:HB3	1:D:135:ASN:ND2	2.23	0.53
1:E:394:TYR:HB2	1:E:445:GLU:HG3	1.90	0.53
1:F:45:VAL:O	1:F:45:VAL:HG13	2.09	0.53
1:F:334:SER:O	1:F:337:PRO:HD2	2.09	0.53
1:F:420:LYS:O	1:F:420:LYS:HG2	2.10	0.53
1:G:160:PRO:HG3	1:G:191:ASP:OD1	2.09	0.53
1:G:382:TYR:CE2	1:G:386:LEU:HD21	2.43	0.53
1:I:237:GLY:O	1:I:238:MET:HE2	2.09	0.53
1:K:59:LEU:CB	1:K:157:PHE:CE2	2.92	0.53
1:K:153:ALA:CA	1:K:158:ILE:CG2	2.87	0.53
1:K:210:GLY:HA2	1:K:212:ILE:HD11	1.91	0.53
1:K:249:VAL:HG12	1:K:323:ILE:CD1	2.39	0.53
1:L:100:SER:O	1:L:103:GLU:N	2.37	0.53
1:A:223:ILE:HD11	1:A:345:ALA:CB	2.39	0.52
1:A:287:ASP:HB3	1:A:290:GLU:HG3	1.90	0.52
1:A:385:TRP:O	1:A:386:LEU:C	2.48	0.52
1:C:17:PHE:HE1	1:C:486:ILE:HD12	1.72	0.52
1:C:271:ILE:O	1:C:271:ILE:HG12	2.09	0.52
1:D:239:THR:HG23	1:D:239:THR:O	2.09	0.52
1:D:281:TRP:HZ3	1:D:317:ALA:HB1	1.74	0.52
1:E:480:ALA:O	1:E:483:VAL:HB	2.09	0.52
1:F:82:HIS:CD2	1:F:112:THR:OG1	2.62	0.52
1:G:152:LEU:HD23	1:G:158:ILE:HB	1.92	0.52
1:G:265:ARG:O	1:G:265:ARG:HG2	2.08	0.52
1:G:330:GLN:HA	1:G:330:GLN:OE1	2.09	0.52
1:G:335:ASN:HD22	1:G:335:ASN:C	2.04	0.52
1:G:364:ASN:O	1:G:365:ILE:HD13	2.09	0.52
1:H:176:MET:HE2	1:H:176:MET:HA	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:433:THR:HG23	1:L:412:SER:OG	2.09	0.52
1:I:421:PHE:CD1	1:I:423:LYS:HB2	2.43	0.52
1:J:236:LEU:HB2	1:J:238:MET:HG3	1.91	0.52
1:L:118:VAL:HG23	1:L:120:VAL:CG2	2.25	0.52
1:A:192:ILE:O	1:A:192:ILE:CG1	2.58	0.52
1:A:396:ARG:HG3	1:A:396:ARG:NH1	2.25	0.52
1:B:248:VAL:HG13	1:B:272:ALA:HB3	1.92	0.52
1:C:85:GLN:OE1	2:C:3:ADP:N1	2.42	0.52
1:C:164:VAL:HG21	1:C:385:TRP:CD1	2.44	0.52
1:C:218:GLY:O	1:C:219:VAL:C	2.46	0.52
1:C:256:GLY:O	1:C:259:SER:HB2	2.09	0.52
1:D:349:ASN:HD21	1:D:374:ASN:ND2	2.08	0.52
1:E:368:ILE:HG21	1:E:373:LEU:HD22	1.91	0.52
1:E:387:LYS:HD2	1:E:445:GLU:OE2	2.09	0.52
1:F:403:ARG:HH12	1:F:441:SER:N	2.08	0.52
1:G:82:HIS:HB3	1:G:112:THR:HG21	1.91	0.52
1:I:167:PRO:HD3	1:I:176:MET:HG2	1.91	0.52
1:I:472:ASN:CG	1:I:472:ASN:O	2.48	0.52
1:K:48:ILE:O	1:K:52:ILE:HG13	2.08	0.52
1:K:252:PHE:CZ	1:K:260:MET:CE	2.92	0.52
1:L:414:GLN:CD	1:L:430:ILE:HG23	2.29	0.52
1:A:461:ALA:O	1:A:464:ILE:HB	2.08	0.52
1:B:61:LEU:N	1:B:61:LEU:HD12	2.25	0.52
1:B:271:ILE:CG1	1:B:283:PRO:HA	2.39	0.52
1:D:265:ARG:HG2	1:D:266:PHE:CD2	2.44	0.52
1:D:280:ILE:HD11	1:D:304:PHE:CB	2.37	0.52
1:E:195:HIS:O	1:E:201:LYS:HE3	2.10	0.52
1:H:439:ARG:HH12	1:L:405:SER:HA	1.73	0.52
1:I:36:GLU:O	1:I:37:SER:O	2.27	0.52
1:I:478:ARG:O	1:I:480:ALA:N	2.41	0.52
1:I:498:VAL:O	1:I:501:THR:CG2	2.58	0.52
1:J:82:HIS:HD2	1:J:83:SER:HB2	1.74	0.52
1:L:435:GLU:CD	1:L:435:GLU:H	2.12	0.52
1:B:239:THR:O	1:B:239:THR:CG2	2.57	0.52
1:C:148:PHE:O	1:C:152:LEU:HB2	2.09	0.52
1:F:79:ARG:NH2	1:F:163:ASP:OD1	2.42	0.52
1:F:90:LYS:HE2	1:F:199:THR:HG23	1.92	0.52
1:G:501:THR:C	1:H:146:ARG:HH12	2.13	0.52
1:H:23:ILE:O	1:H:23:ILE:HG22	2.09	0.52
1:H:267:GLY:O	1:H:268:ALA:O	2.28	0.52
1:H:332:THR:O	1:H:336:ALA:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:143:LYS:CG	1:K:500:PHE:HE2	2.21	0.52
1:J:79:ARG:HE	1:J:163:ASP:CG	2.13	0.52
1:L:38:GLU:O	1:L:39:GLU:HB2	2.09	0.52
1:L:53:LYS:HB3	1:L:54:PRO:CD	2.39	0.52
1:A:439:ARG:HH22	1:B:404:ASP:HB2	1.75	0.52
1:B:395:GLY:O	1:B:397:LEU:N	2.42	0.52
1:D:239:THR:N	1:D:240:PRO:CD	2.62	0.52
1:D:263:LEU:HD12	1:D:268:ALA:CB	2.40	0.52
1:E:10:PHE:C	1:E:10:PHE:CD1	2.82	0.52
1:E:137:THR:HG23	1:E:140:GLU:CD	2.29	0.52
1:E:428:ILE:HG22	1:E:430:ILE:CG1	2.38	0.52
1:E:433:THR:HG22	1:E:436:PHE:HB2	1.90	0.52
1:F:208:ILE:HD11	1:F:449:VAL:CG2	2.39	0.52
1:G:192:ILE:O	1:G:192:ILE:CG1	2.52	0.52
1:I:33:ARG:NH1	1:I:36:GLU:HG2	2.25	0.52
1:I:322:LEU:O	1:I:324:PRO:HD3	2.10	0.52
1:I:406:ASN:HD22	1:J:409:LEU:HD21	1.75	0.52
1:J:294:PHE:CZ	1:J:298:HIS:CE1	2.97	0.52
1:K:496:ALA:C	1:K:501:THR:O	2.48	0.52
1:L:259:SER:O	1:L:263:LEU:HB2	2.09	0.52
1:L:332:THR:H	1:L:335:ASN:HD21	1.57	0.52
1:L:483:VAL:HG12	1:L:484:ASN:N	2.25	0.52
1:A:465:MET:O	1:A:468:ALA:N	2.36	0.52
1:B:30:GLU:O	1:B:34:THR:HG22	2.10	0.52
1:B:488:LYS:HB3	2:B:2:ADP:C2	2.45	0.52
1:C:478:ARG:O	1:C:481:ALA:N	2.37	0.52
1:D:176:MET:HG2	1:D:199:THR:O	2.10	0.52
1:D:192:ILE:O	1:D:192:ILE:CG1	2.56	0.52
1:D:372:TYR:CD2	1:D:464:ILE:HD11	2.44	0.52
1:E:378:VAL:O	1:E:381:SER:OG	2.27	0.52
1:G:44:ARG:NH1	1:K:71:SER:HB3	2.25	0.52
1:G:497:GLY:CA	1:G:501:THR:HA	2.40	0.52
1:I:119:ASP:HB2	1:J:396:ARG:NH2	2.24	0.52
1:I:359:ILE:HG22	1:I:360:PHE:N	2.25	0.52
1:J:90:LYS:HE2	1:J:199:THR:CG2	2.36	0.52
1:K:199:THR:CA	1:K:384:GLU:OE1	2.58	0.52
1:A:67:ARG:O	1:A:68:ASP:C	2.48	0.52
1:E:496:ALA:C	1:E:501:THR:O	2.47	0.52
1:F:117:VAL:HG21	1:F:371:LEU:HG	1.92	0.52
1:F:459:ARG:NH2	2:F:502:ADP:O3B	2.30	0.52
1:G:191:ASP:C	1:G:193:ASN:H	2.12	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:248:VAL:HG11	1:G:314:ILE:HB	1.91	0.52
1:G:428:ILE:O	1:G:431:VAL:HG12	2.10	0.52
1:G:471:TYR:O	1:G:473:LEU:HD23	2.09	0.52
1:H:274:GLY:HA3	1:H:314:ILE:CD1	2.40	0.52
1:I:480:ALA:O	1:I:483:VAL:HB	2.10	0.52
1:A:42:ARG:O	1:A:45:VAL:HG12	2.10	0.52
1:A:95:TYR:CE2	1:A:129:VAL:HG21	2.44	0.52
1:C:141:LEU:O	1:C:145:THR:HG22	2.10	0.52
1:C:146:ARG:NH2	1:E:501:THR:OXT	2.34	0.52
1:C:234:SER:C	1:C:236:LEU:N	2.63	0.52
1:C:252:PHE:HE2	1:C:260:MET:CE	2.23	0.52
1:C:397:LEU:HD21	1:E:383:PHE:CZ	2.45	0.52
1:C:494:ASN:C	1:C:494:ASN:ND2	2.63	0.52
1:E:45:VAL:HG13	1:E:45:VAL:O	2.10	0.52
1:E:150:MET:CE	1:E:186:THR:HG21	2.39	0.52
1:E:219:VAL:HA	1:E:373:LEU:HD11	1.90	0.52
1:F:32:LEU:O	1:F:33:ARG:HB3	2.10	0.52
1:G:137:THR:HG22	1:G:138:ASP:N	2.25	0.52
1:G:248:VAL:CG1	1:G:314:ILE:HG13	2.40	0.52
1:H:120:VAL:HG22	1:H:382:TYR:CD2	2.45	0.52
1:I:498:VAL:N	1:I:501:THR:HB	2.25	0.52
1:J:49:LEU:HD12	1:J:49:LEU:N	2.25	0.52
1:J:93:ILE:HD12	1:J:176:MET:HE1	1.92	0.52
1:K:370:ASP:C	1:K:372:TYR:H	2.13	0.52
1:L:32:LEU:O	1:L:33:ARG:HB3	2.09	0.52
1:L:114:LYS:HZ3	1:L:374:ASN:ND2	2.07	0.52
1:A:9:PHE:CE1	1:A:103:GLU:HA	2.45	0.52
1:A:24:VAL:HG12	1:A:28:LEU:HD22	1.91	0.52
1:B:142:GLU:O	1:B:144:ILE:N	2.43	0.52
1:D:78:TYR:CD2	1:D:101:VAL:HG22	2.45	0.52
1:D:140:GLU:O	1:D:144:ILE:CD1	2.57	0.52
1:D:248:VAL:HG13	1:D:272:ALA:HB3	1.91	0.52
1:D:288:PRO:O	1:D:289:LYS:C	2.48	0.52
1:E:369:PRO:CG	1:E:478:ARG:HA	2.40	0.52
1:F:53:LYS:HB3	1:F:54:PRO:CD	2.38	0.52
1:F:224:GLU:O	1:F:227:ILE:HG22	2.10	0.52
1:F:335:ASN:HD22	1:F:336:ALA:N	2.08	0.52
1:H:147:ARG:HG3	1:H:147:ARG:NH1	2.23	0.52
1:H:499:THR:HG23	1:H:500:PHE:N	2.24	0.52
1:J:82:HIS:ND1	1:J:109:SER:HA	2.25	0.52
1:K:89:CYS:HB3	1:K:125:ALA:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:275:GLU:HG3	1:K:301:ILE:CG1	2.40	0.52
1:L:142:GLU:HA	1:L:178:TRP:CE3	2.45	0.52
1:L:221:HIS:O	1:L:222:GLY:C	2.48	0.52
1:L:248:VAL:HG11	1:L:314:ILE:HB	1.92	0.52
1:A:372:TYR:CD2	1:A:464:ILE:CD1	2.93	0.52
1:B:331:LEU:HB2	1:B:352:THR:HG22	1.92	0.52
1:C:226:PHE:HD1	1:C:368:ILE:CD1	2.23	0.52
1:D:330:GLN:HE21	1:D:330:GLN:HA	1.75	0.52
1:F:68:ASP:OD2	1:F:137:THR:HG21	2.10	0.52
1:F:158:ILE:O	1:F:158:ILE:CG2	2.57	0.52
1:F:331:LEU:HB2	1:F:352:THR:HG22	1.90	0.52
1:F:376:GLY:O	1:F:380:VAL:HG23	2.10	0.52
1:F:379:THR:O	1:F:382:TYR:HB3	2.10	0.52
1:G:226:PHE:CB	1:G:366:MET:HE1	2.40	0.52
1:H:336:ALA:O	1:H:339:VAL:HG22	2.09	0.52
1:I:65:ILE:HA	1:I:147:ARG:CZ	2.39	0.52
1:I:143:LYS:HG3	1:K:500:PHE:CE2	2.42	0.52
1:I:146:ARG:HH22	1:K:501:THR:C	2.07	0.52
1:I:225:ASN:OD1	1:I:458:GLU:HA	2.10	0.52
1:J:168:ASP:OD1	1:J:169:MET:N	2.34	0.52
1:J:380:VAL:O	1:J:380:VAL:HG12	2.09	0.52
1:K:115:CYS:HB3	1:K:120:VAL:O	2.10	0.52
1:K:496:ALA:O	1:K:501:THR:O	2.28	0.52
1:A:92:GLY:HA2	1:A:166:ALA:O	2.10	0.51
1:A:138:ASP:O	1:A:141:LEU:HB2	2.10	0.51
1:A:449:VAL:O	1:A:450:HIS:C	2.49	0.51
1:B:429:PRO:C	1:B:431:VAL:H	2.14	0.51
1:B:498:VAL:CG2	1:D:72:TRP:HZ2	2.24	0.51
1:D:289:LYS:O	1:D:292:GLU:HB3	2.10	0.51
1:D:382:TYR:O	1:D:386:LEU:HG	2.10	0.51
1:E:33:ARG:NH1	1:E:33:ARG:CB	2.73	0.51
1:G:250:GLN:CA	1:G:314:ILE:HD11	2.38	0.51
1:I:38:GLU:OE1	1:I:42:ARG:NH2	2.42	0.51
1:I:48:ILE:O	1:I:52:ILE:HG12	2.09	0.51
1:K:490:PHE:O	1:K:491:LYS:C	2.48	0.51
1:L:12:MET:O	1:L:15:GLY:N	2.42	0.51
1:A:33:ARG:NH2	1:A:42:ARG:HD2	2.25	0.51
1:B:234:SER:C	1:B:236:LEU:N	2.61	0.51
1:B:460:SER:O	1:B:464:ILE:HG13	2.09	0.51
1:C:300:SER:C	1:C:302:LEU:H	2.12	0.51
1:C:325:ALA:O	1:C:326:ALA:CB	2.52	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:369:PRO:HD3	1:C:477:LEU:HB3	1.92	0.51
1:D:6:ASP:HB2	1:D:329:LYS:HD3	1.92	0.51
1:D:221:HIS:HA	1:D:224:GLU:HB3	1.92	0.51
1:F:75:ILE:HD12	1:F:144:ILE:HG12	1.92	0.51
1:F:331:LEU:HB3	1:F:352:THR:HG22	1.91	0.51
1:G:368:ILE:CG2	1:G:373:LEU:HD13	2.40	0.51
1:H:36:GLU:OE2	1:H:42:ARG:NH1	2.41	0.51
1:H:336:ALA:HB3	1:H:337:PRO:HD3	1.92	0.51
1:I:26:ASP:C	1:I:28:LEU:H	2.13	0.51
1:K:6:ASP:OD2	1:K:6:ASP:O	2.28	0.51
1:K:41:LYS:O	1:K:44:ARG:HB2	2.10	0.51
1:K:395:GLY:HA2	1:K:398:THR:HG23	1.91	0.51
1:A:345:ALA:HB1	1:A:373:LEU:CD2	2.41	0.51
1:B:40:GLN:HG3	1:B:40:GLN:O	2.10	0.51
1:C:246:THR:OG1	1:C:320:ASP:HB2	2.10	0.51
1:E:248:VAL:HG22	1:E:272:ALA:H	1.76	0.51
1:F:142:GLU:OE2	1:F:146:ARG:NH1	2.42	0.51
1:G:359:ILE:O	1:G:362:GLU:N	2.43	0.51
1:H:151:GLU:OE1	1:J:57:HIS:CE1	2.64	0.51
1:H:244:ASP:C	1:H:245:LYS:HG3	2.31	0.51
1:I:244:ASP:OD1	1:I:245:LYS:HE2	2.10	0.51
1:J:30:GLU:O	1:J:32:LEU:N	2.43	0.51
1:K:51:ILE:O	1:K:54:PRO:HD2	2.10	0.51
1:K:176:MET:HE3	1:K:179:ILE:HD12	1.92	0.51
1:L:221:HIS:HA	1:L:224:GLU:HB3	1.92	0.51
1:A:82:HIS:C	1:A:82:HIS:CD2	2.84	0.51
1:C:67:ARG:CD	1:C:73:GLU:OE1	2.57	0.51
1:C:176:MET:HE1	1:C:179:ILE:HD12	1.90	0.51
1:C:252:PHE:CE2	1:C:260:MET:CE	2.94	0.51
1:C:344:ILE:HD11	1:C:360:PHE:CD1	2.46	0.51
1:D:96:SER:O	1:D:99:VAL:CG1	2.57	0.51
1:E:282:ASN:O	1:E:284:ASP:N	2.43	0.51
1:F:491:LYS:O	1:F:495:GLU:HB2	2.10	0.51
1:F:498:VAL:N	1:F:501:THR:HB	2.26	0.51
1:G:417:LEU:CD2	1:H:417:LEU:HD11	2.39	0.51
1:H:243:GLY:O	1:H:244:ASP:HB3	2.10	0.51
1:H:247:PHE:CD2	1:H:263:LEU:HD12	2.46	0.51
1:I:248:VAL:HG11	1:I:314:ILE:HB	1.92	0.51
1:I:486:ILE:O	1:I:487:GLU:C	2.47	0.51
1:K:30:GLU:CG	1:K:31:ASP:H	1.98	0.51
1:K:163:ASP:O	1:K:165:PRO:HD3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:274:GLY:O	1:L:275:GLU:CB	2.58	0.51
1:A:90:LYS:HE2	1:A:164:VAL:HG12	1.93	0.51
1:A:239:THR:HG23	1:A:239:THR:O	2.09	0.51
1:B:87:THR:CB	1:B:88:PRO:CD	2.89	0.51
1:B:323:ILE:CG1	1:B:323:ILE:O	2.56	0.51
1:C:250:GLN:HG2	1:C:314:ILE:HD11	1.93	0.51
1:C:264:HIS:CD2	1:C:288:PRO:HD3	2.46	0.51
1:D:176:MET:HG3	1:D:198:VAL:CG2	2.40	0.51
1:F:87:THR:OG1	1:F:88:PRO:HD3	2.10	0.51
1:F:248:VAL:CG2	1:F:271:ILE:HG13	2.41	0.51
1:F:382:TYR:O	1:F:385:TRP:HB3	2.11	0.51
1:G:7:PRO:O	1:G:329:LYS:NZ	2.39	0.51
1:G:104:VAL:HG23	1:G:105:LYS:N	2.25	0.51
1:H:90:LYS:HB2	1:H:122:PHE:HB3	1.92	0.51
1:I:65:ILE:HG21	1:I:144:ILE:HG12	1.93	0.51
1:I:176:MET:O	1:I:179:ILE:HB	2.10	0.51
1:J:28:LEU:HD21	1:J:490:PHE:CG	2.46	0.51
1:K:117:VAL:HG21	1:K:371:LEU:O	2.11	0.51
1:L:343:ILE:HG12	1:L:366:MET:HB3	1.93	0.51
1:L:368:ILE:HA	1:L:477:LEU:HD23	1.91	0.51
1:L:465:MET:O	1:L:468:ALA:N	2.40	0.51
1:A:359:ILE:O	1:A:362:GLU:N	2.43	0.51
1:A:407:TYR:CE1	1:H:424:HIS:CE1	2.99	0.51
1:B:42:ARG:N	1:B:42:ARG:HD2	2.25	0.51
1:B:164:VAL:HG13	1:B:197:CYS:C	2.31	0.51
1:B:497:GLY:N	1:B:501:THR:HA	2.25	0.51
2:B:2:ADP:H5'2	1:F:203:ILE:CG2	2.41	0.51
1:D:36:GLU:O	1:D:42:ARG:NH1	2.43	0.51
1:D:428:ILE:O	1:D:428:ILE:HG12	2.11	0.51
1:E:60:SER:HB3	1:E:78:TYR:HD2	1.75	0.51
1:E:294:PHE:HE2	1:E:301:ILE:O	1.93	0.51
1:G:82:HIS:HD2	1:G:112:THR:CG2	2.20	0.51
1:G:82:HIS:HB3	1:G:112:THR:CG2	2.40	0.51
1:G:129:VAL:O	1:G:131:ILE:N	2.43	0.51
1:H:44:ARG:CB	1:H:44:ARG:NH1	2.70	0.51
1:I:38:GLU:N	1:I:42:ARG:CZ	2.73	0.51
1:J:42:ARG:C	1:J:45:VAL:HG12	2.31	0.51
1:J:181:ASP:O	1:J:183:TYR:N	2.44	0.51
1:J:212:ILE:CD1	1:J:212:ILE:N	2.60	0.51
1:J:281:TRP:CD1	1:J:282:ASN:N	2.79	0.51
1:J:390:ASN:O	1:J:391:HIS:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:65:ILE:HD13	1:K:144:ILE:CG1	2.41	0.51
1:K:118:VAL:HG23	1:K:120:VAL:CG2	2.41	0.51
1:K:433:THR:O	1:K:434:ALA:C	2.47	0.51
1:L:82:HIS:ND1	1:L:109:SER:HA	2.25	0.51
1:L:497:GLY:HA3	1:L:501:THR:HA	1.91	0.51
1:A:465:MET:O	1:A:466:ARG:C	2.49	0.51
1:B:208:ILE:HD11	1:B:449:VAL:HG22	1.91	0.51
1:B:255:VAL:HG13	1:B:256:GLY:N	2.20	0.51
1:B:406:ASN:O	1:B:409:LEU:HB2	2.11	0.51
1:C:227:ILE:HG22	1:C:228:ASN:ND2	2.26	0.51
1:C:431:VAL:HG11	1:D:419:ARG:HH21	1.75	0.51
1:E:429:PRO:C	1:E:431:VAL:N	2.64	0.51
1:G:81:GLN:HG3	1:G:157:PHE:CE1	2.46	0.51
1:G:146:ARG:NH2	1:L:501:THR:OXT	2.36	0.51
1:G:245:LYS:HB2	1:G:268:ALA:HA	1.92	0.51
1:H:45:VAL:O	1:H:45:VAL:CG1	2.58	0.51
1:J:248:VAL:HG13	1:J:272:ALA:O	2.10	0.51
1:K:118:VAL:HG23	1:K:118:VAL:O	2.10	0.51
1:K:166:ALA:HB1	1:K:167:PRO:HD2	1.93	0.51
1:K:219:VAL:HG13	1:K:220:PHE:N	2.25	0.51
1:K:371:LEU:CD2	1:K:481:ALA:CB	2.88	0.51
1:K:479:THR:O	1:K:483:VAL:HG23	2.10	0.51
1:L:497:GLY:N	1:L:501:THR:HA	2.25	0.51
1:A:355:GLU:HA	1:A:358:LYS:CD	2.40	0.51
1:C:227:ILE:HA	1:C:233:MET:SD	2.50	0.51
1:C:363:ARG:CB	1:C:363:ARG:HH11	2.24	0.51
1:C:478:ARG:HH11	1:C:478:ARG:HG2	1.74	0.51
1:D:158:ILE:HD11	1:D:197:CYS:O	2.11	0.51
1:D:252:PHE:CD2	1:D:273:VAL:HG11	2.45	0.51
1:D:274:GLY:O	1:D:275:GLU:CB	2.57	0.51
1:E:223:ILE:CD1	1:E:263:LEU:HD21	2.39	0.51
1:E:383:PHE:HA	1:E:386:LEU:HD12	1.93	0.51
1:F:13:VAL:HG11	1:F:109:SER:OG	2.10	0.51
1:F:118:VAL:HG23	1:F:120:VAL:HG23	1.93	0.51
1:F:181:ASP:O	1:F:182:THR:C	2.48	0.51
1:F:459:ARG:O	1:F:463:GLN:HG3	2.10	0.51
1:G:157:PHE:CE2	1:K:155:LYS:HD2	2.46	0.51
1:I:96:SER:O	1:I:98:ASP:N	2.44	0.51
1:K:9:PHE:HD1	1:K:10:PHE:N	2.09	0.51
1:K:293:ASP:HB3	1:K:297:GLN:HE21	1.76	0.51
1:L:39:GLU:OE1	1:L:41:LYS:HD2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:252:PHE:CZ	1:L:260:MET:HE1	2.45	0.51
1:A:436:PHE:CZ	1:B:409:LEU:HD22	2.46	0.51
1:B:361:LEU:HD23	1:B:361:LEU:O	2.11	0.51
1:C:104:VAL:CG2	1:C:105:LYS:H	2.24	0.51
1:D:213:SER:O	1:D:217:ARG:HG3	2.11	0.51
1:E:323:ILE:HG12	1:E:323:ILE:O	2.10	0.51
1:E:359:ILE:O	1:E:362:GLU:N	2.44	0.51
1:F:31:ASP:O	1:F:32:LEU:HD23	2.10	0.51
1:F:414:GLN:CD	1:F:430:ILE:HG12	2.31	0.51
1:G:53:LYS:HB3	1:G:54:PRO:HD3	1.93	0.51
1:G:126:LYS:NZ	1:G:168:ASP:OD1	2.41	0.51
1:H:461:ALA:O	1:H:464:ILE:HB	2.11	0.51
1:I:497:GLY:HA3	1:I:501:THR:HA	1.92	0.51
1:K:39:GLU:HB2	1:K:41:LYS:HG3	1.92	0.51
1:K:286:ILE:CG2	1:K:291:LEU:HD22	2.40	0.51
1:L:87:THR:OG1	1:L:88:PRO:HD3	2.11	0.51
1:L:142:GLU:HA	1:L:178:TRP:CZ3	2.46	0.51
1:L:214:ALA:HB2	1:L:380:VAL:HG21	1.93	0.51
1:L:386:LEU:O	1:L:387:LYS:C	2.49	0.51
1:A:176:MET:CE	1:A:179:ILE:HD12	2.40	0.51
1:A:412:SER:O	1:A:413:VAL:C	2.48	0.51
1:A:416:SER:HB2	1:F:428:ILE:O	2.10	0.51
1:B:137:THR:HG22	1:B:140:GLU:OE1	2.11	0.51
1:B:271:ILE:O	1:B:271:ILE:HG12	2.10	0.51
1:B:277:ASP:OD2	1:B:300:SER:HB2	2.10	0.51
1:C:32:LEU:O	1:C:33:ARG:CB	2.58	0.51
1:C:96:SER:O	1:C:99:VAL:CG2	2.54	0.51
1:C:248:VAL:HG13	1:C:272:ALA:O	2.10	0.51
1:C:257:LEU:HA	1:C:260:MET:CE	2.38	0.51
1:D:8:ASN:HD21	1:D:10:PHE:HB3	1.76	0.51
1:D:471:TYR:O	1:D:473:LEU:HG	2.11	0.51
1:E:175:GLU:HA	1:E:178:TRP:CE3	2.46	0.51
1:E:294:PHE:CD1	1:E:298:HIS:CE1	2.99	0.51
1:F:150:MET:CE	1:F:186:THR:HG21	2.41	0.51
1:F:248:VAL:HG13	1:F:272:ALA:O	2.11	0.51
1:G:33:ARG:HH21	1:G:45:VAL:HG11	1.74	0.51
1:G:45:VAL:O	1:G:45:VAL:CG1	2.57	0.51
1:G:111:MET:HB3	1:G:124:GLY:HA2	1.93	0.51
1:H:133:PRO:HB3	1:H:141:LEU:HD11	1.93	0.51
1:H:164:VAL:HG13	1:H:198:VAL:HA	1.91	0.51
1:H:411:MET:HA	1:H:430:ILE:CG2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:94:ARG:HD2	1:I:170:SER:OG	2.11	0.51
1:I:115:CYS:O	1:I:116:ALA:C	2.49	0.51
1:I:244:ASP:O	1:I:245:LYS:HG3	2.10	0.51
1:J:294:PHE:CZ	1:J:298:HIS:HE1	2.29	0.51
1:L:346:GLU:HG2	1:L:351:PRO:HG2	1.92	0.51
1:L:471:TYR:HB2	1:L:473:LEU:HD12	1.93	0.51
1:A:148:PHE:CE2	1:A:152:LEU:HD22	2.47	0.50
2:A:1:ADP:O3A	1:B:393:SER:HB3	2.12	0.50
1:B:222:GLY:HA3	1:B:373:LEU:HD11	1.91	0.50
1:C:45:VAL:C	1:C:47:GLY:H	2.14	0.50
1:C:409:LEU:HD11	1:E:409:LEU:HB3	1.93	0.50
1:D:81:GLN:OE1	1:D:84:HIS:HE1	1.94	0.50
1:E:335:ASN:HD22	1:E:335:ASN:C	2.11	0.50
1:F:315:LEU:HD12	1:F:315:LEU:N	2.26	0.50
1:G:322:LEU:HD22	1:G:344:ILE:HD12	1.93	0.50
1:G:428:ILE:HD13	1:G:428:ILE:N	2.27	0.50
1:H:471:TYR:O	1:H:472:ASN:C	2.49	0.50
1:K:81:GLN:NE2	1:K:157:PHE:CD1	2.79	0.50
1:K:369:PRO:HB3	1:K:478:ARG:HG3	1.93	0.50
1:L:369:PRO:HD3	1:L:477:LEU:HB3	1.91	0.50
1:A:67:ARG:NE	1:A:73:GLU:OE2	2.44	0.50
1:C:8:ASN:O	1:C:10:PHE:N	2.44	0.50
1:C:20:GLY:O	1:C:24:VAL:CG2	2.59	0.50
1:C:324:PRO:HD2	1:C:345:ALA:O	2.11	0.50
1:C:344:ILE:CD1	1:C:365:ILE:HG21	2.39	0.50
1:D:396:ARG:CG	1:D:396:ARG:NH1	2.71	0.50
1:F:403:ARG:NH1	1:F:440:ILE:C	2.65	0.50
1:F:413:VAL:O	1:F:413:VAL:HG12	2.11	0.50
1:G:116:ALA:O	1:G:488:LYS:NZ	2.38	0.50
1:G:222:GLY:HA3	1:G:373:LEU:CD1	2.40	0.50
1:G:295:LYS:HD3	1:G:301:ILE:CG2	2.42	0.50
1:H:465:MET:O	1:H:468:ALA:HB3	2.10	0.50
1:I:229:GLU:O	1:I:231:SER:N	2.45	0.50
1:J:198:VAL:O	1:J:201:LYS:HE3	2.11	0.50
1:J:404:ASP:O	1:J:405:SER:C	2.50	0.50
1:L:146:ARG:NH2	1:L:181:ASP:OD1	2.45	0.50
1:L:346:GLU:OE2	1:L:352:THR:HG23	2.11	0.50
1:C:465:MET:O	1:C:468:ALA:N	2.35	0.50
1:E:79:ARG:HH11	1:E:79:ARG:HG3	1.76	0.50
1:E:142:GLU:CG	1:E:146:ARG:HD2	2.40	0.50
1:G:65:ILE:HD13	1:G:75:ILE:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:111:MET:HE1	1:G:378:VAL:HG21	1.94	0.50
1:G:162:ILE:HG22	1:G:163:ASP:N	2.25	0.50
1:G:392:VAL:HG21	1:L:386:LEU:CD1	2.39	0.50
1:H:117:VAL:HG21	1:H:371:LEU:HG	1.94	0.50
1:H:176:MET:CE	1:H:176:MET:HA	2.41	0.50
1:H:322:LEU:O	1:H:324:PRO:HD3	2.10	0.50
1:I:175:GLU:HG3	1:I:178:TRP:CZ3	2.46	0.50
1:I:213:SER:HB3	1:I:262:TYR:OH	2.11	0.50
1:K:16:PHE:CE2	1:K:478:ARG:NH1	2.79	0.50
1:B:436:PHE:CD2	1:F:408:HIS:HB3	2.46	0.50
1:C:239:THR:HA	1:C:245:LYS:NZ	2.26	0.50
1:D:116:ALA:HA	2:D:4:ADP:N6	2.27	0.50
1:D:287:ASP:HB3	1:D:290:GLU:HG3	1.92	0.50
1:E:65:ILE:O	1:E:65:ILE:HG13	2.10	0.50
1:E:66:ARG:HD3	1:E:72:TRP:CH2	2.46	0.50
1:E:68:ASP:OD2	1:E:140:GLU:HG3	2.11	0.50
1:F:67:ARG:HG2	1:F:67:ARG:NH1	2.25	0.50
1:G:74:VAL:O	1:G:74:VAL:HG23	2.11	0.50
1:G:238:MET:O	1:G:239:THR:HG22	2.11	0.50
1:H:82:HIS:N	1:H:124:GLY:O	2.41	0.50
1:H:280:ILE:CG2	1:H:307:ALA:HB1	2.41	0.50
1:I:53:LYS:HB3	1:I:54:PRO:HD3	1.92	0.50
1:I:165:PRO:O	1:I:198:VAL:HG23	2.12	0.50
1:I:294:PHE:CD1	1:I:304:PHE:HD1	2.30	0.50
1:J:30:GLU:O	1:J:31:ASP:C	2.49	0.50
1:J:414:GLN:NE2	1:J:430:ILE:HG23	2.26	0.50
1:K:211:ARG:O	1:K:214:ALA:HB3	2.11	0.50
1:K:417:LEU:O	1:K:420:LYS:CG	2.59	0.50
1:K:459:ARG:NH1	2:K:502:ADP:O3B	2.37	0.50
1:K:476:ASP:OD2	1:K:479:THR:OG1	2.23	0.50
1:A:439:ARG:HH11	1:A:439:ARG:HG3	1.76	0.50
1:B:282:ASN:O	1:B:284:ASP:N	2.43	0.50
1:C:234:SER:O	1:C:236:LEU:N	2.45	0.50
1:D:68:ASP:OD1	1:D:140:GLU:CG	2.60	0.50
1:E:24:VAL:HG22	1:E:483:VAL:HG13	1.93	0.50
1:E:164:VAL:HA	1:E:197:CYS:O	2.11	0.50
1:G:271:ILE:CG1	1:G:283:PRO:HA	2.42	0.50
1:H:236:LEU:HB3	1:H:342:LYS:HE2	1.93	0.50
1:I:409:LEU:O	1:I:413:VAL:HG23	2.11	0.50
1:I:461:ALA:O	1:I:464:ILE:HB	2.11	0.50
1:K:344:ILE:HD11	1:K:360:PHE:CD1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:465:MET:O	1:K:466:ARG:C	2.50	0.50
1:A:121:PRO:O	1:A:122:PHE:HD2	1.94	0.50
1:A:390:ASN:O	1:A:392:VAL:HG23	2.11	0.50
1:D:9:PHE:CD2	1:D:328:GLU:OE1	2.64	0.50
1:D:327:SER:HB2	1:D:330:GLN:OE1	2.12	0.50
1:D:421:PHE:CZ	1:D:423:LYS:HB2	2.47	0.50
1:E:384:GLU:O	1:E:387:LYS:HB3	2.12	0.50
1:F:91:GLY:HA3	1:F:125:ALA:O	2.11	0.50
1:F:250:GLN:HG2	1:F:314:ILE:CG1	2.41	0.50
1:I:117:VAL:HG23	1:I:485:ALA:HB2	1.94	0.50
1:K:236:LEU:HA	1:K:342:LYS:HZ1	1.76	0.50
1:L:82:HIS:CB	1:L:112:THR:HG21	2.41	0.50
1:L:413:VAL:O	1:L:417:LEU:HB2	2.11	0.50
1:A:239:THR:H	1:A:240:PRO:HD3	1.73	0.50
1:B:321:ILE:HG23	1:B:343:ILE:CG2	2.41	0.50
1:C:28:LEU:HD21	1:C:490:PHE:CD1	2.47	0.50
1:D:144:ILE:HD12	1:D:144:ILE:H	1.77	0.50
1:E:107:LEU:O	1:E:108:ALA:C	2.46	0.50
1:F:428:ILE:N	1:F:428:ILE:CD1	2.65	0.50
1:G:17:PHE:CD1	1:G:486:ILE:HD12	2.46	0.50
1:G:252:PHE:HE2	1:G:260:MET:HE1	1.77	0.50
1:I:14:GLU:CG	1:I:53:LYS:HZ2	2.25	0.50
1:I:439:ARG:HH12	1:J:404:ASP:HB2	1.76	0.50
1:J:346:GLU:CD	1:J:478:ARG:HH22	2.14	0.50
1:J:414:GLN:OE1	1:J:430:ILE:HG12	2.11	0.50
1:K:147:ARG:NH1	1:K:151:GLU:OE2	2.44	0.50
1:K:175:GLU:HA	1:K:178:TRP:CE3	2.47	0.50
1:B:96:SER:O	1:B:99:VAL:HG13	2.12	0.50
1:B:249:VAL:HB	1:B:323:ILE:CD1	2.42	0.50
1:C:176:MET:HG2	1:C:199:THR:O	2.10	0.50
1:C:471:TYR:O	1:C:472:ASN:C	2.51	0.50
1:E:399:PHE:CE2	1:E:443:ALA:HB1	2.47	0.50
1:E:410:LEU:HB3	1:E:430:ILE:HA	1.92	0.50
1:F:108:ALA:O	1:F:109:SER:C	2.50	0.50
1:F:407:TYR:OH	1:G:242:PHE:HA	2.12	0.50
1:G:226:PHE:HB3	1:G:366:MET:HE1	1.92	0.50
1:H:323:ILE:O	1:H:323:ILE:HG22	2.12	0.50
1:H:459:ARG:NH2	2:H:502:ADP:O3B	2.45	0.50
1:I:496:ALA:CA	1:I:501:THR:O	2.60	0.50
1:J:167:PRO:HG3	1:J:176:MET:CG	2.38	0.50
1:J:344:ILE:HD12	1:J:367:VAL:CG2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:153:ALA:CA	1:K:158:ILE:HG22	2.41	0.50
1:K:328:GLU:HG3	1:K:329:LYS:HG2	1.93	0.50
1:L:75:ILE:HG23	1:L:131:ILE:CD1	2.42	0.50
1:L:233:MET:HE1	1:L:343:ILE:CD1	2.31	0.50
1:A:91:GLY:O	1:A:165:PRO:HA	2.12	0.50
1:A:346:GLU:OE1	1:A:478:ARG:NH2	2.45	0.50
1:D:111:MET:HB3	1:D:124:GLY:HA2	1.94	0.50
1:D:428:ILE:CD1	1:D:428:ILE:N	2.74	0.50
1:E:95:TYR:CE2	1:E:129:VAL:CG2	2.95	0.50
1:E:322:LEU:CD2	1:E:323:ILE:N	2.74	0.50
1:F:67:ARG:HG2	1:F:67:ARG:HH11	1.77	0.50
1:F:207:GLY:HA2	1:F:384:GLU:OE1	2.12	0.50
1:F:322:LEU:HD13	1:F:344:ILE:HG23	1.94	0.50
1:H:165:PRO:C	1:H:198:VAL:HG23	2.32	0.50
1:H:234:SER:O	1:H:236:LEU:N	2.44	0.50
1:H:353:THR:HB	1:H:354:PRO:HD2	1.93	0.50
1:I:20:GLY:O	1:I:24:VAL:HG23	2.12	0.50
1:J:371:LEU:HD22	1:J:482:TYR:CD2	2.47	0.50
1:J:394:TYR:CE2	1:K:397:LEU:HD13	2.47	0.50
1:K:48:ILE:HG13	1:K:490:PHE:CE1	2.39	0.50
1:K:219:VAL:O	1:K:220:PHE:C	2.50	0.50
1:A:153:ALA:N	1:A:158:ILE:HG22	2.27	0.49
1:B:187:ILE:HD13	1:B:187:ILE:N	2.27	0.49
1:B:252:PHE:HE2	1:B:260:MET:HE2	1.77	0.49
1:B:255:VAL:O	1:B:256:GLY:C	2.48	0.49
1:C:142:GLU:HA	1:C:145:THR:HG23	1.93	0.49
1:C:281:TRP:HB3	1:C:308:LYS:O	2.12	0.49
1:C:328:GLU:HG3	1:C:329:LYS:NZ	2.27	0.49
1:C:388:ASN:O	1:C:390:ASN:N	2.45	0.49
1:D:398:THR:O	1:D:401:TYR:N	2.45	0.49
1:F:247:PHE:CZ	1:F:270:CYS:HB2	2.47	0.49
1:G:58:VAL:HG23	1:G:80:ALA:HB2	1.93	0.49
1:G:258:HIS:O	1:G:259:SER:C	2.49	0.49
1:H:61:LEU:HD12	1:H:61:LEU:H	1.77	0.49
1:H:462:ARG:O	1:H:463:GLN:C	2.51	0.49
1:I:399:PHE:CZ	1:I:448:ILE:HD11	2.47	0.49
1:J:9:PHE:O	1:J:13:VAL:HG23	2.13	0.49
1:K:87:THR:O	1:K:88:PRO:C	2.50	0.49
1:K:346:GLU:O	1:K:373:LEU:HD23	2.12	0.49
1:L:201:LYS:NZ	1:L:388:ASN:HD21	2.10	0.49
1:L:403:ARG:NH1	1:L:407:TYR:HE2	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:257:LEU:HG	1:A:258:HIS:N	2.26	0.49
1:A:497:GLY:CA	1:A:501:THR:HA	2.42	0.49
1:B:429:PRO:C	1:B:431:VAL:N	2.66	0.49
1:C:72:TRP:HE1	1:F:498:VAL:HG21	1.75	0.49
1:C:95:TYR:OH	1:C:145:THR:HB	2.12	0.49
1:C:230:ALA:O	1:C:231:SER:C	2.49	0.49
1:E:335:ASN:C	1:E:335:ASN:ND2	2.65	0.49
1:G:159:GLY:O	1:G:163:ASP:O	2.29	0.49
1:H:248:VAL:HG23	1:H:271:ILE:HG23	1.93	0.49
1:H:280:ILE:HG23	1:H:307:ALA:HB1	1.94	0.49
1:H:281:TRP:O	1:H:282:ASN:HB2	2.12	0.49
1:H:323:ILE:HG12	1:H:345:ALA:HB3	1.94	0.49
1:H:394:TYR:HB2	1:H:445:GLU:HG3	1.93	0.49
1:I:239:THR:HG23	1:I:239:THR:O	2.12	0.49
1:I:336:ALA:HB1	1:I:359:ILE:HG21	1.94	0.49
1:K:79:ARG:NH2	1:K:91:GLY:O	2.40	0.49
1:L:387:LYS:HD2	1:L:445:GLU:OE2	2.12	0.49
1:C:226:PHE:HD1	1:C:368:ILE:HD13	1.77	0.49
1:C:436:PHE:CE1	1:D:409:LEU:HD22	2.47	0.49
1:D:462:ARG:HD3	1:D:466:ARG:NH2	2.27	0.49
1:G:278:GLY:HA3	1:G:302:LEU:HD21	1.94	0.49
1:H:227:ILE:O	1:H:233:MET:HG3	2.13	0.49
1:I:142:GLU:HG2	1:I:146:ARG:HD2	1.94	0.49
1:I:212:ILE:H	1:I:212:ILE:CD1	2.25	0.49
1:I:321:ILE:N	1:I:321:ILE:CD1	2.75	0.49
1:I:339:VAL:O	1:I:339:VAL:HG23	2.12	0.49
1:J:36:GLU:O	1:J:36:GLU:CD	2.50	0.49
1:J:403:ARG:NH1	1:J:407:TYR:CZ	2.80	0.49
1:K:222:GLY:HA3	1:K:373:LEU:CD1	2.42	0.49
1:L:481:ALA:O	1:L:484:ASN:N	2.45	0.49
1:A:56:ASN:HA	1:E:62:SER:OG	2.12	0.49
1:A:81:GLN:OE1	1:E:155:LYS:HE3	2.12	0.49
1:A:90:LYS:CB	1:A:122:PHE:CD1	2.95	0.49
1:C:232:TYR:O	1:C:236:LEU:HG	2.12	0.49
1:D:75:ILE:HG23	1:D:131:ILE:HD13	1.95	0.49
1:D:258:HIS:O	1:D:262:TYR:CD2	2.66	0.49
1:E:168:ASP:OD2	1:E:169:MET:N	2.43	0.49
1:H:148:PHE:CE1	1:H:152:LEU:HD11	2.47	0.49
1:I:72:TRP:HE1	1:L:498:VAL:CG1	2.12	0.49
1:I:271:ILE:HD11	1:I:283:PRO:HG3	1.94	0.49
1:K:321:ILE:CD1	1:K:343:ILE:HB	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:351:PRO:C	1:L:352:THR:HG22	2.33	0.49
1:L:398:THR:O	1:L:399:PHE:C	2.51	0.49
1:B:233:MET:HB3	1:B:238:MET:HB2	1.94	0.49
1:D:47:GLY:O	1:D:48:ILE:C	2.51	0.49
1:D:99:VAL:N	1:D:130:LYS:HE3	2.28	0.49
1:D:277:ASP:HB2	1:D:302:LEU:HD11	1.94	0.49
1:F:322:LEU:HD12	1:F:344:ILE:HG12	1.94	0.49
1:H:211:ARG:HB3	1:H:211:ARG:NH1	2.27	0.49
1:J:65:ILE:HD13	1:J:144:ILE:HG12	1.95	0.49
1:J:148:PHE:O	1:J:152:LEU:HB2	2.12	0.49
1:J:208:ILE:HD12	1:J:387:LYS:HD2	1.94	0.49
1:L:107:LEU:HD13	1:L:126:LYS:HE3	1.95	0.49
1:L:332:THR:O	1:L:336:ALA:HB2	2.12	0.49
1:A:59:LEU:CD2	1:A:61:LEU:CD2	2.86	0.49
1:A:142:GLU:OE2	1:A:146:ARG:NH1	2.45	0.49
1:D:98:ASP:O	1:D:99:VAL:O	2.31	0.49
1:D:477:LEU:O	1:D:480:ALA:HB3	2.12	0.49
1:E:494:ASN:C	1:E:496:ALA:H	2.16	0.49
1:F:75:ILE:CD1	1:F:144:ILE:HG12	2.43	0.49
1:G:293:ASP:O	1:G:296:LEU:N	2.42	0.49
1:H:60:SER:HA	1:H:78:TYR:HB3	1.93	0.49
1:H:257:LEU:O	1:H:260:MET:HB3	2.12	0.49
1:I:133:PRO:HA	1:I:141:LEU:HD21	1.95	0.49
1:J:343:ILE:CG1	1:J:366:MET:HE2	2.43	0.49
1:K:95:TYR:OH	1:K:145:THR:CB	2.61	0.49
1:L:89:CYS:O	1:L:163:ASP:HA	2.12	0.49
1:A:421:PHE:CE1	1:A:423:LYS:HE2	2.48	0.49
1:B:151:GLU:HB3	1:D:57:HIS:HE1	1.78	0.49
1:B:379:THR:CG2	1:B:453:LEU:HD23	2.41	0.49
1:D:146:ARG:NH2	1:D:181:ASP:OD1	2.46	0.49
1:D:146:ARG:NE	1:D:182:THR:OG1	2.45	0.49
1:E:233:MET:HE1	1:E:343:ILE:HD11	1.94	0.49
1:E:414:GLN:HB2	1:E:429:PRO:CD	2.21	0.49
1:G:176:MET:HE3	1:G:176:MET:HA	1.95	0.49
1:H:67:ARG:HH11	1:H:67:ARG:CB	2.20	0.49
1:H:131:ILE:HD13	1:H:144:ILE:CD1	2.43	0.49
1:H:238:MET:O	1:H:239:THR:C	2.50	0.49
1:H:478:ARG:HH11	1:H:478:ARG:HG3	1.78	0.49
1:I:32:LEU:O	1:I:33:ARG:HB3	2.13	0.49
1:I:93:ILE:HD11	1:I:165:PRO:CB	2.43	0.49
1:I:212:ILE:N	1:I:212:ILE:CD1	2.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:57:HIS:CE1	1:J:84:HIS:HE2	2.27	0.49
1:J:178:TRP:O	1:J:179:ILE:C	2.51	0.49
1:L:499:THR:HG23	1:L:500:PHE:CD1	2.48	0.49
1:A:249:VAL:O	1:A:249:VAL:HG22	2.13	0.49
1:A:499:THR:O	1:A:499:THR:HG22	2.13	0.49
1:B:356:ALA:O	1:B:360:PHE:CD2	2.65	0.49
1:B:411:MET:HG2	1:B:430:ILE:CG2	2.42	0.49
1:C:85:GLN:HG2	1:C:86:ARG:N	2.25	0.49
1:C:234:SER:O	1:C:237:GLY:N	2.46	0.49
1:C:345:ALA:HB1	1:C:373:LEU:HD21	1.94	0.49
1:D:47:GLY:O	1:D:50:ARG:N	2.46	0.49
1:D:148:PHE:O	1:D:152:LEU:HB2	2.13	0.49
1:D:165:PRO:O	1:D:198:VAL:HG23	2.12	0.49
1:D:344:ILE:CG2	1:D:367:VAL:HG22	2.43	0.49
1:E:300:SER:OG	1:E:301:ILE:N	2.44	0.49
1:E:414:GLN:OE1	1:E:428:ILE:HA	2.13	0.49
1:F:239:THR:N	1:F:240:PRO:CD	2.75	0.49
1:F:411:MET:HA	1:F:430:ILE:CG2	2.43	0.49
1:G:181:ASP:OD1	1:L:501:THR:OXT	2.30	0.49
1:G:208:ILE:CG1	1:G:387:LYS:HD2	2.35	0.49
1:I:48:ILE:HG13	1:I:490:PHE:HE1	1.76	0.49
1:I:252:PHE:CD1	1:I:295:LYS:HD3	2.47	0.49
1:I:332:THR:CG2	1:I:353:THR:HG21	2.41	0.49
1:I:346:GLU:O	1:I:348:ALA:N	2.45	0.49
1:I:439:ARG:NH2	1:J:405:SER:HB2	2.28	0.49
1:J:14:GLU:HG3	1:J:53:LYS:CE	2.42	0.49
1:J:281:TRP:HZ3	1:J:317:ALA:CB	2.25	0.49
1:J:414:GLN:CB	1:J:429:PRO:HD2	2.41	0.49
1:J:421:PHE:HD1	1:J:423:LYS:N	2.10	0.49
1:J:496:ALA:O	1:J:501:THR:HA	2.13	0.49
1:K:219:VAL:HG11	1:K:259:SER:CB	2.42	0.49
1:L:275:GLU:HG3	1:L:301:ILE:CG1	2.42	0.49
1:B:201:LYS:NZ	1:B:384:GLU:OE1	2.43	0.49
1:B:315:LEU:HD22	1:B:322:LEU:HD11	1.94	0.49
1:C:28:LEU:HD11	1:C:490:PHE:CE2	2.48	0.49
1:C:65:ILE:CD1	1:C:144:ILE:HG12	2.24	0.49
1:D:167:PRO:HB3	1:D:176:MET:SD	2.53	0.49
1:D:318:ASP:HA	1:D:340:LYS:HB2	1.95	0.49
1:E:107:LEU:HD12	1:E:126:LYS:NZ	2.27	0.49
1:F:85:GLN:HE21	1:F:85:GLN:H	1.60	0.49
1:G:58:VAL:HG12	1:K:60:SER:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:239:THR:O	1:G:239:THR:CG2	2.61	0.49
1:H:234:SER:C	1:H:236:LEU:N	2.66	0.49
1:H:339:VAL:HG21	1:H:360:PHE:CE1	2.45	0.49
1:J:6:ASP:OD1	1:J:6:ASP:O	2.30	0.49
1:J:39:GLU:O	1:J:41:LYS:N	2.44	0.49
1:K:118:VAL:O	1:K:120:VAL:HG23	2.12	0.49
1:K:371:LEU:HG	1:K:371:LEU:O	2.12	0.49
1:L:343:ILE:HG22	1:L:343:ILE:O	2.13	0.49
1:L:395:GLY:O	1:L:397:LEU:N	2.45	0.49
1:A:82:HIS:CG	1:A:112:THR:HG21	2.47	0.49
1:B:48:ILE:O	1:B:52:ILE:HG13	2.13	0.49
1:B:68:ASP:OD1	1:B:140:GLU:HG3	2.12	0.49
1:B:396:ARG:O	1:B:396:ARG:HD3	2.13	0.49
1:C:33:ARG:HE	1:C:33:ARG:HB2	1.41	0.49
1:C:149:THR:OG1	1:C:179:ILE:HG12	2.12	0.49
1:D:428:ILE:HD13	1:D:428:ILE:N	2.21	0.49
1:E:247:PHE:HB3	1:E:321:ILE:HB	1.94	0.49
1:G:48:ILE:HG21	1:G:490:PHE:CD1	2.48	0.49
1:G:126:LYS:HG3	1:G:127:ALA:N	2.28	0.49
1:G:335:ASN:HD22	1:G:336:ALA:H	1.59	0.49
1:G:419:ARG:O	1:G:420:LYS:HB2	2.12	0.49
1:H:164:VAL:CG1	1:H:198:VAL:HA	2.42	0.49
1:I:101:VAL:O	1:I:104:VAL:HG22	2.13	0.49
1:J:163:ASP:O	1:J:165:PRO:HD3	2.13	0.49
1:J:496:ALA:C	1:J:501:THR:HA	2.33	0.49
1:A:24:VAL:CG1	1:A:28:LEU:HB2	2.42	0.48
1:A:33:ARG:HH21	1:A:42:ARG:CZ	2.26	0.48
1:C:264:HIS:O	1:C:266:PHE:N	2.45	0.48
1:D:59:LEU:HB2	1:D:157:PHE:CE2	2.47	0.48
1:D:117:VAL:HG11	1:D:372:TYR:HB2	1.94	0.48
1:D:485:ALA:O	1:D:488:LYS:N	2.45	0.48
1:F:195:HIS:O	1:F:201:LYS:HE3	2.13	0.48
1:F:380:VAL:O	1:F:383:PHE:HB2	2.13	0.48
1:G:235:ILE:HD13	1:G:235:ILE:HA	1.68	0.48
1:G:248:VAL:HG23	1:G:319:CYS:SG	2.52	0.48
1:H:217:ARG:HD2	1:H:450:HIS:NE2	2.28	0.48
1:H:240:PRO:HD2	1:H:244:ASP:O	2.13	0.48
1:H:295:LYS:HD3	1:H:301:ILE:HG23	1.95	0.48
1:I:87:THR:HG22	1:I:88:PRO:N	2.28	0.48
1:I:397:LEU:HD21	1:K:383:PHE:CD1	2.48	0.48
1:J:318:ASP:O	1:J:319:CYS:CB	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:337:PRO:HG3	1:J:359:ILE:HG21	1.95	0.48
1:L:315:LEU:HD23	1:L:331:LEU:CD2	2.43	0.48
1:L:338:ARG:NH1	1:L:338:ARG:CB	2.67	0.48
1:A:86:ARG:HG2	1:A:121:PRO:HA	1.94	0.48
2:A:1:ADP:H5'2	1:B:203:ILE:HG22	1.93	0.48
1:B:497:GLY:O	1:B:498:VAL:HG13	2.14	0.48
1:C:81:GLN:HG3	1:C:157:PHE:CE1	2.48	0.48
1:C:201:LYS:HZ1	1:C:388:ASN:HD21	1.58	0.48
1:C:274:GLY:O	1:C:301:ILE:CD1	2.61	0.48
1:D:89:CYS:O	1:D:163:ASP:HA	2.12	0.48
1:D:339:VAL:HG21	1:D:360:PHE:HE1	1.78	0.48
1:D:406:ASN:O	1:D:409:LEU:HB2	2.13	0.48
1:E:261:ARG:HG3	1:E:261:ARG:HH11	1.78	0.48
1:G:47:GLY:CA	1:G:50:ARG:HG2	2.33	0.48
1:G:80:ALA:O	1:G:125:ALA:HA	2.13	0.48
1:G:414:GLN:CB	1:G:430:ILE:HG23	2.43	0.48
1:G:420:LYS:CE	1:G:420:LYS:O	2.62	0.48
1:G:498:VAL:HG21	1:K:72:TRP:NE1	2.28	0.48
1:J:470:LYS:O	1:J:470:LYS:HG2	2.11	0.48
1:K:247:PHE:HD1	1:K:268:ALA:HB1	1.78	0.48
1:K:372:TYR:OH	1:K:461:ALA:HB2	2.13	0.48
1:L:403:ARG:HH11	1:L:403:ARG:HG3	1.78	0.48
1:A:174:ARG:O	1:A:177:SER:HB3	2.14	0.48
1:A:233:MET:HA	1:A:233:MET:CE	2.43	0.48
1:B:360:PHE:HB3	1:B:365:ILE:HB	1.95	0.48
1:C:150:MET:O	1:C:154:LYS:HG3	2.13	0.48
1:C:181:ASP:CG	1:E:501:THR:OXT	2.52	0.48
1:D:189:HIS:ND1	1:F:154:LYS:HD3	2.29	0.48
1:D:429:PRO:HG3	1:E:417:LEU:CD1	2.43	0.48
1:F:49:LEU:H	1:F:49:LEU:HD22	1.78	0.48
1:G:203:ILE:HG22	2:L:502:ADP:H5'2	1.95	0.48
1:G:437:GLN:HA	1:G:440:ILE:CD1	2.41	0.48
1:H:120:VAL:O	1:H:120:VAL:HG12	2.12	0.48
1:H:121:PRO:CG	1:H:382:TYR:CE2	2.94	0.48
1:H:122:PHE:HE1	1:H:382:TYR:HA	1.77	0.48
1:H:260:MET:HG2	1:H:288:PRO:HG3	1.96	0.48
1:I:91:GLY:HA2	1:I:111:MET:HE2	1.96	0.48
1:I:219:VAL:HG22	1:I:373:LEU:CD2	2.43	0.48
1:I:392:VAL:HG21	1:K:386:LEU:HD13	1.96	0.48
1:J:115:CYS:O	1:J:118:VAL:N	2.45	0.48
1:J:142:GLU:CG	1:J:146:ARG:HD2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:9:PHE:CD1	1:K:10:PHE:N	2.81	0.48
1:K:103:GLU:O	1:K:106:ALA:HB3	2.13	0.48
1:K:137:THR:HG23	1:K:140:GLU:HG3	1.94	0.48
1:K:294:PHE:CD2	1:K:298:HIS:CE1	3.01	0.48
1:K:360:PHE:HD1	1:K:365:ILE:CD1	2.23	0.48
1:L:138:ASP:CG	1:L:174:ARG:HH12	2.17	0.48
1:L:223:ILE:HD12	1:L:263:LEU:HD21	1.95	0.48
1:A:383:PHE:O	1:A:384:GLU:C	2.51	0.48
1:A:486:ILE:O	1:A:490:PHE:HB2	2.14	0.48
1:B:161:GLY:CA	1:B:162:ILE:HD12	2.43	0.48
1:C:322:LEU:CD1	1:C:324:PRO:HG3	2.42	0.48
1:C:411:MET:HA	1:C:430:ILE:CG2	2.43	0.48
1:D:294:PHE:CZ	1:D:303:GLY:O	2.66	0.48
1:D:453:LEU:O	1:D:456:THR:N	2.46	0.48
1:G:346:GLU:HG2	1:G:351:PRO:HG3	1.94	0.48
1:G:384:GLU:O	1:G:387:LYS:HB3	2.13	0.48
1:G:498:VAL:N	1:G:501:THR:HB	2.28	0.48
1:I:58:VAL:CG1	1:L:60:SER:HB2	2.43	0.48
1:K:176:MET:HE2	1:K:176:MET:HA	1.94	0.48
1:K:372:TYR:C	1:K:372:TYR:CD1	2.86	0.48
1:A:414:GLN:CD	1:A:430:ILE:HG23	2.34	0.48
1:D:107:LEU:N	1:D:107:LEU:CD1	2.75	0.48
1:E:220:PHE:CD1	1:E:220:PHE:C	2.86	0.48
1:F:24:VAL:O	1:F:25:GLU:C	2.52	0.48
1:F:90:LYS:HD2	1:F:164:VAL:O	2.13	0.48
1:F:380:VAL:HG13	1:F:449:VAL:CG1	2.43	0.48
1:F:398:THR:O	1:F:399:PHE:C	2.50	0.48
1:F:417:LEU:HD23	1:F:427:THR:HG21	1.95	0.48
1:G:160:PRO:CG	1:G:191:ASP:OD1	2.62	0.48
1:G:304:PHE:CD1	1:G:305:PRO:HD2	2.47	0.48
1:J:282:ASN:O	1:J:284:ASP:N	2.47	0.48
1:K:304:PHE:CD2	1:K:305:PRO:O	2.67	0.48
1:K:368:ILE:HG22	1:K:373:LEU:HB2	1.96	0.48
1:L:224:GLU:HA	1:L:227:ILE:CG2	2.43	0.48
1:A:57:HIS:HE2	1:E:151:GLU:HB3	1.78	0.48
1:A:94:ARG:NH1	1:A:96:SER:CB	2.77	0.48
1:A:249:VAL:HA	1:A:323:ILE:HG13	1.96	0.48
1:B:90:LYS:HD3	1:B:122:PHE:CE1	2.49	0.48
1:B:106:ALA:O	1:B:109:SER:HB3	2.13	0.48
1:B:252:PHE:CE2	1:B:260:MET:HE2	2.49	0.48
1:C:332:THR:HG22	1:C:353:THR:CG2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:497:GLY:N	1:C:501:THR:HA	2.29	0.48
1:D:348:ALA:O	1:D:370:ASP:HB3	2.14	0.48
1:D:429:PRO:C	1:D:431:VAL:H	2.15	0.48
1:D:492:VAL:HG21	2:D:4:ADP:C2	2.47	0.48
1:E:238:MET:O	1:E:239:THR:O	2.31	0.48
1:E:243:GLY:O	1:E:244:ASP:HB3	2.13	0.48
1:G:89:CYS:O	1:G:164:VAL:N	2.46	0.48
1:G:252:PHE:CE2	1:G:260:MET:HE1	2.48	0.48
1:H:131:ILE:CD1	1:H:144:ILE:CD1	2.91	0.48
1:H:137:THR:O	1:H:138:ASP:C	2.51	0.48
1:I:252:PHE:CZ	1:I:257:LEU:HD13	2.48	0.48
1:I:439:ARG:HH22	1:J:405:SER:HB2	1.78	0.48
1:J:36:GLU:O	1:J:36:GLU:OE2	2.32	0.48
1:K:346:GLU:HG2	1:K:351:PRO:CG	2.43	0.48
1:L:458:GLU:O	1:L:459:ARG:C	2.51	0.48
1:A:231:SER:O	1:A:235:ILE:HG12	2.14	0.48
1:A:360:PHE:HB3	1:A:365:ILE:CB	2.43	0.48
1:B:24:VAL:O	1:B:25:GLU:C	2.52	0.48
1:B:176:MET:HE1	1:B:179:ILE:HD12	1.93	0.48
1:B:217:ARG:O	1:B:221:HIS:ND1	2.39	0.48
1:B:234:SER:O	1:B:235:ILE:C	2.49	0.48
1:B:250:GLN:CG	1:B:314:ILE:HD11	2.43	0.48
1:C:75:ILE:HG22	1:C:76:GLU:N	2.28	0.48
1:C:79:ARG:HD3	1:C:127:ALA:HB2	1.90	0.48
1:C:379:THR:O	1:C:380:VAL:C	2.49	0.48
1:D:85:GLN:HG2	1:D:492:VAL:HG11	1.96	0.48
1:D:140:GLU:O	1:D:143:LYS:HB2	2.14	0.48
1:D:260:MET:CE	1:D:288:PRO:HA	2.44	0.48
1:E:85:GLN:HG2	1:E:86:ARG:N	2.24	0.48
1:G:87:THR:CB	1:G:88:PRO:HD3	2.32	0.48
1:H:202:PRO:O	1:H:203:ILE:C	2.51	0.48
1:H:332:THR:N	1:H:335:ASN:HD21	2.08	0.48
1:I:88:PRO:HA	1:I:162:ILE:O	2.12	0.48
1:I:414:GLN:HA	1:I:429:PRO:CG	2.44	0.48
1:J:13:VAL:O	1:J:14:GLU:C	2.51	0.48
1:J:237:GLY:O	1:J:238:MET:HG2	2.14	0.48
1:K:467:THR:HG22	1:K:480:ALA:O	2.14	0.48
1:L:467:THR:O	1:L:467:THR:HG22	2.13	0.48
1:A:45:VAL:O	1:A:45:VAL:HG13	2.13	0.48
1:C:439:ARG:HH22	1:D:405:SER:HB2	1.78	0.48
1:D:137:THR:O	1:D:138:ASP:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:501:THR:HG23	1:E:181:ASP:OD1	2.13	0.48
1:E:246:THR:HG23	1:E:246:THR:O	2.12	0.48
1:E:359:ILE:O	1:E:360:PHE:C	2.51	0.48
1:E:490:PHE:CZ	1:E:494:ASN:HB2	2.49	0.48
1:F:103:GLU:O	1:F:107:LEU:HD12	2.12	0.48
1:F:414:GLN:HE22	1:F:430:ILE:HD13	1.76	0.48
1:G:53:LYS:O	1:G:82:HIS:HE1	1.97	0.48
1:G:208:ILE:HD12	1:G:387:LYS:HB2	1.95	0.48
1:G:492:VAL:CG2	2:G:502:ADP:H2	2.26	0.48
1:H:413:VAL:HG11	1:L:413:VAL:HG22	1.96	0.48
1:H:430:ILE:O	1:H:431:VAL:HB	2.14	0.48
1:I:90:LYS:HB2	1:I:122:PHE:HB3	1.96	0.48
1:I:249:VAL:HA	1:I:323:ILE:HG13	1.95	0.48
1:J:24:VAL:O	1:J:25:GLU:C	2.52	0.48
1:J:87:THR:CG2	1:J:88:PRO:N	2.77	0.48
1:J:297:GLN:O	1:J:298:HIS:HB3	2.14	0.48
1:K:39:GLU:O	1:K:41:LYS:N	2.46	0.48
1:K:280:ILE:CG2	1:K:281:TRP:H	2.25	0.48
1:A:47:GLY:O	1:A:50:ARG:N	2.46	0.48
1:A:287:ASP:HA	1:A:288:PRO:HD3	1.74	0.48
1:A:336:ALA:HB1	1:A:359:ILE:HG21	1.96	0.48
1:A:370:ASP:OD2	1:A:371:LEU:N	2.40	0.48
1:A:498:VAL:N	1:A:501:THR:HA	2.29	0.48
1:B:280:ILE:HG23	1:B:307:ALA:HB1	1.95	0.48
1:C:133:PRO:C	1:C:135:ASN:H	2.17	0.48
1:D:359:ILE:HG22	1:D:360:PHE:N	2.28	0.48
1:D:432:PRO:HA	1:E:412:SER:HB3	1.96	0.48
1:D:501:THR:OXT	1:E:181:ASP:HB3	2.14	0.48
1:F:279:SER:O	1:F:280:ILE:HG13	2.13	0.48
1:G:9:PHE:HA	1:G:12:MET:HE2	1.95	0.48
1:H:87:THR:HG22	1:H:88:PRO:CD	2.44	0.48
1:H:236:LEU:HD22	1:H:342:LYS:HE3	1.95	0.48
1:H:498:VAL:CG2	1:H:499:THR:H	2.08	0.48
1:I:238:MET:O	1:I:239:THR:C	2.51	0.48
1:J:137:THR:O	1:J:138:ASP:C	2.51	0.48
1:K:234:SER:O	1:K:236:LEU:N	2.47	0.48
1:L:238:MET:O	1:L:239:THR:HG22	2.14	0.48
1:A:65:ILE:CD1	1:A:75:ILE:HD11	2.44	0.48
1:B:371:LEU:HD23	1:B:481:ALA:CB	2.44	0.48
1:B:437:GLN:O	1:B:441:SER:HB2	2.14	0.48
1:D:200:GLY:HA2	1:D:211:ARG:HD2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:244:ASP:C	1:D:245:LYS:CG	2.82	0.48
1:D:450:HIS:O	1:D:453:LEU:HB3	2.14	0.48
1:F:335:ASN:ND2	1:F:336:ALA:N	2.61	0.48
1:F:490:PHE:CZ	1:F:494:ASN:ND2	2.82	0.48
1:G:371:LEU:HD23	1:G:481:ALA:CB	2.44	0.48
1:G:471:TYR:CE2	1:G:483:VAL:HG11	2.49	0.48
1:I:413:VAL:O	1:I:417:LEU:HB2	2.13	0.48
1:J:257:LEU:HD12	1:J:257:LEU:O	2.14	0.48
1:K:280:ILE:HG23	1:K:307:ALA:HB1	1.95	0.48
1:K:339:VAL:HG21	1:K:360:PHE:CE1	2.39	0.48
1:L:142:GLU:O	1:L:145:THR:N	2.47	0.48
1:L:217:ARG:HG2	1:L:262:TYR:CE2	2.48	0.48
1:L:226:PHE:C	1:L:228:ASN:H	2.16	0.48
1:L:346:GLU:HG2	1:L:351:PRO:HD2	1.95	0.48
1:A:25:GLU:O	1:A:28:LEU:N	2.47	0.47
1:A:94:ARG:NH1	1:A:96:SER:HB3	2.29	0.47
1:A:261:ARG:HG3	1:A:261:ARG:NH1	2.24	0.47
1:A:336:ALA:HB3	1:A:359:ILE:HD12	1.95	0.47
1:B:53:LYS:HB3	1:B:54:PRO:CD	2.42	0.47
1:B:118:VAL:HG23	1:B:120:VAL:CG2	2.42	0.47
1:C:315:LEU:HD21	1:C:322:LEU:HD11	1.95	0.47
1:D:67:ARG:NH1	1:D:67:ARG:CG	2.75	0.47
1:D:274:GLY:HA3	1:D:314:ILE:HD12	1.96	0.47
1:E:69:ASP:OD1	1:E:70:GLY:N	2.46	0.47
1:E:150:MET:HE1	1:E:186:THR:HG21	1.95	0.47
1:E:229:GLU:HG3	1:E:465:MET:SD	2.54	0.47
1:F:241:GLY:O	1:G:437:GLN:OE1	2.32	0.47
1:G:411:MET:HA	1:G:430:ILE:CG2	2.41	0.47
1:H:50:ARG:O	1:H:54:PRO:HD2	2.13	0.47
1:I:108:ALA:O	1:I:112:THR:HG22	2.14	0.47
1:I:282:ASN:OD1	1:I:285:GLY:N	2.46	0.47
1:J:38:GLU:H	1:J:42:ARG:HD2	1.78	0.47
1:L:121:PRO:C	1:L:122:PHE:CD2	2.88	0.47
1:L:121:PRO:C	1:L:122:PHE:HD2	2.17	0.47
1:L:294:PHE:HE2	1:L:301:ILE:HA	1.77	0.47
1:L:396:ARG:NH1	1:L:396:ARG:CG	2.76	0.47
1:A:412:SER:HB3	1:F:432:PRO:HA	1.96	0.47
1:B:202:PRO:HD2	1:B:205:GLN:HB2	1.96	0.47
1:B:261:ARG:NH1	1:B:261:ARG:CG	2.67	0.47
1:C:260:MET:HG2	1:C:288:PRO:HG3	1.95	0.47
1:E:164:VAL:HG12	1:E:198:VAL:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:246:THR:HG23	1:E:320:ASP:N	2.29	0.47
1:E:413:VAL:O	1:E:417:LEU:HB2	2.14	0.47
1:G:75:ILE:CD1	1:G:144:ILE:HG12	2.44	0.47
1:H:44:ARG:HH11	1:H:44:ARG:HB2	1.75	0.47
1:H:90:LYS:HD2	1:H:164:VAL:O	2.14	0.47
1:I:290:GLU:HB3	1:I:304:PHE:HZ	1.79	0.47
1:I:406:ASN:HD22	1:J:409:LEU:HD23	1.69	0.47
1:J:248:VAL:HG22	1:J:271:ILE:HG23	1.96	0.47
1:J:417:LEU:HD21	1:K:417:LEU:HD21	1.96	0.47
1:J:463:GLN:HB3	1:J:484:ASN:HD21	1.79	0.47
1:K:140:GLU:HA	1:K:143:LYS:HD2	1.96	0.47
1:K:363:ARG:HB3	1:K:363:ARG:HH11	1.79	0.47
1:L:106:ALA:O	1:L:109:SER:HB3	2.14	0.47
1:L:363:ARG:HB3	1:L:363:ARG:HH11	1.79	0.47
1:A:116:ALA:O	1:A:488:LYS:NZ	2.40	0.47
1:A:227:ILE:HG22	1:A:228:ASN:N	2.29	0.47
1:A:255:VAL:HG13	1:A:256:GLY:H	1.79	0.47
1:B:34:THR:HG23	1:B:35:ARG:CZ	2.44	0.47
1:B:431:VAL:HG13	1:B:431:VAL:O	2.15	0.47
1:B:498:VAL:HG21	1:D:72:TRP:CZ2	2.49	0.47
1:C:146:ARG:O	1:C:147:ARG:C	2.50	0.47
1:D:48:ILE:HG22	1:D:52:ILE:HD11	1.96	0.47
1:D:78:TYR:HE1	1:D:99:VAL:CG2	2.27	0.47
1:D:352:THR:HG23	1:D:478:ARG:HH22	1.79	0.47
1:D:371:LEU:HD23	1:D:481:ALA:HB3	1.96	0.47
1:D:398:THR:O	1:D:399:PHE:C	2.52	0.47
1:D:485:ALA:O	1:D:486:ILE:C	2.51	0.47
1:F:250:GLN:CG	1:F:314:ILE:HD11	2.43	0.47
1:G:34:THR:O	1:G:34:THR:CG2	2.60	0.47
1:G:494:ASN:O	1:G:496:ALA:N	2.41	0.47
1:H:263:LEU:HD11	1:H:323:ILE:HD11	1.95	0.47
1:H:486:ILE:HG12	1:H:486:ILE:H	1.54	0.47
1:H:490:PHE:O	1:H:491:LYS:C	2.52	0.47
1:J:167:PRO:CG	1:J:176:MET:HG2	2.41	0.47
1:J:346:GLU:OE2	1:J:352:THR:CG2	2.56	0.47
1:K:234:SER:O	1:K:237:GLY:N	2.48	0.47
1:K:264:HIS:C	1:K:266:PHE:N	2.67	0.47
1:K:325:ALA:O	1:K:326:ALA:HB2	2.14	0.47
1:A:498:VAL:O	1:A:501:THR:CG2	2.60	0.47
1:B:275:GLU:HB2	1:B:301:ILE:CD1	2.35	0.47
1:C:84:HIS:C	1:C:86:ARG:N	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:226:PHE:HE2	1:C:465:MET:HG2	1.79	0.47
1:E:96:SER:O	1:E:99:VAL:HG13	2.15	0.47
1:E:236:LEU:CB	1:E:238:MET:HG3	2.40	0.47
1:E:294:PHE:CG	1:E:294:PHE:O	2.66	0.47
1:F:29:VAL:O	1:F:33:ARG:HG3	2.14	0.47
1:G:213:SER:HB2	1:G:217:ARG:CD	2.44	0.47
1:I:59:LEU:CB	1:I:157:PHE:CE2	2.97	0.47
1:I:150:MET:SD	1:I:186:THR:HG21	2.54	0.47
1:I:181:ASP:OD1	1:K:501:THR:CG2	2.62	0.47
1:I:226:PHE:C	1:I:228:ASN:H	2.18	0.47
1:I:367:VAL:O	1:I:369:PRO:HD3	2.14	0.47
1:J:364:ASN:H	1:J:364:ASN:HD22	1.63	0.47
1:K:48:ILE:O	1:K:51:ILE:HB	2.14	0.47
1:K:86:ARG:HG2	1:K:121:PRO:HA	1.97	0.47
1:K:158:ILE:O	1:K:158:ILE:CG2	2.61	0.47
1:K:405:SER:O	1:K:409:LEU:HD23	2.14	0.47
1:L:24:VAL:O	1:L:26:ASP:N	2.48	0.47
1:L:39:GLU:HB3	1:L:41:LYS:HG3	1.97	0.47
1:L:61:LEU:HD12	1:L:63:PHE:CD2	2.49	0.47
1:L:132:ASN:OD1	1:L:134:LYS:HB2	2.14	0.47
1:L:195:HIS:O	1:L:201:LYS:HE3	2.15	0.47
1:A:112:THR:HB	1:A:124:GLY:H	1.80	0.47
1:B:359:ILE:HD12	1:B:359:ILE:HA	1.83	0.47
1:D:68:ASP:OD1	1:D:140:GLU:HG2	2.15	0.47
1:D:99:VAL:O	1:D:100:SER:CB	2.62	0.47
1:D:349:ASN:HD21	1:D:374:ASN:HD22	1.61	0.47
1:D:392:VAL:HG12	1:D:393:SER:N	2.29	0.47
1:G:60:SER:HB2	1:K:58:VAL:CG1	2.44	0.47
1:G:318:ASP:HA	1:G:340:LYS:HB2	1.97	0.47
1:G:462:ARG:HH11	1:G:462:ARG:HG3	1.78	0.47
1:H:172:GLY:N	1:H:175:GLU:OE1	2.42	0.47
1:H:274:GLY:O	1:H:275:GLU:CB	2.62	0.47
1:J:428:ILE:O	1:J:431:VAL:HG12	2.14	0.47
1:K:211:ARG:O	1:K:214:ALA:CB	2.62	0.47
1:K:220:PHE:CD2	1:K:262:TYR:HB3	2.49	0.47
1:K:252:PHE:HZ	1:K:260:MET:CE	2.28	0.47
1:L:142:GLU:O	1:L:143:LYS:C	2.52	0.47
1:L:424:HIS:H	1:L:424:HIS:CD2	2.32	0.47
1:A:321:ILE:HG22	1:A:321:ILE:O	2.15	0.47
1:B:147:ARG:CD	1:D:499:THR:OG1	2.63	0.47
1:C:264:HIS:C	1:C:264:HIS:ND1	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:95:TYR:OH	1:D:145:THR:CB	2.63	0.47
1:D:160:PRO:HD3	1:D:183:TYR:CE2	2.50	0.47
1:D:226:PHE:CD2	1:D:465:MET:HE2	2.49	0.47
1:D:350:GLY:N	1:D:370:ASP:OD1	2.43	0.47
1:E:8:ASN:ND2	1:E:10:PHE:CD2	2.82	0.47
1:E:66:ARG:HG3	1:E:72:TRP:CE2	2.49	0.47
1:E:273:VAL:HG11	1:E:291:LEU:HD21	1.96	0.47
1:F:90:LYS:NZ	1:F:166:ALA:HB2	2.29	0.47
1:G:13:VAL:HG11	1:G:109:SER:OG	2.14	0.47
1:G:79:ARG:HH11	1:G:127:ALA:HB2	1.78	0.47
1:G:257:LEU:HD12	1:G:257:LEU:C	2.34	0.47
1:H:84:HIS:O	1:H:86:ARG:N	2.47	0.47
1:H:114:LYS:HZ1	1:H:374:ASN:HD21	1.62	0.47
1:H:294:PHE:CD1	1:H:298:HIS:NE2	2.76	0.47
1:H:302:LEU:HD13	1:H:302:LEU:N	2.29	0.47
1:H:331:LEU:HD12	1:H:352:THR:HG22	1.96	0.47
1:H:412:SER:O	1:H:413:VAL:C	2.50	0.47
1:J:274:GLY:HA2	1:J:279:SER:HA	1.96	0.47
1:J:383:PHE:CD2	1:J:383:PHE:N	2.80	0.47
1:L:280:ILE:CG2	1:L:307:ALA:HB1	2.41	0.47
1:L:366:MET:HE3	1:L:368:ILE:CD1	2.41	0.47
1:A:103:GLU:O	1:A:106:ALA:HB3	2.14	0.47
1:A:113:TYR:O	1:A:117:VAL:HG23	2.14	0.47
1:A:114:LYS:NZ	1:A:374:ASN:HD21	2.13	0.47
1:A:336:ALA:O	1:A:339:VAL:HG22	2.14	0.47
1:B:72:TRP:O	1:D:50:ARG:NH1	2.48	0.47
1:B:281:TRP:CZ2	1:B:283:PRO:HG3	2.50	0.47
1:B:473:LEU:HD23	1:B:473:LEU:N	2.29	0.47
1:C:48:ILE:O	1:C:52:ILE:HG13	2.13	0.47
1:C:62:SER:HA	1:C:75:ILE:O	2.15	0.47
1:D:248:VAL:HG22	1:D:271:ILE:HG23	1.96	0.47
1:D:248:VAL:HB	1:D:322:LEU:HD23	1.96	0.47
1:D:294:PHE:CZ	1:D:305:PRO:HD3	2.50	0.47
1:D:363:ARG:O	1:D:364:ASN:C	2.53	0.47
1:D:411:MET:O	1:D:414:GLN:HB3	2.14	0.47
1:D:432:PRO:O	1:D:433:THR:C	2.51	0.47
1:E:145:THR:O	1:E:148:PHE:N	2.48	0.47
1:E:152:LEU:HD12	1:E:152:LEU:HA	1.58	0.47
1:E:192:ILE:O	1:E:192:ILE:HG12	2.14	0.47
1:E:222:GLY:HA3	1:E:373:LEU:HD13	1.95	0.47
1:E:396:ARG:HG3	1:E:396:ARG:NH1	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:476:ASP:OD2	1:F:479:THR:CG2	2.62	0.47
1:G:58:VAL:O	1:G:58:VAL:HG13	2.14	0.47
1:H:179:ILE:HB	1:H:198:VAL:HG11	1.97	0.47
1:H:222:GLY:HA3	1:H:373:LEU:HD12	1.97	0.47
1:H:239:THR:O	1:H:239:THR:CG2	2.61	0.47
1:H:322:LEU:C	1:H:322:LEU:CD2	2.83	0.47
1:H:371:LEU:HD22	1:H:482:TYR:CD2	2.50	0.47
1:I:219:VAL:HG12	1:I:220:PHE:N	2.30	0.47
1:I:243:GLY:O	1:I:245:LYS:N	2.48	0.47
1:J:9:PHE:HA	1:J:12:MET:CE	2.45	0.47
1:J:176:MET:HE3	1:J:179:ILE:HG13	1.96	0.47
1:J:322:LEU:HD13	1:J:323:ILE:N	2.30	0.47
1:K:87:THR:OG1	1:K:88:PRO:HD3	2.13	0.47
1:K:235:ILE:O	1:K:235:ILE:HG22	2.14	0.47
1:K:280:ILE:CG2	1:K:281:TRP:N	2.76	0.47
1:L:85:GLN:NE2	1:L:489:VAL:HG22	2.20	0.47
1:L:219:VAL:O	1:L:373:LEU:HD11	2.15	0.47
1:L:386:LEU:C	1:L:390:ASN:ND2	2.68	0.47
1:L:407:TYR:O	1:L:411:MET:HB2	2.14	0.47
1:A:361:LEU:C	1:A:361:LEU:HD23	2.35	0.47
1:A:446:LYS:HD2	1:A:450:HIS:CE1	2.50	0.47
1:B:84:HIS:O	1:B:86:ARG:N	2.48	0.47
1:B:201:LYS:HG2	1:B:384:GLU:OE1	2.14	0.47
1:B:213:SER:CB	1:B:217:ARG:HH21	2.28	0.47
1:D:136:TYR:HD1	1:D:140:GLU:OE1	1.97	0.47
1:D:213:SER:HB2	1:D:217:ARG:NE	2.30	0.47
1:E:9:PHE:N	1:E:9:PHE:CD1	2.83	0.47
1:E:33:ARG:NH1	1:E:36:GLU:OE1	2.41	0.47
1:F:264:HIS:CD2	1:F:288:PRO:CD	2.98	0.47
1:F:291:LEU:HD11	1:F:301:ILE:HB	1.96	0.47
1:F:501:THR:OXT	1:F:501:THR:HG23	2.15	0.47
1:G:501:THR:HG23	1:H:181:ASP:OD1	2.14	0.47
1:I:68:ASP:OD1	1:I:140:GLU:CG	2.62	0.47
1:K:57:HIS:HD2	1:K:84:HIS:CE1	2.32	0.47
1:K:459:ARG:O	1:K:463:GLN:HG3	2.15	0.47
1:L:238:MET:C	1:L:240:PRO:HD3	2.35	0.47
1:L:371:LEU:HD23	1:L:481:ALA:HB1	1.96	0.47
1:A:416:SER:HB3	1:F:431:VAL:CG1	2.44	0.47
1:A:436:PHE:CZ	1:A:440:ILE:HD11	2.50	0.47
1:B:148:PHE:CE2	1:B:152:LEU:CD2	2.98	0.47
1:C:191:ASP:C	1:C:193:ASN:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:211:ARG:O	1:C:211:ARG:HG2	2.14	0.47
1:C:335:ASN:HB2	1:C:338:ARG:CZ	2.42	0.47
1:D:176:MET:HG3	1:D:198:VAL:HG21	1.95	0.47
1:E:250:GLN:OE1	1:E:330:GLN:HG2	2.15	0.47
1:E:335:ASN:ND2	1:E:336:ALA:N	2.59	0.47
1:E:339:VAL:O	1:E:363:ARG:NH2	2.47	0.47
1:F:222:GLY:HA3	1:F:373:LEU:CD1	2.45	0.47
1:F:243:GLY:O	1:F:245:LYS:N	2.48	0.47
1:F:371:LEU:HD23	1:F:481:ALA:HB1	1.97	0.47
1:G:255:VAL:HG13	1:G:256:GLY:N	2.29	0.47
1:G:371:LEU:CD2	1:G:481:ALA:CB	2.92	0.47
1:H:214:ALA:CB	1:H:380:VAL:HG21	2.44	0.47
1:H:234:SER:C	1:H:236:LEU:H	2.18	0.47
1:H:492:VAL:HG23	1:H:493:TYR:N	2.30	0.47
1:I:153:ALA:HB2	1:I:158:ILE:CG2	2.45	0.47
1:I:174:ARG:HG3	1:I:175:GLU:N	2.29	0.47
1:I:322:LEU:HB2	1:I:341:ALA:CB	2.45	0.47
1:J:131:ILE:HG13	1:J:136:TYR:CE2	2.50	0.47
1:J:498:VAL:CA	1:J:501:THR:HB	2.45	0.47
1:L:314:ILE:H	1:L:314:ILE:CD1	2.04	0.47
1:L:411:MET:HG2	1:L:430:ILE:HG21	1.96	0.47
1:A:141:LEU:HD23	1:A:141:LEU:HA	1.74	0.47
1:A:260:MET:HE3	1:A:288:PRO:CA	2.36	0.47
1:B:163:ASP:O	1:B:165:PRO:HD3	2.14	0.47
1:B:280:ILE:CG2	1:B:281:TRP:H	2.27	0.47
1:C:19:ARG:HD2	1:C:479:THR:CG2	2.45	0.47
1:C:335:ASN:CA	1:C:338:ARG:HH12	2.27	0.47
1:C:346:GLU:OE1	1:C:369:PRO:HA	2.15	0.47
1:D:316:GLU:OE1	1:D:339:VAL:HA	2.15	0.47
1:D:431:VAL:HA	1:D:432:PRO:HD3	1.54	0.47
1:E:142:GLU:O	1:E:143:LYS:C	2.54	0.47
1:F:213:SER:HB2	1:F:217:ARG:HD2	1.97	0.47
1:F:252:PHE:HD1	1:F:301:ILE:CG2	2.28	0.47
1:F:396:ARG:O	1:F:396:ARG:HD3	2.14	0.47
1:F:414:GLN:OE1	1:F:428:ILE:HG22	2.14	0.47
1:G:26:ASP:C	1:G:28:LEU:H	2.18	0.47
1:H:75:ILE:HG22	1:H:76:GLU:N	2.29	0.47
1:I:220:PHE:HZ	1:I:266:PHE:CD1	2.33	0.47
1:I:246:THR:O	1:I:246:THR:OG1	2.33	0.47
1:I:250:GLN:CA	1:I:314:ILE:HD11	2.45	0.47
1:I:356:ALA:HB1	1:I:360:PHE:HE2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:394:TYR:CE1	1:J:397:LEU:CD2	2.97	0.47
1:J:322:LEU:HD13	1:J:322:LEU:C	2.35	0.47
1:J:346:GLU:HG2	1:J:351:PRO:HG2	1.97	0.47
1:K:13:VAL:O	1:K:14:GLU:C	2.53	0.47
1:K:200:GLY:N	1:K:384:GLU:OE1	2.47	0.47
1:K:227:ILE:CD1	1:K:321:ILE:HD11	2.45	0.47
1:K:356:ALA:HB1	1:K:360:PHE:CE2	2.45	0.47
1:L:402:GLU:O	1:L:403:ARG:C	2.51	0.47
1:A:367:VAL:O	1:A:369:PRO:HD3	2.15	0.46
1:B:246:THR:O	1:B:246:THR:OG1	2.34	0.46
1:C:232:TYR:HB3	1:C:233:MET:HE2	1.97	0.46
1:C:359:ILE:HD12	1:C:359:ILE:N	2.28	0.46
1:D:81:GLN:NE2	1:D:163:ASP:HB2	2.30	0.46
1:D:382:TYR:O	1:D:385:TRP:HB3	2.14	0.46
1:D:418:GLU:C	1:D:420:LYS:H	2.18	0.46
1:E:88:PRO:HG2	1:E:122:PHE:CD2	2.49	0.46
1:E:145:THR:O	1:E:148:PHE:HB3	2.15	0.46
1:E:158:ILE:HD13	1:E:159:GLY:N	2.30	0.46
1:E:221:HIS:O	1:E:223:ILE:N	2.48	0.46
1:F:25:GLU:O	1:F:28:LEU:HB3	2.15	0.46
1:F:427:THR:O	1:F:429:PRO:HD3	2.15	0.46
1:G:9:PHE:HD1	1:G:10:PHE:N	2.13	0.46
1:G:90:LYS:HD2	1:G:164:VAL:O	2.15	0.46
1:H:28:LEU:O	1:H:32:LEU:HB2	2.15	0.46
1:H:104:VAL:CG2	1:H:105:LYS:H	2.27	0.46
1:H:249:VAL:HG22	1:H:250:GLN:N	2.29	0.46
1:I:40:GLN:O	1:I:40:GLN:CG	2.63	0.46
1:I:117:VAL:HG13	1:I:464:ILE:HD11	1.96	0.46
1:I:153:ALA:N	1:I:158:ILE:HG22	2.30	0.46
1:I:252:PHE:HE2	1:I:260:MET:CE	2.23	0.46
1:I:431:VAL:CG1	1:J:416:SER:OG	2.63	0.46
1:J:153:ALA:CA	1:J:158:ILE:HG22	2.44	0.46
1:J:160:PRO:HG3	1:J:191:ASP:OD1	2.15	0.46
1:J:368:ILE:HG22	1:J:373:LEU:HB2	1.96	0.46
1:K:286:ILE:HG21	1:K:291:LEU:CD2	2.44	0.46
1:L:45:VAL:O	1:L:45:VAL:HG13	2.15	0.46
1:L:164:VAL:HG13	1:L:198:VAL:HA	1.98	0.46
1:L:281:TRP:CD1	1:L:282:ASN:N	2.83	0.46
1:L:465:MET:O	1:L:466:ARG:C	2.53	0.46
1:A:250:GLN:HG3	1:A:315:LEU:HD13	1.96	0.46
1:A:264:HIS:ND1	1:A:288:PRO:HG2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:395:GLY:HA3	1:A:399:PHE:CE1	2.51	0.46
1:A:400:LYS:HB2	1:F:455:TYR:HB2	1.96	0.46
1:B:85:GLN:HE21	1:B:85:GLN:HB3	1.46	0.46
1:B:392:VAL:HG12	1:B:393:SER:N	2.31	0.46
1:C:296:LEU:O	1:C:297:GLN:C	2.54	0.46
1:C:479:THR:O	1:C:480:ALA:C	2.53	0.46
1:D:67:ARG:HB3	1:D:67:ARG:NH1	2.10	0.46
1:D:274:GLY:CA	1:D:314:ILE:HD12	2.45	0.46
1:D:341:ALA:O	1:D:365:ILE:HD12	2.16	0.46
1:D:368:ILE:HG22	1:D:373:LEU:HB2	1.97	0.46
1:D:372:TYR:CD2	1:D:464:ILE:HD12	2.50	0.46
1:E:133:PRO:HA	1:E:141:LEU:HD21	1.97	0.46
1:E:359:ILE:O	1:E:361:LEU:N	2.48	0.46
1:F:248:VAL:HG23	1:F:271:ILE:HG13	1.97	0.46
1:G:75:ILE:HG23	1:G:131:ILE:HD12	1.97	0.46
1:G:471:TYR:O	1:G:473:LEU:HG	2.15	0.46
1:H:200:GLY:N	1:H:384:GLU:OE1	2.48	0.46
1:H:211:ARG:HH11	1:H:211:ARG:HB3	1.81	0.46
1:H:331:LEU:HD11	1:H:344:ILE:HD13	1.96	0.46
1:J:173:GLU:HB2	1:J:202:PRO:HD3	1.95	0.46
1:J:186:THR:CG2	1:L:186:THR:HG23	2.45	0.46
1:K:142:GLU:HG3	1:K:178:TRP:CE2	2.50	0.46
1:L:498:VAL:HG23	1:L:499:THR:N	2.23	0.46
1:A:330:GLN:C	1:A:331:LEU:HD12	2.36	0.46
1:A:446:LYS:HD2	1:A:450:HIS:HE1	1.80	0.46
1:B:51:ILE:HD13	1:D:64:PRO:HG3	1.96	0.46
1:B:244:ASP:OD2	1:B:245:LYS:HG3	2.14	0.46
1:C:141:LEU:O	1:C:145:THR:CG2	2.64	0.46
1:C:234:SER:C	1:C:236:LEU:H	2.17	0.46
1:C:359:ILE:O	1:C:363:ARG:HG2	2.15	0.46
1:C:459:ARG:O	1:C:463:GLN:HG3	2.15	0.46
1:C:478:ARG:O	1:C:479:THR:C	2.54	0.46
1:D:445:GLU:O	1:D:449:VAL:HG23	2.15	0.46
1:D:488:LYS:O	1:D:492:VAL:HG23	2.15	0.46
1:E:65:ILE:HA	1:E:147:ARG:NH1	2.29	0.46
1:E:294:PHE:CE2	1:E:304:PHE:HB2	2.50	0.46
1:F:142:GLU:HG3	1:F:178:TRP:CE2	2.50	0.46
1:F:142:GLU:O	1:F:143:LYS:C	2.53	0.46
1:F:164:VAL:HG13	1:F:198:VAL:CA	2.45	0.46
1:F:244:ASP:C	1:F:245:LYS:HG2	2.35	0.46
1:F:437:GLN:O	1:F:439:ARG:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:258:HIS:HB3	1:G:262:TYR:CE2	2.50	0.46
1:G:335:ASN:C	1:G:335:ASN:ND2	2.65	0.46
1:G:414:GLN:CG	1:G:429:PRO:HD2	2.45	0.46
1:G:440:ILE:HG13	1:G:440:ILE:H	1.52	0.46
1:I:45:VAL:O	1:I:45:VAL:HG13	2.15	0.46
1:I:412:SER:CA	1:K:433:THR:HG22	2.44	0.46
1:I:478:ARG:O	1:I:481:ALA:N	2.48	0.46
1:J:193:ASN:O	1:J:194:ALA:C	2.53	0.46
1:J:222:GLY:HA3	1:J:373:LEU:HD11	1.96	0.46
1:K:500:PHE:CE1	1:L:500:PHE:CZ	2.98	0.46
1:L:117:VAL:HG11	1:L:372:TYR:HB2	1.97	0.46
1:L:201:LYS:HB2	1:L:202:PRO:CD	2.45	0.46
1:A:17:PHE:CD1	1:A:113:TYR:OH	2.67	0.46
1:A:40:GLN:C	1:A:42:ARG:H	2.17	0.46
1:A:208:ILE:O	1:A:208:ILE:HG23	2.14	0.46
1:A:372:TYR:CD1	1:A:372:TYR:C	2.88	0.46
1:B:248:VAL:CG1	1:B:272:ALA:HB3	2.45	0.46
1:B:359:ILE:O	1:B:362:GLU:N	2.48	0.46
1:C:201:LYS:HZ3	1:C:388:ASN:HD21	1.60	0.46
1:C:394:TYR:HB2	1:C:445:GLU:HG3	1.97	0.46
1:D:142:GLU:OE1	1:D:146:ARG:NH1	2.48	0.46
1:D:238:MET:O	1:D:239:THR:HG22	2.14	0.46
1:E:387:LYS:HE3	1:E:393:SER:HA	1.96	0.46
1:F:141:LEU:HD23	1:F:141:LEU:HA	1.77	0.46
1:F:470:LYS:HD3	1:F:471:TYR:HE2	1.79	0.46
1:G:96:SER:HB3	1:G:99:VAL:CG1	2.45	0.46
1:G:462:ARG:HB3	1:G:466:ARG:HH11	1.74	0.46
1:H:334:SER:O	1:H:337:PRO:HD2	2.16	0.46
1:H:481:ALA:O	1:H:482:TYR:C	2.51	0.46
1:H:498:VAL:O	1:H:501:THR:HB	2.15	0.46
1:I:218:GLY:O	1:I:219:VAL:C	2.53	0.46
1:I:236:LEU:HB3	1:I:238:MET:CG	2.43	0.46
1:I:346:GLU:C	1:I:348:ALA:H	2.18	0.46
1:I:387:LYS:HA	1:I:390:ASN:HD22	1.81	0.46
1:J:264:HIS:HD2	1:J:288:PRO:HD3	1.76	0.46
1:J:471:TYR:O	1:J:473:LEU:HD23	2.15	0.46
1:L:109:SER:O	1:L:113:TYR:CD2	2.69	0.46
1:A:359:ILE:HG22	1:A:360:PHE:N	2.30	0.46
1:B:40:GLN:C	1:B:42:ARG:H	2.18	0.46
1:B:111:MET:O	1:B:114:LYS:N	2.48	0.46
1:B:192:ILE:O	1:B:192:ILE:CG1	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:329:LYS:HA	1:C:351:PRO:O	2.15	0.46
1:D:53:LYS:HB3	1:D:54:PRO:CD	2.43	0.46
1:D:59:LEU:HG	1:D:61:LEU:CD2	2.46	0.46
1:D:435:GLU:O	1:D:438:ASP:HB2	2.16	0.46
1:F:304:PHE:HA	1:F:305:PRO:HD3	1.70	0.46
1:F:305:PRO:O	1:F:306:LYS:HB2	2.15	0.46
1:F:328:GLU:H	1:F:328:GLU:HG2	1.41	0.46
1:F:384:GLU:O	1:F:385:TRP:C	2.53	0.46
1:F:497:GLY:N	1:F:501:THR:HA	2.30	0.46
1:G:57:HIS:CD2	1:G:84:HIS:NE2	2.83	0.46
1:G:112:THR:HG22	1:G:124:GLY:N	2.30	0.46
1:G:398:THR:O	1:G:401:TYR:N	2.48	0.46
1:H:36:GLU:O	1:H:38:GLU:OE1	2.34	0.46
1:I:112:THR:H	1:I:124:GLY:HA3	1.80	0.46
1:I:396:ARG:HG3	1:I:396:ARG:NH1	2.13	0.46
1:K:45:VAL:C	1:K:47:GLY:N	2.68	0.46
1:L:90:LYS:CB	1:L:122:PHE:HD1	2.27	0.46
1:L:280:ILE:HD11	1:L:304:PHE:HB3	1.97	0.46
1:B:473:LEU:HD13	1:B:479:THR:OG1	2.15	0.46
1:C:87:THR:CB	1:C:88:PRO:CD	2.82	0.46
1:C:372:TYR:CD2	1:C:464:ILE:CD1	2.96	0.46
1:C:374:ASN:ND2	1:C:374:ASN:C	2.69	0.46
1:C:386:LEU:O	1:C:387:LYS:C	2.53	0.46
1:D:230:ALA:O	1:D:231:SER:C	2.53	0.46
1:D:294:PHE:CE2	1:D:304:PHE:HA	2.51	0.46
1:E:282:ASN:C	1:E:284:ASP:H	2.18	0.46
1:E:305:PRO:O	1:E:306:LYS:CB	2.62	0.46
1:F:224:GLU:HA	1:F:227:ILE:CG2	2.43	0.46
1:H:431:VAL:HG13	1:H:431:VAL:O	2.16	0.46
1:I:24:VAL:HG12	1:I:28:LEU:CD2	2.41	0.46
1:I:132:ASN:OD1	1:I:134:LYS:HB2	2.16	0.46
1:I:496:ALA:C	1:I:501:THR:O	2.54	0.46
1:J:132:ASN:HA	1:J:133:PRO:HD3	1.62	0.46
1:J:137:THR:O	1:J:140:GLU:N	2.49	0.46
1:J:142:GLU:HA	1:J:178:TRP:CE3	2.50	0.46
1:K:254:ASN:O	1:K:257:LEU:HB3	2.16	0.46
1:K:257:LEU:C	1:K:257:LEU:HD12	2.36	0.46
1:K:274:GLY:HA2	1:K:279:SER:HA	1.96	0.46
1:K:368:ILE:HG21	1:K:373:LEU:HD13	1.98	0.46
1:L:221:HIS:CD2	1:L:224:GLU:OE1	2.68	0.46
1:A:412:SER:OG	1:F:433:THR:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:129:VAL:O	1:B:130:LYS:C	2.54	0.46
1:B:467:THR:O	1:B:470:LYS:HB3	2.15	0.46
1:B:475:LEU:CD1	1:B:475:LEU:N	2.78	0.46
1:C:72:TRP:NE1	1:F:498:VAL:HG21	2.31	0.46
1:D:45:VAL:C	1:D:47:GLY:N	2.69	0.46
1:D:497:GLY:C	1:D:501:THR:HB	2.36	0.46
1:E:85:GLN:HE21	1:E:85:GLN:HB3	1.33	0.46
1:E:330:GLN:HA	1:E:330:GLN:HE21	1.81	0.46
1:G:9:PHE:CD1	1:G:10:PHE:N	2.82	0.46
1:G:79:ARG:HD2	1:G:127:ALA:HB2	1.97	0.46
1:G:90:LYS:HE2	1:G:164:VAL:CG1	2.46	0.46
1:G:221:HIS:HA	1:G:224:GLU:HB3	1.98	0.46
1:G:264:HIS:C	1:G:266:PHE:N	2.68	0.46
1:H:61:LEU:HD12	1:H:61:LEU:N	2.31	0.46
1:H:165:PRO:HD2	1:H:197:CYS:O	2.16	0.46
1:H:498:VAL:HG21	1:J:72:TRP:HE1	1.80	0.46
1:K:275:GLU:HG3	1:K:301:ILE:HG13	1.97	0.46
1:K:369:PRO:O	1:K:370:ASP:C	2.54	0.46
1:L:461:ALA:O	1:L:465:MET:HG3	2.16	0.46
1:A:404:ASP:O	1:A:405:SER:C	2.54	0.46
1:B:129:VAL:O	1:B:131:ILE:N	2.48	0.46
1:B:192:ILE:O	1:B:192:ILE:HG12	2.14	0.46
1:B:335:ASN:N	1:B:335:ASN:ND2	2.63	0.46
1:C:160:PRO:HD3	1:C:183:TYR:CE2	2.50	0.46
1:C:247:PHE:CE2	1:C:263:LEU:HB3	2.51	0.46
1:D:366:MET:CB	1:D:475:LEU:HD23	2.39	0.46
1:E:131:ILE:HG23	1:E:132:ASN:N	2.31	0.46
1:F:12:MET:HG2	1:F:16:PHE:CZ	2.50	0.46
1:F:17:PHE:O	1:F:18:ASP:C	2.53	0.46
1:G:346:GLU:OE2	1:G:351:PRO:HD2	2.16	0.46
1:G:420:LYS:O	1:G:420:LYS:HE2	2.16	0.46
1:H:428:ILE:O	1:H:431:VAL:CG1	2.61	0.46
1:I:451:SER:OG	1:I:452:GLY:N	2.49	0.46
1:J:87:THR:HG22	1:J:88:PRO:CD	2.45	0.46
1:J:114:LYS:HD3	1:J:375:ALA:HA	1.98	0.46
1:J:248:VAL:CG2	1:J:271:ILE:HG23	2.45	0.46
1:J:386:LEU:HB2	1:J:394:TYR:OH	2.16	0.46
1:K:152:LEU:HD23	1:K:158:ILE:HB	1.97	0.46
1:K:313:SER:C	1:K:315:LEU:H	2.19	0.46
1:K:485:ALA:O	1:K:488:LYS:N	2.46	0.46
1:L:104:VAL:CG2	1:L:105:LYS:N	2.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:318:ASP:OD1	1:L:340:LYS:HB3	2.15	0.46
1:L:380:VAL:O	1:L:383:PHE:HB2	2.16	0.46
1:A:84:HIS:CD2	1:A:89:CYS:SG	3.07	0.46
1:A:282:ASN:O	1:A:284:ASP:N	2.38	0.46
1:A:433:THR:CG2	1:B:412:SER:HA	2.46	0.46
1:B:17:PHE:CE1	1:B:486:ILE:HD12	2.50	0.46
1:B:279:SER:HB2	1:B:310:TYR:HB3	1.97	0.46
1:C:101:VAL:HG23	1:C:102:ASP:H	1.81	0.46
1:D:96:SER:O	1:D:130:LYS:HD2	2.16	0.46
1:D:244:ASP:O	1:D:245:LYS:CG	2.64	0.46
1:D:423:LYS:HG3	1:D:424:HIS:N	2.31	0.46
1:E:237:GLY:C	1:E:238:MET:HG2	2.36	0.46
1:E:409:LEU:O	1:E:410:LEU:C	2.52	0.46
1:F:165:PRO:O	1:F:198:VAL:HG23	2.16	0.46
1:F:436:PHE:O	1:F:437:GLN:C	2.54	0.46
1:G:114:LYS:HG3	1:G:371:LEU:O	2.16	0.46
1:G:238:MET:O	1:G:239:THR:O	2.33	0.46
1:H:114:LYS:HA	1:H:371:LEU:HD12	1.97	0.46
1:H:132:ASN:HB3	1:H:135:ASN:ND2	2.31	0.46
1:H:427:THR:O	1:H:428:ILE:HD13	2.16	0.46
1:I:96:SER:OG	1:I:98:ASP:OD1	2.30	0.46
1:I:155:LYS:HE3	1:L:81:GLN:OE1	2.16	0.46
1:I:193:ASN:HB3	1:I:389:LEU:HD23	1.97	0.46
1:I:344:ILE:CD1	1:I:360:PHE:CE1	2.95	0.46
1:J:403:ARG:HG3	1:J:440:ILE:HG22	1.96	0.46
1:K:17:PHE:HE1	1:K:486:ILE:HD12	1.77	0.46
1:K:148:PHE:O	1:K:152:LEU:HB2	2.15	0.46
1:K:252:PHE:HZ	1:K:260:MET:HE1	1.80	0.46
1:L:90:LYS:HG3	1:L:91:GLY:N	2.31	0.46
1:L:423:LYS:HG2	1:L:426:GLY:CA	2.46	0.46
1:L:460:SER:O	1:L:461:ALA:C	2.51	0.46
1:L:470:LYS:HD2	1:L:471:TYR:CE2	2.51	0.46
1:A:287:ASP:HB3	1:A:290:GLU:CG	2.46	0.46
1:A:385:TRP:O	1:A:388:ASN:HB2	2.16	0.46
1:C:279:SER:OG	1:C:280:ILE:N	2.49	0.46
1:C:344:ILE:CD1	1:C:360:PHE:CE1	2.97	0.46
1:D:417:LEU:CD2	1:E:417:LEU:HD11	2.46	0.46
1:F:47:GLY:O	1:F:50:ARG:HG3	2.16	0.46
1:F:271:ILE:HG22	1:F:283:PRO:HA	1.98	0.46
1:F:470:LYS:HD3	1:F:471:TYR:CE2	2.51	0.46
1:G:288:PRO:O	1:G:289:LYS:C	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:368:ILE:HA	1:G:369:PRO:HD3	1.41	0.46
1:I:166:ALA:HA	1:I:176:MET:HE2	1.98	0.46
1:J:90:LYS:HZ2	1:J:164:VAL:HG12	1.78	0.46
1:J:99:VAL:HG23	1:J:99:VAL:O	2.16	0.46
1:J:126:LYS:HG3	1:J:127:ALA:H	1.81	0.46
1:J:281:TRP:O	1:J:282:ASN:CB	2.63	0.46
1:J:346:GLU:OE1	1:J:369:PRO:HA	2.16	0.46
1:J:479:THR:O	1:J:480:ALA:C	2.54	0.46
1:K:232:TYR:HD1	1:K:232:TYR:H	1.62	0.46
1:K:466:ARG:O	1:K:468:ALA:N	2.47	0.46
1:K:471:TYR:O	1:K:473:LEU:N	2.49	0.46
1:L:234:SER:C	1:L:236:LEU:N	2.66	0.46
1:L:248:VAL:HG22	1:L:271:ILE:CG2	2.44	0.46
1:L:496:ALA:HB1	1:L:501:THR:O	2.15	0.46
1:A:57:HIS:ND1	1:A:84:HIS:CE1	2.68	0.45
1:A:157:PHE:CE2	1:E:155:LYS:HD2	2.52	0.45
1:A:173:GLU:O	1:A:174:ARG:C	2.53	0.45
1:A:256:GLY:O	1:A:259:SER:N	2.49	0.45
1:A:495:GLU:O	1:A:496:ALA:HB2	2.16	0.45
1:B:369:PRO:HG3	1:B:478:ARG:HA	1.96	0.45
1:B:498:VAL:HG21	1:D:72:TRP:HZ2	1.81	0.45
1:D:244:ASP:OD1	1:D:245:LYS:N	2.49	0.45
1:D:368:ILE:HA	1:D:369:PRO:HD3	1.54	0.45
1:E:159:GLY:O	1:E:163:ASP:O	2.34	0.45
1:E:433:THR:HG23	1:E:436:PHE:CB	2.41	0.45
1:G:72:TRP:CZ3	1:K:45:VAL:HG23	2.51	0.45
1:H:75:ILE:N	1:H:75:ILE:CD1	2.77	0.45
1:H:489:VAL:O	1:H:492:VAL:HG23	2.16	0.45
1:I:48:ILE:HG13	1:I:490:PHE:CE1	2.51	0.45
1:I:104:VAL:HG23	1:I:105:LYS:N	2.31	0.45
1:I:264:HIS:O	1:I:266:PHE:N	2.50	0.45
1:I:410:LEU:HD21	1:J:409:LEU:HD13	1.95	0.45
1:J:175:GLU:HA	1:J:178:TRP:CE3	2.51	0.45
1:J:337:PRO:HA	1:J:363:ARG:NE	2.23	0.45
1:K:114:LYS:O	1:K:117:VAL:HB	2.15	0.45
1:K:150:MET:HE2	1:K:150:MET:HB3	1.79	0.45
1:K:410:LEU:HB3	1:K:430:ILE:HA	1.98	0.45
1:L:152:LEU:HD12	1:L:157:PHE:HB2	1.99	0.45
1:L:369:PRO:HG3	1:L:478:ARG:N	2.31	0.45
1:L:471:TYR:HB2	1:L:473:LEU:CD1	2.46	0.45
1:A:33:ARG:NH2	1:A:42:ARG:CZ	2.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:281:TRP:CD1	1:A:282:ASN:N	2.83	0.45
1:B:89:CYS:O	1:B:163:ASP:HA	2.17	0.45
1:B:164:VAL:HG21	1:B:385:TRP:NE1	2.30	0.45
1:B:449:VAL:O	1:B:450:HIS:C	2.53	0.45
1:B:500:PHE:CE1	1:F:143:LYS:HD3	2.52	0.45
1:D:101:VAL:O	1:D:105:LYS:HG3	2.17	0.45
1:D:203:ILE:HD13	1:D:203:ILE:HA	1.74	0.45
1:G:14:GLU:HG3	1:G:53:LYS:HE3	1.97	0.45
1:G:78:TYR:CD1	1:G:78:TYR:N	2.84	0.45
1:G:252:PHE:HD2	1:G:273:VAL:HG11	1.81	0.45
1:H:81:GLN:HG2	1:H:163:ASP:OD2	2.16	0.45
1:H:248:VAL:HG22	1:H:271:ILE:HG23	1.98	0.45
1:H:305:PRO:O	1:H:306:LYS:CB	2.61	0.45
1:I:39:GLU:O	1:I:40:GLN:C	2.55	0.45
1:I:91:GLY:HA2	1:I:111:MET:HE3	1.98	0.45
1:I:202:PRO:O	1:I:203:ILE:C	2.54	0.45
1:I:382:TYR:O	1:I:386:LEU:HG	2.16	0.45
1:I:389:LEU:O	1:I:391:HIS:CD2	2.70	0.45
1:J:58:VAL:CG2	1:J:80:ALA:HB2	2.46	0.45
1:K:414:GLN:CG	1:K:429:PRO:HD2	2.46	0.45
1:A:360:PHE:CD1	1:A:365:ILE:HG21	2.52	0.45
1:B:60:SER:C	1:B:61:LEU:HD12	2.36	0.45
1:C:93:ILE:CD1	1:C:165:PRO:HB3	2.39	0.45
1:D:87:THR:HG22	1:D:88:PRO:CG	2.46	0.45
1:D:87:THR:CG2	1:D:88:PRO:CD	2.91	0.45
1:E:140:GLU:O	1:E:144:ILE:HG13	2.15	0.45
1:F:132:ASN:HA	1:F:133:PRO:HD3	1.67	0.45
1:F:397:LEU:N	1:F:397:LEU:HD12	2.30	0.45
1:G:114:LYS:HA	1:G:117:VAL:HG23	1.99	0.45
1:G:342:LYS:HA	1:G:342:LYS:HD2	1.79	0.45
1:I:31:ASP:OD2	1:I:31:ASP:N	2.49	0.45
1:I:87:THR:CB	1:I:88:PRO:HD3	2.45	0.45
1:I:431:VAL:HG12	1:J:416:SER:OG	2.15	0.45
1:I:492:VAL:HG21	2:I:502:ADP:C2	2.51	0.45
1:J:191:ASP:C	1:J:193:ASN:H	2.20	0.45
1:J:385:TRP:CE3	1:J:386:LEU:HD23	2.51	0.45
1:K:52:ILE:HD13	1:K:489:VAL:CG1	2.42	0.45
1:K:95:TYR:O	1:K:133:PRO:HD3	2.16	0.45
1:K:345:ALA:HB1	1:K:373:LEU:CD2	2.45	0.45
1:L:65:ILE:HG21	1:L:144:ILE:CG1	2.46	0.45
1:L:82:HIS:HB3	1:L:112:THR:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:269:LYS:HD2	1:L:285:GLY:CA	2.46	0.45
1:L:431:VAL:HG13	1:L:431:VAL:O	2.16	0.45
1:A:314:ILE:HD13	1:A:314:ILE:H	1.80	0.45
1:A:356:ALA:O	1:A:360:PHE:CD2	2.68	0.45
1:A:414:GLN:CB	1:A:429:PRO:HD2	2.47	0.45
1:B:28:LEU:HD21	1:B:490:PHE:CD2	2.51	0.45
1:B:281:TRP:CZ2	1:B:283:PRO:CG	2.99	0.45
1:C:213:SER:HA	1:C:258:HIS:CD2	2.51	0.45
1:D:48:ILE:O	1:D:52:ILE:HG13	2.16	0.45
1:E:220:PHE:CD1	1:E:221:HIS:N	2.84	0.45
1:F:32:LEU:O	1:F:33:ARG:CB	2.64	0.45
1:G:6:ASP:HA	1:G:7:PRO:HD3	1.75	0.45
1:G:137:THR:HB	1:G:140:GLU:H	1.81	0.45
1:H:148:PHE:O	1:H:149:THR:C	2.55	0.45
1:H:238:MET:C	1:H:240:PRO:HD3	2.37	0.45
1:H:300:SER:OG	1:H:302:LEU:HD13	2.16	0.45
1:I:91:GLY:O	1:I:165:PRO:HA	2.16	0.45
1:I:107:LEU:O	1:I:110:LEU:HB3	2.16	0.45
1:I:328:GLU:O	1:I:329:LYS:C	2.55	0.45
1:I:343:ILE:HD13	1:I:366:MET:HE2	1.99	0.45
1:I:344:ILE:HB	1:I:367:VAL:HG13	1.97	0.45
1:I:401:TYR:CD1	1:K:448:ILE:HD13	2.51	0.45
1:I:417:LEU:HD21	1:J:417:LEU:HD21	1.99	0.45
1:J:282:ASN:C	1:J:282:ASN:OD1	2.54	0.45
1:K:332:THR:H	1:K:335:ASN:HD21	1.63	0.45
1:A:329:LYS:HB2	1:A:329:LYS:HE3	1.67	0.45
1:B:201:LYS:HB2	1:B:202:PRO:CD	2.47	0.45
1:B:323:ILE:HA	1:B:324:PRO:HD3	1.79	0.45
2:B:2:ADP:O3A	1:F:393:SER:HB3	2.17	0.45
1:C:112:THR:HB	1:C:124:GLY:N	2.29	0.45
1:C:389:LEU:HD21	1:D:192:ILE:HD11	1.99	0.45
1:C:389:LEU:HD21	1:D:192:ILE:CD1	2.46	0.45
1:C:471:TYR:HB2	1:C:473:LEU:HD12	1.98	0.45
1:D:222:GLY:HA3	1:D:373:LEU:HD12	1.98	0.45
1:D:229:GLU:O	1:D:233:MET:HG2	2.17	0.45
1:D:331:LEU:CD1	1:D:344:ILE:HD13	2.46	0.45
1:E:223:ILE:O	1:E:224:GLU:C	2.54	0.45
1:E:410:LEU:HD13	1:E:430:ILE:C	2.36	0.45
1:E:462:ARG:O	1:E:463:GLN:C	2.55	0.45
1:E:498:VAL:O	1:E:501:THR:CG2	2.64	0.45
1:F:244:ASP:HB2	1:G:437:GLN:HG2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:453:LEU:HD22	1:F:453:LEU:C	2.36	0.45
1:H:142:GLU:O	1:H:143:LYS:C	2.54	0.45
1:I:24:VAL:O	1:I:25:GLU:C	2.54	0.45
1:I:140:GLU:O	1:I:144:ILE:HG13	2.15	0.45
1:I:219:VAL:HG22	1:I:373:LEU:HD22	1.99	0.45
1:I:369:PRO:CG	1:I:478:ARG:HA	2.47	0.45
1:K:10:PHE:O	1:K:14:GLU:HG3	2.16	0.45
1:K:40:GLN:HE21	1:K:40:GLN:CA	1.96	0.45
1:K:230:ALA:O	1:K:231:SER:C	2.55	0.45
1:K:421:PHE:O	1:K:422:GLY:C	2.55	0.45
1:K:429:PRO:O	1:K:431:VAL:N	2.50	0.45
1:L:448:ILE:O	1:L:449:VAL:C	2.53	0.45
1:L:474:GLY:C	1:L:475:LEU:HD12	2.36	0.45
1:A:182:THR:O	1:A:186:THR:HB	2.17	0.45
1:A:252:PHE:H	1:A:275:GLU:HG2	1.81	0.45
1:A:263:LEU:HD12	1:A:263:LEU:HA	1.85	0.45
1:A:414:GLN:CG	1:A:429:PRO:HD2	2.47	0.45
1:B:39:GLU:HB2	1:B:41:LYS:HG2	1.99	0.45
1:B:336:ALA:O	1:B:339:VAL:HG22	2.17	0.45
1:C:180:ALA:HA	1:C:197:CYS:SG	2.56	0.45
1:C:382:TYR:O	1:C:386:LEU:HG	2.17	0.45
1:C:394:TYR:CE2	1:D:397:LEU:HD22	2.51	0.45
1:C:466:ARG:HB2	1:C:466:ARG:HH11	1.82	0.45
1:D:265:ARG:HG2	1:D:266:PHE:CE2	2.51	0.45
1:D:305:PRO:O	1:D:306:LYS:HB2	2.16	0.45
1:D:324:PRO:HD2	1:D:345:ALA:O	2.17	0.45
1:D:379:THR:O	1:D:382:TYR:HB3	2.16	0.45
1:E:8:ASN:O	1:E:11:LYS:N	2.49	0.45
1:E:182:THR:HG22	1:E:183:TYR:N	2.30	0.45
1:E:415:GLU:O	1:E:419:ARG:HG3	2.17	0.45
1:F:46:ARG:O	1:F:46:ARG:HD3	2.17	0.45
1:F:342:LYS:HD3	1:F:365:ILE:HD13	1.99	0.45
1:G:111:MET:HE2	1:G:111:MET:HA	1.98	0.45
1:G:153:ALA:CA	1:G:158:ILE:HG23	2.46	0.45
1:G:248:VAL:HG12	1:G:314:ILE:HG13	1.98	0.45
1:G:380:VAL:O	1:G:383:PHE:HB2	2.16	0.45
1:G:431:VAL:O	1:G:431:VAL:HG13	2.16	0.45
1:J:33:ARG:HH12	1:J:36:GLU:HG3	1.81	0.45
1:J:57:HIS:ND1	1:J:84:HIS:NE2	2.42	0.45
1:J:243:GLY:O	1:J:245:LYS:N	2.50	0.45
1:J:337:PRO:CA	1:J:363:ARG:HH21	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:226:PHE:C	1:K:228:ASN:N	2.67	0.45
1:A:107:LEU:HD22	1:A:107:LEU:HA	1.69	0.45
1:A:404:ASP:O	1:A:406:ASN:N	2.49	0.45
1:A:490:PHE:O	1:A:491:LYS:C	2.54	0.45
1:B:186:THR:HG22	1:B:187:ILE:H	1.81	0.45
1:C:64:PRO:HB3	1:F:51:ILE:HD11	1.97	0.45
1:C:149:THR:HG23	1:C:158:ILE:HD13	1.98	0.45
1:C:217:ARG:NH1	1:C:221:HIS:CE1	2.73	0.45
1:C:335:ASN:O	1:C:338:ARG:N	2.50	0.45
1:C:393:SER:HB3	2:E:5:ADP:O3A	2.17	0.45
1:C:457:MET:O	1:C:458:GLU:C	2.54	0.45
1:E:248:VAL:HG22	1:E:272:ALA:N	2.31	0.45
1:F:476:ASP:OD2	1:F:479:THR:HG23	2.17	0.45
1:G:82:HIS:CG	1:G:112:THR:HG21	2.48	0.45
1:H:89:CYS:O	1:H:163:ASP:HA	2.16	0.45
1:H:244:ASP:OD2	1:H:245:LYS:HE2	2.17	0.45
1:H:483:VAL:HG12	1:H:484:ASN:N	2.30	0.45
1:H:494:ASN:C	1:H:496:ALA:H	2.20	0.45
1:I:34:THR:C	1:I:35:ARG:HG3	2.37	0.45
1:I:47:GLY:O	1:I:48:ILE:C	2.55	0.45
1:I:101:VAL:O	1:I:105:LYS:HG3	2.16	0.45
1:J:464:ILE:HD13	1:J:481:ALA:HB2	1.99	0.45
1:K:6:ASP:CG	1:K:329:LYS:HE2	2.37	0.45
1:K:308:LYS:HA	1:K:309:PRO:HD3	1.72	0.45
1:K:453:LEU:C	1:K:453:LEU:CD2	2.84	0.45
1:L:334:SER:O	1:L:337:PRO:HD2	2.16	0.45
1:L:362:GLU:OE1	1:L:362:GLU:HA	2.17	0.45
1:A:6:ASP:OD1	1:A:6:ASP:N	2.50	0.45
1:A:271:ILE:CD1	1:A:283:PRO:HA	2.47	0.45
1:A:335:ASN:HD22	1:A:336:ALA:H	1.65	0.45
1:A:411:MET:HA	1:A:430:ILE:CG2	2.46	0.45
1:B:147:ARG:HD3	1:D:499:THR:OG1	2.17	0.45
1:B:282:ASN:C	1:B:282:ASN:OD1	2.55	0.45
1:B:335:ASN:ND2	1:B:336:ALA:N	2.64	0.45
1:C:132:ASN:O	1:C:133:PRO:C	2.55	0.45
1:C:142:GLU:CA	1:C:178:TRP:CZ3	2.99	0.45
1:C:221:HIS:CE1	1:C:454:ALA:HB2	2.51	0.45
1:C:240:PRO:HD2	1:C:245:LYS:HZ3	1.81	0.45
2:C:3:ADP:O3A	1:D:393:SER:HB3	2.17	0.45
1:D:47:GLY:O	1:D:51:ILE:HG13	2.17	0.45
1:D:346:GLU:OE2	1:D:352:THR:CG2	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:173:GLU:O	1:E:202:PRO:HD3	2.16	0.45
1:E:344:ILE:HB	1:E:367:VAL:HG13	1.99	0.45
1:F:328:GLU:HB2	1:F:329:LYS:NZ	2.31	0.45
1:G:191:ASP:O	1:G:193:ASN:N	2.39	0.45
1:G:328:GLU:HG2	1:G:329:LYS:HD2	1.99	0.45
1:G:346:GLU:OE1	1:G:369:PRO:HA	2.16	0.45
1:H:19:ARG:NH2	1:H:358:LYS:NZ	2.62	0.45
1:H:34:THR:O	1:H:34:THR:CG2	2.65	0.45
1:H:220:PHE:CD1	1:H:221:HIS:N	2.85	0.45
1:H:294:PHE:O	1:H:298:HIS:NE2	2.49	0.45
1:H:445:GLU:O	1:H:449:VAL:HG23	2.17	0.45
1:I:392:VAL:CG1	1:K:386:LEU:HD11	2.47	0.45
1:J:175:GLU:HG3	1:J:178:TRP:CZ3	2.52	0.45
1:K:91:GLY:HA3	1:K:125:ALA:O	2.16	0.45
1:K:236:LEU:HD22	1:K:342:LYS:O	2.17	0.45
1:K:249:VAL:HG12	1:K:323:ILE:HG13	1.98	0.45
1:K:450:HIS:O	1:K:453:LEU:HB3	2.17	0.45
1:L:282:ASN:O	1:L:284:ASP:N	2.49	0.45
1:B:68:ASP:OD1	1:B:140:GLU:CG	2.65	0.45
1:B:197:CYS:SG	1:B:198:VAL:N	2.89	0.45
1:B:201:LYS:HE2	1:B:206:GLY:O	2.17	0.45
1:B:261:ARG:HH11	1:B:261:ARG:CG	2.04	0.45
1:C:153:ALA:CA	1:C:158:ILE:HG22	2.47	0.45
1:C:431:VAL:CG1	1:D:419:ARG:HH21	2.30	0.45
1:D:352:THR:CG2	1:D:478:ARG:NH2	2.79	0.45
1:D:456:THR:HG23	1:E:396:ARG:HH21	1.82	0.45
1:E:12:MET:CE	1:E:354:PRO:HD3	2.47	0.45
1:G:65:ILE:HD11	1:G:75:ILE:HD11	1.99	0.45
1:G:239:THR:N	1:G:240:PRO:HD3	2.31	0.45
1:G:485:ALA:O	1:G:486:ILE:C	2.56	0.45
1:G:495:GLU:OE1	1:H:204:SER:CB	2.64	0.45
1:H:47:GLY:O	1:H:50:ARG:N	2.48	0.45
1:H:87:THR:HG22	1:H:88:PRO:N	2.32	0.45
1:H:421:PHE:CE1	1:H:423:LYS:HB2	2.52	0.45
1:I:239:THR:N	1:I:240:PRO:CD	2.75	0.45
1:K:203:ILE:HG21	1:K:209:HIS:CE1	2.52	0.45
1:K:399:PHE:HZ	1:K:444:SER:O	2.00	0.45
1:L:214:ALA:CB	1:L:380:VAL:HG21	2.46	0.45
1:A:63:PHE:CD1	1:A:63:PHE:O	2.70	0.45
1:A:386:LEU:CD1	1:B:392:VAL:CG2	2.93	0.45
1:B:67:ARG:NH2	1:B:136:TYR:CZ	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:130:LYS:O	1:B:131:ILE:HB	2.17	0.45
1:C:444:SER:OG	1:C:446:LYS:HG2	2.17	0.45
1:C:501:THR:C	1:D:146:ARG:HH22	2.20	0.45
1:D:59:LEU:CD2	1:D:61:LEU:CD2	2.95	0.45
1:D:395:GLY:HA2	1:D:398:THR:HG23	1.99	0.45
1:E:83:SER:OG	1:E:85:GLN:HB3	2.17	0.45
1:E:412:SER:O	1:E:413:VAL:C	2.55	0.45
1:F:244:ASP:OD2	1:F:245:LYS:HE2	2.17	0.45
1:F:373:LEU:HD12	1:F:373:LEU:HA	1.79	0.45
1:G:152:LEU:C	1:G:158:ILE:HG22	2.36	0.45
1:H:46:ARG:HA	1:H:49:LEU:HD12	1.98	0.45
1:H:247:PHE:CE2	1:H:263:LEU:HD12	2.52	0.45
1:H:427:THR:C	1:H:428:ILE:HD13	2.37	0.45
1:H:468:ALA:O	1:H:473:LEU:HD12	2.16	0.45
1:I:47:GLY:O	1:I:50:ARG:HB2	2.17	0.45
1:I:137:THR:CG2	1:I:140:GLU:HG3	2.47	0.45
1:I:238:MET:O	1:I:240:PRO:N	2.50	0.45
1:I:257:LEU:HG	1:I:258:HIS:N	2.31	0.45
1:I:344:ILE:HD11	1:I:360:PHE:CD1	2.51	0.45
1:J:19:ARG:O	1:J:23:ILE:HG13	2.17	0.45
1:J:167:PRO:HG3	1:J:176:MET:SD	2.57	0.45
1:J:227:ILE:O	1:J:227:ILE:HG23	2.16	0.45
1:J:314:ILE:HD13	1:J:314:ILE:H	1.77	0.45
1:J:420:LYS:NZ	1:J:420:LYS:CB	2.71	0.45
1:J:501:THR:OXT	1:J:501:THR:HG23	2.17	0.45
1:K:318:ASP:HA	1:K:340:LYS:HB2	1.98	0.45
1:K:332:THR:HA	1:K:353:THR:OG1	2.17	0.45
1:K:417:LEU:HA	1:K:417:LEU:HD12	1.68	0.45
1:L:90:LYS:HE3	1:L:199:THR:CG2	2.47	0.45
1:L:152:LEU:HD12	1:L:152:LEU:HA	1.77	0.45
1:L:274:GLY:CA	1:L:314:ILE:HD12	2.47	0.45
1:A:147:ARG:O	1:A:147:ARG:HG3	2.17	0.44
1:A:318:ASP:HA	1:A:340:LYS:HB2	1.98	0.44
1:B:281:TRP:CE2	1:B:283:PRO:HD3	2.52	0.44
1:C:122:PHE:CZ	1:C:382:TYR:HD2	2.34	0.44
1:C:369:PRO:HG3	1:C:478:ARG:N	2.32	0.44
1:C:410:LEU:HA	1:C:410:LEU:HD23	1.69	0.44
1:C:498:VAL:HG11	1:F:72:TRP:CE2	2.51	0.44
1:D:79:ARG:CD	1:D:127:ALA:HB2	2.47	0.44
1:D:383:PHE:O	1:D:384:GLU:C	2.54	0.44
1:E:19:ARG:HD3	1:E:23:ILE:HD11	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:143:LYS:HZ1	1:E:147:ARG:NH2	2.15	0.44
1:F:17:PHE:CE1	1:F:486:ILE:HD12	2.52	0.44
1:F:183:TYR:CE2	1:F:188:GLY:HA3	2.52	0.44
1:F:282:ASN:OD1	1:F:284:ASP:HB2	2.17	0.44
1:I:134:LYS:HA	1:I:134:LYS:HE3	1.99	0.44
1:I:212:ILE:HG23	1:I:254:ASN:HD21	1.82	0.44
1:K:220:PHE:HD1	1:K:221:HIS:CA	2.30	0.44
1:L:75:ILE:HG12	1:L:144:ILE:CD1	2.47	0.44
1:A:355:GLU:HA	1:A:358:LYS:HD2	1.99	0.44
1:B:450:HIS:O	1:B:451:SER:C	2.53	0.44
1:D:125:ALA:O	1:D:126:LYS:HB2	2.17	0.44
1:D:201:LYS:HB2	1:D:202:PRO:HD2	1.99	0.44
1:D:256:GLY:O	1:D:259:SER:HB2	2.18	0.44
1:D:344:ILE:HG22	1:D:367:VAL:HG13	1.99	0.44
1:E:323:ILE:HA	1:E:324:PRO:HD2	1.48	0.44
1:E:498:VAL:O	1:E:501:THR:HG22	2.17	0.44
1:F:91:GLY:O	1:F:165:PRO:HA	2.16	0.44
1:F:383:PHE:O	1:F:386:LEU:HB2	2.17	0.44
1:F:387:LYS:O	1:F:387:LYS:HG2	2.17	0.44
1:G:89:CYS:O	1:G:163:ASP:HA	2.17	0.44
1:G:93:ILE:HA	1:G:127:ALA:HB3	1.98	0.44
1:G:233:MET:HE1	1:G:343:ILE:HD11	1.98	0.44
1:G:302:LEU:HD12	1:G:302:LEU:HA	1.80	0.44
1:G:400:LYS:O	1:G:403:ARG:HB3	2.17	0.44
1:G:410:LEU:HB3	1:G:430:ILE:HA	1.99	0.44
1:J:67:ARG:O	1:J:70:GLY:N	2.47	0.44
1:J:386:LEU:CD1	1:K:392:VAL:CG1	2.94	0.44
1:K:12:MET:C	1:K:16:PHE:HD1	2.20	0.44
1:K:226:PHE:HB3	1:K:366:MET:HE1	1.99	0.44
1:K:254:ASN:HB3	1:K:255:VAL:H	1.63	0.44
1:K:414:GLN:OE1	1:K:430:ILE:HG12	2.16	0.44
1:K:454:ALA:O	1:K:455:TYR:C	2.54	0.44
1:L:17:PHE:CE2	1:L:53:LYS:HB2	2.53	0.44
1:L:28:LEU:HD12	1:L:28:LEU:HA	1.85	0.44
1:L:200:GLY:N	1:L:384:GLU:OE1	2.50	0.44
1:L:367:VAL:O	1:L:477:LEU:HB2	2.16	0.44
1:L:432:PRO:HB3	1:L:436:PHE:CD1	2.51	0.44
1:A:55:CYS:HA	1:A:82:HIS:HA	2.00	0.44
1:A:181:ASP:OD1	1:F:501:THR:OXT	2.35	0.44
1:A:358:LYS:HA	1:A:361:LEU:HD13	1.99	0.44
1:A:427:THR:CG2	1:A:429:PRO:HD3	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:428:ILE:O	1:A:429:PRO:C	2.54	0.44
1:B:6:ASP:HB2	1:B:329:LYS:HD2	1.99	0.44
1:B:407:TYR:O	1:B:411:MET:HB2	2.17	0.44
1:B:451:SER:OG	1:B:452:GLY:N	2.51	0.44
1:C:235:ILE:CG2	1:C:364:ASN:HD21	2.04	0.44
1:D:249:VAL:HG13	1:D:249:VAL:O	2.18	0.44
1:D:394:TYR:CE2	1:E:397:LEU:HD23	2.53	0.44
1:D:417:LEU:HD23	1:E:417:LEU:HD11	2.00	0.44
1:E:28:LEU:HD12	1:E:28:LEU:HA	1.78	0.44
1:E:65:ILE:HD13	1:E:144:ILE:CG1	2.47	0.44
1:E:82:HIS:CG	1:E:112:THR:CG2	2.99	0.44
1:E:177:SER:OG	1:E:205:GLN:HG3	2.18	0.44
1:F:224:GLU:CA	1:F:227:ILE:HG22	2.46	0.44
1:G:50:ARG:NH1	1:K:73:GLU:HA	2.21	0.44
1:G:346:GLU:HG2	1:G:351:PRO:HG2	1.99	0.44
1:G:501:THR:OXT	1:H:181:ASP:CB	2.61	0.44
1:H:360:PHE:HB3	1:H:365:ILE:HB	1.98	0.44
1:H:374:ASN:ND2	1:H:374:ASN:C	2.69	0.44
1:H:406:ASN:N	1:H:406:ASN:HD22	2.14	0.44
1:J:433:THR:N	1:K:412:SER:OG	2.49	0.44
1:K:39:GLU:O	1:K:40:GLN:C	2.55	0.44
1:K:99:VAL:O	1:K:130:LYS:HE3	2.17	0.44
1:K:398:THR:O	1:K:401:TYR:N	2.50	0.44
1:L:225:ASN:ND2	1:L:458:GLU:HA	2.32	0.44
1:L:233:MET:CE	1:L:236:LEU:HD11	2.47	0.44
1:A:78:TYR:O	1:A:127:ALA:HA	2.17	0.44
1:A:83:SER:O	1:A:123:GLY:HA3	2.17	0.44
1:A:247:PHE:O	1:A:271:ILE:HG22	2.17	0.44
1:A:323:ILE:HA	1:A:324:PRO:HD3	1.79	0.44
1:A:356:ALA:HB1	1:A:360:PHE:CE2	2.53	0.44
1:A:419:ARG:NH2	1:F:431:VAL:HG11	2.33	0.44
1:B:379:THR:O	1:B:382:TYR:HB3	2.18	0.44
1:B:435:GLU:H	1:B:435:GLU:CD	2.21	0.44
2:B:2:ADP:H5'2	1:F:203:ILE:HG23	1.98	0.44
1:C:85:GLN:OE1	1:C:489:VAL:HG22	2.18	0.44
1:C:280:ILE:CG2	1:C:281:TRP:H	2.19	0.44
1:C:321:ILE:O	1:C:321:ILE:HG22	2.18	0.44
1:C:476:ASP:O	1:C:477:LEU:C	2.56	0.44
1:D:337:PRO:HA	1:D:363:ARG:NE	2.28	0.44
1:E:12:MET:HE2	1:E:354:PRO:HD3	2.00	0.44
1:E:247:PHE:CB	1:E:321:ILE:HB	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:271:ILE:CD1	1:E:283:PRO:HA	2.48	0.44
1:F:414:GLN:OE1	1:F:428:ILE:CA	2.56	0.44
1:G:141:LEU:HA	1:G:141:LEU:HD23	1.71	0.44
1:H:28:LEU:HD21	1:H:490:PHE:CD1	2.52	0.44
1:H:30:GLU:HB3	1:H:31:ASP:H	1.32	0.44
1:H:92:GLY:O	1:H:126:LYS:HD2	2.17	0.44
1:H:131:ILE:HD13	1:H:144:ILE:HD13	2.00	0.44
1:H:294:PHE:CD2	1:H:304:PHE:HD1	2.36	0.44
1:H:354:PRO:HG2	1:H:355:GLU:N	2.32	0.44
1:I:96:SER:O	1:I:97:THR:C	2.56	0.44
1:I:219:VAL:O	1:I:222:GLY:N	2.50	0.44
1:I:269:LYS:HD3	1:I:284:ASP:O	2.17	0.44
1:I:332:THR:HB	1:I:333:LYS:H	1.55	0.44
1:I:414:GLN:CB	1:I:429:PRO:HD2	2.46	0.44
1:J:248:VAL:HG11	1:J:314:ILE:HB	1.98	0.44
1:J:368:ILE:HA	1:J:369:PRO:HD3	1.47	0.44
1:J:423:LYS:HD2	1:J:423:LYS:HA	1.78	0.44
1:K:57:HIS:CD2	1:K:84:HIS:CE1	3.06	0.44
1:K:82:HIS:HD2	1:K:112:THR:OG1	1.99	0.44
1:K:264:HIS:ND1	1:K:288:PRO:HG2	2.33	0.44
1:K:326:ALA:O	1:K:327:SER:O	2.35	0.44
1:L:26:ASP:C	1:L:28:LEU:H	2.20	0.44
1:L:101:VAL:O	1:L:104:VAL:CG2	2.64	0.44
1:L:431:VAL:O	1:L:431:VAL:HG22	2.17	0.44
1:A:45:VAL:O	1:A:48:ILE:HG12	2.17	0.44
1:A:423:LYS:CE	1:A:426:GLY:HA3	2.47	0.44
1:A:427:THR:HG22	1:A:428:ILE:H	1.82	0.44
1:A:437:GLN:HE22	1:H:426:GLY:CA	2.29	0.44
1:B:227:ILE:HD13	1:B:343:ILE:HD13	1.99	0.44
1:B:257:LEU:C	1:B:257:LEU:CD1	2.84	0.44
1:B:346:GLU:HG2	1:B:351:PRO:CG	2.48	0.44
1:B:386:LEU:CD1	1:F:392:VAL:CG2	2.96	0.44
1:C:49:LEU:H	1:C:49:LEU:CD1	2.19	0.44
1:D:256:GLY:O	1:D:259:SER:N	2.50	0.44
1:D:414:GLN:OE1	1:D:428:ILE:HA	2.17	0.44
1:D:423:LYS:HG3	1:D:424:HIS:H	1.82	0.44
1:E:38:GLU:OE2	1:E:42:ARG:HD2	2.17	0.44
1:E:64:PRO:O	1:E:147:ARG:HD2	2.17	0.44
1:E:91:GLY:HA3	1:E:125:ALA:O	2.17	0.44
1:E:426:GLY:O	1:E:428:ILE:CD1	2.66	0.44
1:E:427:THR:O	1:E:429:PRO:HD3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:459:ARG:O	1:E:463:GLN:HG3	2.17	0.44
1:F:279:SER:C	1:F:280:ILE:HG13	2.38	0.44
1:F:315:LEU:HD23	1:F:331:LEU:HD11	1.96	0.44
1:H:107:LEU:O	1:H:108:ALA:C	2.54	0.44
1:H:115:CYS:O	1:H:116:ALA:C	2.55	0.44
1:H:324:PRO:HD2	1:H:345:ALA:O	2.17	0.44
1:I:130:LYS:O	1:I:131:ILE:HG13	2.17	0.44
1:J:25:GLU:O	1:J:29:VAL:HG23	2.17	0.44
1:J:28:LEU:HD21	1:J:490:PHE:CD2	2.52	0.44
1:J:173:GLU:HB2	1:J:202:PRO:CG	2.47	0.44
1:J:188:GLY:O	1:J:190:TYR:N	2.50	0.44
1:J:431:VAL:CG1	1:K:419:ARG:HH21	2.30	0.44
1:L:96:SER:HA	1:L:131:ILE:O	2.18	0.44
1:L:316:GLU:O	1:L:317:ALA:C	2.56	0.44
1:A:101:VAL:O	1:A:101:VAL:CG1	2.64	0.44
1:A:447:ASP:O	1:A:448:ILE:C	2.55	0.44
1:B:147:ARG:O	1:B:151:GLU:HG2	2.17	0.44
1:B:250:GLN:CG	1:B:315:LEU:HD21	2.47	0.44
1:B:304:PHE:CD1	1:B:305:PRO:HD2	2.53	0.44
1:D:24:VAL:HG22	1:D:483:VAL:HG13	1.99	0.44
1:D:90:LYS:NZ	1:D:199:THR:CG2	2.75	0.44
1:D:220:PHE:HE1	1:D:224:GLU:OE1	1.99	0.44
1:D:429:PRO:HA	1:E:416:SER:CB	2.47	0.44
1:E:53:LYS:CB	1:E:54:PRO:CD	2.79	0.44
1:E:167:PRO:HG3	1:E:176:MET:CG	2.48	0.44
1:E:420:LYS:O	1:E:421:PHE:HB2	2.17	0.44
1:F:428:ILE:HD13	1:F:428:ILE:H	1.78	0.44
1:G:64:PRO:HG3	1:K:51:ILE:HD13	2.00	0.44
1:G:142:GLU:OE2	1:G:178:TRP:NE1	2.50	0.44
1:H:322:LEU:C	1:H:322:LEU:HD22	2.38	0.44
1:H:383:PHE:O	1:H:384:GLU:C	2.54	0.44
1:J:90:LYS:CE	1:J:199:THR:CG2	2.95	0.44
1:K:46:ARG:HA	1:K:49:LEU:HD13	1.99	0.44
1:K:89:CYS:N	1:K:162:ILE:O	2.50	0.44
1:K:192:ILE:O	1:K:192:ILE:HG12	2.17	0.44
1:K:318:ASP:HA	1:K:340:LYS:CB	2.47	0.44
1:L:369:PRO:CG	1:L:477:LEU:HB3	2.47	0.44
1:L:476:ASP:O	1:L:477:LEU:C	2.56	0.44
1:A:39:GLU:O	1:A:41:LYS:N	2.51	0.44
1:A:114:LYS:CE	1:A:374:ASN:ND2	2.81	0.44
1:B:233:MET:CE	1:B:236:LEU:HD12	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:378:VAL:O	1:B:379:THR:C	2.56	0.44
1:C:13:VAL:CG1	1:C:14:GLU:N	2.75	0.44
1:C:19:ARG:CD	1:C:479:THR:HG21	2.48	0.44
1:C:226:PHE:HE2	1:C:465:MET:SD	2.40	0.44
1:C:396:ARG:O	1:C:396:ARG:CD	2.54	0.44
1:D:80:ALA:O	1:D:125:ALA:HA	2.18	0.44
1:F:248:VAL:HG11	1:F:314:ILE:HB	1.98	0.44
1:F:484:ASN:HA	1:F:487:GLU:OE1	2.17	0.44
1:G:147:ARG:NH1	1:G:151:GLU:CD	2.71	0.44
1:G:153:ALA:CA	1:G:158:ILE:CG2	2.96	0.44
1:G:401:TYR:CE2	1:L:439:ARG:NH2	2.86	0.44
1:I:315:LEU:HD12	1:I:315:LEU:N	2.33	0.44
1:I:373:LEU:HD23	1:I:373:LEU:O	2.17	0.44
1:J:65:ILE:CD1	1:J:75:ILE:HD11	2.48	0.44
1:J:465:MET:O	1:J:468:ALA:N	2.51	0.44
1:K:104:VAL:CG2	1:K:105:LYS:H	2.30	0.44
1:L:475:LEU:N	1:L:475:LEU:CD1	2.81	0.44
1:L:481:ALA:O	1:L:482:TYR:C	2.55	0.44
1:A:90:LYS:HD3	1:A:122:PHE:CE1	2.53	0.44
1:A:223:ILE:O	1:A:224:GLU:C	2.56	0.44
1:B:142:GLU:O	1:B:143:LYS:C	2.55	0.44
1:B:219:VAL:O	1:B:223:ILE:HD12	2.18	0.44
1:C:392:VAL:HG13	1:E:382:TYR:OH	2.18	0.44
1:C:459:ARG:CZ	2:C:3:ADP:O3B	2.65	0.44
1:D:199:THR:HA	1:D:384:GLU:OE1	2.18	0.44
1:D:201:LYS:HB2	1:D:202:PRO:CD	2.47	0.44
1:E:68:ASP:OD2	1:E:140:GLU:CG	2.66	0.44
1:F:328:GLU:O	1:F:329:LYS:O	2.36	0.44
1:F:385:TRP:HA	1:F:388:ASN:HD22	1.82	0.44
1:G:314:ILE:HD13	1:G:314:ILE:N	2.31	0.44
1:G:497:GLY:N	1:G:501:THR:HA	2.33	0.44
1:H:421:PHE:CD1	1:H:423:LYS:HB2	2.52	0.44
1:I:9:PHE:CD1	1:I:10:PHE:N	2.82	0.44
1:I:30:GLU:CG	1:I:31:ASP:N	2.80	0.44
1:I:94:ARG:HH11	1:I:94:ARG:CG	2.27	0.44
1:I:167:PRO:HD3	1:I:176:MET:CG	2.48	0.44
1:I:405:SER:O	1:I:409:LEU:HD23	2.17	0.44
1:J:280:ILE:HG23	1:J:307:ALA:CB	2.48	0.44
1:K:255:VAL:HG13	1:K:325:ALA:HB1	2.00	0.44
1:K:465:MET:O	1:K:468:ALA:CB	2.65	0.44
1:L:120:VAL:HG21	1:L:378:VAL:HG12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:280:ILE:CG2	1:L:281:TRP:N	2.80	0.44
1:L:300:SER:OG	1:L:302:LEU:HD13	2.17	0.44
1:L:406:ASN:O	1:L:409:LEU:HB2	2.17	0.44
1:A:140:GLU:O	1:A:144:ILE:HG13	2.17	0.44
1:A:336:ALA:HB3	1:A:359:ILE:CD1	2.47	0.44
1:B:227:ILE:CD1	1:B:233:MET:SD	2.96	0.44
1:C:90:LYS:HB2	1:C:122:PHE:CD1	2.53	0.44
1:C:90:LYS:HB2	1:C:122:PHE:HB3	1.99	0.44
1:C:166:ALA:HB1	1:C:167:PRO:CD	2.48	0.44
1:C:291:LEU:HD13	1:C:304:PHE:CD2	2.53	0.44
1:D:220:PHE:CD1	1:D:220:PHE:C	2.92	0.44
1:D:244:ASP:O	1:D:245:LYS:HG2	2.18	0.44
1:E:88:PRO:HG2	1:E:122:PHE:HD2	1.83	0.44
1:E:237:GLY:O	1:E:238:MET:HG2	2.18	0.44
1:F:65:ILE:HG21	1:F:144:ILE:HG12	2.00	0.44
1:F:111:MET:O	1:F:112:THR:C	2.56	0.44
1:G:328:GLU:O	1:G:329:LYS:HB2	2.18	0.44
1:H:137:THR:HG23	1:H:140:GLU:CB	2.44	0.44
1:H:149:THR:O	1:H:150:MET:C	2.55	0.44
1:H:368:ILE:HG22	1:H:373:LEU:HB2	2.00	0.44
1:I:198:VAL:O	1:I:201:LYS:CE	2.66	0.44
1:I:217:ARG:HB3	1:I:217:ARG:NH1	2.29	0.44
1:I:227:ILE:HD11	1:I:343:ILE:HD12	1.99	0.44
1:I:248:VAL:HG23	1:I:319:CYS:SG	2.58	0.44
1:I:308:LYS:HA	1:I:309:PRO:HD3	1.75	0.44
1:I:336:ALA:CB	1:I:359:ILE:HG21	2.48	0.44
1:I:432:PRO:O	1:I:433:THR:C	2.56	0.44
1:J:280:ILE:HG23	1:J:307:ALA:HB1	2.00	0.44
1:K:277:ASP:HB3	1:K:302:LEU:HD11	2.00	0.44
1:K:481:ALA:O	1:K:482:TYR:C	2.56	0.44
1:L:79:ARG:NH1	1:L:165:PRO:HG3	2.33	0.44
1:L:90:LYS:HE2	1:L:164:VAL:HG12	2.00	0.44
1:L:244:ASP:HB3	1:L:245:LYS:H	1.70	0.44
1:L:439:ARG:O	1:L:439:ARG:HG2	2.16	0.44
1:B:280:ILE:HG23	1:B:281:TRP:H	1.82	0.43
1:B:282:ASN:O	1:B:282:ASN:OD1	2.36	0.43
1:B:369:PRO:HG3	1:B:478:ARG:CA	2.48	0.43
1:C:82:HIS:CD2	1:C:112:THR:CG2	2.86	0.43
1:C:335:ASN:HB2	1:C:338:ARG:HH12	1.82	0.43
1:D:90:LYS:HD2	1:D:90:LYS:HA	1.84	0.43
1:D:410:LEU:HB3	1:D:430:ILE:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:453:LEU:O	1:D:454:ALA:C	2.57	0.43
1:E:382:TYR:O	1:E:385:TRP:HB3	2.18	0.43
1:E:426:GLY:O	1:E:428:ILE:HD13	2.19	0.43
1:G:400:LYS:HB2	1:L:455:TYR:HB2	2.00	0.43
1:H:428:ILE:O	1:H:429:PRO:C	2.54	0.43
1:H:485:ALA:O	1:H:488:LYS:N	2.51	0.43
1:I:65:ILE:HA	1:I:147:ARG:NH1	2.33	0.43
1:I:227:ILE:HG23	1:I:227:ILE:O	2.18	0.43
1:I:337:PRO:HA	1:I:363:ARG:HE	1.83	0.43
1:I:380:VAL:HG23	1:I:453:LEU:HG	2.00	0.43
1:J:411:MET:N	1:J:430:ILE:HG22	2.33	0.43
1:K:198:VAL:HG22	1:K:199:THR:N	2.32	0.43
1:K:275:GLU:HB3	1:K:276:SER:H	1.64	0.43
1:K:313:SER:O	1:K:315:LEU:N	2.51	0.43
1:K:396:ARG:HH11	1:K:396:ARG:HG3	1.82	0.43
1:L:96:SER:C	1:L:98:ASP:H	2.22	0.43
1:L:353:THR:HB	1:L:354:PRO:HD2	2.00	0.43
1:L:432:PRO:C	1:L:433:THR:O	2.54	0.43
1:A:500:PHE:HB3	1:B:142:GLU:OE1	2.18	0.43
1:B:52:ILE:HD13	1:B:489:VAL:HG11	1.96	0.43
1:C:131:ILE:HA	1:C:131:ILE:HD12	1.76	0.43
1:C:198:VAL:HG22	1:C:199:THR:N	2.33	0.43
1:C:274:GLY:O	1:C:275:GLU:CB	2.63	0.43
1:C:328:GLU:O	1:C:329:LYS:CG	2.65	0.43
1:D:62:SER:HA	1:D:75:ILE:O	2.17	0.43
1:D:65:ILE:HD13	1:D:144:ILE:CD1	2.47	0.43
1:D:118:VAL:O	1:D:120:VAL:HG23	2.17	0.43
1:D:233:MET:O	1:D:238:MET:N	2.47	0.43
1:E:60:SER:C	1:E:61:LEU:HD23	2.38	0.43
1:E:497:GLY:HA3	1:E:501:THR:HA	1.99	0.43
1:F:17:PHE:HE2	1:F:53:LYS:HB2	1.83	0.43
1:F:47:GLY:O	1:F:50:ARG:CG	2.66	0.43
1:F:217:ARG:CZ	1:F:450:HIS:CE1	3.01	0.43
1:F:380:VAL:HG13	1:F:449:VAL:HG13	2.01	0.43
1:G:248:VAL:CG1	1:G:249:VAL:N	2.81	0.43
1:G:305:PRO:O	1:G:306:LYS:C	2.56	0.43
1:G:397:LEU:HD22	1:L:394:TYR:CZ	2.53	0.43
1:G:490:PHE:O	1:G:491:LYS:C	2.56	0.43
1:H:396:ARG:NH1	1:H:396:ARG:CG	2.74	0.43
1:H:478:ARG:HG3	1:H:478:ARG:NH1	2.33	0.43
1:I:24:VAL:HG11	1:I:28:LEU:HD22	1.93	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:82:HIS:HD2	1:I:112:THR:HG21	1.67	0.43
1:I:201:LYS:CB	1:I:202:PRO:CD	2.95	0.43
1:J:12:MET:HB2	1:J:12:MET:HE3	1.86	0.43
1:K:85:GLN:HB2	1:K:492:VAL:HG11	2.01	0.43
1:K:92:GLY:HA2	1:K:166:ALA:O	2.17	0.43
1:K:280:ILE:CG2	1:K:307:ALA:HB1	2.48	0.43
1:K:363:ARG:HH11	1:K:363:ARG:CB	2.30	0.43
1:K:429:PRO:C	1:K:431:VAL:H	2.21	0.43
1:L:202:PRO:O	1:L:207:GLY:N	2.45	0.43
1:L:334:SER:OG	1:L:335:ASN:N	2.51	0.43
1:L:372:TYR:CD1	1:L:373:LEU:N	2.86	0.43
1:A:85:GLN:HE21	1:A:85:GLN:HB3	1.43	0.43
1:A:324:PRO:HD2	1:A:345:ALA:O	2.18	0.43
1:A:478:ARG:O	1:A:481:ALA:N	2.51	0.43
1:A:497:GLY:O	1:A:498:VAL:HG13	2.18	0.43
1:B:282:ASN:C	1:B:284:ASP:H	2.22	0.43
1:B:334:SER:O	1:B:337:PRO:HD2	2.17	0.43
1:C:227:ILE:HG22	1:C:228:ASN:HD22	1.83	0.43
1:C:251:GLY:HA3	1:C:325:ALA:O	2.17	0.43
1:C:346:GLU:HB3	1:C:351:PRO:HG3	2.01	0.43
1:C:416:SER:HA	1:C:419:ARG:NH2	2.33	0.43
1:D:66:ARG:HD2	1:D:72:TRP:CH2	2.53	0.43
1:E:86:ARG:NH2	2:E:5:ADP:O4'	2.52	0.43
1:E:250:GLN:HA	1:E:314:ILE:HD11	2.00	0.43
1:E:322:LEU:HD22	1:E:323:ILE:N	2.33	0.43
1:E:421:PHE:CD1	1:E:421:PHE:C	2.91	0.43
1:E:494:ASN:O	1:E:496:ALA:N	2.51	0.43
1:F:246:THR:OG1	1:F:271:ILE:HD11	2.17	0.43
1:F:370:ASP:OD2	1:F:371:LEU:N	2.49	0.43
1:F:496:ALA:C	1:F:501:THR:O	2.57	0.43
1:G:201:LYS:CB	1:G:202:PRO:CD	2.92	0.43
1:G:261:ARG:NH1	1:G:292:GLU:OE1	2.46	0.43
1:G:392:VAL:CG2	1:L:386:LEU:CD1	2.97	0.43
1:H:142:GLU:HA	1:H:178:TRP:CE3	2.53	0.43
1:H:482:TYR:O	1:H:486:ILE:CG1	2.65	0.43
1:I:39:GLU:C	1:I:41:LYS:N	2.70	0.43
1:I:93:ILE:HD11	1:I:165:PRO:HB3	2.01	0.43
1:I:142:GLU:OE2	1:I:178:TRP:NE1	2.52	0.43
1:J:176:MET:CE	1:J:179:ILE:HG13	2.47	0.43
1:K:43:ASN:O	1:K:46:ARG:HG2	2.18	0.43
1:K:230:ALA:O	1:K:233:MET:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:356:ALA:O	1:K:360:PHE:HD2	2.00	0.43
1:L:464:ILE:O	1:L:465:MET:C	2.56	0.43
1:A:250:GLN:HG3	1:A:315:LEU:CD1	2.48	0.43
1:B:406:ASN:O	1:B:409:LEU:N	2.49	0.43
1:B:431:VAL:HA	1:B:432:PRO:HD3	1.80	0.43
1:B:498:VAL:N	1:B:501:THR:HB	2.33	0.43
1:C:195:HIS:O	1:C:201:LYS:HE3	2.18	0.43
1:C:459:ARG:NH2	2:C:3:ADP:O3B	2.52	0.43
1:D:413:VAL:O	1:D:417:LEU:HB2	2.19	0.43
1:E:141:LEU:HD12	1:E:174:ARG:NH2	2.33	0.43
1:E:492:VAL:HG23	2:E:5:ADP:C2	2.54	0.43
1:F:53:LYS:CB	1:F:54:PRO:CD	2.97	0.43
1:F:53:LYS:N	1:F:54:PRO:HD2	2.32	0.43
1:F:317:ALA:O	1:F:318:ASP:C	2.56	0.43
1:G:51:ILE:HD13	1:G:498:VAL:HG11	2.00	0.43
1:G:83:SER:OG	1:G:85:GLN:NE2	2.51	0.43
1:G:104:VAL:O	1:G:105:LYS:C	2.57	0.43
1:H:164:VAL:O	1:H:164:VAL:HG12	2.18	0.43
1:H:294:PHE:CD2	1:H:298:HIS:NE2	2.86	0.43
1:H:478:ARG:O	1:H:481:ALA:N	2.52	0.43
1:J:40:GLN:C	1:J:42:ARG:H	2.20	0.43
1:J:219:VAL:HG22	1:J:373:LEU:CD2	2.48	0.43
1:K:81:GLN:CD	1:K:157:PHE:CD1	2.92	0.43
1:K:137:THR:HG23	1:K:140:GLU:CG	2.48	0.43
1:K:175:GLU:O	1:K:176:MET:C	2.57	0.43
1:K:199:THR:HG22	1:K:384:GLU:HB3	1.99	0.43
1:K:229:GLU:O	1:K:233:MET:HG2	2.17	0.43
1:L:200:GLY:HA2	1:L:211:ARG:HD2	2.00	0.43
1:L:403:ARG:O	1:L:406:ASN:HB2	2.18	0.43
1:A:368:ILE:HA	1:A:369:PRO:HD3	1.79	0.43
1:A:498:VAL:CG2	1:A:499:THR:N	2.78	0.43
1:B:318:ASP:HA	1:B:340:LYS:HB2	2.01	0.43
1:B:439:ARG:CG	1:B:439:ARG:NH1	2.61	0.43
1:C:81:GLN:OE1	1:F:155:LYS:HE3	2.19	0.43
1:D:98:ASP:C	1:D:99:VAL:O	2.57	0.43
1:E:260:MET:HG2	1:E:288:PRO:HG3	2.01	0.43
1:F:274:GLY:H	1:F:314:ILE:HD12	1.80	0.43
1:G:224:GLU:HA	1:G:227:ILE:HG22	1.99	0.43
1:G:372:TYR:CD1	1:G:372:TYR:C	2.88	0.43
1:H:14:GLU:O	1:H:17:PHE:HB3	2.18	0.43
1:H:65:ILE:HG12	1:H:75:ILE:HD11	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:228:ASN:HD22	1:H:228:ASN:HA	1.68	0.43
1:H:413:VAL:HG21	1:L:413:VAL:HG21	2.00	0.43
1:H:414:GLN:CB	1:H:429:PRO:HD2	2.49	0.43
1:I:90:LYS:HB2	1:I:122:PHE:CG	2.52	0.43
1:J:69:ASP:C	1:J:69:ASP:OD1	2.57	0.43
1:J:109:SER:O	1:J:113:TYR:CD2	2.71	0.43
1:J:145:THR:CG2	1:J:175:GLU:HG2	2.44	0.43
1:J:173:GLU:HB2	1:J:202:PRO:CD	2.48	0.43
1:J:436:PHE:CE2	1:K:408:HIS:HB3	2.52	0.43
1:L:113:TYR:CE1	1:L:486:ILE:HD13	2.53	0.43
1:L:137:THR:H	1:L:140:GLU:HB2	1.82	0.43
1:L:166:ALA:HA	1:L:167:PRO:HD3	1.78	0.43
1:A:164:VAL:CG1	1:A:199:THR:HG23	2.48	0.43
1:A:294:PHE:CE2	1:A:304:PHE:HA	2.53	0.43
1:A:339:VAL:HG23	1:A:339:VAL:O	2.19	0.43
1:B:112:THR:H	1:B:124:GLY:HA3	1.84	0.43
1:B:498:VAL:HG11	1:D:72:TRP:CE2	2.53	0.43
1:C:41:LYS:HD3	1:C:41:LYS:HA	1.78	0.43
1:C:47:GLY:HA2	1:C:50:ARG:CG	2.49	0.43
1:C:351:PRO:HG2	1:C:352:THR:N	2.30	0.43
1:C:397:LEU:HD21	1:E:383:PHE:CE2	2.53	0.43
1:D:107:LEU:N	1:D:107:LEU:HD12	2.33	0.43
1:D:186:THR:HG22	1:D:187:ILE:HG12	2.00	0.43
1:D:344:ILE:O	1:D:344:ILE:CG2	2.67	0.43
1:E:248:VAL:CG2	1:E:272:ALA:HB3	2.48	0.43
1:E:252:PHE:HE2	1:E:260:MET:HE2	1.84	0.43
1:E:322:LEU:HD23	1:E:323:ILE:N	2.34	0.43
1:F:40:GLN:O	1:F:40:GLN:CG	2.61	0.43
1:F:90:LYS:HZ1	1:F:166:ALA:HB2	1.83	0.43
1:F:120:VAL:HG12	1:F:122:PHE:CD1	2.54	0.43
1:F:220:PHE:HE2	1:F:263:LEU:HA	1.83	0.43
1:F:250:GLN:HG3	1:F:315:LEU:HD12	1.98	0.43
1:H:53:LYS:HB3	1:H:54:PRO:HD3	2.00	0.43
1:H:371:LEU:HD22	1:H:482:TYR:CE2	2.54	0.43
1:H:420:LYS:HG2	1:H:420:LYS:O	2.19	0.43
1:I:94:ARG:HD3	1:I:168:ASP:CG	2.39	0.43
1:I:414:GLN:CD	1:I:430:ILE:HG23	2.39	0.43
1:J:198:VAL:HG22	1:J:199:THR:N	2.34	0.43
1:J:239:THR:N	1:J:240:PRO:CD	2.75	0.43
1:K:234:SER:C	1:K:236:LEU:N	2.72	0.43
1:K:264:HIS:C	1:K:266:PHE:H	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:233:MET:CE	1:L:236:LEU:CD1	2.96	0.43
1:L:444:SER:O	1:L:447:ASP:HB2	2.18	0.43
1:A:62:SER:OG	1:E:55:CYS:O	2.31	0.43
1:A:130:LYS:O	1:A:131:ILE:CD1	2.57	0.43
1:A:250:GLN:CG	1:A:314:ILE:HD11	2.33	0.43
1:B:449:VAL:O	1:B:452:GLY:N	2.52	0.43
1:C:366:MET:O	1:C:366:MET:HG2	2.19	0.43
1:D:141:LEU:O	1:D:145:THR:CG2	2.66	0.43
1:D:281:TRP:NE1	1:D:283:PRO:HD3	2.34	0.43
1:D:301:ILE:C	1:D:301:ILE:CD1	2.85	0.43
1:E:497:GLY:C	1:E:501:THR:HB	2.39	0.43
1:F:158:ILE:HG12	1:F:165:PRO:CG	2.49	0.43
1:G:67:ARG:HG2	1:G:67:ARG:NH1	2.34	0.43
1:G:453:LEU:O	1:G:453:LEU:HD23	2.17	0.43
1:I:247:PHE:HZ	1:I:260:MET:HG3	1.83	0.43
1:I:315:LEU:HD23	1:I:331:LEU:CD2	2.48	0.43
1:I:343:ILE:HD13	1:I:366:MET:CE	2.49	0.43
1:J:85:GLN:HE21	1:J:85:GLN:HB3	1.35	0.43
1:K:59:LEU:HD22	1:K:157:PHE:HD2	1.82	0.43
1:K:78:TYR:O	1:K:127:ALA:HA	2.18	0.43
1:K:82:HIS:CD2	1:K:112:THR:OG1	2.72	0.43
1:K:94:ARG:HH11	1:K:94:ARG:CG	2.32	0.43
1:K:201:LYS:O	1:K:207:GLY:HA3	2.19	0.43
1:L:38:GLU:O	1:L:39:GLU:CB	2.67	0.43
1:L:75:ILE:N	1:L:75:ILE:HD12	2.34	0.43
1:L:132:ASN:O	1:L:134:LYS:N	2.52	0.43
1:L:137:THR:OG1	1:L:140:GLU:CD	2.57	0.43
1:L:304:PHE:HA	1:L:305:PRO:HD3	1.89	0.43
1:L:363:ARG:CB	1:L:363:ARG:NH1	2.82	0.43
1:A:486:ILE:HG12	1:A:486:ILE:H	1.63	0.43
1:B:58:VAL:HG12	1:D:60:SER:HB2	2.01	0.43
1:B:219:VAL:HA	1:B:373:LEU:CD1	2.49	0.43
1:B:227:ILE:HD12	1:B:227:ILE:HA	1.83	0.43
1:C:164:VAL:HG11	1:C:199:THR:HG23	2.00	0.43
1:C:264:HIS:CD2	1:C:288:PRO:CD	3.02	0.43
1:C:372:TYR:OH	1:C:461:ALA:HB2	2.18	0.43
1:C:478:ARG:HG2	1:C:478:ARG:NH1	2.33	0.43
1:D:53:LYS:N	1:D:54:PRO:CD	2.81	0.43
1:D:79:ARG:NE	1:D:163:ASP:OD2	2.51	0.43
1:D:498:VAL:CG2	1:D:499:THR:H	2.28	0.43
1:E:57:HIS:ND1	1:E:84:HIS:HE1	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:397:LEU:HD12	1:E:397:LEU:HA	1.83	0.43
1:F:87:THR:CB	1:F:88:PRO:CD	2.97	0.43
1:F:153:ALA:CA	1:F:158:ILE:HG22	2.48	0.43
1:F:248:VAL:HG12	1:F:314:ILE:HG13	1.99	0.43
1:F:399:PHE:CE2	1:F:443:ALA:HB1	2.53	0.43
1:F:477:LEU:N	1:F:477:LEU:HD13	2.34	0.43
1:G:158:ILE:HD12	1:G:165:PRO:CD	2.48	0.43
1:G:335:ASN:ND2	1:G:336:ALA:N	2.55	0.43
1:H:433:THR:CG2	1:L:412:SER:HA	2.48	0.43
1:I:65:ILE:HD13	1:I:144:ILE:HG12	2.00	0.43
1:I:281:TRP:HD1	1:I:282:ASN:N	2.13	0.43
1:J:264:HIS:CD2	1:J:288:PRO:CD	2.98	0.43
1:J:396:ARG:HH11	1:J:396:ARG:HG3	1.84	0.43
1:K:59:LEU:HB3	1:K:157:PHE:CE2	2.54	0.43
1:K:110:LEU:HD12	1:K:110:LEU:N	2.34	0.43
1:K:153:ALA:HB2	1:K:158:ILE:HG21	2.01	0.43
1:K:257:LEU:O	1:K:260:MET:HB3	2.18	0.43
1:K:296:LEU:HA	1:K:296:LEU:HD22	1.75	0.43
1:L:164:VAL:HG21	1:L:385:TRP:NE1	2.33	0.43
1:A:253:GLY:O	1:A:254:ASN:C	2.56	0.43
1:A:332:THR:O	1:A:333:LYS:C	2.57	0.43
1:A:353:THR:HG23	1:A:356:ALA:CB	2.49	0.43
1:A:464:ILE:O	1:A:465:MET:C	2.56	0.43
1:C:47:GLY:O	1:C:51:ILE:HG13	2.19	0.43
1:C:66:ARG:HD3	1:C:72:TRP:CH2	2.53	0.43
1:C:176:MET:HE3	1:C:179:ILE:HD12	1.96	0.43
1:C:412:SER:OG	1:E:433:THR:N	2.44	0.43
1:D:414:GLN:CB	1:D:429:PRO:HD2	2.48	0.43
1:E:234:SER:O	1:E:235:ILE:C	2.57	0.43
1:F:87:THR:OG1	1:F:88:PRO:CD	2.67	0.43
1:F:134:LYS:HD3	1:F:134:LYS:HA	1.92	0.43
1:F:451:SER:O	1:F:452:GLY:C	2.57	0.43
1:G:133:PRO:HB3	1:G:141:LEU:HD11	2.01	0.43
1:G:475:LEU:HD12	1:G:475:LEU:HA	1.87	0.43
1:H:63:PHE:N	1:H:63:PHE:CD2	2.87	0.43
1:H:78:TYR:CE2	1:H:101:VAL:HG22	2.54	0.43
1:H:223:ILE:CD1	1:H:263:LEU:HD11	2.48	0.43
1:H:272:ALA:HB1	1:H:314:ILE:CG2	2.49	0.43
1:H:300:SER:CB	1:H:302:LEU:HD22	2.47	0.43
1:I:38:GLU:H	1:I:42:ARG:NE	2.16	0.43
1:I:280:ILE:HD11	1:I:301:ILE:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:368:ILE:CB	1:I:373:LEU:HD12	2.47	0.43
1:K:107:LEU:O	1:K:108:ALA:C	2.55	0.43
1:K:153:ALA:HB2	1:K:158:ILE:CG2	2.49	0.43
1:K:363:ARG:CB	1:K:363:ARG:NH1	2.82	0.43
1:K:371:LEU:HD13	1:K:482:TYR:CZ	2.54	0.43
1:L:24:VAL:O	1:L:25:GLU:C	2.57	0.43
1:L:274:GLY:HA2	1:L:279:SER:HA	2.01	0.43
1:L:327:SER:HB3	1:L:330:GLN:OE1	2.17	0.43
1:L:464:ILE:O	1:L:465:MET:O	2.35	0.43
1:A:428:ILE:N	1:A:429:PRO:HD3	2.34	0.43
1:A:431:VAL:HG13	1:A:431:VAL:O	2.19	0.43
1:B:118:VAL:HA	1:B:460:SER:OG	2.19	0.43
1:B:226:PHE:C	1:B:228:ASN:H	2.23	0.43
1:C:339:VAL:HG21	1:C:360:PHE:CE1	2.54	0.43
1:C:421:PHE:CE1	1:C:423:LYS:HB3	2.51	0.43
1:D:301:ILE:HD12	1:D:302:LEU:N	2.34	0.43
1:E:79:ARG:HD3	1:E:157:PHE:HB3	1.99	0.43
1:F:462:ARG:HA	1:F:465:MET:HE2	2.01	0.43
1:G:186:THR:HG22	1:G:187:ILE:N	2.34	0.43
1:I:118:VAL:HG23	1:I:118:VAL:O	2.18	0.43
1:J:39:GLU:C	1:J:41:LYS:N	2.72	0.43
1:J:39:GLU:C	1:J:41:LYS:H	2.21	0.43
1:J:281:TRP:HE1	1:J:283:PRO:HD3	1.80	0.43
1:K:85:GLN:HG2	1:K:86:ARG:N	2.34	0.43
1:K:224:GLU:O	1:K:228:ASN:HB2	2.19	0.43
1:K:478:ARG:O	1:K:481:ALA:CB	2.67	0.43
1:L:208:ILE:HG13	1:L:445:GLU:OE1	2.19	0.43
1:A:95:TYR:CE2	1:A:129:VAL:CG2	3.02	0.42
1:A:152:LEU:HG	1:A:157:PHE:O	2.18	0.42
1:A:247:PHE:CZ	1:A:260:MET:HA	2.54	0.42
1:A:252:PHE:CE2	1:A:260:MET:HE2	2.54	0.42
1:A:406:ASN:ND2	1:B:409:LEU:HD21	2.33	0.42
1:B:214:ALA:HB2	1:B:380:VAL:HG21	2.00	0.42
1:B:284:ASP:N	1:B:284:ASP:OD2	2.52	0.42
1:C:36:GLU:O	1:C:37:SER:O	2.37	0.42
1:C:315:LEU:HD23	1:C:315:LEU:HA	1.76	0.42
1:D:45:VAL:C	1:D:47:GLY:H	2.22	0.42
1:D:118:VAL:O	1:D:119:ASP:C	2.58	0.42
1:E:19:ARG:CD	1:E:23:ILE:HD11	2.49	0.42
1:E:227:ILE:HD12	1:E:233:MET:CE	2.49	0.42
1:E:288:PRO:O	1:E:289:LYS:C	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:496:ALA:HB1	1:E:501:THR:C	2.40	0.42
1:G:173:GLU:HG3	1:G:174:ARG:N	2.34	0.42
1:H:9:PHE:CE2	1:H:103:GLU:OE2	2.72	0.42
1:H:82:HIS:ND1	1:H:83:SER:HB2	2.33	0.42
1:H:160:PRO:HB3	1:H:196:ALA:HB3	2.01	0.42
1:H:353:THR:CB	1:H:354:PRO:HD2	2.49	0.42
1:I:65:ILE:HA	1:I:147:ARG:NH2	2.34	0.42
1:I:356:ALA:O	1:I:360:PHE:CD2	2.72	0.42
1:J:55:CYS:HA	1:J:82:HIS:HA	2.01	0.42
1:J:211:ARG:N	1:J:212:ILE:HD12	2.34	0.42
1:L:32:LEU:O	1:L:33:ARG:HG2	2.19	0.42
1:L:420:LYS:NZ	1:L:420:LYS:CB	2.77	0.42
1:L:496:ALA:CA	1:L:501:THR:O	2.67	0.42
1:A:118:VAL:HG23	1:A:120:VAL:CG2	2.42	0.42
1:A:137:THR:HG23	1:A:140:GLU:CG	2.47	0.42
1:B:84:HIS:C	1:B:86:ARG:N	2.71	0.42
1:B:180:ALA:O	1:B:181:ASP:C	2.57	0.42
1:B:411:MET:HA	1:B:430:ILE:HG22	2.00	0.42
1:C:6:ASP:HA	1:C:7:PRO:HD3	1.83	0.42
1:C:223:ILE:HD11	1:C:345:ALA:HB1	2.01	0.42
1:D:184:ALA:O	1:D:189:HIS:HA	2.19	0.42
1:E:368:ILE:HA	1:E:369:PRO:HD3	1.61	0.42
1:F:186:THR:HB	1:F:187:ILE:H	1.33	0.42
1:F:278:GLY:N	1:F:302:LEU:HD11	2.34	0.42
1:F:371:LEU:HD23	1:F:481:ALA:HB3	2.00	0.42
1:F:378:VAL:HG12	1:F:379:THR:N	2.34	0.42
1:G:39:GLU:O	1:G:40:GLN:C	2.57	0.42
1:G:109:SER:OG	1:G:110:LEU:N	2.50	0.42
1:G:217:ARG:CZ	1:G:450:HIS:CE1	3.03	0.42
1:G:247:PHE:O	1:G:270:CYS:HA	2.19	0.42
1:H:354:PRO:HG2	1:H:355:GLU:H	1.83	0.42
1:I:271:ILE:HG23	1:I:272:ALA:N	2.34	0.42
1:J:25:GLU:HG2	1:J:26:ASP:N	2.33	0.42
1:J:186:THR:HG23	1:L:186:THR:HG23	2.00	0.42
1:J:400:LYS:O	1:J:401:TYR:C	2.57	0.42
1:J:496:ALA:C	1:J:501:THR:O	2.58	0.42
1:K:150:MET:SD	1:K:186:THR:HG21	2.59	0.42
1:K:399:PHE:CE2	1:K:443:ALA:HB1	2.54	0.42
1:K:428:ILE:HG23	1:K:430:ILE:HD11	2.01	0.42
1:L:18:ASP:O	1:L:21:ALA:HB3	2.18	0.42
1:L:79:ARG:HH12	1:L:165:PRO:HA	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:492:VAL:HG21	2:L:502:ADP:H2	1.84	0.42
1:A:310:TYR:CG	1:A:311:GLU:N	2.86	0.42
1:B:267:GLY:O	1:B:268:ALA:C	2.57	0.42
1:B:346:GLU:CD	1:B:478:ARG:HH22	2.16	0.42
1:B:400:LYS:O	1:B:401:TYR:C	2.57	0.42
1:B:423:LYS:HG2	1:B:426:GLY:CA	2.50	0.42
1:C:23:ILE:O	1:C:23:ILE:HG22	2.18	0.42
1:C:280:ILE:CG2	1:C:307:ALA:HB1	2.49	0.42
1:C:318:ASP:HA	1:C:340:LYS:CB	2.49	0.42
1:C:335:ASN:HB2	1:C:338:ARG:NH1	2.35	0.42
1:C:420:LYS:O	1:C:421:PHE:HB2	2.19	0.42
1:E:177:SER:HB2	1:E:202:PRO:HD2	2.01	0.42
1:E:371:LEU:CD2	1:E:482:TYR:CD2	3.01	0.42
1:F:167:PRO:HB3	1:F:176:MET:SD	2.60	0.42
1:F:255:VAL:O	1:F:256:GLY:C	2.56	0.42
1:G:90:LYS:CD	1:G:164:VAL:HB	2.43	0.42
1:G:359:ILE:HG22	1:G:363:ARG:HD3	2.01	0.42
1:I:57:HIS:CE1	1:L:151:GLU:OE1	2.72	0.42
1:I:322:LEU:CD1	1:I:344:ILE:HG23	2.47	0.42
1:J:117:VAL:HG11	1:J:372:TYR:HB2	2.01	0.42
1:J:383:PHE:CD1	1:K:397:LEU:HD21	2.54	0.42
1:J:414:GLN:CA	1:J:429:PRO:HG2	2.44	0.42
1:K:81:GLN:NE2	1:K:157:PHE:HD1	2.17	0.42
1:K:85:GLN:CB	1:K:492:VAL:HG11	2.48	0.42
1:K:239:THR:O	1:K:239:THR:CG2	2.64	0.42
1:K:298:HIS:ND1	1:K:298:HIS:O	2.52	0.42
1:K:491:LYS:HB2	1:K:491:LYS:HE3	1.78	0.42
1:A:49:LEU:H	1:A:49:LEU:HD12	1.84	0.42
1:A:248:VAL:HG23	1:A:319:CYS:CB	2.49	0.42
1:A:382:TYR:CE2	1:A:386:LEU:HD21	2.54	0.42
1:B:234:SER:C	1:B:236:LEU:H	2.23	0.42
1:B:344:ILE:HD11	1:B:360:PHE:CE1	2.54	0.42
1:C:92:GLY:O	1:C:126:LYS:HD3	2.19	0.42
1:C:165:PRO:O	1:C:198:VAL:HG23	2.19	0.42
1:C:385:TRP:CE3	1:C:386:LEU:HD23	2.55	0.42
1:E:59:LEU:HG	1:E:61:LEU:HD22	2.01	0.42
1:E:82:HIS:CD2	1:E:112:THR:HG21	2.54	0.42
1:E:229:GLU:O	1:E:230:ALA:C	2.58	0.42
1:F:67:ARG:HH11	1:F:67:ARG:CG	2.31	0.42
1:G:360:PHE:HB3	1:G:365:ILE:HB	2.00	0.42
1:G:398:THR:O	1:G:399:PHE:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:476:ASP:OD2	1:G:479:THR:OG1	2.34	0.42
1:H:79:ARG:HH11	1:H:79:ARG:HG3	1.83	0.42
1:I:85:GLN:H	1:I:85:GLN:HE21	1.68	0.42
1:I:175:GLU:O	1:I:179:ILE:HG13	2.19	0.42
1:I:182:THR:O	1:I:186:THR:HB	2.19	0.42
1:J:24:VAL:CG1	1:J:483:VAL:CG1	2.94	0.42
1:J:247:PHE:HB3	1:J:321:ILE:HB	2.01	0.42
1:J:386:LEU:CD1	1:K:392:VAL:HG11	2.44	0.42
1:J:485:ALA:O	1:J:486:ILE:C	2.56	0.42
1:K:45:VAL:O	1:K:45:VAL:HG13	2.19	0.42
1:K:226:PHE:HB3	1:K:366:MET:CE	2.49	0.42
1:L:90:LYS:HE2	1:L:165:PRO:O	2.19	0.42
1:L:103:GLU:O	1:L:106:ALA:HB3	2.19	0.42
1:L:157:PHE:O	1:L:163:ASP:HB3	2.20	0.42
1:A:95:TYR:HE2	1:A:129:VAL:HG21	1.84	0.42
1:A:201:LYS:HD2	1:A:205:GLN:O	2.20	0.42
1:A:339:VAL:HG21	1:A:360:PHE:CE1	2.47	0.42
1:B:81:GLN:HG3	1:B:157:PHE:HE1	1.81	0.42
1:B:201:LYS:HA	1:B:202:PRO:HD3	1.86	0.42
1:B:471:TYR:HE2	1:B:483:VAL:HG11	1.79	0.42
1:C:24:VAL:HG11	1:C:487:GLU:HG2	2.00	0.42
1:C:363:ARG:HB2	1:C:363:ARG:HH11	1.83	0.42
1:C:458:GLU:O	1:C:461:ALA:N	2.47	0.42
1:D:19:ARG:CD	1:D:23:ILE:HD11	2.31	0.42
1:D:87:THR:CG2	1:D:88:PRO:HD3	2.34	0.42
1:D:88:PRO:O	1:D:89:CYS:C	2.57	0.42
1:D:255:VAL:O	1:D:259:SER:OG	2.23	0.42
1:E:79:ARG:NH1	1:E:79:ARG:HG3	2.32	0.42
1:E:158:ILE:CD1	1:E:197:CYS:HB2	2.49	0.42
1:E:460:SER:O	1:E:461:ALA:C	2.57	0.42
1:G:79:ARG:HA	1:G:126:LYS:O	2.19	0.42
1:G:82:HIS:CG	1:G:109:SER:HA	2.55	0.42
1:G:394:TYR:CE2	1:H:397:LEU:HD22	2.54	0.42
1:G:417:LEU:HD23	1:H:417:LEU:HD11	2.00	0.42
1:H:409:LEU:HA	1:H:409:LEU:HD13	1.79	0.42
1:H:461:ALA:O	1:H:464:ILE:N	2.52	0.42
1:I:498:VAL:O	1:I:501:THR:HG22	2.19	0.42
1:I:501:THR:OXT	1:J:181:ASP:HB3	2.19	0.42
1:J:277:ASP:HB3	1:J:302:LEU:HD22	2.01	0.42
1:K:339:VAL:HG23	1:K:339:VAL:O	2.19	0.42
1:L:374:ASN:ND2	1:L:374:ASN:O	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:227:ILE:O	1:A:233:MET:CG	2.61	0.42
1:B:88:PRO:HG2	1:B:122:PHE:CD2	2.54	0.42
1:C:146:ARG:NH2	1:E:501:THR:N	2.68	0.42
1:C:370:ASP:C	1:C:372:TYR:N	2.73	0.42
1:C:498:VAL:HG21	1:F:72:TRP:NE1	2.33	0.42
1:D:257:LEU:HD12	1:D:257:LEU:O	2.19	0.42
1:D:364:ASN:O	1:D:365:ILE:HD13	2.20	0.42
1:D:394:TYR:HB2	1:D:445:GLU:CG	2.43	0.42
1:E:48:ILE:HG21	1:E:490:PHE:CD1	2.54	0.42
1:E:93:ILE:HD12	1:E:179:ILE:HD11	2.02	0.42
1:E:100:SER:O	1:E:101:VAL:C	2.56	0.42
1:E:314:ILE:CD1	1:E:314:ILE:N	2.70	0.42
1:F:220:PHE:CE2	1:F:263:LEU:HA	2.54	0.42
1:G:87:THR:HG22	1:G:161:GLY:O	2.20	0.42
1:G:175:GLU:HA	1:G:178:TRP:CE3	2.55	0.42
1:G:293:ASP:O	1:G:294:PHE:O	2.37	0.42
1:G:433:THR:O	1:G:434:ALA:C	2.57	0.42
1:H:109:SER:O	1:H:112:THR:HG23	2.20	0.42
1:H:267:GLY:O	1:H:268:ALA:C	2.57	0.42
1:H:345:ALA:HB1	1:H:373:LEU:HD21	2.01	0.42
1:I:111:MET:O	1:I:114:LYS:N	2.53	0.42
1:I:315:LEU:HD23	1:I:331:LEU:HD23	2.02	0.42
1:I:414:GLN:OE1	1:I:430:ILE:HG12	2.20	0.42
1:I:477:LEU:HD22	1:I:477:LEU:N	2.30	0.42
1:J:235:ILE:H	1:J:235:ILE:HG12	1.59	0.42
1:L:315:LEU:HD23	1:L:331:LEU:HD21	2.02	0.42
1:L:400:LYS:O	1:L:401:TYR:C	2.58	0.42
1:A:87:THR:HG22	1:A:88:PRO:CD	2.49	0.42
1:A:238:MET:CE	1:A:342:LYS:HG3	2.50	0.42
1:A:449:VAL:O	1:A:452:GLY:N	2.53	0.42
1:B:61:LEU:N	1:B:61:LEU:CD1	2.83	0.42
1:C:91:GLY:HA2	1:C:111:MET:CE	2.50	0.42
1:D:109:SER:O	1:D:113:TYR:CD2	2.72	0.42
1:D:316:GLU:O	1:D:317:ALA:C	2.57	0.42
1:D:372:TYR:CD1	1:D:372:TYR:C	2.93	0.42
1:D:453:LEU:CD2	1:D:453:LEU:C	2.87	0.42
1:E:112:THR:OG1	1:E:113:TYR:N	2.53	0.42
1:E:378:VAL:O	1:E:379:THR:C	2.57	0.42
1:G:53:LYS:HB3	1:G:54:PRO:CD	2.49	0.42
1:G:282:ASN:ND2	1:G:306:LYS:O	2.50	0.42
1:G:332:THR:H	1:G:335:ASN:ND2	2.16	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:291:LEU:HD12	1:H:291:LEU:C	2.34	0.42
1:I:112:THR:HB	1:I:124:GLY:H	1.85	0.42
1:I:281:TRP:HE1	1:I:283:PRO:CG	2.33	0.42
1:I:384:GLU:O	1:I:387:LYS:HB3	2.20	0.42
1:J:90:LYS:HZ3	1:J:199:THR:CG2	2.24	0.42
1:J:249:VAL:HA	1:J:323:ILE:HG23	2.02	0.42
1:K:17:PHE:CD2	1:K:53:LYS:HD2	2.55	0.42
1:K:41:LYS:O	1:K:44:ARG:CB	2.67	0.42
1:K:248:VAL:HG23	1:K:271:ILE:HG23	2.00	0.42
1:K:287:ASP:OD2	1:K:289:LYS:HB3	2.19	0.42
1:K:370:ASP:C	1:K:372:TYR:N	2.72	0.42
1:K:498:VAL:N	1:K:501:THR:HB	2.35	0.42
1:A:24:VAL:O	1:A:25:GLU:O	2.37	0.42
1:A:53:LYS:CB	1:A:54:PRO:CD	2.97	0.42
1:A:280:ILE:HG22	1:A:281:TRP:N	2.35	0.42
1:B:65:ILE:CG1	1:B:75:ILE:HD11	2.40	0.42
1:B:137:THR:CG2	1:B:140:GLU:CD	2.88	0.42
1:B:142:GLU:HG2	1:B:146:ARG:HD2	2.01	0.42
1:B:344:ILE:HD11	1:B:365:ILE:HG21	2.01	0.42
1:B:361:LEU:HD23	1:B:361:LEU:C	2.40	0.42
1:B:386:LEU:HD13	1:F:392:VAL:CG2	2.47	0.42
1:B:433:THR:CG2	1:F:412:SER:HA	2.49	0.42
1:C:432:PRO:HA	1:D:412:SER:OG	2.20	0.42
1:D:99:VAL:HG13	1:D:130:LYS:CD	2.50	0.42
1:D:171:THR:HG22	1:D:175:GLU:OE2	2.20	0.42
1:D:213:SER:HB2	1:D:217:ARG:HE	1.85	0.42
1:D:280:ILE:CG2	1:D:286:ILE:HD13	2.49	0.42
1:F:40:GLN:C	1:F:42:ARG:H	2.22	0.42
1:G:67:ARG:NH1	1:G:140:GLU:OE1	2.53	0.42
1:G:183:TYR:O	1:G:185:SER:N	2.53	0.42
1:G:301:ILE:H	1:G:301:ILE:HG23	1.52	0.42
1:G:497:GLY:HA3	1:G:501:THR:HA	2.01	0.42
1:H:79:ARG:HG3	1:H:79:ARG:NH1	2.34	0.42
1:H:224:GLU:O	1:H:225:ASN:C	2.58	0.42
1:H:361:LEU:HA	1:H:361:LEU:HD12	1.82	0.42
1:I:431:VAL:O	1:I:431:VAL:CG1	2.68	0.42
1:J:228:ASN:HD22	1:J:228:ASN:HA	1.57	0.42
1:J:439:ARG:NH2	1:K:405:SER:OG	2.51	0.42
1:J:465:MET:O	1:J:468:ALA:HB3	2.19	0.42
1:J:477:LEU:HD12	1:J:477:LEU:HA	1.91	0.42
1:K:204:SER:HG	1:K:205:GLN:HE21	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:255:VAL:CG1	1:K:256:GLY:N	2.82	0.42
1:K:356:ALA:O	1:K:360:PHE:CD2	2.73	0.42
1:L:20:GLY:O	1:L:24:VAL:CG2	2.64	0.42
1:L:158:ILE:HG12	1:L:165:PRO:HG2	2.01	0.42
1:L:239:THR:O	1:L:239:THR:CG2	2.66	0.42
1:L:329:LYS:HB2	1:L:329:LYS:NZ	2.34	0.42
1:A:8:ASN:O	1:A:10:PHE:N	2.53	0.42
1:A:111:MET:HB3	1:A:124:GLY:HA2	2.02	0.42
1:B:104:VAL:HG23	1:B:105:LYS:H	1.85	0.42
1:C:101:VAL:HG23	1:C:102:ASP:N	2.35	0.42
1:C:243:GLY:O	1:C:245:LYS:N	2.53	0.42
1:C:247:PHE:CD1	1:C:247:PHE:N	2.88	0.42
1:D:331:LEU:O	1:D:356:ALA:CB	2.68	0.42
1:E:86:ARG:HG2	1:E:121:PRO:HA	2.01	0.42
1:E:295:LYS:HG3	1:E:295:LYS:O	2.20	0.42
1:F:39:GLU:C	1:F:41:LYS:N	2.72	0.42
1:G:142:GLU:CG	1:G:146:ARG:HD2	2.33	0.42
1:G:300:SER:O	1:G:302:LEU:N	2.53	0.42
1:H:95:TYR:CD1	1:H:171:THR:HG22	2.55	0.42
1:H:95:TYR:OH	1:H:145:THR:HG22	2.19	0.42
1:H:129:VAL:O	1:H:131:ILE:N	2.53	0.42
1:H:227:ILE:HA	1:H:233:MET:SD	2.60	0.42
1:H:335:ASN:N	1:H:335:ASN:ND2	2.67	0.42
1:I:32:LEU:O	1:I:33:ARG:HB2	2.18	0.42
1:I:171:THR:HB	1:I:175:GLU:OE1	2.20	0.42
1:I:433:THR:CG2	1:J:412:SER:HA	2.49	0.42
1:I:479:THR:O	1:I:483:VAL:HG23	2.19	0.42
1:J:153:ALA:HB2	1:J:158:ILE:CG2	2.50	0.42
1:J:404:ASP:O	1:J:406:ASN:N	2.53	0.42
1:K:90:LYS:HB2	1:K:122:PHE:CG	2.55	0.42
1:K:248:VAL:HG13	1:K:272:ALA:C	2.39	0.42
1:K:336:ALA:N	1:K:337:PRO:CD	2.83	0.42
1:K:430:ILE:O	1:K:432:PRO:HD3	2.20	0.42
1:K:499:THR:OG1	1:K:500:PHE:HD1	2.03	0.42
1:L:13:VAL:O	1:L:14:GLU:C	2.58	0.42
1:L:219:VAL:HA	1:L:373:LEU:CD1	2.49	0.42
1:A:115:CYS:HB3	1:A:120:VAL:O	2.19	0.42
1:B:201:LYS:HG2	1:B:201:LYS:HZ3	1.69	0.42
1:D:334:SER:HB2	1:D:335:ASN:H	1.70	0.42
1:F:289:LYS:O	1:F:290:GLU:C	2.57	0.42
1:G:84:HIS:O	1:G:85:GLN:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:160:PRO:HB3	1:G:196:ALA:HB3	2.02	0.42
1:G:176:MET:HE1	1:G:179:ILE:HD12	2.02	0.42
1:G:177:SER:O	1:G:180:ALA:HB3	2.20	0.42
1:H:154:LYS:HB3	1:K:189:HIS:CD2	2.54	0.42
1:H:192:ILE:O	1:H:192:ILE:HG12	2.20	0.42
1:H:203:ILE:HG21	1:H:209:HIS:NE2	2.35	0.42
1:H:321:ILE:HG22	1:H:343:ILE:CG2	2.50	0.42
1:K:222:GLY:O	1:K:223:ILE:C	2.58	0.42
1:K:230:ALA:O	1:K:233:MET:HB2	2.20	0.42
1:K:335:ASN:C	1:K:335:ASN:HD22	2.23	0.42
1:K:360:PHE:CA	1:K:365:ILE:HG13	2.49	0.42
1:K:498:VAL:HG23	1:K:499:THR:H	1.85	0.42
1:L:168:ASP:OD1	1:L:169:MET:N	2.53	0.42
1:L:485:ALA:O	1:L:486:ILE:C	2.58	0.42
1:L:499:THR:HG23	1:L:500:PHE:N	2.35	0.42
1:A:79:ARG:HA	1:A:127:ALA:HA	2.02	0.41
1:A:250:GLN:NE2	1:A:274:GLY:O	2.53	0.41
1:A:314:ILE:CD1	1:A:314:ILE:H	2.32	0.41
1:A:448:ILE:HD13	1:B:401:TYR:CD1	2.55	0.41
1:A:499:THR:HB	1:E:147:ARG:CZ	2.50	0.41
1:C:499:THR:OG1	1:C:500:PHE:HD1	2.01	0.41
1:E:36:GLU:O	1:E:38:GLU:OE1	2.38	0.41
1:E:60:SER:CB	1:E:78:TYR:HD2	2.32	0.41
1:E:77:GLY:C	1:E:78:TYR:CG	2.93	0.41
1:E:224:GLU:HA	1:E:227:ILE:CG2	2.49	0.41
1:F:39:GLU:O	1:F:41:LYS:N	2.53	0.41
1:F:145:THR:HG21	1:F:175:GLU:CG	2.44	0.41
1:F:392:VAL:CG1	1:F:393:SER:N	2.82	0.41
1:G:198:VAL:O	1:G:201:LYS:HE2	2.19	0.41
1:G:322:LEU:HD22	1:G:344:ILE:CD1	2.50	0.41
1:G:401:TYR:HE2	1:L:402:GLU:OE1	2.03	0.41
1:G:484:ASN:O	1:G:488:LYS:HG3	2.20	0.41
1:H:93:ILE:O	1:H:168:ASP:HB2	2.20	0.41
1:H:274:GLY:HA2	1:H:279:SER:HA	2.02	0.41
1:H:296:LEU:C	1:H:296:LEU:HD13	2.41	0.41
1:H:403:ARG:HG3	1:H:440:ILE:HG23	2.02	0.41
1:I:34:THR:O	1:I:34:THR:HG22	2.19	0.41
1:I:42:ARG:H	1:I:42:ARG:HG2	1.52	0.41
1:I:382:TYR:O	1:I:385:TRP:HB3	2.20	0.41
1:J:329:LYS:HE3	1:J:329:LYS:HB3	1.87	0.41
1:K:263:LEU:HA	1:K:263:LEU:HD12	1.64	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:360:PHE:HB3	1:K:365:ILE:CB	2.47	0.41
1:L:94:ARG:HG3	1:L:95:TYR:N	2.35	0.41
1:L:120:VAL:HG13	1:L:382:TYR:HB2	2.02	0.41
1:L:344:ILE:HD11	1:L:360:PHE:CE1	2.56	0.41
1:L:346:GLU:HG2	1:L:351:PRO:CD	2.50	0.41
1:A:34:THR:O	1:A:34:THR:CG2	2.63	0.41
1:A:337:PRO:HD3	1:A:359:ILE:HD13	2.01	0.41
1:A:382:TYR:O	1:A:385:TRP:HB3	2.19	0.41
1:B:17:PHE:CD2	1:B:53:LYS:HG3	2.55	0.41
1:B:387:LYS:HE3	1:B:393:SER:HA	2.02	0.41
1:C:53:LYS:O	1:C:82:HIS:HE1	2.03	0.41
1:C:198:VAL:O	1:C:198:VAL:HG13	2.20	0.41
1:C:233:MET:CE	1:C:236:LEU:HD11	2.50	0.41
1:C:436:PHE:O	1:C:440:ILE:CG1	2.63	0.41
1:D:90:LYS:HZ3	1:D:164:VAL:CG1	2.31	0.41
1:D:99:VAL:HG13	1:D:130:LYS:HD2	2.01	0.41
1:D:315:LEU:HA	1:D:315:LEU:HD12	1.87	0.41
1:E:203:ILE:HG21	1:E:209:HIS:HE1	1.85	0.41
1:E:257:LEU:HD12	1:E:257:LEU:O	2.20	0.41
1:E:433:THR:O	1:E:434:ALA:C	2.58	0.41
1:F:160:PRO:CG	1:F:161:GLY:N	2.83	0.41
1:F:420:LYS:O	1:F:420:LYS:NZ	2.39	0.41
1:F:496:ALA:CA	1:F:501:THR:O	2.68	0.41
1:G:24:VAL:O	1:G:25:GLU:C	2.58	0.41
1:G:376:GLY:O	1:G:379:THR:HB	2.20	0.41
1:G:416:SER:CB	1:L:429:PRO:HA	2.50	0.41
1:G:420:LYS:HE2	1:G:420:LYS:HB3	1.92	0.41
1:H:149:THR:HG21	1:H:182:THR:HB	2.02	0.41
1:H:316:GLU:O	1:H:317:ALA:O	2.38	0.41
1:H:346:GLU:HG2	1:H:351:PRO:HG3	2.00	0.41
1:I:264:HIS:C	1:I:266:PHE:N	2.72	0.41
1:I:439:ARG:HH12	1:J:404:ASP:HB3	1.82	0.41
1:J:59:LEU:HB2	1:J:157:PHE:CZ	2.55	0.41
1:J:371:LEU:HD13	1:J:482:TYR:CZ	2.55	0.41
1:J:406:ASN:O	1:J:409:LEU:N	2.48	0.41
1:K:141:LEU:O	1:K:145:THR:HG22	2.19	0.41
1:K:308:LYS:HG2	1:K:309:PRO:HD2	2.01	0.41
1:K:363:ARG:NH1	1:K:363:ARG:HB2	2.34	0.41
1:K:497:GLY:N	1:K:501:THR:HA	2.34	0.41
1:L:227:ILE:HA	1:L:233:MET:SD	2.61	0.41
1:L:465:MET:HB2	1:L:466:ARG:H	1.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:352:THR:HG1	1:A:478:ARG:HH22	1.67	0.41
1:A:402:GLU:O	1:A:403:ARG:C	2.59	0.41
1:B:28:LEU:HD21	1:B:490:PHE:CG	2.54	0.41
1:B:407:TYR:H	1:B:407:TYR:HD2	1.69	0.41
1:C:63:PHE:CD2	1:C:63:PHE:N	2.88	0.41
1:C:219:VAL:O	1:C:220:PHE:C	2.57	0.41
1:C:316:GLU:HG3	1:C:338:ARG:HE	1.80	0.41
1:D:109:SER:O	1:D:112:THR:HB	2.21	0.41
1:E:66:ARG:HD3	1:E:72:TRP:CZ2	2.54	0.41
1:E:330:GLN:C	1:E:331:LEU:HD12	2.40	0.41
1:E:396:ARG:HD3	1:E:396:ARG:C	2.39	0.41
1:E:477:LEU:HA	1:E:477:LEU:HD12	1.85	0.41
1:F:131:ILE:HA	1:F:131:ILE:HD12	1.68	0.41
1:F:131:ILE:HG13	1:F:136:TYR:CE2	2.55	0.41
1:F:332:THR:O	1:F:335:ASN:ND2	2.53	0.41
1:G:111:MET:HE3	1:G:114:LYS:HD2	2.03	0.41
1:H:30:GLU:O	1:H:32:LEU:N	2.53	0.41
1:H:368:ILE:HA	1:H:369:PRO:HD3	1.72	0.41
1:H:414:GLN:HB2	1:H:429:PRO:HD2	2.02	0.41
1:I:56:ASN:C	1:I:57:HIS:ND1	2.73	0.41
1:K:12:MET:HG2	1:K:16:PHE:HE1	1.84	0.41
1:K:210:GLY:HA2	1:K:212:ILE:CD1	2.50	0.41
1:K:256:GLY:O	1:K:259:SER:HB2	2.20	0.41
1:K:358:LYS:O	1:K:361:LEU:N	2.51	0.41
1:K:428:ILE:O	1:K:431:VAL:HG12	2.19	0.41
1:L:280:ILE:CD1	1:L:304:PHE:HB3	2.50	0.41
1:A:48:ILE:O	1:A:51:ILE:HB	2.21	0.41
1:A:220:PHE:CD1	1:A:220:PHE:C	2.94	0.41
1:A:332:THR:O	1:A:335:ASN:ND2	2.53	0.41
1:A:437:GLN:CG	1:H:423:LYS:HD3	2.49	0.41
1:A:466:ARG:C	1:A:468:ALA:H	2.24	0.41
1:B:211:ARG:N	1:B:212:ILE:HD12	2.35	0.41
1:B:264:HIS:C	1:B:266:PHE:N	2.73	0.41
1:B:433:THR:N	1:F:412:SER:OG	2.54	0.41
1:C:201:LYS:O	1:C:207:GLY:HA3	2.20	0.41
1:D:219:VAL:O	1:D:373:LEU:HD11	2.20	0.41
1:D:265:ARG:HG3	1:D:265:ARG:O	2.19	0.41
1:E:129:VAL:O	1:E:131:ILE:N	2.53	0.41
1:E:351:PRO:O	1:E:352:THR:HG23	2.21	0.41
1:E:434:ALA:O	1:E:435:GLU:C	2.58	0.41
1:E:497:GLY:N	1:E:501:THR:HA	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:118:VAL:O	1:F:120:VAL:HG23	2.20	0.41
1:F:122:PHE:HE1	1:F:382:TYR:HA	1.85	0.41
1:F:167:PRO:N	1:F:176:MET:SD	2.93	0.41
1:F:176:MET:HG2	1:F:199:THR:O	2.21	0.41
1:F:372:TYR:CD1	1:F:373:LEU:N	2.88	0.41
1:F:403:ARG:O	1:F:406:ASN:HB2	2.20	0.41
1:G:19:ARG:HH11	1:G:19:ARG:HG3	1.85	0.41
1:G:33:ARG:HH11	1:G:33:ARG:CG	2.33	0.41
1:G:146:ARG:HH12	1:L:501:THR:C	2.24	0.41
1:G:181:ASP:O	1:G:182:THR:C	2.57	0.41
1:G:255:VAL:HG13	1:G:256:GLY:H	1.86	0.41
1:G:294:PHE:O	1:G:296:LEU:N	2.53	0.41
1:G:405:SER:O	1:G:408:HIS:HB2	2.19	0.41
1:H:249:VAL:CG2	1:H:250:GLN:N	2.82	0.41
1:I:158:ILE:O	1:I:158:ILE:CG2	2.68	0.41
1:I:378:VAL:O	1:I:379:THR:C	2.59	0.41
1:I:428:ILE:O	1:J:416:SER:HB3	2.20	0.41
1:J:131:ILE:O	1:J:133:PRO:HD3	2.20	0.41
1:K:282:ASN:O	1:K:284:ASP:N	2.53	0.41
1:K:353:THR:HB	1:K:354:PRO:CD	2.51	0.41
1:L:104:VAL:CG2	1:L:105:LYS:H	2.33	0.41
1:L:271:ILE:CG2	1:L:272:ALA:N	2.83	0.41
1:L:304:PHE:CD1	1:L:305:PRO:HD2	2.56	0.41
1:L:353:THR:HB	1:L:354:PRO:CD	2.51	0.41
1:A:465:MET:O	1:A:468:ALA:HB3	2.19	0.41
1:B:173:GLU:HB2	1:B:202:PRO:HG3	2.02	0.41
1:B:387:LYS:HE3	1:B:445:GLU:OE2	2.21	0.41
1:B:501:THR:C	1:F:146:ARG:NH2	2.69	0.41
1:C:16:PHE:HE2	1:C:478:ARG:HD3	1.85	0.41
1:C:160:PRO:HD3	1:C:183:TYR:HE2	1.86	0.41
1:C:433:THR:HG23	1:D:412:SER:OG	2.20	0.41
1:D:153:ALA:HA	1:D:158:ILE:HG22	2.02	0.41
1:D:281:TRP:O	1:D:282:ASN:CB	2.66	0.41
1:D:386:LEU:O	1:D:387:LYS:C	2.58	0.41
1:D:429:PRO:HA	1:E:416:SER:HB3	2.01	0.41
1:G:238:MET:O	1:G:239:THR:C	2.58	0.41
1:G:429:PRO:HA	1:H:416:SER:CB	2.50	0.41
1:H:32:LEU:HD23	1:H:32:LEU:HA	1.91	0.41
1:H:346:GLU:CD	1:H:478:ARG:HH22	2.23	0.41
1:I:30:GLU:HA	1:I:34:THR:OG1	2.20	0.41
1:I:192:ILE:HG23	1:I:193:ASN:OD1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:414:GLN:OE1	1:I:429:PRO:HD2	2.21	0.41
1:J:277:ASP:HB2	1:J:278:GLY:H	1.67	0.41
1:J:410:LEU:N	1:J:410:LEU:HD23	2.33	0.41
1:K:90:LYS:HD2	1:K:164:VAL:HB	2.02	0.41
1:K:164:VAL:HA	1:K:197:CYS:O	2.21	0.41
1:L:297:GLN:HG3	1:L:297:GLN:H	1.64	0.41
1:B:58:VAL:CG1	1:D:60:SER:HB2	2.50	0.41
1:B:277:ASP:OD2	1:B:300:SER:CB	2.68	0.41
1:B:321:ILE:HG23	1:B:343:ILE:CB	2.49	0.41
1:C:153:ALA:HA	1:C:158:ILE:HG22	2.02	0.41
1:C:250:GLN:HE21	1:C:314:ILE:HD11	1.85	0.41
1:C:497:GLY:O	1:C:498:VAL:CG1	2.67	0.41
1:D:281:TRP:CG	1:D:282:ASN:N	2.89	0.41
1:F:82:HIS:CG	1:F:109:SER:HA	2.55	0.41
1:F:244:ASP:CG	1:F:245:LYS:HG3	2.39	0.41
1:F:421:PHE:O	1:F:423:LYS:N	2.54	0.41
1:G:58:VAL:HG23	1:G:80:ALA:CB	2.50	0.41
1:G:191:ASP:C	1:G:193:ASN:N	2.74	0.41
1:H:439:ARG:NH1	1:L:405:SER:HA	2.35	0.41
1:I:47:GLY:O	1:I:50:ARG:N	2.53	0.41
1:I:364:ASN:O	1:I:365:ILE:HD13	2.21	0.41
1:J:23:ILE:HG13	1:J:23:ILE:H	1.36	0.41
1:K:52:ILE:CD1	1:K:489:VAL:HG12	2.46	0.41
1:K:80:ALA:O	1:K:125:ALA:HA	2.20	0.41
1:K:330:GLN:HB3	1:K:331:LEU:HD23	2.02	0.41
1:L:17:PHE:HE2	1:L:53:LYS:HB2	1.85	0.41
1:L:370:ASP:OD2	1:L:371:LEU:N	2.52	0.41
1:B:12:MET:O	1:B:15:GLY:N	2.54	0.41
1:B:175:GLU:HA	1:B:178:TRP:HE3	1.79	0.41
1:B:247:PHE:CZ	1:B:270:CYS:HB2	2.56	0.41
1:B:264:HIS:O	1:B:266:PHE:N	2.54	0.41
1:B:374:ASN:O	1:B:374:ASN:ND2	2.53	0.41
1:C:248:VAL:HB	1:C:322:LEU:HD23	2.03	0.41
1:D:32:LEU:HD23	1:D:32:LEU:HA	1.98	0.41
1:E:28:LEU:HD21	1:E:490:PHE:CD2	2.56	0.41
1:E:167:PRO:HG3	1:E:176:MET:HG2	2.03	0.41
1:E:461:ALA:O	1:E:462:ARG:C	2.59	0.41
1:G:243:GLY:O	1:G:245:LYS:N	2.54	0.41
1:G:258:HIS:HB3	1:G:262:TYR:HE2	1.83	0.41
1:G:346:GLU:OE1	1:G:370:ASP:N	2.53	0.41
1:H:20:GLY:O	1:H:21:ALA:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:48:ILE:H	1:H:48:ILE:HG12	1.60	0.41
1:H:48:ILE:O	1:H:52:ILE:HG13	2.20	0.41
1:H:94:ARG:CB	1:H:168:ASP:OD2	2.67	0.41
1:H:126:LYS:HD2	1:H:127:ALA:H	1.85	0.41
1:I:58:VAL:HG13	1:L:60:SER:HB2	2.02	0.41
1:I:196:ALA:HB1	1:I:385:TRP:CD1	2.56	0.41
1:I:247:PHE:CZ	1:I:260:MET:HA	2.55	0.41
1:I:287:ASP:HA	1:I:288:PRO:HD3	1.72	0.41
1:J:93:ILE:HD11	1:J:165:PRO:HB3	2.03	0.41
1:K:24:VAL:HG12	1:K:28:LEU:HB2	2.02	0.41
1:K:147:ARG:HG3	1:K:147:ARG:NH1	2.34	0.41
1:A:90:LYS:CB	1:A:122:PHE:HD1	2.34	0.41
1:A:497:GLY:N	1:A:501:THR:C	2.73	0.41
1:B:47:GLY:O	1:B:51:ILE:HG13	2.21	0.41
1:B:280:ILE:CD1	1:B:304:PHE:HB3	2.50	0.41
1:D:83:SER:OG	1:D:84:HIS:N	2.54	0.41
1:D:173:GLU:O	1:D:174:ARG:C	2.59	0.41
1:D:191:ASP:C	1:D:193:ASN:H	2.24	0.41
1:D:226:PHE:O	1:D:228:ASN:N	2.54	0.41
1:D:296:LEU:O	1:D:298:HIS:N	2.54	0.41
1:D:460:SER:O	1:D:464:ILE:HG13	2.21	0.41
1:E:339:VAL:CG2	1:E:360:PHE:HE1	2.25	0.41
1:F:263:LEU:HA	1:F:263:LEU:HD12	1.92	0.41
1:G:346:GLU:O	1:G:373:LEU:HD23	2.21	0.41
1:H:120:VAL:HG22	1:H:382:TYR:HB2	2.02	0.41
1:H:300:SER:O	1:H:302:LEU:N	2.53	0.41
1:H:342:LYS:O	1:H:365:ILE:HG23	2.21	0.41
1:I:233:MET:CE	1:I:343:ILE:HD11	2.49	0.41
1:I:389:LEU:O	1:I:391:HIS:HD2	2.04	0.41
1:I:397:LEU:HD13	1:K:394:TYR:CE2	2.55	0.41
1:I:435:GLU:O	1:I:438:ASP:N	2.52	0.41
1:J:193:ASN:O	1:J:195:HIS:N	2.54	0.41
1:J:290:GLU:O	1:J:291:LEU:C	2.59	0.41
1:J:337:PRO:HA	1:J:363:ARG:NH2	2.35	0.41
1:L:34:THR:HG22	1:L:34:THR:O	2.21	0.41
1:L:294:PHE:CA	1:L:297:GLN:NE2	2.77	0.41
1:L:463:GLN:O	1:L:467:THR:HB	2.21	0.41
1:A:119:ASP:OD2	1:A:459:ARG:NH1	2.43	0.41
1:A:412:SER:O	1:A:413:VAL:O	2.39	0.41
1:B:75:ILE:HD12	1:B:75:ILE:N	2.36	0.41
1:B:95:TYR:CZ	1:B:145:THR:HG22	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:150:MET:SD	1:B:186:THR:HG21	2.61	0.41
1:B:189:HIS:CE1	1:E:154:LYS:HD3	2.55	0.41
1:B:307:ALA:O	1:B:308:LYS:HB2	2.20	0.41
1:B:501:THR:HG23	1:B:501:THR:OXT	2.21	0.41
1:C:280:ILE:CG2	1:C:281:TRP:N	2.81	0.41
1:C:346:GLU:OE1	1:C:367:VAL:HG12	2.21	0.41
1:C:439:ARG:NH2	1:D:405:SER:CB	2.84	0.41
1:D:67:ARG:O	1:D:68:ASP:C	2.58	0.41
1:D:141:LEU:HD23	1:D:141:LEU:HA	1.70	0.41
1:D:227:ILE:O	1:D:227:ILE:HG23	2.21	0.41
1:E:86:ARG:HG2	1:E:121:PRO:C	2.41	0.41
1:E:105:LYS:HB3	1:E:105:LYS:HE2	1.55	0.41
1:F:335:ASN:N	1:F:335:ASN:ND2	2.69	0.41
1:F:386:LEU:HD12	1:F:394:TYR:OH	2.21	0.41
1:F:497:GLY:HA3	1:F:500:PHE:O	2.20	0.41
1:G:85:GLN:N	1:G:85:GLN:HE21	2.18	0.41
1:G:250:GLN:CB	1:G:314:ILE:HD11	2.51	0.41
1:G:294:PHE:O	1:G:295:LYS:C	2.59	0.41
1:G:355:GLU:O	1:G:359:ILE:HG13	2.21	0.41
1:H:29:VAL:HB	1:H:30:GLU:H	1.43	0.41
1:H:113:TYR:O	1:H:114:LYS:C	2.59	0.41
1:H:137:THR:H	1:H:137:THR:HG22	1.58	0.41
1:H:193:ASN:O	1:H:194:ALA:C	2.56	0.41
1:H:280:ILE:CD1	1:H:301:ILE:HD12	2.45	0.41
1:H:346:GLU:OE1	1:H:478:ARG:NH2	2.49	0.41
1:H:369:PRO:CG	1:H:478:ARG:HA	2.51	0.41
1:H:370:ASP:O	1:H:372:TYR:N	2.54	0.41
1:I:57:HIS:HE1	1:L:151:GLU:OE1	2.04	0.41
1:I:148:PHE:CE2	1:I:152:LEU:HD22	2.56	0.41
1:I:189:HIS:HD2	1:I:190:TYR:CE1	2.39	0.41
1:I:228:ASN:HD22	1:I:228:ASN:HA	1.71	0.41
1:I:247:PHE:CZ	1:I:260:MET:HG3	2.56	0.41
1:I:263:LEU:HD12	1:I:263:LEU:HA	1.93	0.41
1:I:282:ASN:OD1	1:I:282:ASN:C	2.58	0.41
1:I:335:ASN:O	1:I:339:VAL:HG13	2.21	0.41
1:I:353:THR:HB	1:I:354:PRO:HD2	2.02	0.41
1:I:396:ARG:HH21	1:K:456:THR:HG23	1.86	0.41
1:J:9:PHE:CE1	1:J:103:GLU:HG3	2.56	0.41
1:J:188:GLY:O	1:J:189:HIS:C	2.59	0.41
1:J:335:ASN:C	1:J:335:ASN:ND2	2.73	0.41
1:J:369:PRO:CG	1:J:478:ARG:HA	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:394:TYR:HB2	1:J:445:GLU:HG3	2.02	0.41
1:J:417:LEU:HA	1:J:417:LEU:HD12	1.79	0.41
1:J:442:GLY:O	1:J:443:ALA:C	2.59	0.41
1:K:212:ILE:HD12	1:K:212:ILE:N	2.36	0.41
1:K:256:GLY:O	1:K:257:LEU:C	2.58	0.41
1:K:416:SER:CA	1:K:419:ARG:NH2	2.83	0.41
1:L:247:PHE:CZ	1:L:260:MET:HA	2.56	0.41
1:L:280:ILE:HG22	1:L:281:TRP:N	2.36	0.41
1:A:176:MET:HE3	1:A:179:ILE:HD12	2.02	0.41
1:A:331:LEU:HD22	1:A:344:ILE:HD13	2.02	0.41
1:B:90:LYS:HD3	1:B:122:PHE:CD1	2.56	0.41
1:B:188:GLY:O	1:B:190:TYR:N	2.54	0.41
1:B:200:GLY:H	1:B:384:GLU:CD	2.24	0.41
1:B:254:ASN:O	1:B:255:VAL:C	2.60	0.41
1:D:142:GLU:O	1:D:143:LYS:C	2.59	0.41
1:D:501:THR:OXT	1:E:181:ASP:OD1	2.38	0.41
1:E:32:LEU:O	1:E:33:ARG:HB3	2.21	0.41
1:F:29:VAL:O	1:F:33:ARG:CG	2.68	0.41
1:F:346:GLU:OE1	1:F:370:ASP:N	2.49	0.41
1:G:48:ILE:O	1:G:51:ILE:HB	2.21	0.41
1:H:357:ASP:O	1:H:358:LYS:C	2.59	0.41
1:H:382:TYR:O	1:H:386:LEU:HG	2.21	0.41
1:I:248:VAL:HG22	1:I:271:ILE:HG22	2.02	0.41
1:I:397:LEU:HD21	1:K:383:PHE:CE1	2.55	0.41
1:I:410:LEU:CD2	1:J:409:LEU:HD11	2.49	0.41
1:I:412:SER:OG	1:K:433:THR:HG23	2.20	0.41
1:I:495:GLU:O	1:I:496:ALA:CB	2.67	0.41
1:J:174:ARG:HG3	1:J:175:GLU:N	2.35	0.41
1:J:371:LEU:HD22	1:J:482:TYR:CE2	2.55	0.41
1:K:90:LYS:HD3	1:K:122:PHE:CE1	2.56	0.41
1:K:232:TYR:CD1	1:K:232:TYR:N	2.89	0.41
1:K:463:GLN:O	1:K:467:THR:HB	2.21	0.41
1:L:48:ILE:HG21	1:L:490:PHE:CD1	2.55	0.41
1:L:374:ASN:O	1:L:374:ASN:CG	2.59	0.41
1:L:429:PRO:C	1:L:431:VAL:N	2.73	0.41
1:A:79:ARG:NH2	1:A:91:GLY:O	2.53	0.40
1:A:214:ALA:CB	1:A:380:VAL:HG21	2.51	0.40
1:C:431:VAL:HA	1:C:432:PRO:HD3	1.86	0.40
1:D:16:PHE:HD1	1:D:482:TYR:CZ	2.39	0.40
1:E:45:VAL:C	1:E:47:GLY:H	2.25	0.40
1:F:27:LYS:O	1:F:32:LEU:HD12	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:82:HIS:HD2	1:F:112:THR:OG1	2.03	0.40
1:G:61:LEU:HA	1:K:56:ASN:O	2.21	0.40
1:G:111:MET:CE	1:G:378:VAL:HG21	2.51	0.40
1:H:85:GLN:HE21	1:H:85:GLN:HB3	1.39	0.40
1:H:163:ASP:O	1:H:165:PRO:HD3	2.21	0.40
1:H:257:LEU:O	1:H:260:MET:N	2.54	0.40
1:H:279:SER:C	1:H:280:ILE:HG13	2.42	0.40
1:I:131:ILE:CD1	1:I:144:ILE:HD13	2.51	0.40
1:I:198:VAL:O	1:I:201:LYS:HE3	2.21	0.40
1:I:346:GLU:HG2	1:I:351:PRO:HG2	2.03	0.40
1:I:392:VAL:HG11	1:K:386:LEU:HD11	2.03	0.40
1:I:475:LEU:O	1:I:477:LEU:HD22	2.22	0.40
1:J:9:PHE:HA	1:J:12:MET:HE2	2.03	0.40
1:J:126:LYS:HG3	1:J:127:ALA:N	2.36	0.40
1:J:186:THR:HB	1:J:187:ILE:H	1.34	0.40
1:J:240:PRO:HD2	1:J:244:ASP:O	2.21	0.40
1:J:319:CYS:O	1:J:341:ALA:HA	2.21	0.40
1:J:358:LYS:O	1:J:362:GLU:CG	2.68	0.40
1:K:82:HIS:N	1:K:124:GLY:O	2.48	0.40
1:K:142:GLU:O	1:K:143:LYS:C	2.58	0.40
1:K:233:MET:CE	1:K:236:LEU:HD12	2.51	0.40
1:K:414:GLN:OE1	1:K:428:ILE:HA	2.21	0.40
1:K:414:GLN:HG3	1:K:427:THR:O	2.21	0.40
1:K:500:PHE:HE1	1:L:500:PHE:CZ	2.33	0.40
1:L:220:PHE:CD1	1:L:220:PHE:C	2.94	0.40
1:L:247:PHE:CZ	1:L:260:MET:HG3	2.47	0.40
1:A:93:ILE:O	1:A:168:ASP:HB3	2.22	0.40
1:A:114:LYS:CE	1:A:374:ASN:HD21	2.33	0.40
1:A:233:MET:HA	1:A:233:MET:HE1	2.04	0.40
1:A:243:GLY:O	1:A:245:LYS:N	2.54	0.40
1:A:346:GLU:OE1	1:A:369:PRO:HA	2.21	0.40
1:A:374:ASN:ND2	1:A:374:ASN:C	2.73	0.40
1:C:164:VAL:HG22	1:C:196:ALA:O	2.21	0.40
1:D:264:HIS:O	1:D:266:PHE:N	2.54	0.40
1:D:332:THR:O	1:D:336:ALA:HB2	2.20	0.40
1:E:145:THR:OG1	1:E:146:ARG:N	2.54	0.40
1:E:166:ALA:CA	1:E:176:MET:HE2	2.50	0.40
1:E:335:ASN:O	1:E:336:ALA:C	2.58	0.40
1:F:73:GLU:OE1	1:F:136:TYR:OH	2.39	0.40
1:G:9:PHE:HA	1:G:12:MET:HE3	2.02	0.40
1:G:17:PHE:CE2	1:G:53:LYS:CB	3.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:167:PRO:HG3	1:G:176:MET:CG	2.47	0.40
1:G:234:SER:O	1:G:237:GLY:N	2.54	0.40
1:H:80:ALA:O	1:H:125:ALA:HA	2.20	0.40
1:H:300:SER:C	1:H:302:LEU:H	2.25	0.40
1:I:90:LYS:HD2	1:I:164:VAL:HB	2.03	0.40
1:I:238:MET:C	1:I:240:PRO:CD	2.89	0.40
1:I:497:GLY:N	1:I:501:THR:HA	2.35	0.40
1:J:30:GLU:CA	1:J:34:THR:HG23	2.45	0.40
1:J:90:LYS:NZ	1:J:199:THR:HG23	2.27	0.40
1:J:244:ASP:O	1:J:245:LYS:HG3	2.21	0.40
1:J:496:ALA:HB1	1:J:501:THR:O	2.21	0.40
1:A:68:ASP:O	1:A:69:ASP:C	2.60	0.40
1:A:272:ALA:HB1	1:A:314:ILE:CG2	2.51	0.40
1:A:272:ALA:HB1	1:A:314:ILE:HG21	2.04	0.40
1:A:275:GLU:HB3	1:A:276:SER:H	1.69	0.40
1:A:370:ASP:C	1:A:372:TYR:H	2.23	0.40
1:A:423:LYS:NZ	1:A:426:GLY:CA	2.84	0.40
1:A:455:TYR:HB2	1:B:400:LYS:HB2	2.03	0.40
1:A:501:THR:HG21	1:B:181:ASP:OD1	2.21	0.40
1:B:250:GLN:HA	1:B:314:ILE:HD11	2.03	0.40
1:B:250:GLN:CB	1:B:314:ILE:HD11	2.51	0.40
1:B:332:THR:HB	1:B:333:LYS:H	1.66	0.40
1:C:82:HIS:CB	1:C:112:THR:HG21	2.50	0.40
1:C:201:LYS:HZ1	1:C:388:ASN:ND2	2.18	0.40
1:C:383:PHE:CE2	1:D:397:LEU:HD11	2.56	0.40
1:C:435:GLU:O	1:C:436:PHE:C	2.60	0.40
1:D:87:THR:HG22	1:D:88:PRO:HG3	2.04	0.40
1:D:163:ASP:O	1:D:165:PRO:HD3	2.22	0.40
1:D:255:VAL:O	1:D:256:GLY:C	2.57	0.40
1:D:409:LEU:HD22	1:D:409:LEU:HA	1.89	0.40
1:E:40:GLN:C	1:E:42:ARG:H	2.21	0.40
1:E:78:TYR:OH	1:E:130:LYS:CE	2.69	0.40
1:E:492:VAL:CG2	2:E:5:ADP:C2	3.05	0.40
1:E:496:ALA:O	1:E:501:THR:O	2.39	0.40
1:F:315:LEU:CD1	1:F:315:LEU:H	2.31	0.40
1:F:323:ILE:HD13	1:F:323:ILE:HG21	1.79	0.40
1:F:328:GLU:HB2	1:F:329:LYS:HZ3	1.85	0.40
1:F:476:ASP:OD2	1:F:479:THR:OG1	2.22	0.40
1:G:117:VAL:HG21	1:G:371:LEU:HG	2.03	0.40
1:G:287:ASP:HB3	1:G:290:GLU:HG3	2.03	0.40
1:H:470:LYS:C	1:H:472:ASN:H	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:52:ILE:O	1:I:82:HIS:CE1	2.75	0.40
1:I:167:PRO:CD	1:I:176:MET:SD	3.09	0.40
1:J:84:HIS:O	1:J:85:GLN:C	2.60	0.40
1:J:90:LYS:HD3	1:J:122:PHE:CE1	2.55	0.40
1:J:162:ILE:HG22	1:J:163:ASP:N	2.35	0.40
1:J:220:PHE:CD1	1:J:220:PHE:C	2.93	0.40
1:K:86:ARG:HG2	1:K:121:PRO:C	2.41	0.40
1:K:213:SER:O	1:K:214:ALA:C	2.60	0.40
1:K:290:GLU:HB3	1:K:304:PHE:HZ	1.86	0.40
1:K:368:ILE:HA	1:K:369:PRO:HD3	1.51	0.40
1:K:478:ARG:O	1:K:481:ALA:N	2.39	0.40
1:L:279:SER:HB2	1:L:310:TYR:O	2.22	0.40
1:L:301:ILE:H	1:L:301:ILE:HG13	1.74	0.40
1:L:323:ILE:O	1:L:323:ILE:HG22	2.22	0.40
1:A:109:SER:O	1:A:113:TYR:CD2	2.74	0.40
1:A:117:VAL:HG21	1:A:371:LEU:HG	2.03	0.40
1:A:359:ILE:O	1:A:361:LEU:N	2.55	0.40
1:A:387:LYS:HE3	1:A:393:SER:HA	2.03	0.40
1:A:432:PRO:HB3	1:A:436:PHE:CD1	2.56	0.40
1:B:467:THR:O	1:B:468:ALA:C	2.59	0.40
1:C:313:SER:O	1:C:316:GLU:OE2	2.40	0.40
1:C:465:MET:O	1:C:466:ARG:C	2.58	0.40
1:D:96:SER:HA	1:D:131:ILE:O	2.21	0.40
1:D:366:MET:CA	1:D:475:LEU:HD23	2.52	0.40
1:E:464:ILE:HG22	1:E:465:MET:N	2.36	0.40
1:F:45:VAL:C	1:F:47:GLY:N	2.74	0.40
1:F:230:ALA:O	1:F:231:SER:C	2.58	0.40
1:G:8:ASN:O	1:G:9:PHE:C	2.59	0.40
1:G:67:ARG:NH1	1:G:140:GLU:OE2	2.54	0.40
1:G:174:ARG:HG3	1:G:175:GLU:H	1.86	0.40
1:G:315:LEU:CD2	1:G:331:LEU:HD23	2.51	0.40
1:H:23:ILE:H	1:H:23:ILE:HG13	1.67	0.40
1:H:42:ARG:C	1:H:44:ARG:N	2.75	0.40
1:H:67:ARG:NH2	1:H:136:TYR:CD1	2.90	0.40
1:H:91:GLY:O	1:H:165:PRO:HA	2.22	0.40
1:H:250:GLN:HG2	1:H:314:ILE:CD1	2.44	0.40
1:H:294:PHE:C	1:H:298:HIS:CE1	2.95	0.40
1:H:382:TYR:O	1:H:385:TRP:HB3	2.21	0.40
1:H:382:TYR:HE1	1:H:386:LEU:HD11	1.76	0.40
1:H:462:ARG:HH11	1:H:462:ARG:CG	2.35	0.40
1:J:113:TYR:O	1:J:117:VAL:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:65:ILE:CD1	1:L:144:ILE:HG13	2.35	0.40
1:L:226:PHE:CE2	1:L:465:MET:CE	3.05	0.40
1:L:239:THR:H	1:L:240:PRO:HD3	1.73	0.40
1:L:400:LYS:O	1:L:403:ARG:HB3	2.20	0.40
1:A:176:MET:HE1	1:A:179:ILE:HD12	2.02	0.40
1:B:120:VAL:HG12	1:B:122:PHE:CD1	2.56	0.40
1:B:126:LYS:HA	1:B:126:LYS:HD2	1.91	0.40
1:C:315:LEU:CD2	1:C:322:LEU:HD11	2.50	0.40
1:C:322:LEU:HD12	1:C:344:ILE:HG23	2.04	0.40
1:D:16:PHE:N	1:D:16:PHE:CD2	2.90	0.40
1:D:208:ILE:HG13	1:D:445:GLU:OE1	2.21	0.40
1:D:294:PHE:CG	1:D:304:PHE:HD1	2.40	0.40
1:D:328:GLU:O	1:D:329:LYS:HG2	2.21	0.40
1:D:383:PHE:N	1:D:383:PHE:CD2	2.89	0.40
1:E:52:ILE:O	1:E:82:HIS:HE1	2.04	0.40
1:E:94:ARG:O	1:E:128:GLY:HA2	2.22	0.40
1:E:296:LEU:HA	1:E:296:LEU:HD13	1.86	0.40
1:E:414:GLN:HA	1:E:429:PRO:HG2	2.03	0.40
1:F:53:LYS:N	1:F:54:PRO:CD	2.85	0.40
1:F:431:VAL:HA	1:F:432:PRO:HD3	1.99	0.40
1:G:87:THR:CB	1:G:88:PRO:CD	2.98	0.40
1:G:151:GLU:HB3	1:K:57:HIS:HE1	1.85	0.40
1:G:248:VAL:O	1:G:323:ILE:HG13	2.22	0.40
1:H:371:LEU:HD23	1:H:481:ALA:CB	2.52	0.40
1:I:319:CYS:O	1:I:341:ALA:HA	2.21	0.40
1:I:346:GLU:OE2	1:I:478:ARG:NH2	2.51	0.40
1:J:10:PHE:O	1:J:11:LYS:C	2.60	0.40
1:K:240:PRO:HD2	1:K:244:ASP:O	2.22	0.40
1:K:383:PHE:N	1:K:383:PHE:CD2	2.87	0.40
1:L:33:ARG:CB	1:L:33:ARG:CZ	2.99	0.40
1:L:217:ARG:HG2	1:L:262:TYR:CZ	2.57	0.40
1:L:247:PHE:HE2	1:L:249:VAL:HG12	1.79	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 X-ray entries followed by that with respect to entries

of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	494/496 (100%)	341 (69%)	109 (22%)	44 (9%)	1	8
1	B	494/496 (100%)	359 (73%)	94 (19%)	41 (8%)	1	9
1	C	494/496 (100%)	351 (71%)	82 (17%)	61 (12%)	0	5
1	D	494/496 (100%)	344 (70%)	105 (21%)	45 (9%)	1	8
1	E	494/496 (100%)	352 (71%)	100 (20%)	42 (8%)	1	9
1	F	494/496 (100%)	378 (76%)	85 (17%)	31 (6%)	1	14
1	G	494/496 (100%)	362 (73%)	94 (19%)	38 (8%)	1	10
1	H	494/496 (100%)	341 (69%)	116 (24%)	37 (8%)	1	11
1	I	494/496 (100%)	355 (72%)	89 (18%)	50 (10%)	0	7
1	J	494/496 (100%)	353 (72%)	99 (20%)	42 (8%)	1	9
1	K	494/496 (100%)	328 (66%)	113 (23%)	53 (11%)	0	6
1	L	494/496 (100%)	347 (70%)	102 (21%)	45 (9%)	1	8
All	All	5928/5952 (100%)	4211 (71%)	1188 (20%)	529 (9%)	1	8

All (529) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	9	PHE
1	A	25	GLU
1	A	26	ASP
1	A	30	GLU
1	A	33	ARG
1	A	40	GLN
1	A	158	ILE
1	A	240	PRO
1	A	314	ILE
1	A	430	ILE
1	A	496	ALA
1	A	498	VAL
1	B	30	GLU
1	B	33	ARG
1	B	37	SER
1	B	39	GLU
1	B	87	THR
1	B	255	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	283	PRO
1	B	334	SER
1	B	364	ASN
1	B	396	ARG
1	B	430	ILE
1	B	496	ALA
1	B	498	VAL
1	C	9	PHE
1	C	25	GLU
1	C	29	VAL
1	C	33	ARG
1	C	37	SER
1	C	169	MET
1	C	244	ASP
1	C	265	ARG
1	C	272	ALA
1	C	275	GLU
1	C	281	TRP
1	C	282	ASN
1	C	301	ILE
1	C	326	ALA
1	C	334	SER
1	C	371	LEU
1	C	421	PHE
1	C	430	ILE
1	C	498	VAL
1	D	99	VAL
1	D	100	SER
1	D	275	GLU
1	D	282	ASN
1	D	317	ALA
1	D	334	SER
1	D	364	ASN
1	D	399	PHE
1	D	430	ILE
1	E	7	PRO
1	E	9	PHE
1	E	26	ASP
1	E	214	ALA
1	E	329	LYS
1	E	421	PHE
1	E	423	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	430	ILE
1	E	472	ASN
1	F	9	PHE
1	F	30	GLU
1	F	33	ARG
1	F	87	THR
1	F	158	ILE
1	F	214	ALA
1	F	329	LYS
1	F	334	SER
1	F	421	PHE
1	F	430	ILE
1	F	496	ALA
1	G	30	GLU
1	G	31	ASP
1	G	33	ARG
1	G	40	GLN
1	G	130	LYS
1	G	282	ASN
1	G	306	LYS
1	G	327	SER
1	G	399	PHE
1	G	420	LYS
1	G	430	ILE
1	G	472	ASN
1	G	496	ALA
1	H	30	GLU
1	H	31	ASP
1	H	268	ALA
1	H	275	GLU
1	H	317	ALA
1	H	329	LYS
1	H	334	SER
1	H	430	ILE
1	I	33	ARG
1	I	37	SER
1	I	40	GLN
1	I	87	THR
1	I	97	THR
1	I	230	ALA
1	I	240	PRO
1	I	244	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	I	252	PHE
1	I	306	LYS
1	I	327	SER
1	I	329	LYS
1	I	346	GLU
1	I	478	ARG
1	I	479	THR
1	I	496	ALA
1	J	30	GLU
1	J	31	ASP
1	J	33	ARG
1	J	34	THR
1	J	39	GLU
1	J	244	ASP
1	J	430	ILE
1	K	25	GLU
1	K	30	GLU
1	K	39	GLU
1	K	87	THR
1	K	97	THR
1	K	169	MET
1	K	214	ALA
1	K	220	PHE
1	K	227	ILE
1	K	231	SER
1	K	244	ASP
1	K	253	GLY
1	K	265	ARG
1	K	327	SER
1	K	334	SER
1	K	399	PHE
1	K	421	PHE
1	K	498	VAL
1	L	9	PHE
1	L	25	GLU
1	L	30	GLU
1	L	33	ARG
1	L	87	THR
1	L	165	PRO
1	L	275	GLU
1	L	317	ALA
1	L	327	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	L	334	SER
1	L	338	ARG
1	L	346	GLU
1	L	430	ILE
1	L	465	MET
1	L	472	ASN
1	L	498	VAL
1	A	169	MET
1	A	244	ASP
1	A	255	VAL
1	A	268	ALA
1	A	299	GLY
1	A	329	LYS
1	A	334	SER
1	A	364	ASN
1	A	369	PRO
1	B	25	GLU
1	B	143	LYS
1	B	268	ALA
1	B	299	GLY
1	B	398	THR
1	B	421	PHE
1	C	87	THR
1	C	134	LYS
1	C	219	VAL
1	C	220	PHE
1	C	231	SER
1	C	254	ASN
1	C	329	LYS
1	C	389	LEU
1	C	414	GLN
1	C	422	GLY
1	C	458	GLU
1	C	478	ARG
1	C	496	ALA
1	D	33	ARG
1	D	82	HIS
1	D	119	ASP
1	D	144	ILE
1	D	231	SER
1	D	265	ARG
1	D	297	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	326	ALA
1	D	421	PHE
1	D	472	ASN
1	D	495	GLU
1	E	27	LYS
1	E	33	ARG
1	E	36	GLU
1	E	130	LYS
1	E	222	GLY
1	E	223	ILE
1	E	283	PRO
1	E	334	SER
1	E	360	PHE
1	E	371	LEU
1	E	420	LYS
1	E	422	GLY
1	E	495	GLU
1	F	387	LYS
1	F	422	GLY
1	F	498	VAL
1	G	184	ALA
1	G	192	ILE
1	G	231	SER
1	G	244	ASP
1	G	294	PHE
1	G	301	ILE
1	H	29	VAL
1	H	130	LYS
1	H	301	ILE
1	H	328	GLU
1	H	371	LEU
1	H	495	GLU
1	H	498	VAL
1	I	25	GLU
1	I	219	VAL
1	I	265	ARG
1	I	297	GLN
1	I	328	GLU
1	I	341	ALA
1	I	364	ASN
1	I	421	PHE
1	J	28	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	J	40	GLN
1	J	68	ASP
1	J	182	THR
1	J	319	CYS
1	J	364	ASN
1	J	405	SER
1	J	496	ALA
1	K	33	ARG
1	K	40	GLN
1	K	299	GLY
1	K	314	ILE
1	K	319	CYS
1	K	371	LEU
1	K	381	SER
1	K	422	GLY
1	K	467	THR
1	K	472	ASN
1	K	478	ARG
1	K	492	VAL
1	L	224	GLU
1	L	227	ILE
1	L	230	ALA
1	L	235	ILE
1	L	299	GLY
1	L	396	ARG
1	L	422	GLY
1	A	23	ILE
1	A	371	LEU
1	A	421	PHE
1	A	434	ALA
1	A	465	MET
1	A	478	ARG
1	A	491	LYS
1	B	85	GLN
1	B	109	SER
1	B	142	GLU
1	B	181	ASP
1	B	189	HIS
1	B	244	ASP
1	B	254	ASN
1	B	265	ARG
1	B	326	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	329	LYS
1	C	68	ASP
1	C	71	SER
1	C	121	PRO
1	C	240	PRO
1	C	320	ASP
1	C	351	PRO
1	C	472	ASN
1	D	64	PRO
1	D	88	PRO
1	D	244	ASP
1	D	346	GLU
1	D	396	ARG
1	D	419	ARG
1	D	425	GLY
1	D	496	ALA
1	E	87	THR
1	E	224	GLU
1	F	244	ASP
1	F	317	ALA
1	F	319	CYS
1	F	327	SER
1	F	364	ASN
1	F	438	ASP
1	F	491	LYS
1	G	25	GLU
1	G	265	ARG
1	G	299	GLY
1	G	421	PHE
1	H	10	PHE
1	H	154	LYS
1	H	165	PRO
1	H	422	GLY
1	I	36	GLU
1	I	67	ARG
1	I	288	PRO
1	I	317	ALA
1	I	480	ALA
1	I	498	VAL
1	J	189	HIS
1	J	214	ALA
1	J	231	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	J	282	ASN
1	J	283	PRO
1	J	306	LYS
1	J	315	LEU
1	J	326	ALA
1	J	329	LYS
1	J	358	LYS
1	J	371	LEU
1	J	443	ALA
1	K	36	GLU
1	K	119	ASP
1	K	221	HIS
1	K	235	ILE
1	K	257	LEU
1	K	283	PRO
1	K	341	ALA
1	K	351	PRO
1	K	364	ASN
1	K	425	GLY
1	K	465	MET
1	L	37	SER
1	L	82	HIS
1	L	133	PRO
1	L	236	LEU
1	L	283	PRO
1	L	315	LEU
1	L	449	VAL
1	L	495	GLU
1	A	254	ASN
1	A	359	ILE
1	A	405	SER
1	B	130	LYS
1	B	235	ILE
1	B	282	ASN
1	B	308	LYS
1	B	371	LEU
1	C	26	ASP
1	C	214	ALA
1	C	336	ALA
1	C	354	PRO
1	C	396	ARG
1	C	459	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	465	MET
1	D	69	ASP
1	D	288	PRO
1	D	375	ALA
1	D	453	LEU
1	D	478	ARG
1	E	12	MET
1	E	25	GLU
1	E	39	GLU
1	E	180	ALA
1	E	268	ALA
1	E	282	ASN
1	E	394	TYR
1	E	425	GLY
1	F	16	PHE
1	F	25	GLU
1	F	181	ASP
1	G	9	PHE
1	G	154	LYS
1	G	193	ASN
1	G	295	LYS
1	G	305	PRO
1	G	326	ALA
1	H	33	ARG
1	H	85	GLN
1	H	214	ALA
1	H	244	ASP
1	H	254	ASN
1	H	288	PRO
1	H	326	ALA
1	H	471	TYR
1	H	486	ILE
1	I	214	ALA
1	I	257	LEU
1	I	326	ALA
1	I	433	THR
1	J	23	ILE
1	J	25	GLU
1	J	82	HIS
1	J	181	ASP
1	J	277	ASP
1	J	425	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	K	62	SER
1	L	31	ASP
1	L	130	LYS
1	L	214	ALA
1	L	244	ASP
1	L	261	ARG
1	L	282	ASN
1	L	496	ALA
1	A	22	SER
1	A	283	PRO
1	A	338	ARG
1	A	360	PHE
1	A	467	THR
1	B	256	GLY
1	B	449	VAL
1	C	233	MET
1	C	251	GLY
1	C	317	ALA
1	C	339	VAL
1	C	346	GLU
1	C	388	ASN
1	C	429	PRO
1	D	7	PRO
1	D	9	PHE
1	D	39	GLU
1	D	314	ILE
1	D	336	ALA
1	E	53	LYS
1	E	67	ARG
1	E	133	PRO
1	F	290	GLU
1	F	318	ASP
1	F	374	ASN
1	F	425	GLY
1	F	437	GLN
1	G	288	PRO
1	G	364	ASN
1	G	495	GLU
1	G	498	VAL
1	H	306	LYS
1	H	421	PHE
1	H	451	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	I	27	LYS
1	I	82	HIS
1	I	130	LYS
1	I	315	LEU
1	J	131	ILE
1	J	192	ILE
1	J	194	ALA
1	J	290	GLU
1	J	452	GLY
1	K	430	ILE
1	L	7	PRO
1	L	238	MET
1	L	336	ALA
1	A	224	GLU
1	A	385	TRP
1	B	472	ASN
1	C	280	ILE
1	C	283	PRO
1	D	133	PRO
1	E	231	SER
1	E	326	ALA
1	E	359	ILE
1	H	309	PRO
1	H	485	ALA
1	I	150	MET
1	I	282	ASN
1	I	305	PRO
1	I	347	GLY
1	K	144	ILE
1	K	255	VAL
1	K	298	HIS
1	L	101	VAL
1	L	223	ILE
1	A	212	ILE
1	A	422	GLY
1	B	133	PRO
1	C	192	ILE
1	C	239	THR
1	D	192	ILE
1	D	219	VAL
1	D	235	ILE
1	E	165	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	426	GLY
1	G	87	THR
1	G	144	ILE
1	G	212	ILE
1	H	87	THR
1	J	235	ILE
1	J	305	PRO
1	K	121	PRO
1	K	359	ILE
1	L	240	PRO
1	B	165	PRO
1	C	350	GLY
1	C	353	THR
1	D	426	GLY
1	E	464	ILE
1	F	282	ASN
1	F	299	GLY
1	G	162	ILE
1	I	235	ILE
1	I	273	VAL
1	I	426	GLY
1	I	429	PRO
1	J	426	GLY
1	K	162	ILE
1	K	165	PRO
1	A	24	VAL
1	A	241	GLY
1	A	425	GLY
1	A	449	VAL
1	E	212	ILE
1	H	235	ILE
1	I	203	ILE
1	K	133	PRO
1	B	7	PRO
1	C	305	PRO
1	C	425	GLY
1	D	299	GLY
1	G	283	PRO
1	H	64	PRO
1	H	282	ASN
1	I	227	ILE
1	I	239	THR

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Mol	Chain	Res	Type
1	I	425	GLY
1	K	223	ILE
1	K	376	GLY
1	B	192	ILE
1	D	486	ILE
1	J	64	PRO
1	L	58	VAL

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	413/413 (100%)	368 (89%)	45 (11%)	6	29
1	B	413/413 (100%)	352 (85%)	61 (15%)	3	17
1	C	413/413 (100%)	348 (84%)	65 (16%)	2	15
1	D	413/413 (100%)	354 (86%)	59 (14%)	3	19
1	E	413/413 (100%)	343 (83%)	70 (17%)	2	12
1	F	413/413 (100%)	359 (87%)	54 (13%)	4	21
1	G	413/413 (100%)	354 (86%)	59 (14%)	3	19
1	H	413/413 (100%)	348 (84%)	65 (16%)	2	15
1	I	413/413 (100%)	362 (88%)	51 (12%)	4	23
1	J	413/413 (100%)	348 (84%)	65 (16%)	2	15
1	K	413/413 (100%)	346 (84%)	67 (16%)	2	14
1	L	413/413 (100%)	351 (85%)	62 (15%)	3	17
All	All	4956/4956 (100%)	4233 (85%)	723 (15%)	3	18

All (723) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	6	ASP
1	A	40	GLN
1	A	45	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	60	SER
1	A	61	LEU
1	A	72	TRP
1	A	76	GLU
1	A	78	TYR
1	A	85	GLN
1	A	86	ARG
1	A	97	THR
1	A	107	LEU
1	A	111	MET
1	A	112	THR
1	A	131	ILE
1	A	145	THR
1	A	158	ILE
1	A	168	ASP
1	A	175	GLU
1	A	176	MET
1	A	186	THR
1	A	224	GLU
1	A	227	ILE
1	A	245	LYS
1	A	249	VAL
1	A	279	SER
1	A	314	ILE
1	A	333	LYS
1	A	335	ASN
1	A	353	THR
1	A	361	LEU
1	A	370	ASP
1	A	374	ASN
1	A	392	VAL
1	A	396	ARG
1	A	405	SER
1	A	409	LEU
1	A	411	MET
1	A	424	HIS
1	A	428	ILE
1	A	439	ARG
1	A	460	SER
1	A	467	THR
1	A	477	LEU
1	A	486	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	6	ASP
1	B	7	PRO
1	B	8	ASN
1	B	9	PHE
1	B	30	GLU
1	B	32	LEU
1	B	33	ARG
1	B	36	GLU
1	B	48	ILE
1	B	54	PRO
1	B	60	SER
1	B	61	LEU
1	B	72	TRP
1	B	78	TYR
1	B	85	GLN
1	B	86	ARG
1	B	105	LYS
1	B	135	ASN
1	B	137	THR
1	B	139	ASN
1	B	149	THR
1	B	152	LEU
1	B	162	ILE
1	B	171	THR
1	B	176	MET
1	B	212	ILE
1	B	213	SER
1	B	238	MET
1	B	239	THR
1	B	249	VAL
1	B	250	GLN
1	B	257	LEU
1	B	261	ARG
1	B	275	GLU
1	B	284	ASP
1	B	287	ASP
1	B	289	LYS
1	B	314	ILE
1	B	322	LEU
1	B	323	ILE
1	B	331	LEU
1	B	335	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	362	GLU
1	B	363	ARG
1	B	373	LEU
1	B	396	ARG
1	B	398	THR
1	B	405	SER
1	B	409	LEU
1	B	411	MET
1	B	417	LEU
1	B	421	PHE
1	B	423	LYS
1	B	424	HIS
1	B	427	THR
1	B	428	ILE
1	B	439	ARG
1	B	453	LEU
1	B	465	MET
1	B	475	LEU
1	B	493	TYR
1	C	9	PHE
1	C	13	VAL
1	C	14	GLU
1	C	19	ARG
1	C	24	VAL
1	C	40	GLN
1	C	44	ARG
1	C	45	VAL
1	C	58	VAL
1	C	61	LEU
1	C	63	PHE
1	C	67	ARG
1	C	72	TRP
1	C	73	GLU
1	C	85	GLN
1	C	86	ARG
1	C	93	ILE
1	C	97	THR
1	C	98	ASP
1	C	99	VAL
1	C	105	LYS
1	C	112	THR
1	C	114	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	118	VAL
1	C	131	ILE
1	C	137	THR
1	C	138	ASP
1	C	145	THR
1	C	168	ASP
1	C	173	GLU
1	C	176	MET
1	C	212	ILE
1	C	213	SER
1	C	215	THR
1	C	227	ILE
1	C	247	PHE
1	C	249	VAL
1	C	250	GLN
1	C	255	VAL
1	C	263	LEU
1	C	275	GLU
1	C	281	TRP
1	C	284	ASP
1	C	310	TYR
1	C	314	ILE
1	C	320	ASP
1	C	333	LYS
1	C	335	ASN
1	C	352	THR
1	C	363	ARG
1	C	370	ASP
1	C	374	ASN
1	C	380	VAL
1	C	381	SER
1	C	392	VAL
1	C	396	ARG
1	C	409	LEU
1	C	413	VAL
1	C	417	LEU
1	C	420	LYS
1	C	428	ILE
1	C	441	SER
1	C	453	LEU
1	C	473	LEU
1	C	494	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	9	PHE
1	D	14	GLU
1	D	19	ARG
1	D	45	VAL
1	D	58	VAL
1	D	60	SER
1	D	61	LEU
1	D	64	PRO
1	D	66	ARG
1	D	67	ARG
1	D	72	TRP
1	D	76	GLU
1	D	78	TYR
1	D	85	GLN
1	D	86	ARG
1	D	87	THR
1	D	94	ARG
1	D	97	THR
1	D	99	VAL
1	D	100	SER
1	D	137	THR
1	D	145	THR
1	D	147	ARG
1	D	158	ILE
1	D	175	GLU
1	D	176	MET
1	D	213	SER
1	D	227	ILE
1	D	228	ASN
1	D	250	GLN
1	D	255	VAL
1	D	257	LEU
1	D	263	LEU
1	D	280	ILE
1	D	289	LYS
1	D	291	LEU
1	D	296	LEU
1	D	298	HIS
1	D	314	ILE
1	D	315	LEU
1	D	316	GLU
1	D	322	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	330	GLN
1	D	334	SER
1	D	335	ASN
1	D	344	ILE
1	D	352	THR
1	D	363	ARG
1	D	396	ARG
1	D	397	LEU
1	D	398	THR
1	D	405	SER
1	D	409	LEU
1	D	420	LYS
1	D	428	ILE
1	D	444	SER
1	D	467	THR
1	D	494	ASN
1	D	501	THR
1	E	6	ASP
1	E	9	PHE
1	E	10	PHE
1	E	19	ARG
1	E	22	SER
1	E	31	ASP
1	E	32	LEU
1	E	43	ASN
1	E	45	VAL
1	E	58	VAL
1	E	61	LEU
1	E	66	ARG
1	E	78	TYR
1	E	82	HIS
1	E	85	GLN
1	E	96	SER
1	E	97	THR
1	E	105	LYS
1	E	107	LEU
1	E	111	MET
1	E	112	THR
1	E	131	ILE
1	E	137	THR
1	E	138	ASP
1	E	158	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	174	ARG
1	E	176	MET
1	E	211	ARG
1	E	215	THR
1	E	219	VAL
1	E	234	SER
1	E	242	PHE
1	E	249	VAL
1	E	255	VAL
1	E	261	ARG
1	E	263	LEU
1	E	275	GLU
1	E	281	TRP
1	E	284	ASP
1	E	298	HIS
1	E	301	ILE
1	E	314	ILE
1	E	322	LEU
1	E	323	ILE
1	E	329	LYS
1	E	330	GLN
1	E	335	ASN
1	E	352	THR
1	E	353	THR
1	E	357	ASP
1	E	363	ARG
1	E	365	ILE
1	E	367	VAL
1	E	374	ASN
1	E	381	SER
1	E	396	ARG
1	E	397	LEU
1	E	417	LEU
1	E	420	LYS
1	E	428	ILE
1	E	433	THR
1	E	436	PHE
1	E	439	ARG
1	E	446	LYS
1	E	453	LEU
1	E	472	ASN
1	E	477	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	493	TYR
1	E	495	GLU
1	E	498	VAL
1	F	8	ASN
1	F	19	ARG
1	F	24	VAL
1	F	42	ARG
1	F	45	VAL
1	F	46	ARG
1	F	51	ILE
1	F	54	PRO
1	F	59	LEU
1	F	60	SER
1	F	61	LEU
1	F	62	SER
1	F	72	TRP
1	F	78	TYR
1	F	85	GLN
1	F	86	ARG
1	F	100	SER
1	F	107	LEU
1	F	109	SER
1	F	121	PRO
1	F	137	THR
1	F	152	LEU
1	F	158	ILE
1	F	163	ASP
1	F	175	GLU
1	F	176	MET
1	F	186	THR
1	F	238	MET
1	F	245	LYS
1	F	246	THR
1	F	249	VAL
1	F	250	GLN
1	F	255	VAL
1	F	271	ILE
1	F	300	SER
1	F	314	ILE
1	F	322	LEU
1	F	328	GLU
1	F	329	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	F	335	ASN
1	F	363	ARG
1	F	396	ARG
1	F	402	GLU
1	F	409	LEU
1	F	428	ILE
1	F	435	GLU
1	F	440	ILE
1	F	441	SER
1	F	446	LYS
1	F	451	SER
1	F	453	LEU
1	F	467	THR
1	F	477	LEU
1	F	495	GLU
1	G	19	ARG
1	G	24	VAL
1	G	26	ASP
1	G	33	ARG
1	G	38	GLU
1	G	45	VAL
1	G	61	LEU
1	G	64	PRO
1	G	72	TRP
1	G	76	GLU
1	G	78	TYR
1	G	84	HIS
1	G	85	GLN
1	G	100	SER
1	G	101	VAL
1	G	111	MET
1	G	112	THR
1	G	131	ILE
1	G	145	THR
1	G	147	ARG
1	G	158	ILE
1	G	176	MET
1	G	204	SER
1	G	212	ILE
1	G	213	SER
1	G	232	TYR
1	G	235	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	250	GLN
1	G	257	LEU
1	G	261	ARG
1	G	298	HIS
1	G	302	LEU
1	G	310	TYR
1	G	314	ILE
1	G	335	ASN
1	G	339	VAL
1	G	352	THR
1	G	353	THR
1	G	354	PRO
1	G	357	ASP
1	G	361	LEU
1	G	363	ARG
1	G	372	TYR
1	G	374	ASN
1	G	393	SER
1	G	396	ARG
1	G	402	GLU
1	G	409	LEU
1	G	417	LEU
1	G	423	LYS
1	G	428	ILE
1	G	436	PHE
1	G	440	ILE
1	G	444	SER
1	G	467	THR
1	G	469	MET
1	G	477	LEU
1	G	498	VAL
1	G	501	THR
1	H	9	PHE
1	H	19	ARG
1	H	31	ASP
1	H	36	GLU
1	H	38	GLU
1	H	39	GLU
1	H	40	GLN
1	H	44	ARG
1	H	46	ARG
1	H	50	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	H	60	SER
1	H	61	LEU
1	H	63	PHE
1	H	78	TYR
1	H	85	GLN
1	H	86	ARG
1	H	97	THR
1	H	98	ASP
1	H	102	ASP
1	H	112	THR
1	H	131	ILE
1	H	134	LYS
1	H	137	THR
1	H	138	ASP
1	H	145	THR
1	H	154	LYS
1	H	169	MET
1	H	176	MET
1	H	181	ASP
1	H	199	THR
1	H	204	SER
1	H	213	SER
1	H	227	ILE
1	H	231	SER
1	H	255	VAL
1	H	257	LEU
1	H	281	TRP
1	H	291	LEU
1	H	292	GLU
1	H	302	LEU
1	H	311	GLU
1	H	314	ILE
1	H	322	LEU
1	H	327	SER
1	H	330	GLN
1	H	335	ASN
1	H	352	THR
1	H	353	THR
1	H	361	LEU
1	H	362	GLU
1	H	363	ARG
1	H	367	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	H	372	TYR
1	H	374	ASN
1	H	392	VAL
1	H	396	ARG
1	H	409	LEU
1	H	417	LEU
1	H	423	LYS
1	H	424	HIS
1	H	428	ILE
1	H	462	ARG
1	H	467	THR
1	H	477	LEU
1	H	495	GLU
1	I	9	PHE
1	I	30	GLU
1	I	31	ASP
1	I	33	ARG
1	I	42	ARG
1	I	43	ASN
1	I	45	VAL
1	I	60	SER
1	I	61	LEU
1	I	62	SER
1	I	66	ARG
1	I	72	TRP
1	I	78	TYR
1	I	85	GLN
1	I	86	ARG
1	I	93	ILE
1	I	94	ARG
1	I	98	ASP
1	I	101	VAL
1	I	107	LEU
1	I	111	MET
1	I	112	THR
1	I	114	LYS
1	I	121	PRO
1	I	137	THR
1	I	141	LEU
1	I	158	ILE
1	I	162	ILE
1	I	176	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	I	186	THR
1	I	213	SER
1	I	217	ARG
1	I	255	VAL
1	I	261	ARG
1	I	296	LEU
1	I	314	ILE
1	I	329	LYS
1	I	332	THR
1	I	333	LYS
1	I	352	THR
1	I	373	LEU
1	I	374	ASN
1	I	392	VAL
1	I	396	ARG
1	I	401	TYR
1	I	409	LEU
1	I	421	PHE
1	I	428	ILE
1	I	444	SER
1	I	453	LEU
1	I	499	THR
1	J	6	ASP
1	J	9	PHE
1	J	14	GLU
1	J	19	ARG
1	J	24	VAL
1	J	28	LEU
1	J	31	ASP
1	J	33	ARG
1	J	40	GLN
1	J	42	ARG
1	J	58	VAL
1	J	60	SER
1	J	72	TRP
1	J	78	TYR
1	J	85	GLN
1	J	86	ARG
1	J	101	VAL
1	J	107	LEU
1	J	112	THR
1	J	118	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	J	131	ILE
1	J	137	THR
1	J	138	ASP
1	J	158	ILE
1	J	162	ILE
1	J	175	GLU
1	J	176	MET
1	J	186	THR
1	J	208	ILE
1	J	212	ILE
1	J	228	ASN
1	J	231	SER
1	J	238	MET
1	J	239	THR
1	J	245	LYS
1	J	249	VAL
1	J	250	GLN
1	J	261	ARG
1	J	296	LEU
1	J	302	LEU
1	J	314	ILE
1	J	327	SER
1	J	329	LYS
1	J	331	LEU
1	J	332	THR
1	J	335	ASN
1	J	343	ILE
1	J	351	PRO
1	J	357	ASP
1	J	361	LEU
1	J	372	TYR
1	J	393	SER
1	J	396	ARG
1	J	408	HIS
1	J	409	LEU
1	J	417	LEU
1	J	420	LYS
1	J	427	THR
1	J	430	ILE
1	J	440	ILE
1	J	453	LEU
1	J	464	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	J	472	ASN
1	J	477	LEU
1	J	493	TYR
1	K	6	ASP
1	K	9	PHE
1	K	33	ARG
1	K	34	THR
1	K	35	ARG
1	K	40	GLN
1	K	45	VAL
1	K	59	LEU
1	K	60	SER
1	K	64	PRO
1	K	72	TRP
1	K	78	TYR
1	K	79	ARG
1	K	85	GLN
1	K	86	ARG
1	K	87	THR
1	K	112	THR
1	K	132	ASN
1	K	137	THR
1	K	138	ASP
1	K	145	THR
1	K	167	PRO
1	K	173	GLU
1	K	176	MET
1	K	177	SER
1	K	190	TYR
1	K	204	SER
1	K	212	ILE
1	K	215	THR
1	K	219	VAL
1	K	225	ASN
1	K	227	ILE
1	K	245	LYS
1	K	249	VAL
1	K	257	LEU
1	K	271	ILE
1	K	291	LEU
1	K	294	PHE
1	K	296	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	K	301	ILE
1	K	314	ILE
1	K	315	LEU
1	K	316	GLU
1	K	322	LEU
1	K	323	ILE
1	K	335	ASN
1	K	344	ILE
1	K	358	LYS
1	K	363	ARG
1	K	368	ILE
1	K	371	LEU
1	K	374	ASN
1	K	396	ARG
1	K	398	THR
1	K	402	GLU
1	K	417	LEU
1	K	420	LYS
1	K	421	PHE
1	K	423	LYS
1	K	433	THR
1	K	435	GLU
1	K	451	SER
1	K	453	LEU
1	K	478	ARG
1	K	494	ASN
1	K	498	VAL
1	K	501	THR
1	L	9	PHE
1	L	19	ARG
1	L	24	VAL
1	L	31	ASP
1	L	33	ARG
1	L	38	GLU
1	L	45	VAL
1	L	58	VAL
1	L	72	TRP
1	L	76	GLU
1	L	78	TYR
1	L	85	GLN
1	L	86	ARG
1	L	94	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	L	97	THR
1	L	100	SER
1	L	103	GLU
1	L	111	MET
1	L	112	THR
1	L	131	ILE
1	L	137	THR
1	L	147	ARG
1	L	158	ILE
1	L	175	GLU
1	L	176	MET
1	L	212	ILE
1	L	213	SER
1	L	238	MET
1	L	242	PHE
1	L	255	VAL
1	L	257	LEU
1	L	263	LEU
1	L	266	PHE
1	L	309	PRO
1	L	313	SER
1	L	314	ILE
1	L	330	GLN
1	L	335	ASN
1	L	338	ARG
1	L	352	THR
1	L	362	GLU
1	L	363	ARG
1	L	364	ASN
1	L	392	VAL
1	L	393	SER
1	L	396	ARG
1	L	398	THR
1	L	405	SER
1	L	409	LEU
1	L	411	MET
1	L	413	VAL
1	L	417	LEU
1	L	420	LYS
1	L	424	HIS
1	L	428	ILE
1	L	444	SER

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Mol	Chain	Res	Type
1	L	447	ASP
1	L	451	SER
1	L	453	LEU
1	L	472	ASN
1	L	477	LEU
1	L	478	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (164) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	84	HIS
1	A	85	GLN
1	A	139	ASN
1	A	205	GLN
1	A	282	ASN
1	A	330	GLN
1	A	335	ASN
1	A	374	ASN
1	A	388	ASN
1	A	406	ASN
1	A	437	GLN
1	A	450	HIS
1	A	484	ASN
1	B	82	HIS
1	B	85	GLN
1	B	228	ASN
1	B	250	GLN
1	B	330	GLN
1	B	335	ASN
1	B	374	ASN
1	B	388	ASN
1	B	406	ASN
1	B	424	HIS
1	C	56	ASN
1	C	57	HIS
1	C	82	HIS
1	C	84	HIS
1	C	85	GLN
1	C	135	ASN
1	C	189	HIS
1	C	205	GLN
1	C	221	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	225	ASN
1	C	228	ASN
1	C	250	GLN
1	C	258	HIS
1	C	335	ASN
1	C	374	ASN
1	C	388	ASN
1	C	391	HIS
1	C	406	ASN
1	C	484	ASN
1	D	57	HIS
1	D	85	GLN
1	D	135	ASN
1	D	209	HIS
1	D	225	ASN
1	D	228	ASN
1	D	250	GLN
1	D	282	ASN
1	D	330	GLN
1	D	335	ASN
1	D	349	ASN
1	D	374	ASN
1	D	390	ASN
1	D	391	HIS
1	D	406	ASN
1	D	484	ASN
1	D	494	ASN
1	E	56	ASN
1	E	82	HIS
1	E	84	HIS
1	E	85	GLN
1	E	209	HIS
1	E	254	ASN
1	E	258	HIS
1	E	335	ASN
1	E	374	ASN
1	E	391	HIS
1	E	406	ASN
1	E	463	GLN
1	E	472	ASN
1	F	8	ASN
1	F	82	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	F	84	HIS
1	F	85	GLN
1	F	139	ASN
1	F	189	HIS
1	F	225	ASN
1	F	228	ASN
1	F	298	HIS
1	F	330	GLN
1	F	335	ASN
1	F	388	ASN
1	F	406	ASN
1	F	437	GLN
1	F	494	ASN
1	G	57	HIS
1	G	82	HIS
1	G	85	GLN
1	G	135	ASN
1	G	139	ASN
1	G	225	ASN
1	G	250	GLN
1	G	335	ASN
1	G	374	ASN
1	G	388	ASN
1	G	406	ASN
1	G	484	ASN
1	G	494	ASN
1	H	84	HIS
1	H	85	GLN
1	H	135	ASN
1	H	189	HIS
1	H	228	ASN
1	H	335	ASN
1	H	374	ASN
1	H	388	ASN
1	H	391	HIS
1	H	437	GLN
1	I	56	ASN
1	I	82	HIS
1	I	85	GLN
1	I	189	HIS
1	I	205	GLN
1	I	228	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	I	254	ASN
1	I	330	GLN
1	I	364	ASN
1	I	388	ASN
1	I	390	ASN
1	I	406	ASN
1	I	484	ASN
1	J	40	GLN
1	J	85	GLN
1	J	189	HIS
1	J	228	ASN
1	J	298	HIS
1	J	335	ASN
1	J	364	ASN
1	J	388	ASN
1	J	406	ASN
1	J	414	GLN
1	J	494	ASN
1	K	40	GLN
1	K	56	ASN
1	K	57	HIS
1	K	82	HIS
1	K	84	HIS
1	K	85	GLN
1	K	209	HIS
1	K	225	ASN
1	K	297	GLN
1	K	335	ASN
1	K	364	ASN
1	K	374	ASN
1	K	406	ASN
1	K	437	GLN
1	L	57	HIS
1	L	84	HIS
1	L	85	GLN
1	L	205	GLN
1	L	225	ASN
1	L	335	ASN
1	L	349	ASN
1	L	364	ASN
1	L	374	ASN
1	L	388	ASN

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Mol	Chain	Res	Type
1	L	390	ASN
1	L	406	ASN
1	L	424	HIS
1	L	472	ASN
1	L	484	ASN
1	L	494	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

12 ligands are 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
2	ADP	I	502	-	24,29,29	1.37	3 (12%)	29,45,45	1.71	2 (6%)
2	ADP	E	5	-	24,29,29	2.44	5 (20%)	29,45,45	1.82	4 (13%)
2	ADP	G	502	-	24,29,29	2.16	5 (20%)	29,45,45	1.63	2 (6%)
2	ADP	H	502	-	24,29,29	1.33	3 (12%)	29,45,45	1.69	3 (10%)
2	ADP	B	2	-	24,29,29	1.37	3 (12%)	29,45,45	1.69	2 (6%)
2	ADP	F	502	-	24,29,29	1.39	4 (16%)	29,45,45	1.70	2 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	ADP	A	1	-	24,29,29	1.96	4 (16%)	29,45,45	1.72	3 (10%)
2	ADP	L	502	-	24,29,29	1.76	4 (16%)	29,45,45	1.66	2 (6%)
2	ADP	D	4	-	24,29,29	2.34	5 (20%)	29,45,45	1.73	2 (6%)
2	ADP	K	502	-	24,29,29	1.41	3 (12%)	29,45,45	1.69	2 (6%)
2	ADP	J	502	-	24,29,29	1.34	4 (16%)	29,45,45	1.69	3 (10%)
2	ADP	C	3	-	24,29,29	1.50	4 (16%)	29,45,45	1.66	3 (10%)

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
2	ADP	I	502	-	-	1/12/32/32	0/3/3/3
2	ADP	E	5	-	-	1/12/32/32	0/3/3/3
2	ADP	G	502	-	-	1/12/32/32	0/3/3/3
2	ADP	H	502	-	-	1/12/32/32	0/3/3/3
2	ADP	B	2	-	-	1/12/32/32	0/3/3/3
2	ADP	F	502	-	-	1/12/32/32	0/3/3/3
2	ADP	A	1	-	-	1/12/32/32	0/3/3/3
2	ADP	L	502	-	-	1/12/32/32	0/3/3/3
2	ADP	D	4	-	-	1/12/32/32	0/3/3/3
2	ADP	K	502	-	-	1/12/32/32	0/3/3/3
2	ADP	J	502	-	-	1/12/32/32	0/3/3/3
2	ADP	C	3	-	-	1/12/32/32	0/3/3/3

All (47) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	5	ADP	PA-O3A	7.66	1.67	1.59
2	D	4	ADP	PA-O3A	7.30	1.67	1.59
2	G	502	ADP	PA-O3A	7.02	1.67	1.59
2	A	1	ADP	PA-O3A	6.47	1.66	1.59
2	L	502	ADP	PA-O3A	6.10	1.66	1.59
2	E	5	ADP	O4'-C1'	6.01	1.48	1.40
2	D	4	ADP	O4'-C1'	5.42	1.48	1.40
2	G	502	ADP	PB-O2B	4.80	1.72	1.54
2	A	1	ADP	PB-O2B	4.67	1.72	1.54
2	E	5	ADP	PB-O2B	4.30	1.70	1.54
2	D	4	ADP	PB-O2B	4.30	1.70	1.54
2	C	3	ADP	O4'-C1'	4.16	1.46	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	G	502	ADP	O4'-C1'	3.67	1.45	1.40
2	L	502	ADP	O4'-C1'	3.59	1.45	1.40
2	I	502	ADP	PA-O3A	3.43	1.63	1.59
2	C	3	ADP	PA-O3A	3.42	1.63	1.59
2	K	502	ADP	PA-O3A	3.39	1.63	1.59
2	K	502	ADP	O4'-C1'	3.33	1.45	1.40
2	F	502	ADP	O4'-C1'	3.32	1.45	1.40
2	B	2	ADP	PA-O3A	3.32	1.63	1.59
2	H	502	ADP	PA-O3A	3.22	1.63	1.59
2	H	502	ADP	O4'-C1'	3.22	1.45	1.40
2	J	502	ADP	O4'-C1'	3.20	1.45	1.40
2	F	502	ADP	PA-O3A	3.19	1.62	1.59
2	J	502	ADP	PA-O3A	3.16	1.62	1.59
2	I	502	ADP	O4'-C1'	3.14	1.45	1.40
2	B	2	ADP	O4'-C1'	3.09	1.44	1.40
2	A	1	ADP	O4'-C1'	2.94	1.44	1.40
2	E	5	ADP	C2-N3	2.65	1.36	1.32
2	K	502	ADP	PB-O2B	2.64	1.64	1.54
2	B	2	ADP	PB-O2B	2.61	1.64	1.54
2	C	3	ADP	PB-O2B	2.59	1.64	1.54
2	D	4	ADP	C5'-C4'	2.56	1.59	1.51
2	G	502	ADP	C2-N3	2.39	1.35	1.32
2	J	502	ADP	PB-O2B	2.38	1.63	1.54
2	G	502	ADP	PA-O5'	2.27	1.68	1.59
2	L	502	ADP	PB-O2B	2.25	1.63	1.54
2	H	502	ADP	PB-O2B	2.24	1.63	1.54
2	F	502	ADP	PB-O2B	2.19	1.62	1.54
2	C	3	ADP	C5-N7	-2.13	1.32	1.39
2	L	502	ADP	C5'-C4'	2.08	1.57	1.51
2	A	1	ADP	C5-N7	-2.07	1.32	1.39
2	I	502	ADP	PB-O2B	2.05	1.62	1.54
2	F	502	ADP	C5'-C4'	2.04	1.57	1.51
2	E	5	ADP	PA-O5'	2.04	1.67	1.59
2	J	502	ADP	C2-N3	2.04	1.35	1.32
2	D	4	ADP	C5-N7	-2.03	1.32	1.39

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	5	ADP	C4'-O4'-C1'	-5.98	104.45	109.92
2	D	4	ADP	C4'-O4'-C1'	-5.92	104.50	109.92
2	B	2	ADP	N3-C2-N1	-5.87	120.71	128.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	502	ADP	N3-C2-N1	-5.77	120.84	128.67
2	E	5	ADP	N3-C2-N1	-5.73	120.89	128.67
2	L	502	ADP	N3-C2-N1	-5.69	120.95	128.67
2	I	502	ADP	N3-C2-N1	-5.68	120.96	128.67
2	A	1	ADP	N3-C2-N1	-5.64	121.02	128.67
2	K	502	ADP	N3-C2-N1	-5.62	121.05	128.67
2	J	502	ADP	N3-C2-N1	-5.60	121.07	128.67
2	C	3	ADP	N3-C2-N1	-5.59	121.08	128.67
2	F	502	ADP	N3-C2-N1	-5.59	121.09	128.67
2	G	502	ADP	N3-C2-N1	-5.49	121.22	128.67
2	A	1	ADP	C4'-O4'-C1'	-5.29	105.08	109.92
2	I	502	ADP	C4'-O4'-C1'	-5.27	105.10	109.92
2	F	502	ADP	C4'-O4'-C1'	-5.21	105.16	109.92
2	D	4	ADP	N3-C2-N1	-5.18	121.64	128.67
2	K	502	ADP	C4'-O4'-C1'	-5.04	105.31	109.92
2	J	502	ADP	C4'-O4'-C1'	-5.03	105.32	109.92
2	B	2	ADP	C4'-O4'-C1'	-4.96	105.39	109.92
2	G	502	ADP	C4'-O4'-C1'	-4.90	105.44	109.92
2	H	502	ADP	C4'-O4'-C1'	-4.83	105.50	109.92
2	L	502	ADP	C4'-O4'-C1'	-4.74	105.58	109.92
2	C	3	ADP	C4'-O4'-C1'	-4.72	105.60	109.92
2	E	5	ADP	O4'-C1'-N9	2.53	112.09	108.75
2	A	1	ADP	O4'-C1'-N9	2.16	111.61	108.75
2	C	3	ADP	O4'-C1'-N9	2.10	111.53	108.75
2	J	502	ADP	C4-C5-N7	-2.06	107.16	109.34
2	H	502	ADP	O4'-C1'-N9	2.04	111.45	108.75
2	E	5	ADP	O3B-PB-O1B	2.03	118.73	110.83

There are no chirality outliers.

All (12) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	D	4	ADP	C4'-C5'-O5'-PA
2	E	5	ADP	C4'-C5'-O5'-PA
2	G	502	ADP	C4'-C5'-O5'-PA
2	H	502	ADP	C4'-C5'-O5'-PA
2	A	1	ADP	C4'-C5'-O5'-PA
2	B	2	ADP	C4'-C5'-O5'-PA
2	C	3	ADP	C4'-C5'-O5'-PA
2	F	502	ADP	C4'-C5'-O5'-PA
2	I	502	ADP	C4'-C5'-O5'-PA
2	J	502	ADP	C4'-C5'-O5'-PA

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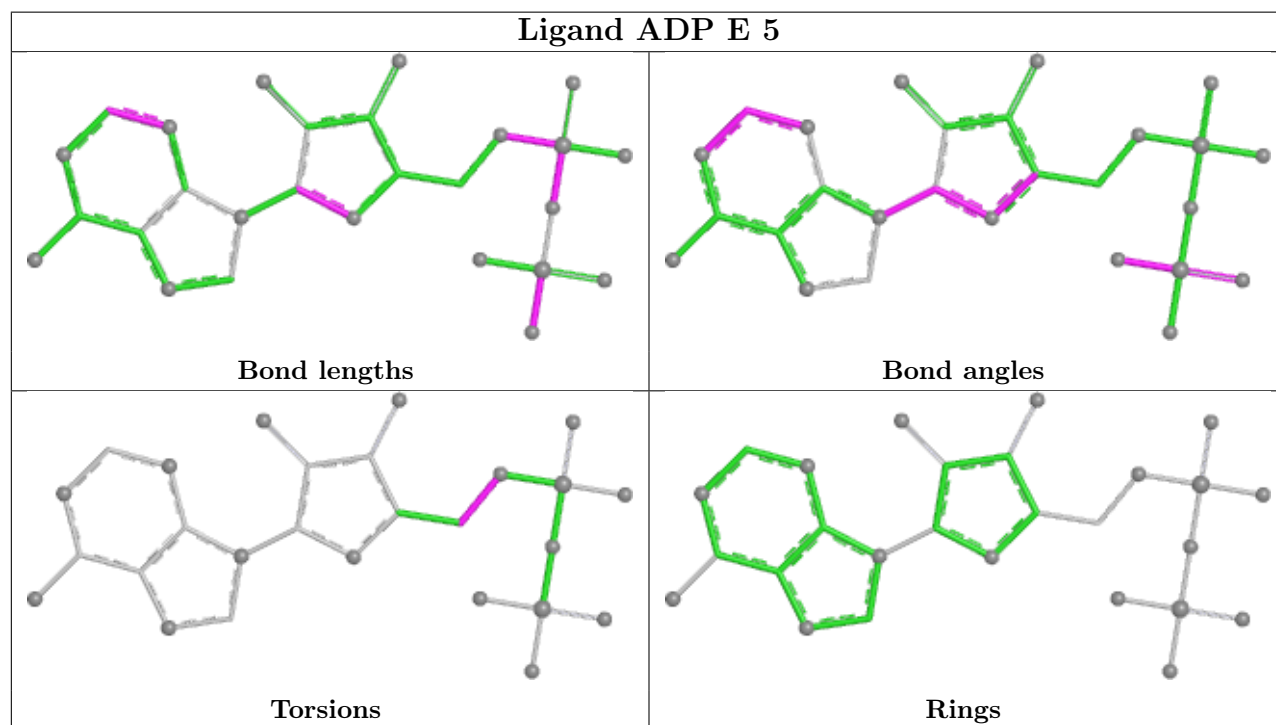
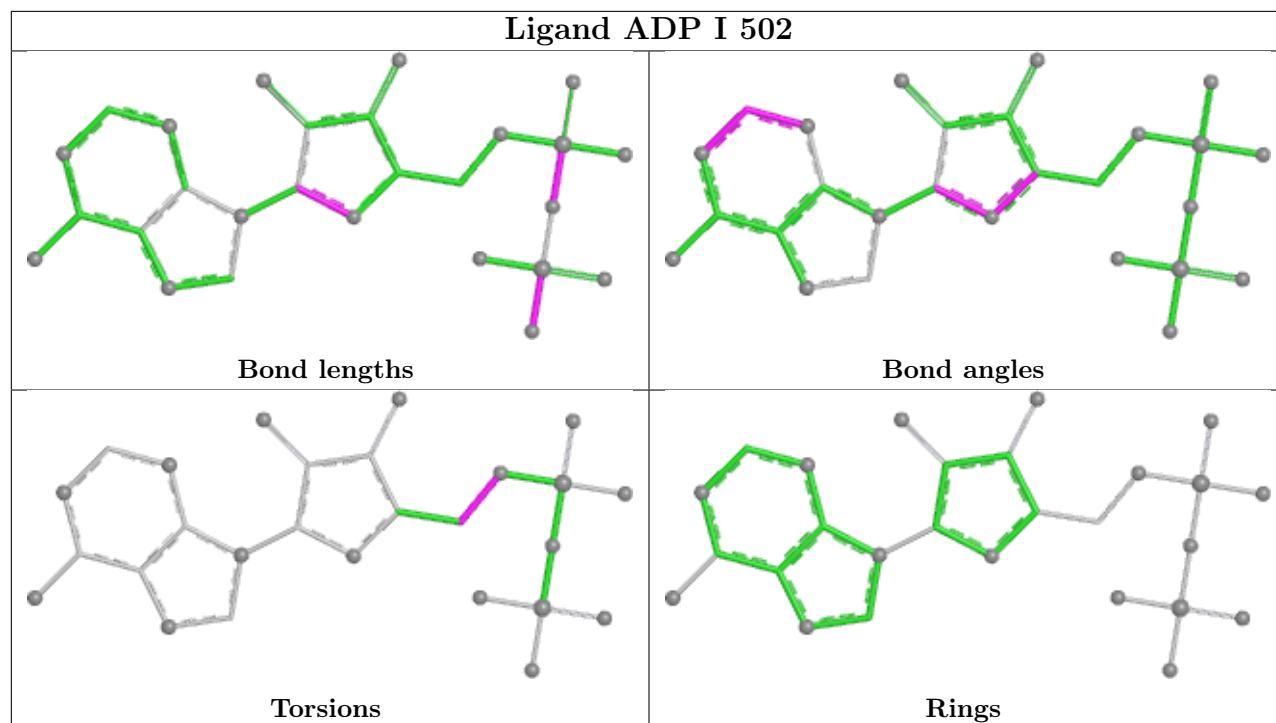
Mol	Chain	Res	Type	Atoms
2	K	502	ADP	C4'-C5'-O5'-PA
2	L	502	ADP	C4'-C5'-O5'-PA

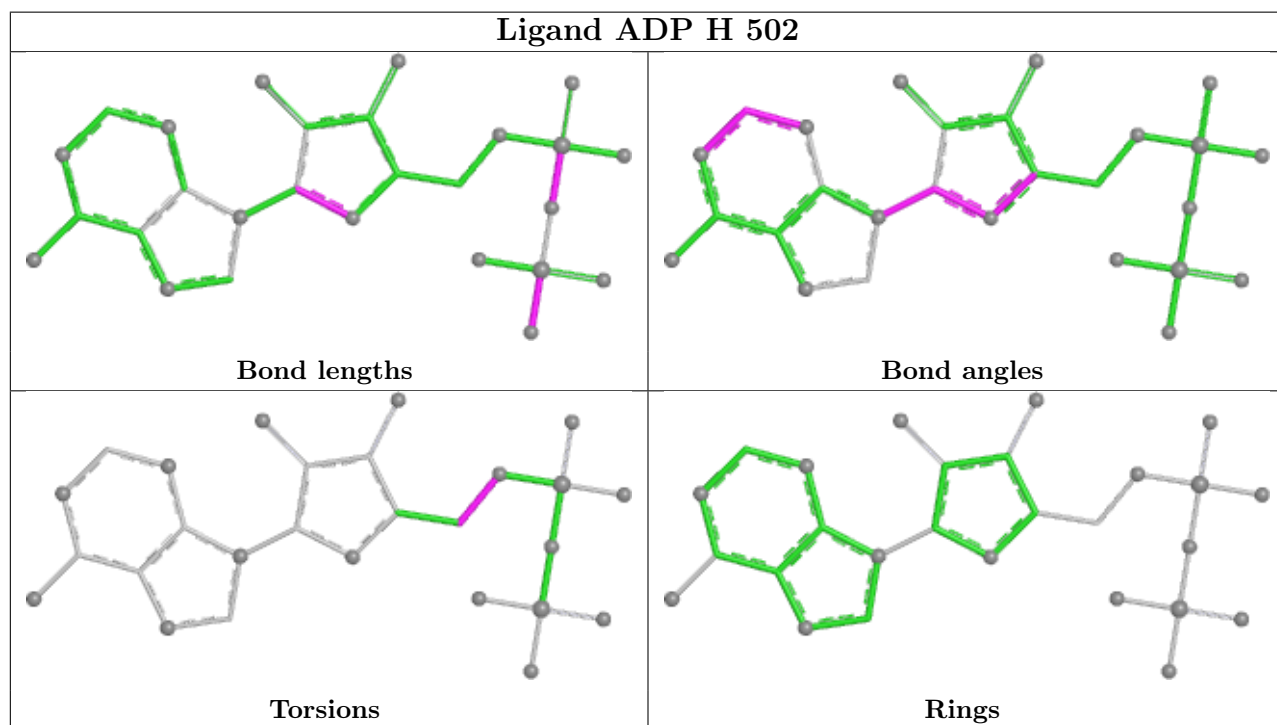
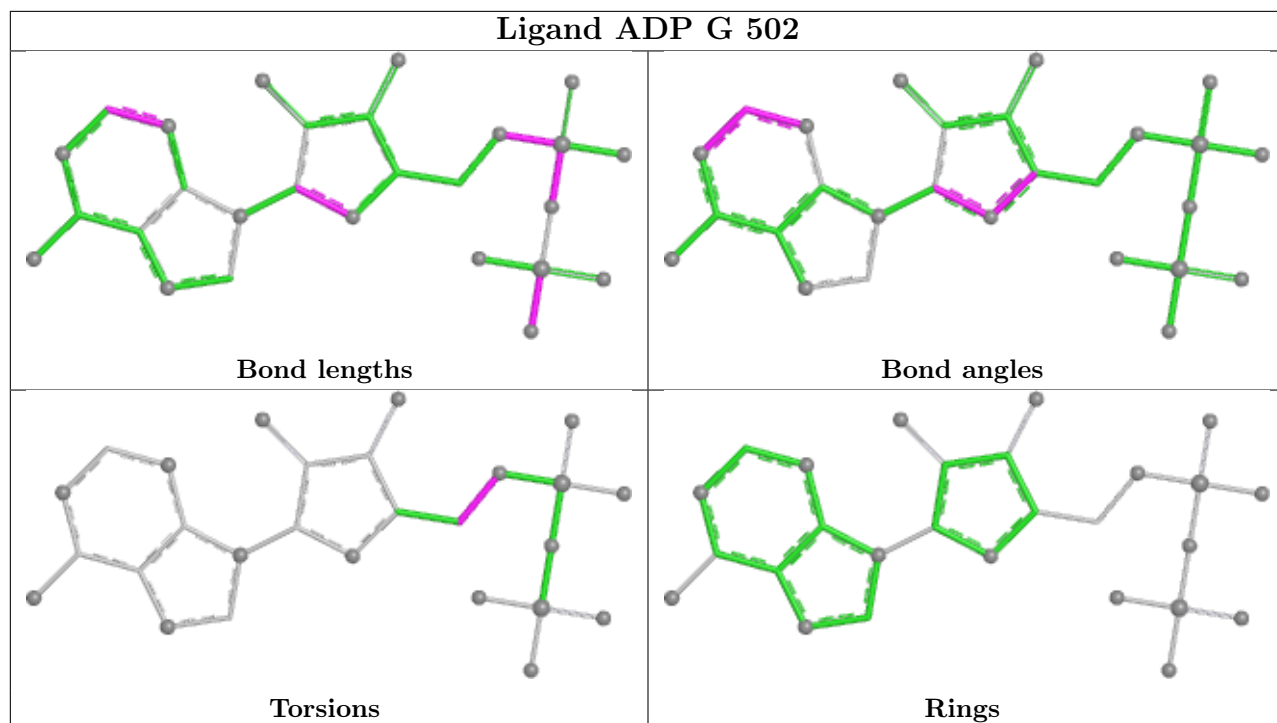
There are no ring outliers.

12 monomers are involved in 51 short contacts:

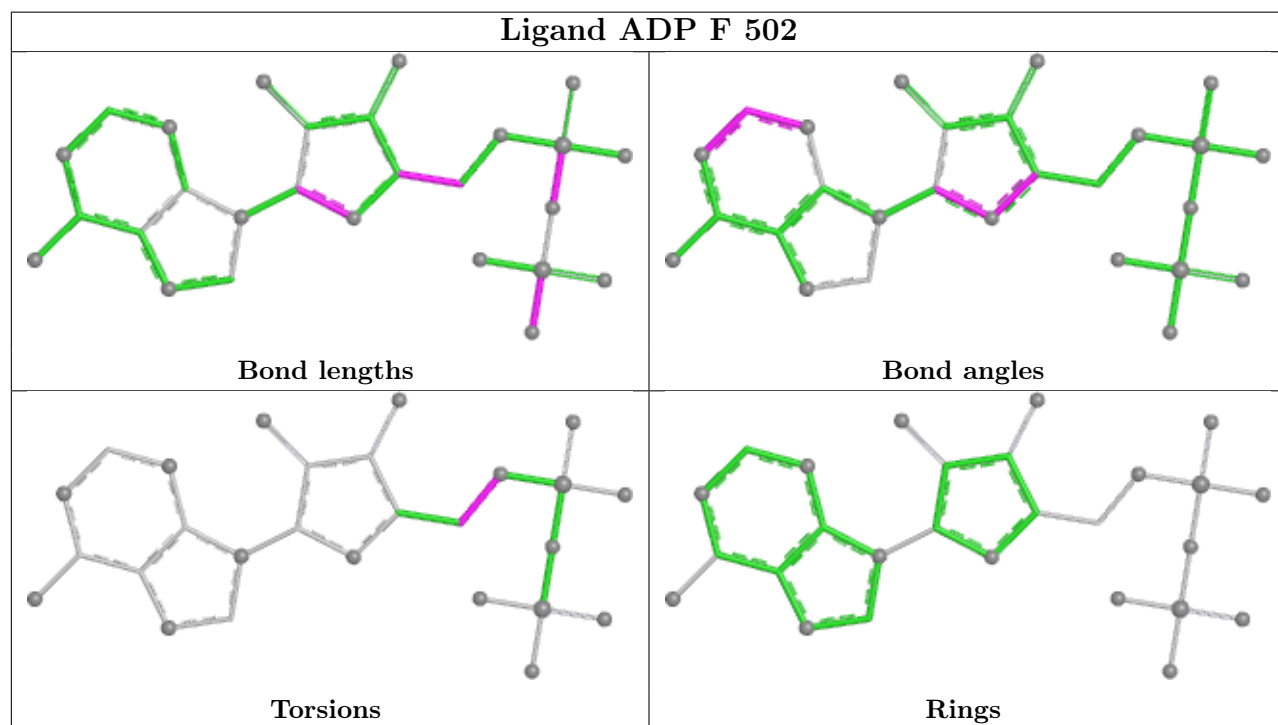
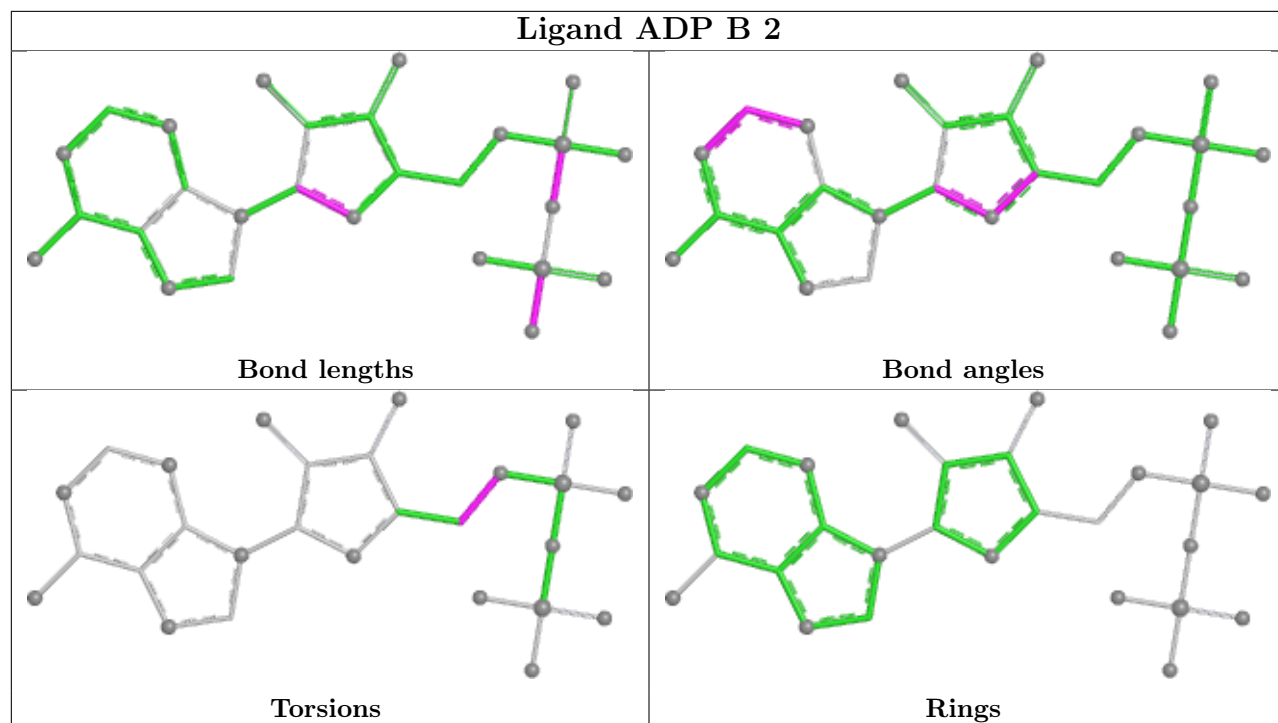
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	I	502	ADP	5	0
2	E	5	ADP	6	0
2	G	502	ADP	4	0
2	H	502	ADP	2	0
2	B	2	ADP	5	0
2	F	502	ADP	3	0
2	A	1	ADP	6	0
2	L	502	ADP	4	0
2	D	4	ADP	5	0
2	K	502	ADP	2	0
2	J	502	ADP	3	0
2	C	3	ADP	6	0

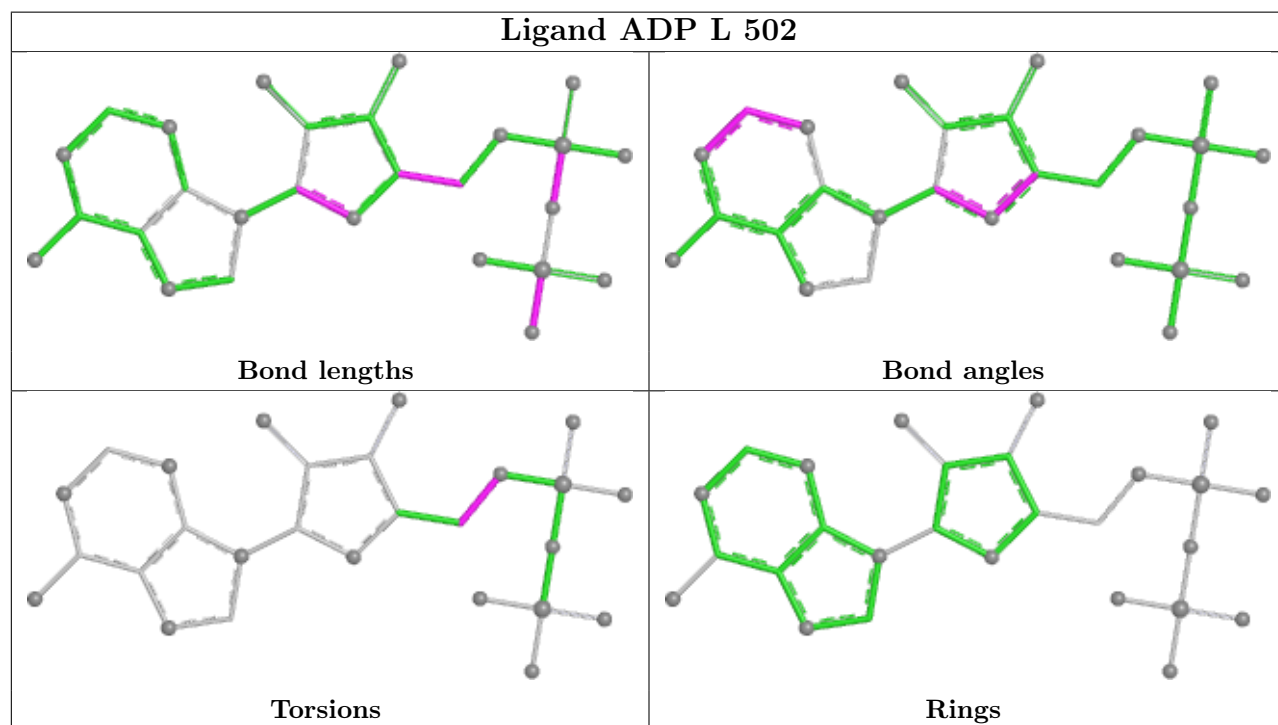
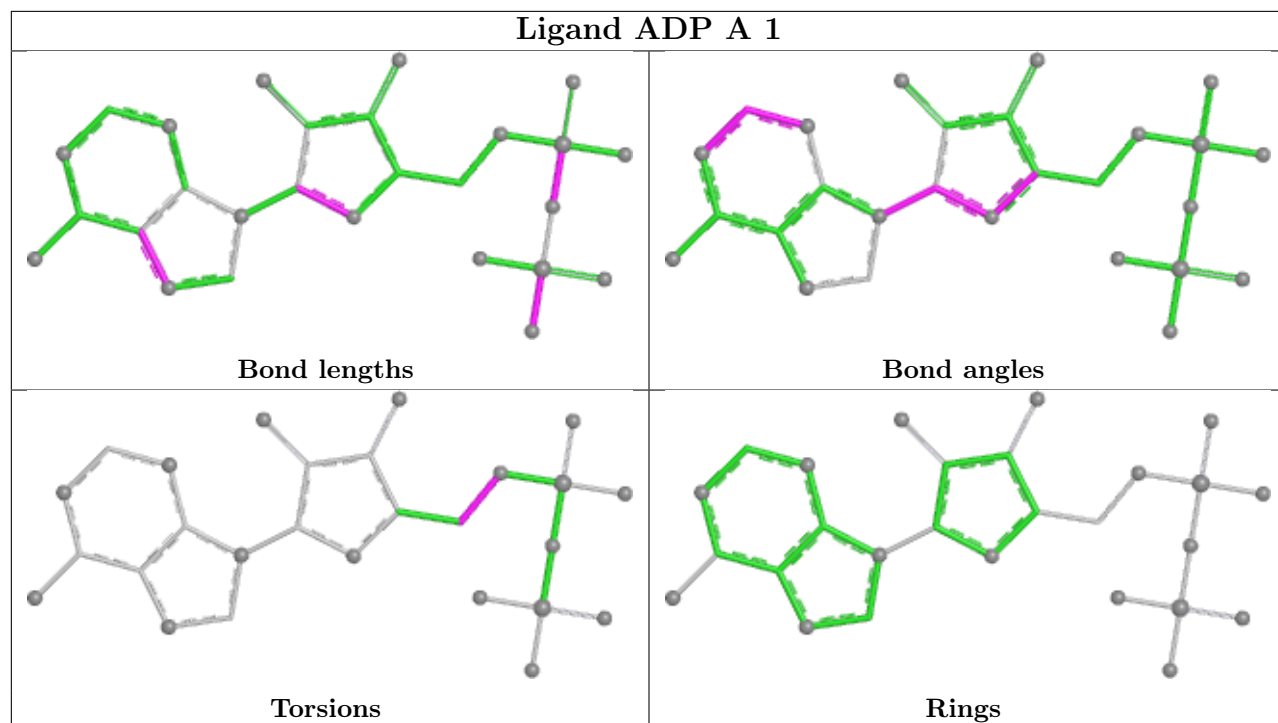
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

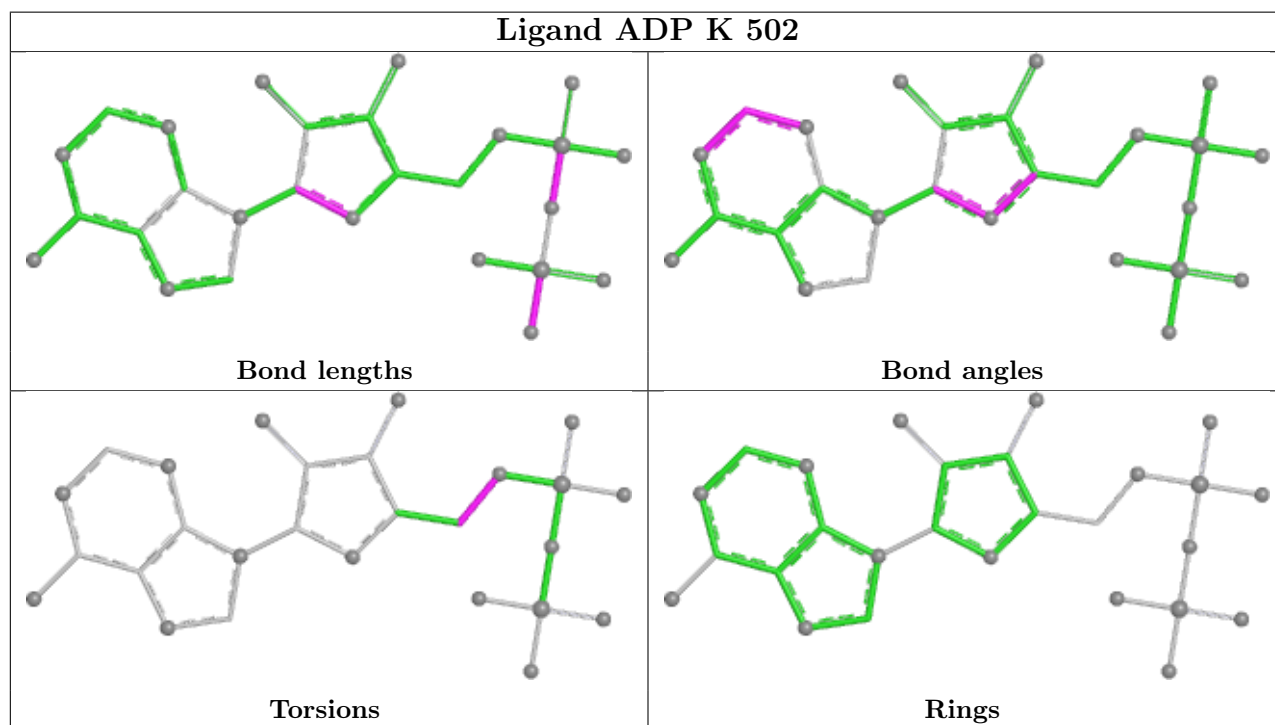
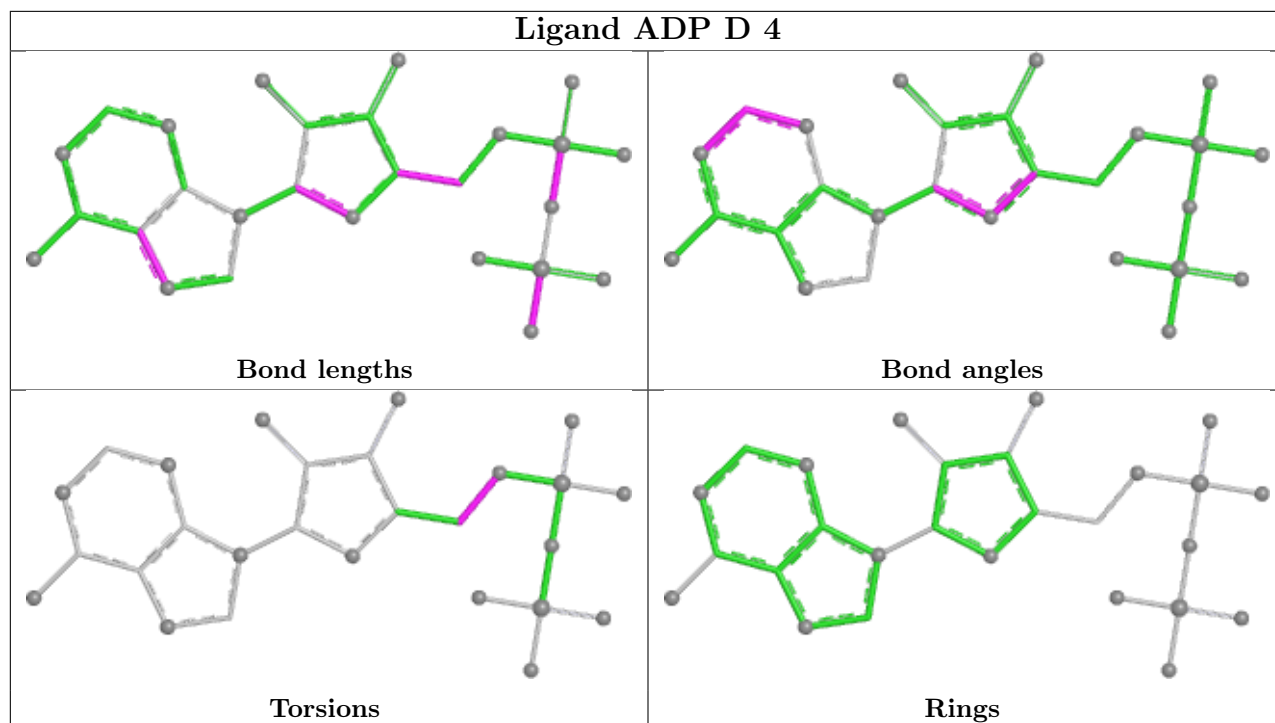


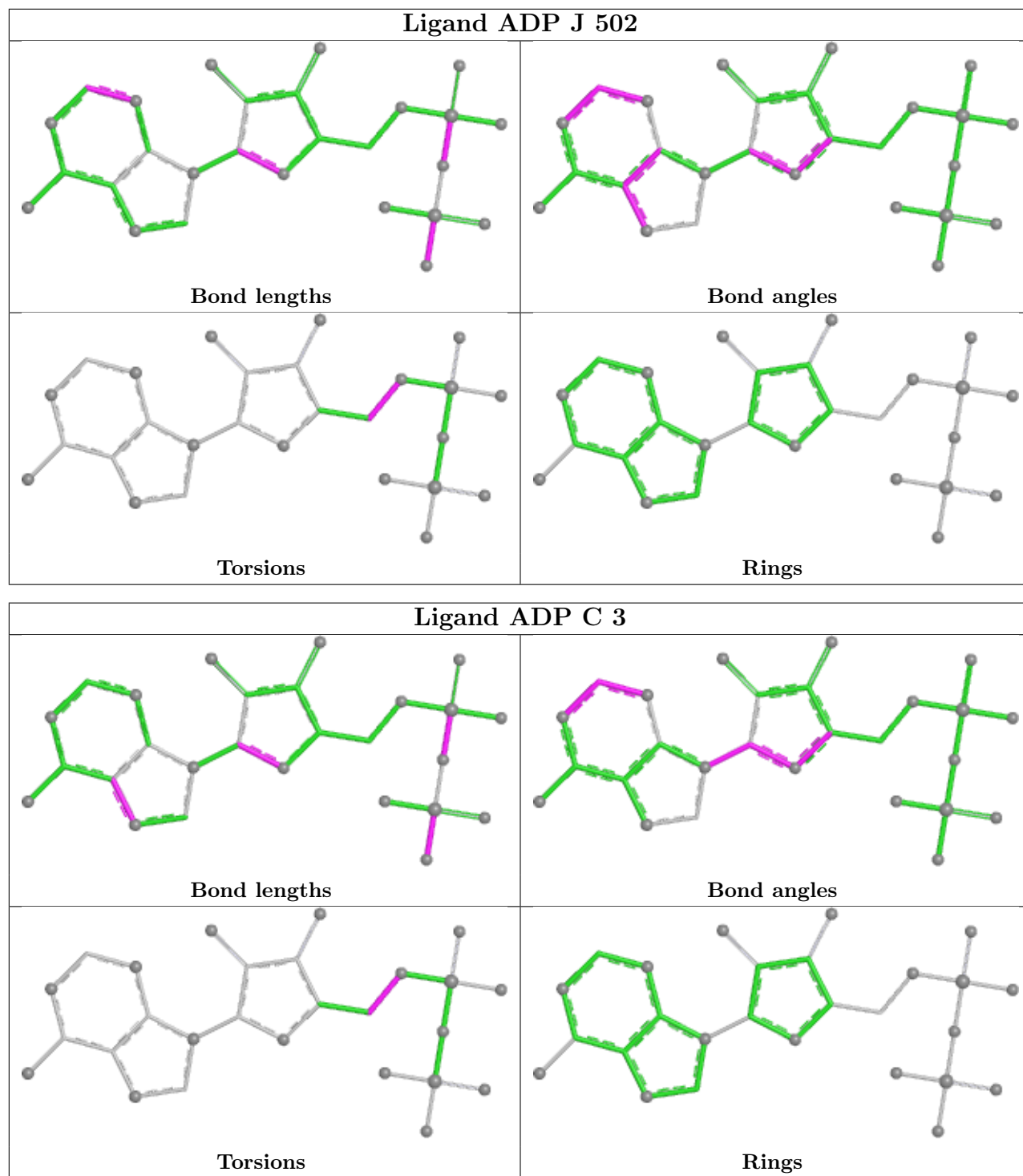












## 5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

### 6.2 Non-standard residues in protein, DNA, RNA chains

EDS was not executed - this section is therefore empty.

### 6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

### 6.4 Ligands

EDS was not executed - this section is therefore empty.

### 6.5 Other polymers

EDS was not executed - this section is therefore empty.