WORLDWIDE wwPDB
PROTEIN DATA BANK

Full wwPDB EM Validation Report (i)

May 12, 2024 – 06:48 am BST

PDB ID	:	6TA4
EMDB ID	:	EMD-10422
Title	:	Human kinesin-5 motor domain in the AMPPNP state bound to microtubules
Authors	:	Pena, A.P.; Sweeney, A.; Cook, A.D.; Moores, C.A.; Topf, M.
Deposited on	:	2019-10-29
Resolution	:	6.10 Å(reported)

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

|		
EMDB validation analysis	:	0.0.1.dev92
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36.2
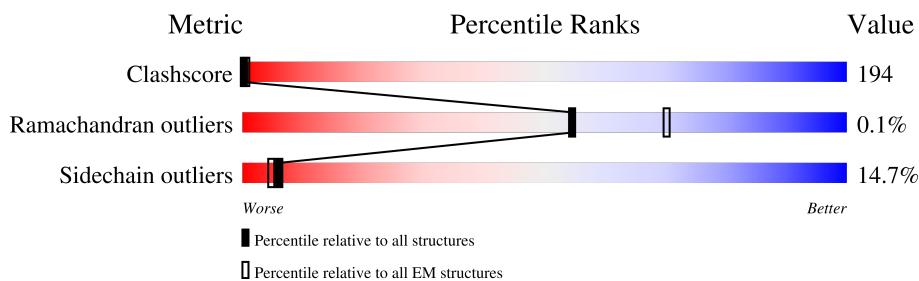
1   Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY
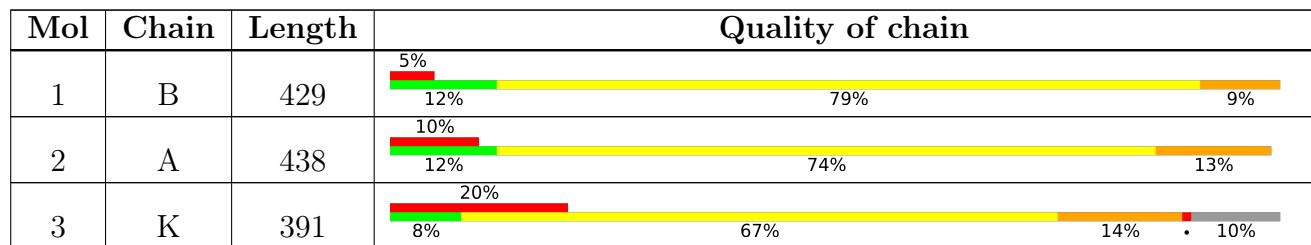
The reported resolution of this entry is 6.10 Å.

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

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

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

Mol	Chain	Length	Quality of chain
1	B	429	5% / 12% 79% 9%
2	A	438	10% / 12% 74% 13%
3	K	391	20% / 8% 67% 14% · 10%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
6	GTP	A	501	-	-	X	-
7	ANP	K	601	-	-	X	-

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 9636 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Tubulin beta chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	B	429	Total 3372	C 2117	N 578	O 651	S 26	0	0

- Molecule 2 is a protein called Tubulin alpha-1B chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A	438	Total 3425	C 2167	N 582	O 654	S 22	0	0

- Molecule 3 is a protein called Kinesin-like protein KIF11.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	K	350	Total 2741	C 1711	N 484	O 536	S 10	0	0

There are 22 discrepancies between the modelled and reference sequences:
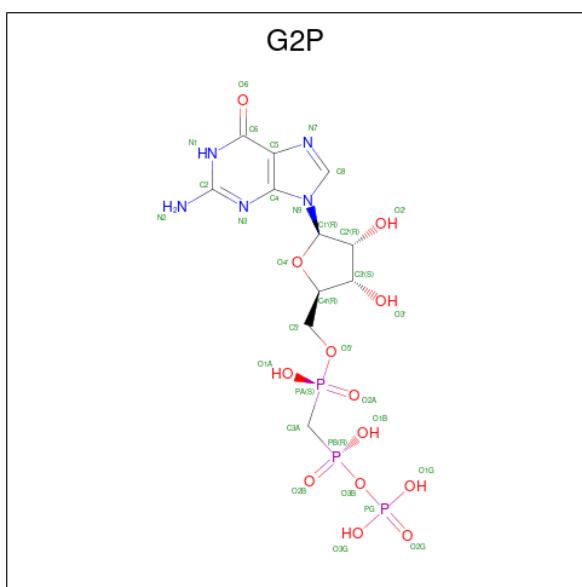
Chain	Residue	Modelled	Actual	Comment	Reference
K	-21	MET	-	initiating methionine	UNP P52732
K	-20	HIS	-	expression tag	UNP P52732
K	-19	HIS	-	expression tag	UNP P52732
K	-18	HIS	-	expression tag	UNP P52732
K	-17	HIS	-	expression tag	UNP P52732
K	-16	HIS	-	expression tag	UNP P52732
K	-15	HIS	-	expression tag	UNP P52732
K	-14	SER	-	expression tag	UNP P52732
K	-13	SER	-	expression tag	UNP P52732
K	-12	GLY	-	expression tag	UNP P52732
K	-11	VAL	-	expression tag	UNP P52732
K	-10	ASP	-	expression tag	UNP P52732
K	-9	LEU	-	expression tag	UNP P52732
K	-8	GLY	-	expression tag	UNP P52732
K	-7	THR	-	expression tag	UNP P52732

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Chain	Residue	Modelled	Actual	Comment	Reference
K	-6	GLU	-	expression tag	UNP P52732
K	-5	ASN	-	expression tag	UNP P52732
K	-4	LEU	-	expression tag	UNP P52732
K	-3	TYR	-	expression tag	UNP P52732
K	-2	PHE	-	expression tag	UNP P52732
K	-1	GLN	-	expression tag	UNP P52732
K	0	SER	-	expression tag	UNP P52732

- Molecule 4 is PHOSPHOMETHYLPHOSPHONIC ACID GUANYLATE ESTER (three-letter code: G2P) (formula: $C_{11}H_{18}N_5O_{13}P_3$).
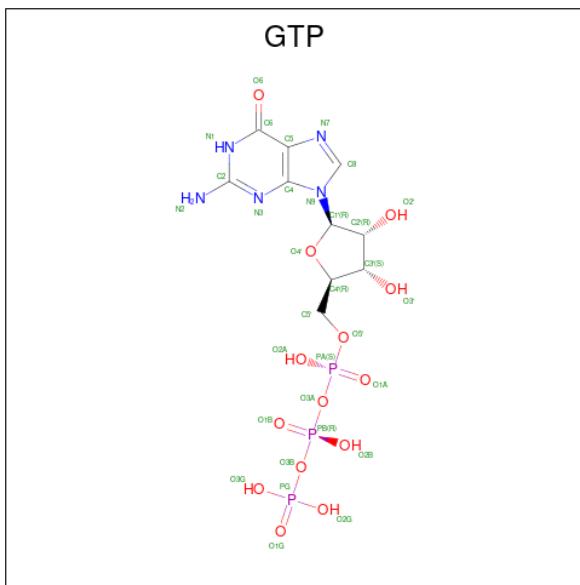
Mol	Chain	Residues	Atoms					AltConf
4	B	1	Total	C	N	O	P	0
			32	11	5	13	3	

- Molecule 5 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

| Mol	Chain	Residues	Atoms		AltConf
5	B	1	Total	Mg	0
			1	1	
5	A	1	Total	Mg	0
			1	1	
5	K	1	Total	Mg	0
			1	1	
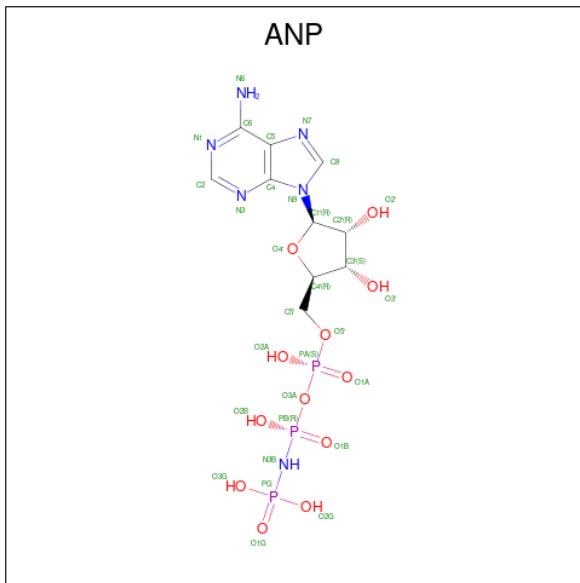
- Molecule 6 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula:

$C_{10}H_{16}N_5O_{14}P_3$).

GTP

Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
6	A	1	32	10	5	14	3	0

- Molecule 7 is PHOSPHOAMINOPHOSPHONIC ACID-ADENYLATE ESTER (three-letter code: ANP) (formula: $C_{10}H_{17}N_6O_{12}P_3$) (labeled as "Ligand of Interest" by depositor).

ANP
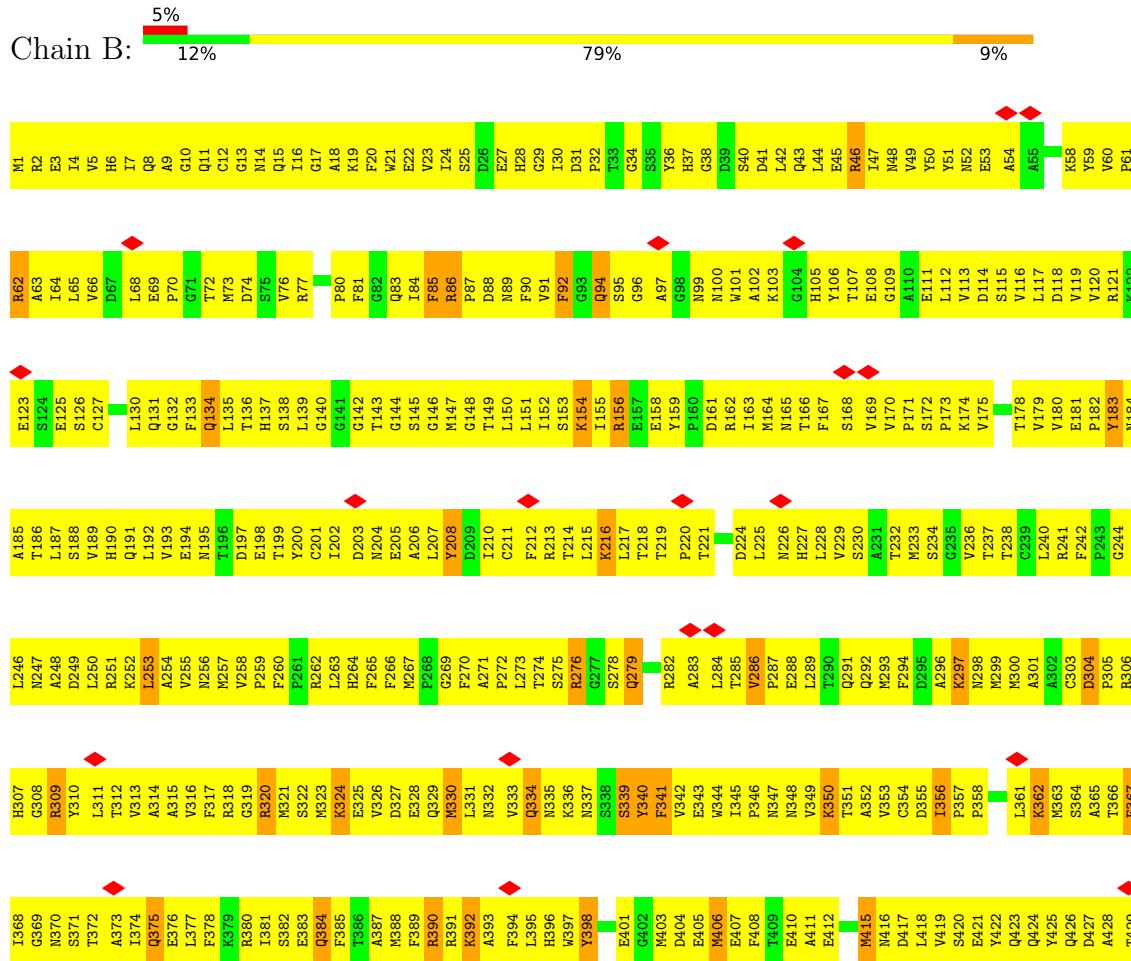
| Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
7	K	1	31	10	6	12	3	0
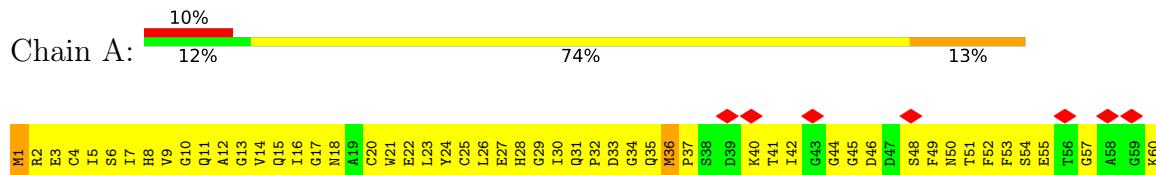
3　Residue-property plots ⓘ
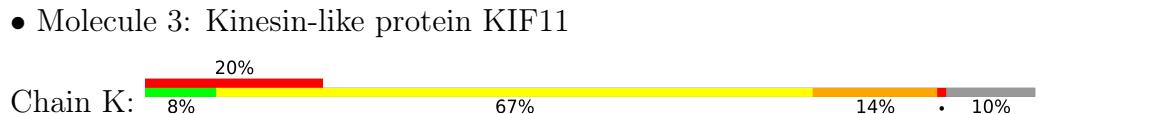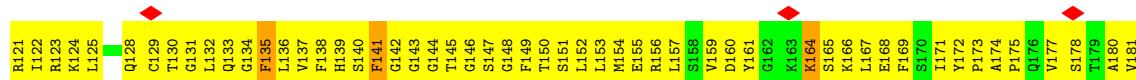
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Tubulin beta chain

- Molecule 2: Tubulin alpha-1B chain

• Molecule 3: Kinesin-like protein KIF11

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	HELICAL	Depositor
Imposed symmetry	HELICAL, twist=-25.7°, rise=8.95 Å, axial sym=C1	Depositor
Number of segments used	43714	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose $(e^-/Å^2)$	45	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.053	Depositor
Minimum map value	0.000	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.0125	Depositor
Map size (Å)	119.54, 91.74, 159.84999	wwPDB
Map dimensions	86, 66, 115	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.39, 1.39, 1.3899999	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ANP, GTP, G2P

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	B	1.02	0/3447	1.10	0/4669
2	A	1.06	0/3503	1.29	19/4754 (0.4%)
3	K	2.13	4/2781 (0.1%)	1.40	17/3759 (0.5%)
All	All	1.44	4/9731 (0.0%)	1.26	36/13182 (0.3%)

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
3	K	1	4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	K	308	HIS	CA-CB	69.18	3.06	1.53
3	K	308	HIS	CB-CG	68.15	2.72	1.50
3	K	308	HIS	CG-ND1	6.61	1.53	1.38
3	K	311	TYR	CB-CG	-5.43	1.43	1.51

All (36) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	K	308	HIS	CA-CB-CG	27.56	160.45	113.60
2	A	351	PHE	CB-CG-CD1	-16.96	108.93	120.80
3	K	311	TYR	CB-CG-CD1	-15.53	111.68	121.00
3	K	308	HIS	N-CA-CB	13.62	135.11	110.60
3	K	308	HIS	ND1-CG-CD2	-12.54	88.44	106.00
3	K	308	HIS	CB-CA-C	10.54	131.47	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	K	311	TYR	CB-CG-CD2	10.32	127.19	121.00
3	K	307	PRO	C-N-CA	10.24	147.30	121.70
2	A	328	VAL	CB-CA-C	-9.57	93.22	111.40
3	K	311	TYR	CB-CA-C	-9.19	92.02	110.40
2	A	339	ARG	NE-CZ-NH1	-9.07	115.77	120.30
2	A	351	PHE	N-CA-CB	9.04	126.88	110.60
2	A	353	VAL	CA-CB-CG2	-8.86	97.61	110.90
2	A	350	GLY	C-N-CA	-8.34	100.85	121.70
2	A	343	PHE	CB-CA-C	-7.94	94.53	110.40
2	A	339	ARG	NE-CZ-NH2	7.41	124.00	120.30
3	K	297	ARG	NE-CZ-NH1	-7.39	116.61	120.30
3	K	308	HIS	CG-CD2-NE2	7.13	122.75	109.20
3	K	308	HIS	N-CA-C	-6.73	92.84	111.00
3	K	308	HIS	O-C-N	-6.69	112.00	122.70
2	A	351	PHE	CD1-CG-CD2	6.41	126.63	118.30
3	K	308	HIS	CG-ND1-CE1	6.21	116.89	108.20
2	A	353	VAL	N-CA-C	-6.19	94.30	111.00
2	A	339	ARG	CD-NE-CZ	-5.94	115.28	123.60
2	A	347	CYS	CB-CA-C	-5.87	98.66	110.40
2	A	341	ILE	CA-CB-CG2	-5.74	99.42	110.90
3	K	312	ARG	CD-NE-CZ	-5.69	115.63	123.60
2	A	347	CYS	CA-C-O	5.57	131.80	120.10
2	A	333	ALA	CB-CA-C	-5.46	101.91	110.10
2	A	320	ARG	CD-NE-CZ	-5.30	116.18	123.60
3	K	300	THR	CB-CA-C	-5.25	97.44	111.60
2	A	331	ALA	CB-CA-C	-5.20	102.31	110.10
2	A	347	CYS	CA-C-N	-5.17	102.64	117.10
3	K	303	VAL	CB-CA-C	-5.05	101.80	111.40
3	K	299	ILE	C-N-CA	5.03	134.27	121.70
2	A	343	PHE	N-CA-CB	5.01	119.62	110.60

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
3	K	308	HIS	CA

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	K	301	ALA	Peptide
3	K	306	THR	Peptide
3	K	308	HIS	Sidechain

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Mol	Chain	Res	Type	Group
3	K	309	VAL	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	3372	0	3253	1243	0
2	A	3425	0	3335	1286	0
3	K	2741	0	2768	1344	0
4	B	32	0	14	4	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	K	1	0	0	0	0
6	A	32	0	12	14	0
7	K	31	0	13	16	0
All	All	9636	0	9395	3685	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 194.

All (3685) 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:B:422:TYR:HB3	3:K:308:HIS:CG	1.27	1.56
2:A:405:VAL:HG21	3:K:293:LEU:CD1	1.43	1.49
1:B:423:GLN:H	3:K:308:HIS:CB	1.27	1.46
1:B:423:GLN:N	3:K:308:HIS:CB	1.80	1.40
1:B:422:TYR:HB3	3:K:308:HIS:ND1	1.37	1.34
2:A:409:VAL:CG1	3:K:286:GLY:O	1.76	1.33
1:B:422:TYR:CB	3:K:308:HIS:CG	2.17	1.26
1:B:423:GLN:CG	3:K:308:HIS:HB2	1.65	1.25
2:A:405:VAL:CG2	3:K:293:LEU:HD11	1.66	1.24
1:B:54:ALA:HB3	1:B:58:LYS:HB2	1.21	1.20
1:B:422:TYR:CB	3:K:308:HIS:ND1	2.02	1.19
1:B:423:GLN:HG3	3:K:308:HIS:CB	1.70	1.19
2:A:401:LYS:HG2	2:A:403:ALA:HB2	1.22	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:224:ALA:HB3	3:K:234:ARG:HB3	1.17	1.17
1:B:311:LEU:HD21	1:B:426:GLN:HA	1.21	1.17
1:B:100:ASN:HB3	1:B:103:LYS:HB3	1.27	1.16
2:A:271:THR:HG23	2:A:301:GLN:HA	1.23	1.16
2:A:269:LEU:HD21	2:A:379:SER:HB2	1.24	1.15
2:A:32:PRO:HA	2:A:86:LEU:HD11	1.26	1.14
2:A:414:GLU:HB3	3:K:345:GLU:CD	1.66	1.14
1:B:165:ASN:HB3	1:B:200:TYR:HE1	1.12	1.14
1:B:123:GLU:HB3	1:B:130:LEU:HD11	1.23	1.13
2:A:28:HIS:HB3	2:A:30:ILE:HD13	1.26	1.12
2:A:102:ASN:HB3	2:A:105:ARG:HG2	1.30	1.12
3:K:329:ARG:HB2	3:K:363:PRO:HA	1.29	1.12
3:K:339:ALA:HB1	3:K:341:LEU:HD23	1.22	1.12
1:B:375:GLN:HG2	3:K:308:HIS:CD2	1.84	1.12
3:K:126:THR:HG22	3:K:129:GLU:HG2	1.15	1.11
1:B:419:VAL:O	3:K:308:HIS:CB	1.97	1.11
1:B:419:VAL:HA	3:K:308:HIS:ND1	1.57	1.11
1:B:16:ILE:HD13	1:B:136:THR:HG21	1.10	1.10
2:A:405:VAL:CG2	3:K:293:LEU:CD1	2.27	1.10
3:K:50:VAL:HG13	3:K:71:VAL:HG11	1.23	1.10
3:K:174:PRO:HG2	3:K:202:ILE:HB	1.17	1.10
2:A:32:PRO:HB3	2:A:82:THR:HB	1.31	1.10
2:A:240:ALA:HA	2:A:243:ARG:HD3	1.27	1.10
3:K:55:GLY:HA3	3:K:59:ASP:HB2	1.29	1.10
2:A:133:GLN:HB3	2:A:164:LYS:HE2	1.33	1.09
1:B:211:CYS:HB2	1:B:225:LEU:HD11	1.17	1.09
3:K:44:ASP:HB2	3:K:47:ARG:HG3	1.27	1.09
1:B:292:GLN:HG3	1:B:298:ASN:HB2	1.33	1.09
2:A:310:GLY:HA2	2:A:382:THR:HB	1.29	1.09
3:K:107:THR:HG23	7:K:601:ANP:HNB1	1.14	1.09
2:A:409:VAL:HG11	3:K:290:GLN:HB2	1.34	1.09
3:K:22:VAL:HG13	3:K:70:MET:HB3	1.31	1.09
3:K:27:PRO:HA	3:K:74:ALA:HB1	1.16	1.08
1:B:139:LEU:HD21	1:B:170:VAL:HA	1.35	1.08
1:B:423:GLN:N	3:K:308:HIS:HB3	1.45	1.08
1:B:378:PHE:HZ	1:B:415:MET:HB2	1.16	1.08
2:A:53:PHE:HB2	2:A:64:ARG:H	1.17	1.08
2:A:147:SER:HB2	2:A:190:THR:HG21	1.10	1.08
1:B:179:VAL:HB	1:B:388:MET:HG2	1.36	1.08
3:K:227:LEU:HD23	3:K:276:GLY:HA3	1.34	1.08
3:K:278:VAL:HG12	3:K:281:ARG:HD2	1.22	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:312:ARG:HA	3:K:321:GLN:HE22	1.20	1.07
1:B:173:PRO:HG3	1:B:381:ILE:HG12	1.35	1.07
1:B:375:GLN:CG	3:K:308:HIS:CD2	2.36	1.07
2:A:205:ASP:HB3	2:A:208:ALA:HB3	1.36	1.07
1:B:419:VAL:HA	3:K:308:HIS:CE1	1.89	1.07
2:A:317:LEU:HB2	2:A:319:TYR:HE1	1.14	1.07
3:K:136:ILE:HD13	3:K:263:LEU:HD13	1.16	1.07
1:B:248:ALA:HB1	1:B:253:LEU:HD11	1.15	1.07
3:K:194:VAL:HG21	3:K:318:ARG:HG2	1.36	1.07
3:K:23:VAL:HB	3:K:71:VAL:HA	1.27	1.06
3:K:125:TYR:HB3	3:K:129:GLU:HB2	1.37	1.06
1:B:32:PRO:HA	1:B:84:ILE:HD11	1.36	1.06
3:K:217:GLY:HA2	3:K:220:LYS:HD3	1.30	1.06
2:A:246:GLY:HA2	2:A:357:TYR:H	1.17	1.06
2:A:268:PRO:HB2	2:A:378:LEU:HD22	1.38	1.06
3:K:85:VAL:HB	3:K:135:ILE:HG12	1.32	1.06
2:A:175:PRO:HG3	2:A:387:ALA:HB2	1.35	1.05
3:K:133:ALA:HB1	3:K:137:PRO:HG2	1.38	1.05
3:K:157:LYS:HB3	3:K:201:GLU:HB2	1.34	1.05
1:B:7:ILE:HB	1:B:135:LEU:HG	1.36	1.05
1:B:285:THR:HG22	1:B:287:PRO:HD2	1.33	1.05
2:A:91:GLN:HA	2:A:121:ARG:HH21	1.17	1.05
2:A:201:ALA:HB3	2:A:267:PHE:HB3	1.34	1.05
3:K:182:LEU:HB2	3:K:196:ILE:HB	1.30	1.05
2:A:69:ASP:HB2	2:A:94:THR:HG23	1.37	1.05
2:A:184:PRO:HB3	2:A:391:LEU:HD13	1.39	1.05
2:A:259:LEU:HD22	2:A:378:LEU:HB3	1.37	1.05
1:B:324:LYS:HE2	1:B:325:GLU:HA	1.38	1.05
2:A:405:VAL:CG1	3:K:293:LEU:HG	1.86	1.04
3:K:100:THR:HB	3:K:330:THR:HB	1.40	1.04
2:A:115:ILE:HG13	2:A:156:ARG:HD3	1.36	1.04
1:B:309:ARG:HH21	1:B:426:GLN:HG2	1.18	1.04
1:B:53:GLU:HG3	1:B:59:TYR:HE2	1.20	1.04
2:A:286:LEU:HD12	2:A:371:VAL:HG23	1.40	1.04
2:A:414:GLU:HB3	3:K:345:GLU:OE1	1.57	1.04
1:B:112:LEU:HD23	1:B:151:LEU:HD21	1.41	1.03
1:B:1:MET:HA	1:B:49:VAL:HG11	1.36	1.03
3:K:347:LEU:HD12	3:K:350:LEU:HD11	1.36	1.03
1:B:341:PHE:HZ	1:B:349:VAL:HG12	1.15	1.03
3:K:278:VAL:HG13	3:K:281:ARG:H	1.17	1.03
2:A:136:LEU:HD22	2:A:167:LEU:HB2	1.36	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:405:VAL:HG11	3:K:293:LEU:CG	1.89	1.02
2:A:107:HIS:HB3	2:A:148:GLY:HA3	1.42	1.02
3:K:86:VAL:HA	3:K:135:ILE:HG23	1.38	1.02
2:A:3:GLU:HA	2:A:51:THR:HA	1.42	1.01
1:B:8:GLN:HG2	1:B:17:GLY:HA3	1.40	1.01
1:B:81:PHE:HD1	1:B:84:ILE:HG13	1.26	1.01
2:A:71:GLU:HB2	2:A:73:THR:HG22	1.39	1.01
2:A:221:ARG:HD3	2:A:222:PRO:HA	1.42	1.01
1:B:296:ALA:HA	1:B:299:MET:HE3	1.41	1.01
3:K:128:GLU:HB2	3:K:141:HIS:HB2	1.42	1.01
3:K:85:VAL:HG12	3:K:89:ILE:HD11	1.43	1.00
3:K:89:ILE:HG13	3:K:139:THR:HG21	1.40	1.00
3:K:54:THR:H	3:K:63:ARG:HA	1.21	1.00
3:K:182:LEU:HD21	3:K:199:LEU:HB2	1.42	1.00
2:A:323:VAL:HG23	2:A:355:ILE:HG13	1.38	0.99
1:B:2:ARG:H	1:B:127:CYS:HB2	1.27	0.99
3:K:131:PRO:HD2	3:K:132:LEU:HD22	1.43	0.99
1:B:170:VAL:HG23	1:B:201:CYS:HB3	1.44	0.99
3:K:182:LEU:HD11	3:K:199:LEU:HG	1.45	0.99
2:A:16:ILE:HD11	6:A:501:GTP:HN1	1.28	0.99
2:A:122:ILE:HD13	2:A:157:LEU:HD11	1.44	0.99
2:A:311:LYS:HB2	2:A:342:GLN:HG3	1.42	0.98
1:B:99:ASN:HA	1:B:143:THR:HG21	1.45	0.98
3:K:90:LEU:HD21	3:K:142:GLN:HB3	1.42	0.98
1:B:424:GLN:HB2	3:K:308:HIS:N	1.77	0.98
1:B:97:ALA:HB1	1:B:143:THR:HB	1.45	0.98
1:B:404:ASP:HB3	1:B:406:MET:HG2	1.46	0.98
3:K:160:LEU:HB2	3:K:172:LEU:HB3	1.41	0.98
2:A:288:VAL:HG11	2:A:326:LYS:HB3	1.42	0.97
3:K:21:VAL:HG12	3:K:332:ILE:HG22	1.42	0.97
1:B:116:VAL:HG11	1:B:155:ILE:HD11	1.46	0.97
2:A:9:VAL:HG12	2:A:139:HIS:HA	1.46	0.97
3:K:107:THR:HG23	7:K:601:ANP:N3B	1.80	0.97
3:K:111:LYS:HE2	3:K:266:LEU:HD23	1.44	0.97
3:K:98:ASN:HB2	3:K:328:THR:HA	1.44	0.96
2:A:108:TYR:CE2	2:A:152:LEU:HD11	1.99	0.96
3:K:147:LEU:HB3	3:K:154:PHE:CD2	2.00	0.96
1:B:165:ASN:HB3	1:B:200:TYR:CE1	2.01	0.96
2:A:31:GLN:HG2	2:A:37:PRO:HG3	1.44	0.96
1:B:248:ALA:HB3	1:B:253:LEU:HD21	1.46	0.96
3:K:190:ASN:HB2	3:K:195:ILE:HG13	1.43	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:82:TYR:HD2	3:K:135:ILE:HA	1.28	0.96
3:K:185:PHE:CE2	3:K:187:ASP:HA	2.00	0.96
3:K:72:PHE:CD2	3:K:76:THR:HG21	2.00	0.95
1:B:318:ARG:HH11	1:B:365:ALA:HA	1.31	0.95
2:A:185:TYR:HA	2:A:395:PHE:HZ	1.32	0.95
2:A:409:VAL:HG12	3:K:286:GLY:O	1.66	0.95
1:B:422:TYR:C	3:K:308:HIS:HB3	1.87	0.95
2:A:414:GLU:CB	3:K:345:GLU:CD	2.35	0.95
1:B:139:LEU:HD11	1:B:171:PRO:HD3	1.46	0.95
3:K:324:LEU:HG	3:K:361:ASN:HB3	1.47	0.94
2:A:213:CYS:HB2	2:A:230:LEU:HD12	1.49	0.94
1:B:134:GLN:HG2	1:B:165:ASN:HB2	1.49	0.94
1:B:323:MET:HG2	2:A:210:TYR:CG	2.02	0.94
2:A:226:ASN:HA	2:A:229:ARG:HD3	1.46	0.94
2:A:402:ARG:HE	3:K:293:LEU:HD21	1.30	0.94
3:K:43:CYS:HB2	3:K:73:GLY:HA2	1.49	0.94
3:K:40:ILE:HG13	3:K:52:VAL:HG12	1.50	0.93
3:K:169:PHE:HA	3:K:178:VAL:HB	1.47	0.93
3:K:207:LYS:HG3	3:K:211:TYR:CE1	2.03	0.93
1:B:12:CYS:HB2	1:B:138:SER:HB2	1.48	0.93
1:B:421:GLU:HA	3:K:308:HIS:C	1.88	0.93
2:A:5:ILE:HG21	2:A:65:ALA:HA	1.49	0.93
3:K:41:VAL:HG11	3:K:50:VAL:HB	1.51	0.93
3:K:157:LYS:HG2	3:K:203:THR:HG22	1.50	0.93
1:B:256:ASN:HA	2:A:407:TRP:CZ2	2.04	0.93
1:B:292:GLN:HG3	1:B:298:ASN:CB	1.98	0.93
3:K:132:LEU:HD22	3:K:132:LEU:H	1.34	0.93
1:B:132:GLY:HA2	1:B:162:ARG:HB3	1.51	0.93
2:A:16:ILE:HG13	2:A:138:PHE:HE1	1.34	0.92
3:K:324:LEU:HA	3:K:361:ASN:HB3	1.50	0.92
1:B:285:THR:HB	1:B:288:GLU:HG3	1.51	0.92
1:B:342:VAL:HG13	1:B:345:ILE:H	1.34	0.92
1:B:423:GLN:H	3:K:308:HIS:CG	1.87	0.92
1:B:173:PRO:HB2	1:B:380:ARG:HD3	1.51	0.92
1:B:211:CYS:HB2	1:B:225:LEU:CD1	2.00	0.92
1:B:240:LEU:HG	1:B:250:LEU:HB2	1.50	0.92
1:B:398:TYR:CE2	1:B:405:GLU:HA	2.05	0.92
1:B:422:TYR:N	3:K:308:HIS:CB	2.32	0.92
1:B:423:GLN:NE2	3:K:308:HIS:H	1.68	0.92
3:K:160:LEU:HB3	3:K:170:ASP:HA	1.51	0.92
3:K:170:ASP:HB3	3:K:173:ASN:HB3	1.50	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:36:MET:HE2	2:A:40:LYS:HA	1.48	0.91
3:K:82:TYR:CE1	3:K:83:ARG:HG2	2.05	0.91
3:K:82:TYR:HA	3:K:135:ILE:HG13	1.51	0.91
3:K:267:ALA:HB3	3:K:288:ILE:HG21	1.53	0.91
1:B:11:GLN:HG3	1:B:15:GLN:HE21	1.33	0.91
1:B:341:PHE:CZ	1:B:349:VAL:HG12	2.04	0.91
2:A:172:TYR:HB2	2:A:203:MET:CE	2.00	0.91
2:A:425:MET:HA	2:A:425:MET:HE3	1.52	0.91
1:B:53:GLU:HG3	1:B:59:TYR:CE2	2.05	0.91
2:A:9:VAL:CG2	2:A:146:GLY:HA2	2.00	0.91
3:K:187:ASP:HB2	3:K:195:ILE:HB	1.51	0.91
1:B:36:TYR:CD1	1:B:44:LEU:HB2	2.05	0.91
1:B:419:VAL:HG23	3:K:308:HIS:NE2	1.86	0.91
3:K:17:LYS:HE3	3:K:362:LYS:HG3	1.53	0.91
3:K:109:THR:HG21	3:K:335:THR:HG23	1.52	0.91
2:A:22:GLU:HB2	2:A:83:TYR:HE2	1.34	0.91
1:B:4:ILE:CD1	1:B:130:LEU:HB3	1.99	0.91
1:B:323:MET:HB2	2:A:221:ARG:HH12	1.34	0.91
2:A:30:ILE:HG13	2:A:36:MET:HB3	1.52	0.91
3:K:182:LEU:HD11	3:K:199:LEU:CG	2.01	0.91
1:B:421:GLU:HA	3:K:308:HIS:O	1.69	0.90
1:B:423:GLN:N	3:K:308:HIS:CG	2.39	0.90
2:A:48:SER:CB	2:A:243:ARG:HB3	2.00	0.90
1:B:214:THR:HG23	1:B:276:ARG:HD2	1.51	0.90
1:B:244:GLY:HA2	1:B:355:ASP:N	1.86	0.90
1:B:319:GLY:HA2	1:B:357:PRO:HG3	1.52	0.90
2:A:317:LEU:HB2	2:A:319:TYR:CE1	2.06	0.90
3:K:161:LEU:HD13	3:K:168:LEU:HB2	1.52	0.90
1:B:102:ALA:HB1	1:B:106:TYR:CE1	2.06	0.90
1:B:314:ALA:HB3	1:B:368:ILE:CG2	2.01	0.90
3:K:182:LEU:CD2	3:K:199:LEU:HB2	2.02	0.90
1:B:382:SER:HB2	1:B:415:MET:HE2	1.53	0.90
2:A:28:HIS:CB	2:A:30:ILE:HD13	2.01	0.90
1:B:211:CYS:SG	1:B:225:LEU:HD21	2.12	0.90
1:B:423:GLN:H	3:K:308:HIS:HB2	1.35	0.90
3:K:97:TYR:CE1	3:K:365:VAL:HG13	2.07	0.90
3:K:109:THR:HA	3:K:337:SER:HB2	1.53	0.90
2:A:30:ILE:HG12	2:A:61:HIS:HB2	1.53	0.90
3:K:278:VAL:CG1	3:K:281:ARG:HD2	2.02	0.90
3:K:45:PRO:HD3	3:K:73:GLY:HA3	1.54	0.90
1:B:167:PHE:HE2	1:B:233:MET:HG3	1.34	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:66:TYR:CD1	3:K:350:LEU:HB2	2.06	0.90
3:K:144:PHE:HB2	3:K:207:LYS:HB3	1.53	0.90
3:K:157:LYS:HG2	3:K:203:THR:CG2	2.02	0.90
3:K:318:ARG:CZ	3:K:319:ILE:HA	2.02	0.90
2:A:409:VAL:HG13	3:K:286:GLY:O	1.69	0.90
2:A:40:LYS:HD2	2:A:44:GLY:HA2	1.54	0.89
2:A:402:ARG:CZ	2:A:402:ARG:HA	2.02	0.89
1:B:16:ILE:HD13	1:B:136:THR:CG2	1.99	0.89
1:B:317:PHE:CD2	1:B:351:THR:HG21	2.06	0.89
1:B:422:TYR:HB3	3:K:308:HIS:CD2	2.06	0.89
3:K:41:VAL:HG23	3:K:52:VAL:HG12	1.53	0.89
3:K:47:ARG:HB3	3:K:49:GLU:HG3	1.52	0.89
1:B:314:ALA:HB3	1:B:368:ILE:HG21	1.54	0.89
1:B:330:MET:CE	2:A:177:VAL:HG21	2.02	0.89
2:A:16:ILE:HG13	2:A:138:PHE:CE1	2.06	0.89
3:K:50:VAL:HG13	3:K:71:VAL:CG1	2.01	0.89
3:K:53:ARG:HB2	3:K:56:GLY:H	1.35	0.89
1:B:419:VAL:HG23	3:K:308:HIS:CD2	2.07	0.89
2:A:360:PRO:HB3	2:A:373:ARG:HH12	1.34	0.89
3:K:128:GLU:CB	3:K:141:HIS:HB2	2.02	0.89
2:A:185:TYR:HA	2:A:395:PHE:CZ	2.07	0.89
2:A:409:VAL:HG11	3:K:290:GLN:CB	2.01	0.89
2:A:2:ARG:HD2	2:A:133:GLN:H	1.37	0.89
1:B:102:ALA:HB2	1:B:403:MET:SD	2.13	0.88
1:B:341:PHE:CE1	1:B:347:ASN:HA	2.07	0.88
1:B:404:ASP:HB2	1:B:407:GLU:HB2	1.55	0.88
2:A:414:GLU:HG3	3:K:345:GLU:CG	2.03	0.88
3:K:53:ARG:HA	3:K:63:ARG:HG2	1.54	0.88
1:B:309:ARG:HD3	1:B:426:GLN:HG3	1.54	0.88
2:A:7:ILE:H	2:A:137:VAL:HG12	1.37	0.88
2:A:278:ALA:HA	2:A:369:ALA:HB2	1.53	0.88
3:K:171:LEU:HG	3:K:221:ARG:HA	1.54	0.88
3:K:199:LEU:HD22	3:K:201:GLU:HG3	1.52	0.88
3:K:236:HIS:NE2	3:K:288:ILE:HA	1.88	0.88
2:A:274:PRO:HB3	2:A:294:ALA:HB3	1.55	0.88
3:K:227:LEU:CD2	3:K:276:GLY:HA3	2.02	0.88
1:B:1:MET:CA	1:B:49:VAL:HG11	2.03	0.88
3:K:347:LEU:CD1	3:K:350:LEU:HD11	2.04	0.88
3:K:362:LYS:H	3:K:362:LYS:HE2	1.36	0.88
3:K:267:ALA:HB3	3:K:288:ILE:CG2	2.03	0.88
3:K:72:PHE:HB3	3:K:76:THR:HB	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:187:ASP:H	3:K:195:ILE:HG12	1.36	0.88
1:B:105:HIS:NE2	1:B:150:LEU:HB2	1.89	0.88
1:B:190:HIS:CD2	1:B:411:ALA:HA	2.08	0.88
2:A:268:PRO:HB3	2:A:378:LEU:HB3	1.56	0.88
2:A:405:VAL:CG1	3:K:293:LEU:CG	2.49	0.88
3:K:55:GLY:HA3	3:K:59:ASP:CB	2.03	0.88
3:K:100:THR:HB	3:K:330:THR:CB	2.03	0.88
1:B:423:GLN:HG3	3:K:308:HIS:HB2	0.90	0.88
3:K:229:ASN:HD22	3:K:232:SER:HB3	1.38	0.88
1:B:378:PHE:CZ	1:B:415:MET:HB2	2.07	0.88
2:A:147:SER:HB2	2:A:190:THR:CG2	2.02	0.88
2:A:221:ARG:CD	2:A:222:PRO:HA	2.03	0.88
3:K:147:LEU:HD22	3:K:154:PHE:HB3	1.55	0.88
1:B:317:PHE:CG	1:B:351:THR:HG21	2.09	0.88
2:A:269:LEU:HG	2:A:379:SER:H	1.38	0.88
2:A:405:VAL:HG13	3:K:293:LEU:HG	1.56	0.88
3:K:21:VAL:HB	3:K:334:ALA:N	1.89	0.88
2:A:107:HIS:HB3	2:A:148:GLY:CA	2.05	0.87
2:A:133:GLN:HB3	2:A:164:LYS:CE	2.03	0.87
2:A:154:MET:CE	2:A:168:GLU:HG3	2.04	0.87
2:A:102:ASN:CB	2:A:105:ARG:HG2	2.03	0.87
3:K:277:ALA:HB1	3:K:281:ARG:HB3	1.56	0.87
3:K:85:VAL:HB	3:K:135:ILE:CG1	2.04	0.87
2:A:64:ARG:HH21	2:A:64:ARG:HB2	1.39	0.87
1:B:318:ARG:HB3	1:B:358:PRO:HD3	1.57	0.87
2:A:274:PRO:HG3	2:A:291:ILE:HG23	1.57	0.87
3:K:111:LYS:HA	3:K:335:THR:CG2	2.05	0.87
1:B:245:GLN:HE22	2:A:224:TYR:HB3	1.39	0.87
1:B:424:GLN:HB2	3:K:308:HIS:H	1.40	0.87
2:A:286:LEU:CD1	2:A:371:VAL:HG23	2.05	0.87
1:B:81:PHE:CD1	1:B:84:ILE:HG13	2.10	0.87
1:B:401:GLU:CB	1:B:403:MET:HG2	2.03	0.87
3:K:224:ALA:CB	3:K:234:ARG:HB3	2.03	0.87
2:A:48:SER:HB3	2:A:243:ARG:HB3	1.54	0.87
1:B:286:VAL:HG13	1:B:287:PRO:HD3	1.56	0.86
1:B:4:ILE:CG2	1:B:133:PHE:HA	2.05	0.86
2:A:259:LEU:HD22	2:A:378:LEU:CB	2.05	0.86
3:K:161:LEU:HD11	3:K:163:ILE:HG12	1.54	0.86
1:B:269:GLY:HA3	1:B:367:PHE:HB2	1.55	0.86
3:K:59:ASP:HB2	3:K:62:SER:HB2	1.57	0.86
3:K:182:LEU:CB	3:K:196:ILE:HB	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:356:ILE:H	1:B:356:ILE:HD13	1.41	0.86
2:A:134:GLY:HA2	2:A:161:TYR:CE2	2.10	0.86
2:A:210:TYR:HB2	2:A:227:LEU:HD13	1.57	0.86
1:B:139:LEU:HD21	1:B:170:VAL:CA	2.05	0.86
1:B:179:VAL:HG21	1:B:391:ARG:HG3	1.55	0.86
2:A:271:THR:CG2	2:A:301:GLN:HA	2.03	0.86
3:K:147:LEU:HD13	3:K:154:PHE:CD1	2.10	0.86
3:K:184:MET:SD	3:K:318:ARG:HD2	2.16	0.86
1:B:190:HIS:HD2	1:B:411:ALA:HA	1.38	0.86
1:B:375:GLN:HG2	3:K:308:HIS:NE2	1.89	0.86
3:K:89:ILE:CG1	3:K:139:THR:HG21	2.06	0.86
3:K:160:LEU:HB2	3:K:172:LEU:CB	2.05	0.86
2:A:115:ILE:HG13	2:A:156:ARG:CD	2.06	0.86
2:A:265:ILE:HD11	2:A:432:TYR:CD2	2.11	0.86
2:A:250:VAL:HG21	2:A:255:PHE:CD1	2.10	0.86
3:K:136:ILE:HB	3:K:137:PRO:HD3	1.58	0.86
1:B:70:PRO:HD3	1:B:94:GLN:HA	1.58	0.86
1:B:144:GLY:HA2	1:B:147:MET:SD	2.16	0.86
1:B:211:CYS:CB	1:B:225:LEU:HD11	2.06	0.85
1:B:4:ILE:HG23	1:B:133:PHE:CD2	2.11	0.85
2:A:53:PHE:HB2	2:A:64:ARG:N	1.91	0.85
1:B:99:ASN:CA	1:B:143:THR:HG21	2.06	0.85
1:B:186:THR:HG21	1:B:408:PHE:CE2	2.10	0.85
2:A:104:ALA:HB1	2:A:411:GLU:HG3	1.57	0.85
3:K:49:GLU:HA	3:K:71:VAL:HG21	1.58	0.85
2:A:6:SER:HB2	2:A:21:TRP:CZ2	2.11	0.85
2:A:15:GLN:HA	2:A:18:ASN:HD22	1.41	0.85
2:A:125:LEU:HD23	2:A:135:PHE:HZ	1.41	0.85
3:K:104:TYR:CD2	3:K:349:THR:HG23	2.10	0.85
3:K:182:LEU:HD22	3:K:196:ILE:HG13	1.58	0.85
3:K:199:LEU:HD22	3:K:201:GLU:CG	2.06	0.85
1:B:58:LYS:HZ3	1:B:84:ILE:HD13	1.40	0.85
1:B:174:LYS:HA	1:B:380:ARG:CZ	2.06	0.85
3:K:205:HIS:CD2	3:K:206:ASN:HB2	2.11	0.85
3:K:229:ASN:HB2	3:K:232:SER:CB	2.07	0.85
3:K:156:VAL:CG1	3:K:204:VAL:HG22	2.06	0.85
3:K:228:MET:HG3	3:K:275:SER:HA	1.59	0.85
1:B:40:SER:HB3	1:B:43:GLN:HG2	1.58	0.85
1:B:419:VAL:CA	3:K:308:HIS:ND1	2.40	0.85
2:A:122:ILE:CD1	2:A:157:LEU:HD11	2.06	0.85
2:A:201:ALA:CB	2:A:267:PHE:HB3	2.05	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:221:ARG:HD3	2:A:223:THR:HA	1.58	0.85
2:A:405:VAL:HG11	3:K:293:LEU:CD1	2.06	0.85
1:B:254:ALA:HA	1:B:257:MET:HE2	1.57	0.85
1:B:181:GLU:HB3	1:B:182:PRO:HD3	1.57	0.85
2:A:71:GLU:HG2	2:A:74:VAL:HG23	1.59	0.85
2:A:269:LEU:CD2	2:A:379:SER:HB2	2.07	0.85
1:B:20:PHE:CE2	1:B:24:ILE:HD11	2.11	0.85
2:A:93:ILE:HG21	2:A:117:LEU:HD12	1.59	0.85
3:K:170:ASP:H	3:K:178:VAL:HA	1.42	0.85
2:A:273:ALA:CB	2:A:295:CYS:HA	2.06	0.84
3:K:87:CYS:HB3	3:K:88:PRO:HD3	1.59	0.84
1:B:318:ARG:HD2	1:B:358:PRO:HG3	1.60	0.84
2:A:92:LEU:H	2:A:92:LEU:HD22	1.38	0.84
2:A:240:ALA:HA	2:A:243:ARG:CD	2.06	0.84
3:K:29:ASN:HD21	3:K:338:PRO:HD2	1.42	0.84
3:K:79:ILE:HD11	3:K:132:LEU:HA	1.55	0.84
3:K:117:GLY:HA3	3:K:134:GLY:N	1.91	0.84
3:K:21:VAL:HG12	3:K:332:ILE:CG2	2.06	0.84
3:K:217:GLY:HA2	3:K:220:LYS:CD	2.08	0.84
1:B:323:MET:HG2	2:A:210:TYR:CD2	2.11	0.84
2:A:4:CYS:HA	2:A:135:PHE:CE2	2.12	0.84
3:K:126:THR:HG22	3:K:129:GLU:CG	2.03	0.84
1:B:248:ALA:HB1	1:B:253:LEU:CD1	2.05	0.84
1:B:112:LEU:CD2	1:B:151:LEU:HD21	2.08	0.84
1:B:296:ALA:HB2	1:B:305:PRO:CD	2.07	0.84
1:B:311:LEU:O	1:B:342:VAL:HB	1.77	0.84
2:A:69:ASP:HB3	2:A:74:VAL:HB	1.59	0.84
2:A:119:LEU:HD13	2:A:123:ARG:HG2	1.57	0.84
3:K:199:LEU:HD23	3:K:200:GLU:N	1.92	0.84
3:K:53:ARG:HD2	3:K:63:ARG:HD3	1.57	0.84
3:K:249:THR:HG22	3:K:250:ILE:H	1.41	0.84
3:K:72:PHE:HB3	3:K:76:THR:CB	2.08	0.84
1:B:178:THR:CG2	1:B:180:VAL:HG22	2.07	0.84
2:A:183:GLU:HB3	2:A:184:PRO:HD3	1.59	0.84
1:B:4:ILE:HG21	1:B:133:PHE:HA	1.59	0.84
1:B:271:ALA:HB3	1:B:289:LEU:HD21	1.59	0.84
2:A:393:HIS:O	2:A:397:LEU:HG	1.78	0.84
2:A:203:MET:HE2	2:A:203:MET:HA	1.58	0.83
3:K:228:MET:CG	3:K:275:SER:HA	2.08	0.83
2:A:7:ILE:HD11	2:A:66:VAL:HB	1.59	0.83
2:A:91:GLN:HA	2:A:121:ARG:NH2	1.94	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:86:VAL:HG23	3:K:135:ILE:HA	1.60	0.83
3:K:152:THR:HG22	3:K:247:GLU:HB3	1.59	0.83
1:B:8:GLN:HG2	1:B:17:GLY:CA	2.08	0.83
1:B:11:GLN:HG3	1:B:15:GLN:NE2	1.92	0.83
2:A:132:LEU:HD21	2:A:135:PHE:CD2	2.13	0.83
3:K:324:LEU:HD23	3:K:325:GLY:N	1.92	0.83
2:A:3:GLU:CA	2:A:51:THR:HA	2.08	0.83
3:K:79:ILE:CD1	3:K:132:LEU:HA	2.07	0.83
1:B:109:GLY:O	1:B:113:VAL:HG23	1.78	0.83
1:B:214:THR:HA	1:B:276:ARG:NH2	1.93	0.83
3:K:159:SER:CB	3:K:199:LEU:HD11	2.08	0.83
1:B:19:LYS:HG3	1:B:226:ASN:CB	2.08	0.83
1:B:46:ARG:HB3	1:B:241:ARG:HD3	1.59	0.83
1:B:145:SER:O	1:B:149:THR:HG23	1.79	0.83
1:B:401:GLU:HB3	1:B:403:MET:HG2	1.58	0.83
2:A:224:TYR:HE2	6:A:501:GTP:N7	1.77	0.83
3:K:139:THR:O	3:K:143:ILE:HG12	1.79	0.83
3:K:184:MET:HE1	3:K:194:VAL:CG2	2.08	0.83
3:K:208:ASP:HA	3:K:211:TYR:CD2	2.13	0.83
1:B:112:LEU:O	1:B:116:VAL:HG23	1.79	0.83
1:B:372:THR:HA	1:B:426:GLN:OE1	1.79	0.83
2:A:209:ILE:HG13	2:A:231:ILE:HG12	1.61	0.83
1:B:81:PHE:HB3	1:B:84:ILE:HB	1.59	0.82
1:B:132:GLY:HA3	1:B:163:ILE:H	1.43	0.82
1:B:404:ASP:HB3	1:B:406:MET:CG	2.09	0.82
1:B:415:MET:HA	1:B:418:LEU:CD2	2.09	0.82
3:K:26:ARG:HG3	3:K:27:PRO:O	1.79	0.82
3:K:54:THR:N	3:K:63:ARG:HA	1.93	0.82
3:K:82:TYR:HA	3:K:135:ILE:CD1	2.09	0.82
3:K:160:LEU:HB2	3:K:172:LEU:H	1.41	0.82
2:A:63:PRO:HB2	2:A:87:PHE:HE2	1.44	0.82
3:K:228:MET:SD	3:K:275:SER:HA	2.18	0.82
1:B:161:ASP:HB2	1:B:162:ARG:NH1	1.93	0.82
1:B:173:PRO:HB2	1:B:380:ARG:CD	2.09	0.82
1:B:199:THR:HG22	1:B:264:HIS:HB3	1.60	0.82
2:A:30:ILE:HG13	2:A:36:MET:CB	2.09	0.82
2:A:60:LYS:HG2	2:A:62:VAL:HG13	1.62	0.82
2:A:274:PRO:HB3	2:A:294:ALA:CB	2.09	0.82
3:K:111:LYS:CE	3:K:266:LEU:HD23	2.09	0.82
1:B:421:GLU:C	3:K:308:HIS:HB3	2.00	0.82
2:A:93:ILE:HG21	2:A:117:LEU:CD1	2.10	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:135:PHE:HB2	2:A:166:LYS:HZ2	1.44	0.82
2:A:7:ILE:CD1	2:A:66:VAL:HB	2.10	0.82
2:A:290:GLU:OE1	2:A:291:ILE:HD13	1.78	0.82
3:K:103:ALA:HA	3:K:333:ILE:O	1.79	0.82
1:B:180:VAL:HG12	1:B:393:ALA:CB	2.10	0.82
2:A:8:HIS:CD2	2:A:17:GLY:HA3	2.14	0.82
2:A:23:LEU:HG	2:A:363:VAL:HG21	1.61	0.82
2:A:55:GLU:OE2	2:A:61:HIS:HA	1.80	0.82
2:A:138:PHE:HA	2:A:169:PHE:HB2	1.59	0.82
2:A:319:TYR:CE2	2:A:375:VAL:HG11	2.14	0.82
2:A:383:ALA:O	2:A:386:GLU:HG2	1.78	0.82
2:A:405:VAL:HG11	3:K:293:LEU:HD12	1.60	0.82
3:K:144:PHE:HB2	3:K:207:LYS:CB	2.08	0.82
2:A:2:ARG:HG3	2:A:132:LEU:HA	1.62	0.82
3:K:312:ARG:HA	3:K:321:GLN:NE2	1.93	0.82
3:K:316:LEU:O	3:K:319:ILE:HG12	1.78	0.82
1:B:271:ALA:HB1	1:B:272:PRO:HA	1.62	0.82
3:K:43:CYS:HB2	3:K:73:GLY:CA	2.10	0.82
3:K:302:LEU:HG	3:K:359:ILE:HG21	1.60	0.82
1:B:185:ALA:O	1:B:189:VAL:HG23	1.80	0.82
1:B:267:MET:CG	1:B:370:ASN:HA	2.10	0.82
1:B:385:PHE:HA	1:B:388:MET:HE2	1.60	0.82
1:B:407:GLU:HA	1:B:410:GLU:OE1	1.79	0.82
2:A:287:SER:O	2:A:291:ILE:HG12	1.79	0.82
2:A:298:PRO:O	2:A:301:GLN:HG2	1.80	0.82
3:K:82:TYR:HA	3:K:135:ILE:CG1	2.10	0.82
3:K:168:LEU:HD21	3:K:170:ASP:OD2	1.79	0.82
1:B:12:CYS:CB	1:B:138:SER:HB2	2.10	0.81
1:B:83:GLN:NE2	1:B:84:ILE:HG12	1.94	0.81
1:B:120:VAL:HG12	1:B:121:ARG:HH21	1.45	0.81
1:B:108:GLU:O	1:B:112:LEU:HD13	1.81	0.81
3:K:25:CYS:HB3	3:K:73:GLY:C	2.00	0.81
3:K:86:VAL:CA	3:K:135:ILE:HG23	2.09	0.81
3:K:125:TYR:HB2	3:K:130:ASP:OD2	1.79	0.81
1:B:342:VAL:HG12	1:B:348:ASN:OD1	1.79	0.81
2:A:16:ILE:HD11	6:A:501:GTP:N1	1.94	0.81
2:A:253:THR:O	2:A:256:GLN:HG2	1.80	0.81
2:A:409:VAL:HG11	3:K:286:GLY:O	1.78	0.81
3:K:27:PRO:HA	3:K:74:ALA:CB	2.07	0.81
3:K:187:ASP:HB2	3:K:195:ILE:CB	2.09	0.81
1:B:421:GLU:C	3:K:308:HIS:CB	2.47	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:26:ARG:HD2	3:K:27:PRO:HD2	1.60	0.81
1:B:255:VAL:HG12	2:A:407:TRP:CE2	2.15	0.81
1:B:296:ALA:O	1:B:299:MET:HG2	1.80	0.81
2:A:203:MET:HG3	2:A:384:ILE:CD1	2.11	0.81
2:A:240:ALA:CA	2:A:243:ARG:HD3	2.10	0.81
1:B:142:GLY:N	1:B:184:ASN:HB3	1.96	0.81
2:A:89:PRO:HA	2:A:92:LEU:HD23	1.61	0.81
2:A:234:ILE:HD13	2:A:272:TYR:HB2	1.63	0.81
2:A:246:GLY:HA2	2:A:357:TYR:N	1.96	0.81
3:K:101:ILE:HG22	3:K:263:LEU:HD23	1.63	0.81
3:K:136:ILE:HD13	3:K:263:LEU:CD1	2.08	0.81
3:K:169:PHE:CD2	3:K:178:VAL:HG11	2.15	0.81
1:B:19:LYS:HG3	1:B:226:ASN:HB3	1.61	0.81
1:B:178:THR:HG21	1:B:180:VAL:HG22	1.63	0.81
2:A:373:ARG:HA	2:A:373:ARG:CZ	2.11	0.81
3:K:97:TYR:HE1	3:K:365:VAL:HG13	1.45	0.81
3:K:339:ALA:HB1	3:K:341:LEU:CD2	2.09	0.81
1:B:423:GLN:N	3:K:308:HIS:HB2	1.79	0.80
2:A:108:TYR:HE2	2:A:152:LEU:HD11	1.40	0.80
3:K:85:VAL:CB	3:K:135:ILE:HG12	2.11	0.80
2:A:317:LEU:HD22	2:A:377:MET:CB	2.11	0.80
3:K:170:ASP:HB3	3:K:173:ASN:CB	2.11	0.80
3:K:234:ARG:HA	3:K:234:ARG:CZ	2.11	0.80
1:B:156:ARG:HB3	1:B:164:MET:CG	2.12	0.80
2:A:136:LEU:HD22	2:A:167:LEU:CB	2.11	0.80
2:A:155:GLU:HG2	2:A:197:HIS:CE1	2.15	0.80
2:A:214:ARG:NH2	2:A:215:ARG:HA	1.96	0.80
2:A:301:GLN:HG3	2:A:303:VAL:O	1.81	0.80
3:K:41:VAL:HG23	3:K:52:VAL:CG1	2.10	0.80
3:K:53:ARG:HA	3:K:63:ARG:CG	2.10	0.80
3:K:182:LEU:HD22	3:K:196:ILE:CG1	2.11	0.80
3:K:329:ARG:HG3	3:K:363:PRO:HG3	1.62	0.80
1:B:377:LEU:O	1:B:381:ILE:HG13	1.80	0.80
1:B:422:TYR:HB2	3:K:308:HIS:ND1	1.94	0.80
2:A:278:ALA:HA	2:A:369:ALA:CB	2.09	0.80
2:A:297:GLU:OE1	2:A:299:ALA:HB3	1.81	0.80
3:K:156:VAL:HG12	3:K:204:VAL:HG22	1.62	0.80
1:B:5:VAL:HG12	1:B:62:ARG:HB2	1.61	0.80
1:B:180:VAL:HG12	1:B:393:ALA:HB1	1.64	0.80
3:K:22:VAL:HG22	3:K:69:ASP:OD1	1.80	0.80
1:B:156:ARG:HB3	1:B:164:MET:HG2	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:405:VAL:O	2:A:409:VAL:HG23	1.80	0.80
3:K:23:VAL:HB	3:K:71:VAL:CA	2.12	0.80
1:B:244:GLY:HA2	1:B:355:ASP:H	1.43	0.80
2:A:215:ARG:NH1	2:A:216:ASN:HB3	1.97	0.80
2:A:310:GLY:HA2	2:A:382:THR:CB	2.12	0.80
2:A:405:VAL:HG11	3:K:293:LEU:CB	2.11	0.80
3:K:90:LEU:HD11	3:K:142:GLN:OE1	1.82	0.80
3:K:99:CYS:SG	3:K:261:LEU:HD13	2.22	0.80
3:K:147:LEU:HB3	3:K:154:PHE:CE2	2.16	0.80
3:K:199:LEU:HD22	3:K:201:GLU:CD	2.02	0.80
1:B:342:VAL:HG22	1:B:344:TRP:H	1.47	0.80
2:A:142:GLY:HA2	2:A:183:GLU:CG	2.12	0.80
3:K:99:CYS:O	3:K:261:LEU:HA	1.82	0.80
3:K:209:GLU:O	3:K:212:GLN:HG2	1.81	0.80
3:K:278:VAL:HG12	3:K:281:ARG:CD	2.10	0.80
1:B:87:PRO:HA	1:B:90:PHE:CD1	2.15	0.80
1:B:139:LEU:HD11	1:B:171:PRO:CD	2.10	0.80
1:B:309:ARG:HD3	1:B:426:GLN:CG	2.11	0.80
2:A:25:CYS:HA	2:A:28:HIS:HD2	1.47	0.80
3:K:160:LEU:CD2	3:K:171:LEU:HB2	2.11	0.80
3:K:161:LEU:HB3	3:K:238:VAL:HB	1.63	0.80
3:K:226:THR:HG21	3:K:234:ARG:HH21	1.47	0.80
3:K:153:GLU:O	3:K:245:MET:HA	1.81	0.79
1:B:423:GLN:CB	3:K:308:HIS:HB2	2.12	0.79
2:A:40:LYS:HD3	2:A:61:HIS:NE2	1.97	0.79
2:A:273:ALA:O	2:A:375:VAL:HG22	1.81	0.79
3:K:92:GLU:OE2	3:K:97:TYR:HB3	1.82	0.79
3:K:95:MET:O	3:K:257:LYS:HD2	1.83	0.79
3:K:119:ARG:NH2	3:K:127:TRP:HB2	1.97	0.79
1:B:271:ALA:CB	1:B:289:LEU:HD21	2.11	0.79
1:B:324:LYS:HE2	1:B:325:GLU:CA	2.13	0.79
1:B:415:MET:O	1:B:418:LEU:HG	1.83	0.79
3:K:157:LYS:HB3	3:K:201:GLU:CB	2.11	0.79
1:B:267:MET:HG3	1:B:370:ASN:HA	1.63	0.79
2:A:401:LYS:HG2	2:A:403:ALA:CB	2.09	0.79
3:K:86:VAL:HA	3:K:135:ILE:CG2	2.12	0.79
3:K:281:ARG:HG3	3:K:284:GLU:OE2	1.83	0.79
3:K:348:SER:O	3:K:351:GLU:HG2	1.82	0.79
2:A:31:GLN:HG2	2:A:37:PRO:CG	2.13	0.79
2:A:121:ARG:O	2:A:124:LYS:HG3	1.81	0.79
2:A:274:PRO:CG	2:A:291:ILE:HG23	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:305:CYS:SG	2:A:383:ALA:HB2	2.23	0.79
2:A:313:MET:HE3	2:A:436:GLY:HA3	1.65	0.79
2:A:390:ARG:HA	2:A:393:HIS:CD2	2.17	0.79
1:B:173:PRO:HD2	1:B:377:LEU:HD21	1.64	0.79
1:B:214:THR:CG2	1:B:276:ARG:HD2	2.11	0.79
2:A:22:GLU:HB2	2:A:83:TYR:CE2	2.17	0.79
1:B:58:LYS:NZ	1:B:84:ILE:HD13	1.97	0.79
1:B:117:LEU:O	1:B:121:ARG:HG2	1.81	0.79
1:B:269:GLY:HA3	1:B:367:PHE:CB	2.13	0.79
2:A:316:CYS:C	2:A:317:LEU:HD23	2.03	0.79
3:K:18:ASN:HB3	3:K:360:LEU:CD2	2.13	0.79
3:K:28:PHE:HB3	3:K:33:ARG:NH2	1.98	0.79
3:K:169:PHE:HD2	3:K:178:VAL:HG11	1.48	0.79
1:B:28:HIS:ND1	1:B:47:ILE:HD12	1.98	0.79
1:B:314:ALA:HB3	1:B:368:ILE:CB	2.13	0.79
1:B:343:GLU:CG	1:B:429:THR:HB	2.13	0.79
2:A:25:CYS:HA	2:A:28:HIS:CD2	2.18	0.79
2:A:175:PRO:HG3	2:A:387:ALA:CB	2.13	0.79
3:K:120:SER:HB3	3:K:124:GLU:OE1	1.83	0.79
1:B:327:ASP:HA	1:B:330:MET:SD	2.23	0.78
2:A:399:TYR:O	2:A:402:ARG:HD2	1.83	0.78
2:A:434:GLU:O	2:A:437:VAL:HG22	1.83	0.78
2:A:182:VAL:HG12	2:A:407:TRP:CZ3	2.17	0.78
3:K:72:PHE:CG	3:K:76:THR:HG21	2.17	0.78
3:K:288:ILE:O	3:K:292:LEU:HD13	1.83	0.78
1:B:29:GLY:HA3	1:B:37:HIS:CD2	2.18	0.78
2:A:398:MET:SD	2:A:403:ALA:HB3	2.24	0.78
3:K:111:LYS:CE	3:K:265:ASP:HA	2.12	0.78
3:K:226:THR:HB	3:K:229:ASN:O	1.81	0.78
2:A:172:TYR:HB2	2:A:203:MET:HE2	1.65	0.78
1:B:316:VAL:HG23	1:B:318:ARG:HH12	1.48	0.78
3:K:127:TRP:CD2	3:K:137:PRO:HG3	2.17	0.78
3:K:136:ILE:HG21	3:K:263:LEU:HD11	1.65	0.78
1:B:170:VAL:HG12	1:B:171:PRO:O	1.82	0.78
1:B:206:ALA:HB1	1:B:300:MET:O	1.83	0.78
1:B:260:PHE:CE2	2:A:403:ALA:HA	2.18	0.78
1:B:378:PHE:CE1	1:B:419:VAL:HB	2.18	0.78
2:A:8:HIS:HA	2:A:138:PHE:O	1.82	0.78
2:A:72:PRO:O	2:A:75:ILE:HG12	1.84	0.78
2:A:203:MET:CE	2:A:203:MET:HA	2.13	0.78
3:K:135:ILE:O	3:K:139:THR:HG23	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:136:ILE:HG21	3:K:263:LEU:CD1	2.14	0.78
3:K:159:SER:O	3:K:172:LEU:HD23	1.83	0.78
1:B:255:VAL:HG12	2:A:407:TRP:NE1	1.99	0.78
1:B:397:TRP:O	1:B:401:GLU:HG3	1.82	0.78
3:K:17:LYS:HE3	3:K:362:LYS:CG	2.14	0.78
1:B:45:GLU:O	1:B:49:VAL:HG23	1.83	0.78
1:B:331:LEU:HG	1:B:335:ASN:OD1	1.83	0.78
2:A:153:LEU:O	2:A:157:LEU:HD23	1.83	0.78
1:B:7:ILE:HG23	1:B:64:ILE:HG23	1.64	0.78
1:B:50:TYR:HB2	1:B:241:ARG:HH12	1.49	0.78
1:B:259:PRO:HA	2:A:404:PHE:CE1	2.18	0.78
1:B:422:TYR:N	3:K:308:HIS:HB3	1.98	0.78
2:A:214:ARG:CZ	2:A:215:ARG:HA	2.14	0.78
3:K:218:ALA:HA	3:K:221:ARG:HG2	1.66	0.78
3:K:234:ARG:HG2	3:K:281:ARG:CG	2.13	0.78
1:B:70:PRO:CD	1:B:94:GLN:HA	2.14	0.78
1:B:316:VAL:HG13	1:B:368:ILE:HD11	1.65	0.78
2:A:287:SER:O	2:A:290:GLU:HG3	1.84	0.78
3:K:96:GLY:HA2	3:K:259:GLY:CA	2.14	0.78
3:K:194:VAL:HG21	3:K:318:ARG:CG	2.13	0.78
3:K:348:SER:HA	3:K:351:GLU:CD	2.03	0.78
1:B:187:LEU:HD21	1:B:398:TYR:OH	1.84	0.77
1:B:249:ASP:HB2	1:B:252:LYS:CB	2.13	0.77
1:B:251:ARG:O	1:B:255:VAL:HG23	1.84	0.77
1:B:424:GLN:CB	3:K:308:HIS:CA	2.61	0.77
3:K:85:VAL:CG1	3:K:89:ILE:HD11	2.14	0.77
3:K:111:LYS:HE2	3:K:266:LEU:H	1.47	0.77
1:B:28:HIS:ND1	1:B:47:ILE:HG23	1.99	0.77
1:B:68:LEU:HG	1:B:69:GLU:OE2	1.84	0.77
2:A:46:ASP:N	2:A:49:PHE:HB2	2.00	0.77
2:A:288:VAL:CG1	2:A:326:LYS:HB3	2.13	0.77
3:K:347:LEU:HD12	3:K:350:LEU:CD1	2.14	0.77
1:B:323:MET:HB2	2:A:221:ARG:NH1	1.98	0.77
2:A:118:VAL:O	2:A:122:ILE:HG13	1.84	0.77
3:K:194:VAL:CG2	3:K:318:ARG:HG2	2.13	0.77
1:B:318:ARG:HB3	1:B:358:PRO:CD	2.14	0.77
2:A:10:GLY:O	2:A:14:VAL:HG23	1.85	0.77
2:A:100:ALA:HB3	2:A:101:ASN:HA	1.67	0.77
2:A:147:SER:CB	2:A:190:THR:HG21	2.04	0.77
2:A:161:TYR:CE2	2:A:166:LYS:HG2	2.19	0.77
1:B:5:VAL:HG13	1:B:123:GLU:CG	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:133:GLN:CB	2:A:164:LYS:HE2	2.13	0.77
1:B:174:LYS:HA	1:B:380:ARG:NH2	1.98	0.77
2:A:64:ARG:CZ	2:A:91:GLN:HG2	2.14	0.77
3:K:278:VAL:HG13	3:K:281:ARG:N	1.97	0.77
1:B:200:TYR:CD2	1:B:266:PHE:HB3	2.19	0.77
1:B:309:ARG:HB2	1:B:339:SER:O	1.84	0.77
2:A:390:ARG:NH2	2:A:391:LEU:HA	1.99	0.77
3:K:82:TYR:CE2	3:K:86:VAL:HG21	2.18	0.77
1:B:151:LEU:O	1:B:155:ILE:HG12	1.84	0.77
1:B:330:MET:HE3	2:A:177:VAL:HG21	1.66	0.77
1:B:372:THR:HA	1:B:426:GLN:CD	2.05	0.77
1:B:412:GLU:O	1:B:415:MET:HG3	1.85	0.77
1:B:419:VAL:CG2	3:K:308:HIS:CD2	2.67	0.77
2:A:83:TYR:HB2	2:A:87:PHE:CE1	2.19	0.77
2:A:102:ASN:HB3	2:A:105:ARG:CG	2.14	0.77
3:K:104:TYR:CG	3:K:349:THR:HG23	2.19	0.77
1:B:14:ASN:OD1	1:B:72:THR:HB	1.85	0.77
1:B:132:GLY:HA2	1:B:162:ARG:CB	2.15	0.77
1:B:139:LEU:H	1:B:168:SER:HB2	1.48	0.77
1:B:256:ASN:HA	2:A:407:TRP:HZ2	1.48	0.77
1:B:274:THR:CG2	1:B:279:GLN:HB2	2.14	0.77
2:A:2:ARG:HD2	2:A:133:GLN:HG2	1.67	0.77
2:A:259:LEU:CD2	2:A:268:PRO:HB3	2.14	0.77
3:K:47:ARG:HD2	3:K:49:GLU:OE1	1.85	0.77
3:K:109:THR:CG2	3:K:335:THR:HG23	2.14	0.77
3:K:318:ARG:NH1	3:K:319:ILE:HG22	2.00	0.77
1:B:70:PRO:CG	1:B:94:GLN:HA	2.15	0.77
2:A:3:GLU:O	2:A:132:LEU:HD13	1.85	0.77
3:K:41:VAL:HA	3:K:51:SER:O	1.85	0.77
3:K:47:ARG:HH12	3:K:51:SER:H	1.32	0.77
3:K:90:LEU:HD21	3:K:142:GLN:CB	2.15	0.77
3:K:113:PHE:CG	3:K:231:TYR:HE2	2.03	0.77
3:K:161:LEU:CG	3:K:238:VAL:HB	2.15	0.77
3:K:324:LEU:CA	3:K:361:ASN:HB3	2.14	0.77
1:B:285:THR:CG2	1:B:287:PRO:HD2	2.15	0.76
2:A:3:GLU:CB	2:A:51:THR:HA	2.16	0.76
1:B:274:THR:HG23	1:B:275:SER:O	1.86	0.76
1:B:311:LEU:HD12	1:B:422:TYR:HE2	1.51	0.76
1:B:423:GLN:CA	3:K:308:HIS:HB2	2.14	0.76
2:A:76:ASP:O	2:A:79:ARG:HG3	1.85	0.76
2:A:107:HIS:CD2	2:A:152:LEU:HD21	2.20	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:98:ASN:HB2	3:K:328:THR:CA	2.16	0.76
3:K:99:CYS:HB3	3:K:329:ARG:HH21	1.51	0.76
3:K:141:HIS:HA	3:K:211:TYR:OH	1.84	0.76
3:K:169:PHE:HA	3:K:178:VAL:CB	2.15	0.76
1:B:200:TYR:HD2	1:B:266:PHE:HB3	1.49	0.76
1:B:206:ALA:O	1:B:210:ILE:HG22	1.85	0.76
1:B:316:VAL:HG23	1:B:318:ARG:NH1	1.98	0.76
1:B:415:MET:HA	1:B:418:LEU:HD21	1.66	0.76
2:A:2:ARG:CD	2:A:133:GLN:H	1.98	0.76
3:K:109:THR:HG22	3:K:111:LYS:N	2.01	0.76
2:A:6:SER:HA	2:A:136:LEU:O	1.86	0.76
2:A:52:PHE:CZ	2:A:243:ARG:HD2	2.20	0.76
3:K:236:HIS:CE1	3:K:288:ILE:HG23	2.21	0.76
3:K:77:LYS:HZ2	3:K:79:ILE:HG13	1.48	0.76
3:K:234:ARG:HG2	3:K:281:ARG:HG2	1.65	0.76
1:B:233:MET:O	1:B:236:VAL:HG22	1.85	0.76
1:B:404:ASP:HB2	1:B:407:GLU:CB	2.14	0.76
1:B:20:PHE:O	1:B:24:ILE:HG12	1.85	0.76
2:A:246:GLY:CA	2:A:357:TYR:H	1.98	0.76
3:K:78:GLN:HB3	3:K:114:THR:CB	2.16	0.76
1:B:100:ASN:OD1	1:B:401:GLU:HG2	1.85	0.76
2:A:381:THR:CG2	2:A:384:ILE:HG13	2.15	0.76
1:B:188:SER:O	1:B:192:LEU:HG	1.85	0.76
1:B:385:PHE:HA	1:B:388:MET:CE	2.15	0.76
3:K:98:ASN:CG	3:K:328:THR:HG22	2.06	0.76
3:K:118:GLU:O	3:K:132:LEU:HB2	1.86	0.76
3:K:128:GLU:HG3	3:K:211:TYR:CE1	2.20	0.76
3:K:324:LEU:HA	3:K:361:ASN:CB	2.16	0.76
3:K:23:VAL:CB	3:K:71:VAL:HA	2.13	0.75
3:K:49:GLU:N	3:K:71:VAL:HB	2.00	0.75
1:B:16:ILE:HG21	1:B:136:THR:CG2	2.15	0.75
1:B:51:TYR:CE1	1:B:61:PRO:HA	2.20	0.75
1:B:214:THR:HG23	1:B:276:ARG:CD	2.16	0.75
1:B:296:ALA:HA	1:B:299:MET:CE	2.15	0.75
2:A:34:GLY:HA2	2:A:86:LEU:HD23	1.66	0.75
2:A:136:LEU:CD2	2:A:167:LEU:HD23	2.15	0.75
2:A:157:LEU:HB3	2:A:166:LYS:HD2	1.67	0.75
1:B:86:ARG:HG3	1:B:89:ASN:ND2	2.02	0.75
1:B:330:MET:HE1	2:A:177:VAL:HG21	1.67	0.75
2:A:70:LEU:HD21	2:A:149:PHE:CZ	2.20	0.75
2:A:188:ILE:CD1	2:A:425:MET:HG2	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:306:ASP:HB3	2:A:308:ARG:CZ	2.16	0.75
3:K:41:VAL:CG1	3:K:50:VAL:HB	2.17	0.75
3:K:53:ARG:HB2	3:K:56:GLY:N	2.01	0.75
1:B:384:GLN:O	1:B:388:MET:HG3	1.85	0.75
2:A:101:ASN:ND2	2:A:145:THR:HG23	2.02	0.75
2:A:136:LEU:CD2	2:A:167:LEU:HB2	2.14	0.75
2:A:143:GLY:HA3	6:A:501:GTP:O1B	1.86	0.75
2:A:201:ALA:HB3	2:A:267:PHE:CB	2.14	0.75
3:K:26:ARG:HB2	3:K:109:THR:O	1.86	0.75
3:K:31:ALA:HA	3:K:34:LYS:HG2	1.68	0.75
3:K:103:ALA:HB3	3:K:111:LYS:HG2	1.67	0.75
3:K:182:LEU:CG	3:K:199:LEU:HB2	2.17	0.75
1:B:103:LYS:O	1:B:107:THR:HG22	1.85	0.75
1:B:199:THR:HG22	1:B:264:HIS:CB	2.16	0.75
1:B:423:GLN:HE21	3:K:308:HIS:CA	1.99	0.75
1:B:424:GLN:H	3:K:308:HIS:CB	1.99	0.75
2:A:2:ARG:HE	2:A:132:LEU:HD12	1.52	0.75
2:A:125:LEU:HD23	2:A:135:PHE:CZ	2.21	0.75
3:K:358:ASN:ND2	3:K:359:ILE:HG23	2.01	0.75
1:B:3:GLU:HG3	1:B:49:VAL:C	2.07	0.75
1:B:318:ARG:HE	1:B:364:SER:HB2	1.50	0.75
1:B:375:GLN:OE1	1:B:423:GLN:HB3	1.86	0.75
2:A:426:ALA:O	2:A:429:GLU:HG2	1.86	0.75
3:K:41:VAL:HG13	3:K:47:ARG:NH1	2.02	0.75
3:K:326:GLY:HA2	3:K:327:ARG:NH1	2.02	0.75
1:B:12:CYS:SG	1:B:138:SER:HB2	2.27	0.75
1:B:24:ILE:HG22	1:B:28:HIS:NE2	2.02	0.75
1:B:70:PRO:HG3	1:B:94:GLN:HA	1.68	0.75
1:B:85:PHE:HB3	1:B:90:PHE:HZ	1.51	0.75
1:B:319:GLY:HA2	1:B:357:PRO:CG	2.16	0.75
2:A:319:TYR:HB3	2:A:373:ARG:HD2	1.69	0.75
3:K:86:VAL:HG21	3:K:138:ARG:HB3	1.69	0.75
3:K:185:PHE:CE1	3:K:197:LYS:HG2	2.22	0.75
1:B:51:TYR:CZ	1:B:61:PRO:HA	2.22	0.75
1:B:297:LYS:HG3	1:B:298:ASN:N	2.02	0.75
3:K:41:VAL:HG22	3:K:51:SER:C	2.06	0.75
3:K:93:VAL:CG1	3:K:243:ILE:HD12	2.17	0.75
3:K:152:THR:CG2	3:K:247:GLU:HB3	2.17	0.75
3:K:185:PHE:CE2	3:K:197:LYS:HE2	2.20	0.75
1:B:51:TYR:HB2	1:B:59:TYR:HB3	1.69	0.75
1:B:259:PRO:HB2	1:B:260:PHE:CE1	2.22	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:71:GLU:CB	2:A:73:THR:HG22	2.14	0.75
2:A:405:VAL:HG12	2:A:409:VAL:CG2	2.17	0.75
3:K:92:GLU:HG3	3:K:97:TYR:O	1.87	0.75
1:B:116:VAL:O	1:B:120:VAL:HG23	1.87	0.74
1:B:172:SER:OG	1:B:174:LYS:HG2	1.87	0.74
1:B:344:TRP:CG	2:A:401:LYS:HD3	2.22	0.74
1:B:423:GLN:HE21	3:K:308:HIS:N	1.84	0.74
2:A:213:CYS:SG	2:A:227:LEU:HD23	2.27	0.74
2:A:319:TYR:CD2	2:A:373:ARG:HD3	2.22	0.74
1:B:404:ASP:HB3	1:B:406:MET:SD	2.27	0.74
2:A:152:LEU:HB3	2:A:156:ARG:NH2	2.01	0.74
1:B:12:CYS:O	1:B:16:ILE:HG22	1.88	0.74
1:B:65:LEU:HD12	1:B:73:MET:SD	2.26	0.74
2:A:2:ARG:HG3	2:A:132:LEU:HD12	1.68	0.74
2:A:110:ILE:HG21	2:A:149:PHE:CZ	2.22	0.74
3:K:204:VAL:HG21	3:K:210:VAL:HG22	1.69	0.74
1:B:173:PRO:HG3	1:B:381:ILE:CG1	2.15	0.74
2:A:60:LYS:HE3	2:A:62:VAL:HG11	1.70	0.74
3:K:90:LEU:H	3:K:90:LEU:HD12	1.53	0.74
3:K:347:LEU:HA	3:K:350:LEU:CD2	2.17	0.74
1:B:43:GLN:O	1:B:47:ILE:HG12	1.87	0.74
2:A:99:ALA:HB3	2:A:100:ALA:C	2.07	0.74
2:A:140:SER:HA	2:A:171:ILE:HD12	1.70	0.74
2:A:208:ALA:O	2:A:212:ILE:HG12	1.86	0.74
1:B:116:VAL:CG1	1:B:155:ILE:HD11	2.17	0.74
1:B:375:GLN:CG	3:K:308:HIS:HD2	1.99	0.74
2:A:140:SER:HA	2:A:171:ILE:CD1	2.18	0.74
1:B:358:PRO:HD2	1:B:362:LYS:O	1.87	0.74
2:A:250:VAL:HB	2:A:254:GLU:OE2	1.86	0.74
3:K:70:MET:HG2	3:K:72:PHE:CZ	2.22	0.74
1:B:18:ALA:HB3	1:B:19:LYS:HE2	1.70	0.74
1:B:377:LEU:CD1	1:B:381:ILE:HD11	2.18	0.74
2:A:271:THR:O	2:A:376:CYS:HA	1.86	0.74
3:K:193:GLY:HA3	3:K:327:ARG:CZ	2.16	0.74
1:B:68:LEU:O	1:B:96:GLY:HA3	1.87	0.74
1:B:296:ALA:HB2	1:B:305:PRO:HD3	1.68	0.74
1:B:313:VAL:HB	1:B:341:PHE:HE2	1.51	0.74
1:B:420:SER:O	1:B:423:GLN:HG3	1.87	0.74
2:A:150:THR:HG22	2:A:154:MET:HE3	1.70	0.74
2:A:430:LYS:HD2	2:A:431:ASP:N	2.03	0.74
3:K:229:ASN:CB	3:K:232:SER:H	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:350:LEU:HD12	3:K:351:GLU:N	2.03	0.74
1:B:229:VAL:O	1:B:232:THR:HG22	1.88	0.74
1:B:345:ILE:HB	1:B:348:ASN:HD21	1.51	0.74
1:B:424:GLN:HB2	3:K:308:HIS:CA	2.17	0.74
2:A:205:ASP:HB3	2:A:208:ALA:CB	2.16	0.74
3:K:19:ILE:CD1	3:K:331:SER:HB2	2.18	0.73
3:K:29:ASN:ND2	3:K:338:PRO:HD2	2.01	0.73
2:A:269:LEU:HG	2:A:379:SER:N	2.02	0.73
3:K:152:THR:HG22	3:K:247:GLU:CB	2.17	0.73
1:B:21:TRP:NE1	1:B:61:PRO:HG3	2.03	0.73
1:B:61:PRO:HD2	1:B:85:PHE:HA	1.67	0.73
1:B:423:GLN:HE21	3:K:308:HIS:H	1.32	0.73
2:A:294:ALA:HB1	2:A:300:ASN:ND2	2.03	0.73
3:K:135:ILE:HD12	3:K:135:ILE:H	1.54	0.73
3:K:136:ILE:O	3:K:140:LEU:HG	1.89	0.73
1:B:130:LEU:O	1:B:162:ARG:HD3	1.89	0.73
1:B:183:TYR:O	1:B:186:THR:HG22	1.88	0.73
1:B:314:ALA:HA	1:B:349:VAL:HG23	1.70	0.73
2:A:110:ILE:HG21	2:A:149:PHE:HZ	1.54	0.73
2:A:154:MET:SD	2:A:197:HIS:HB2	2.27	0.73
3:K:77:LYS:HD3	3:K:79:ILE:HD12	1.69	0.73
3:K:226:THR:HG22	3:K:228:MET:H	1.51	0.73
1:B:398:TYR:HE2	1:B:405:GLU:HA	1.50	0.73
2:A:7:ILE:N	2:A:137:VAL:HG12	2.04	0.73
2:A:317:LEU:HD22	2:A:377:MET:HB2	1.71	0.73
1:B:174:LYS:HG3	1:B:175:VAL:N	2.03	0.73
2:A:9:VAL:HG12	2:A:139:HIS:CA	2.17	0.73
2:A:414:GLU:O	2:A:417:GLU:HG3	1.87	0.73
1:B:131:GLN:HG3	1:B:251:ARG:NH1	2.04	0.73
3:K:103:ALA:HB3	3:K:111:LYS:CG	2.18	0.73
3:K:104:TYR:CE2	3:K:349:THR:HG23	2.24	0.73
1:B:97:ALA:CB	1:B:143:THR:HB	2.18	0.73
1:B:314:ALA:CA	1:B:349:VAL:HG23	2.18	0.73
2:A:419:SER:N	3:K:344:GLU:OE1	2.21	0.73
3:K:48:LYS:HG2	3:K:70:MET:SD	2.28	0.73
3:K:156:VAL:HG21	3:K:241:VAL:HG13	1.70	0.73
3:K:159:SER:HB2	3:K:199:LEU:HD11	1.71	0.73
3:K:348:SER:HA	3:K:351:GLU:OE1	1.87	0.73
2:A:217:LEU:HD12	2:A:219:ILE:HB	1.71	0.73
3:K:100:THR:HG21	3:K:102:PHE:CZ	2.24	0.73
3:K:266:LEU:HD23	3:K:266:LEU:H	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:320:LEU:HD23	3:K:320:LEU:O	1.89	0.73
1:B:167:PHE:CD1	1:B:200:TYR:HB2	2.23	0.73
1:B:169:VAL:HG11	4:B:501:G2P:H2N2	1.52	0.73
2:A:172:TYR:CD1	2:A:173:PRO:HD2	2.24	0.73
3:K:115:MET:HE3	3:K:263:LEU:HB3	1.71	0.73
3:K:160:LEU:HD23	3:K:171:LEU:HB2	1.71	0.73
1:B:292:GLN:OE1	1:B:297:LYS:HE3	1.88	0.72
2:A:41:THR:HB	2:A:44:GLY:O	1.89	0.72
2:A:107:HIS:HB2	2:A:152:LEU:HD23	1.70	0.72
3:K:107:THR:CG2	7:K:601:ANP:HNB1	1.98	0.72
1:B:16:ILE:CD1	1:B:136:THR:HG21	2.06	0.72
1:B:25:SER:HA	1:B:28:HIS:CD2	2.24	0.72
1:B:142:GLY:H	1:B:184:ASN:HB3	1.54	0.72
1:B:267:MET:HB2	1:B:369:GLY:O	1.89	0.72
2:A:234:ILE:CD1	2:A:272:TYR:HB2	2.18	0.72
1:B:214:THR:O	1:B:216:LYS:HD3	1.89	0.72
2:A:173:PRO:HG3	2:A:183:GLU:CD	2.10	0.72
2:A:215:ARG:HG3	2:A:216:ASN:N	2.03	0.72
3:K:29:ASN:HB2	3:K:32:GLU:H	1.54	0.72
3:K:53:ARG:CD	3:K:63:ARG:HD3	2.18	0.72
3:K:161:LEU:HD23	3:K:238:VAL:CB	2.19	0.72
3:K:171:LEU:CG	3:K:221:ARG:HA	2.20	0.72
3:K:181:ARG:HB3	3:K:181:ARG:NH1	2.04	0.72
1:B:7:ILE:HB	1:B:135:LEU:CG	2.17	0.72
1:B:130:LEU:HB2	1:B:162:ARG:NE	2.04	0.72
1:B:164:MET:CE	1:B:164:MET:HA	2.19	0.72
2:A:53:PHE:CG	2:A:63:PRO:HA	2.25	0.72
2:A:112:LYS:O	2:A:115:ILE:HG22	1.88	0.72
2:A:133:GLN:CA	2:A:164:LYS:HG3	2.19	0.72
2:A:191:THR:O	2:A:195:LEU:HG	1.89	0.72
2:A:274:PRO:HG3	2:A:291:ILE:HA	1.71	0.72
2:A:411:GLU:OE2	2:A:413:MET:HE2	1.89	0.72
3:K:324:LEU:HG	3:K:361:ASN:CB	2.20	0.72
3:K:161:LEU:HD23	3:K:238:VAL:HG11	1.70	0.72
3:K:193:GLY:HA3	3:K:327:ARG:NH2	2.05	0.72
2:A:30:ILE:CG1	2:A:36:MET:HB3	2.20	0.72
2:A:108:TYR:CD2	2:A:152:LEU:HD11	2.24	0.72
3:K:111:LYS:HE2	3:K:266:LEU:N	2.03	0.72
3:K:156:VAL:O	3:K:203:THR:HA	1.89	0.72
3:K:158:VAL:N	3:K:201:GLU:HB3	2.04	0.72
3:K:221:ARG:NH2	3:K:223:THR:HG22	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:347:LEU:O	3:K:350:LEU:HG	1.90	0.72
1:B:313:VAL:O	1:B:349:VAL:HA	1.89	0.72
1:B:318:ARG:NH1	1:B:365:ALA:HA	2.05	0.72
2:A:242:LEU:HD11	2:A:251:ASP:HA	1.72	0.72
3:K:139:THR:HA	3:K:142:GLN:OE1	1.90	0.72
3:K:210:VAL:HA	3:K:213:ILE:HG22	1.70	0.72
1:B:342:VAL:CG1	1:B:345:ILE:H	2.02	0.72
1:B:378:PHE:CE1	1:B:418:LEU:HD11	2.24	0.72
2:A:15:GLN:HA	2:A:18:ASN:ND2	2.03	0.72
2:A:63:PRO:HB2	2:A:87:PHE:CE2	2.24	0.72
2:A:154:MET:HE1	2:A:168:GLU:HG3	1.70	0.72
3:K:192:ARG:CB	3:K:327:ARG:HD2	2.20	0.72
3:K:192:ARG:HB2	3:K:327:ARG:HD2	1.70	0.72
3:K:209:GLU:HA	3:K:212:GLN:NE2	2.04	0.72
3:K:329:ARG:HB2	3:K:363:PRO:CA	2.15	0.72
1:B:2:ARG:HA	1:B:130:LEU:CD2	2.19	0.72
1:B:272:PRO:HG2	1:B:361:LEU:HD12	1.71	0.72
2:A:136:LEU:HB3	2:A:169:PHE:CZ	2.25	0.72
2:A:242:LEU:HD23	2:A:242:LEU:O	1.90	0.72
3:K:49:GLU:HA	3:K:71:VAL:CG2	2.19	0.72
1:B:100:ASN:CB	1:B:103:LYS:HB3	2.14	0.72
1:B:304:ASP:OD2	1:B:307:HIS:HB3	1.90	0.72
2:A:105:ARG:HG3	2:A:106:GLY:N	2.04	0.72
2:A:175:PRO:HB3	2:A:387:ALA:HA	1.71	0.72
3:K:23:VAL:HG21	3:K:71:VAL:HG22	1.70	0.72
1:B:248:ALA:CB	1:B:253:LEU:HD11	2.09	0.71
1:B:381:ILE:HG22	1:B:385:PHE:CZ	2.25	0.71
2:A:69:ASP:CB	2:A:75:ILE:HG22	2.20	0.71
2:A:97:GLU:OE1	2:A:110:ILE:HD13	1.90	0.71
2:A:213:CYS:HB3	2:A:227:LEU:HD22	1.72	0.71
3:K:20:GLN:OE1	3:K:357:LYS:HE3	1.90	0.71
3:K:82:TYR:CZ	3:K:131:PRO:HA	2.24	0.71
3:K:170:ASP:OD1	3:K:173:ASN:HB2	1.90	0.71
1:B:316:VAL:HA	1:B:351:THR:HG23	1.72	0.71
2:A:9:VAL:HG21	2:A:146:GLY:HA2	1.71	0.71
2:A:312:TYR:CD1	2:A:315:CYS:HB3	2.25	0.71
3:K:82:TYR:CD2	3:K:135:ILE:HA	2.19	0.71
1:B:315:ALA:HB3	1:B:351:THR:OG1	1.90	0.71
2:A:23:LEU:CG	2:A:363:VAL:HG21	2.20	0.71
2:A:390:ARG:HH21	2:A:391:LEU:HA	1.55	0.71
2:A:402:ARG:O	2:A:405:VAL:HG23	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:405:VAL:HG11	3:K:293:LEU:HB3	1.72	0.71
3:K:277:ALA:HB1	3:K:281:ARG:CB	2.21	0.71
1:B:211:CYS:SG	1:B:215:LEU:HD12	2.29	0.71
2:A:144:GLY:HA2	2:A:186:ASN:ND2	2.04	0.71
2:A:288:VAL:O	2:A:292:THR:HG23	1.90	0.71
2:A:362:VAL:CG2	2:A:370:LYS:HB2	2.19	0.71
3:K:86:VAL:HG13	3:K:142:GLN:OE1	1.90	0.71
2:A:324:VAL:HG22	2:A:327:ASP:HB2	1.72	0.71
2:A:409:VAL:HG21	3:K:290:GLN:HA	1.70	0.71
3:K:89:ILE:HG13	3:K:135:ILE:CG2	2.20	0.71
3:K:229:ASN:HB2	3:K:232:SER:H	1.55	0.71
3:K:281:ARG:HA	3:K:284:GLU:OE2	1.90	0.71
1:B:3:GLU:CG	1:B:50:TYR:HA	2.21	0.71
1:B:130:LEU:HB2	1:B:162:ARG:CD	2.21	0.71
1:B:299:MET:HE3	1:B:305:PRO:HG3	1.71	0.71
2:A:1:MET:SD	2:A:50:ASN:HB2	2.31	0.71
2:A:2:ARG:CZ	2:A:133:GLN:HB2	2.20	0.71
2:A:271:THR:HG23	2:A:301:GLN:CA	2.13	0.71
3:K:79:ILE:HG23	3:K:82:TYR:CD1	2.25	0.71
3:K:207:LYS:HZ2	3:K:207:LYS:HB2	1.56	0.71
1:B:375:GLN:NE2	1:B:423:GLN:HA	2.06	0.71
2:A:5:ILE:HG12	2:A:52:PHE:O	1.90	0.71
2:A:239:THR:O	2:A:243:ARG:HG3	1.90	0.71
2:A:273:ALA:HB1	2:A:295:CYS:HA	1.72	0.71
2:A:362:VAL:HG21	2:A:370:LYS:HB2	1.73	0.71
3:K:42:GLU:H	3:K:63:ARG:HH12	1.38	0.71
3:K:226:THR:HG22	3:K:228:MET:N	2.05	0.71
3:K:308:HIS:CG	3:K:308:HIS:CB	2.72	0.71
2:A:110:ILE:HG22	2:A:114:ILE:HD13	1.71	0.71
3:K:162:GLU:OE1	3:K:162:GLU:HA	1.91	0.71
3:K:170:ASP:HB2	3:K:179:SER:H	1.56	0.71
3:K:170:ASP:HB2	3:K:179:SER:N	2.06	0.71
1:B:3:GLU:HG3	1:B:50:TYR:HA	1.72	0.71
2:A:70:LEU:HD11	2:A:149:PHE:CE1	2.26	0.71
2:A:79:ARG:HA	2:A:84:ARG:HG2	1.72	0.71
2:A:110:ILE:O	2:A:114:ILE:HD13	1.91	0.71
2:A:414:GLU:HB3	3:K:345:GLU:OE2	1.90	0.71
3:K:98:ASN:HD21	3:K:366:ASN:CA	2.04	0.71
3:K:180:GLU:OE1	3:K:199:LEU:HA	1.90	0.71
3:K:280:LYS:HA	3:K:280:LYS:NZ	2.05	0.71
1:B:144:GLY:O	1:B:147:MET:HG2	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:169:VAL:HG21	4:B:501:G2P:N2	2.06	0.71
1:B:190:HIS:HB2	1:B:411:ALA:HB1	1.72	0.71
1:B:337:ASN:HB2	1:B:340:TYR:HB2	1.72	0.71
1:B:417:ASP:OD1	3:K:312:ARG:HB2	1.90	0.71
1:B:424:GLN:HB3	3:K:308:HIS:CA	2.21	0.71
2:A:16:ILE:HG21	2:A:138:PHE:CD1	2.26	0.71
3:K:119:ARG:HA	3:K:130:ASP:OD1	1.91	0.71
1:B:248:ALA:CB	1:B:253:LEU:HD21	2.21	0.70
2:A:3:GLU:HA	2:A:51:THR:CA	2.21	0.70
3:K:40:ILE:HG23	3:K:340:SER:CB	2.21	0.70
1:B:5:VAL:HG23	1:B:7:ILE:HD11	1.73	0.70
1:B:406:MET:O	1:B:410:GLU:HG3	1.91	0.70
2:A:225:THR:HA	2:A:228:ASN:ND2	2.06	0.70
2:A:414:GLU:CG	3:K:345:GLU:CD	2.59	0.70
3:K:147:LEU:HD13	3:K:154:PHE:CG	2.25	0.70
1:B:293:MET:HA	1:B:298:ASN:HD22	1.56	0.70
1:B:329:GLN:O	1:B:333:VAL:HG23	1.91	0.70
3:K:99:CYS:O	3:K:261:LEU:HD12	1.91	0.70
2:A:84:ARG:HE	2:A:85:GLN:HG2	1.57	0.70
2:A:244:PHE:HB3	2:A:358:GLN:CD	2.11	0.70
2:A:271:THR:HB	2:A:377:MET:HG2	1.72	0.70
2:A:381:THR:HG21	2:A:384:ILE:HG13	1.72	0.70
3:K:77:LYS:HD3	3:K:79:ILE:CG1	2.22	0.70
3:K:194:VAL:HG23	3:K:318:ARG:HE	1.56	0.70
1:B:137:HIS:NE2	1:B:166:THR:HG21	2.06	0.70
3:K:26:ARG:HB3	3:K:338:PRO:HD3	1.71	0.70
1:B:7:ILE:HG23	1:B:64:ILE:CG2	2.20	0.70
1:B:130:LEU:HD12	1:B:133:PHE:CE2	2.26	0.70
1:B:206:ALA:CB	1:B:301:ALA:HA	2.20	0.70
3:K:17:LYS:HE3	3:K:362:LYS:CA	2.21	0.70
1:B:246:LEU:HD11	6:A:501:GTP:H8	1.56	0.70
1:B:345:ILE:HB	1:B:348:ASN:ND2	2.07	0.70
2:A:1:MET:HE1	2:A:50:ASN:HB3	1.74	0.70
2:A:133:GLN:HA	2:A:164:LYS:HG3	1.74	0.70
3:K:82:TYR:CE1	3:K:131:PRO:HA	2.26	0.70
3:K:160:LEU:HD23	3:K:171:LEU:HD23	1.72	0.70
2:A:48:SER:HB2	2:A:243:ARG:HB3	1.74	0.70
2:A:298:PRO:HG3	2:A:307:PRO:HG3	1.72	0.70
2:A:402:ARG:HA	2:A:402:ARG:NH1	2.06	0.70
3:K:41:VAL:HG11	3:K:50:VAL:CB	2.22	0.70
3:K:82:TYR:HE2	3:K:138:ARG:CB	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:112:THR:HG23	3:K:231:TYR:CZ	2.26	0.70
3:K:227:LEU:HD23	3:K:276:GLY:CA	2.16	0.70
2:A:30:ILE:HG13	2:A:36:MET:CG	2.22	0.70
2:A:414:GLU:CB	3:K:345:GLU:OE2	2.39	0.70
3:K:131:PRO:HD2	3:K:132:LEU:CD2	2.20	0.70
3:K:184:MET:CE	3:K:194:VAL:HB	2.21	0.70
1:B:316:VAL:CG2	1:B:366:THR:HB	2.22	0.69
1:B:320:ARG:O	1:B:320:ARG:HD3	1.92	0.69
1:B:423:GLN:CA	3:K:308:HIS:CB	2.70	0.69
2:A:102:ASN:H	2:A:105:ARG:HD3	1.54	0.69
2:A:225:THR:O	2:A:229:ARG:HD2	1.92	0.69
2:A:244:PHE:HB3	2:A:358:GLN:NE2	2.07	0.69
2:A:271:THR:CB	2:A:377:MET:HG2	2.22	0.69
2:A:313:MET:HE3	2:A:436:GLY:CA	2.22	0.69
3:K:54:THR:H	3:K:63:ARG:CA	2.02	0.69
3:K:150:ASN:HB3	3:K:152:THR:HG23	1.72	0.69
3:K:325:GLY:HA2	3:K:362:LYS:HZ1	1.57	0.69
1:B:139:LEU:CD2	1:B:170:VAL:HG22	2.21	0.69
1:B:314:ALA:HB3	1:B:368:ILE:HB	1.72	0.69
1:B:390:ARG:HD3	1:B:391:ARG:HD3	1.74	0.69
2:A:164:LYS:HD3	2:A:165:SER:N	2.07	0.69
2:A:405:VAL:CG1	3:K:293:LEU:HD12	2.22	0.69
3:K:72:PHE:HE2	3:K:81:VAL:HG12	1.57	0.69
3:K:77:LYS:HD3	3:K:79:ILE:CD1	2.22	0.69
3:K:97:TYR:HA	3:K:364:GLU:O	1.93	0.69
3:K:112:THR:HG22	7:K:601:ANP:PA	2.31	0.69
3:K:236:HIS:CE1	3:K:288:ILE:HA	2.27	0.69
1:B:65:LEU:CD1	1:B:76:VAL:HG21	2.21	0.69
1:B:249:ASP:HB2	1:B:252:LYS:HB2	1.75	0.69
3:K:329:ARG:HG2	3:K:361:ASN:ND2	2.08	0.69
1:B:422:TYR:CB	3:K:308:HIS:HD1	2.03	0.69
3:K:21:VAL:HG11	3:K:334:ALA:HB2	1.75	0.69
3:K:199:LEU:CD2	3:K:201:GLU:HG3	2.22	0.69
3:K:324:LEU:CG	3:K:361:ASN:HB3	2.19	0.69
1:B:303:CYS:O	1:B:305:PRO:HD3	1.91	0.69
2:A:224:TYR:HD1	2:A:227:LEU:HD12	1.56	0.69
2:A:260:VAL:HG11	2:A:265:ILE:O	1.92	0.69
2:A:276:ILE:HG12	2:A:277:SER:O	1.91	0.69
3:K:161:LEU:CB	3:K:238:VAL:HB	2.22	0.69
1:B:3:GLU:HG3	1:B:50:TYR:N	2.07	0.69
2:A:317:LEU:HA	2:A:377:MET:HA	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:323:VAL:HG23	2:A:355:ILE:CG1	2.18	0.69
3:K:19:ILE:CG1	3:K:332:ILE:H	2.05	0.69
3:K:19:ILE:HG12	3:K:332:ILE:H	1.57	0.69
3:K:82:TYR:CA	3:K:135:ILE:HG13	2.20	0.69
3:K:229:ASN:HB2	3:K:232:SER:OG	1.92	0.69
2:A:34:GLY:C	2:A:60:LYS:HG3	2.13	0.69
2:A:405:VAL:CG1	3:K:293:LEU:CD1	2.71	0.69
3:K:22:VAL:HB	3:K:333:ILE:HD12	1.74	0.69
3:K:158:VAL:CG2	3:K:174:PRO:HD3	2.22	0.69
1:B:139:LEU:HD21	1:B:170:VAL:HG22	1.75	0.69
1:B:153:SER:O	1:B:156:ARG:HG2	1.92	0.69
1:B:344:TRP:HZ3	2:A:400:ALA:HB3	1.56	0.69
1:B:421:GLU:HA	3:K:308:HIS:CA	2.23	0.69
2:A:22:GLU:CB	2:A:83:TYR:HE2	2.06	0.69
2:A:217:LEU:O	2:A:217:LEU:HD13	1.92	0.69
3:K:128:GLU:HG3	3:K:211:TYR:CZ	2.28	0.69
3:K:145:GLU:HG2	3:K:146:LYS:N	2.05	0.69
3:K:318:ARG:HH11	3:K:319:ILE:HG22	1.58	0.69
1:B:131:GLN:CD	1:B:251:ARG:HB3	2.13	0.69
1:B:296:ALA:CA	1:B:299:MET:HE3	2.22	0.69
2:A:29:GLY:O	2:A:37:PRO:HD2	1.93	0.69
2:A:41:THR:HG21	2:A:46:ASP:OD2	1.92	0.69
2:A:57:GLY:O	2:A:60:LYS:HB3	1.93	0.69
2:A:269:LEU:HD11	2:A:377:MET:HG3	1.75	0.69
2:A:306:ASP:HB3	2:A:308:ARG:NH1	2.07	0.69
3:K:327:ARG:O	3:K:364:GLU:HB3	1.91	0.69
1:B:21:TRP:CH2	1:B:85:PHE:HB2	2.28	0.69
2:A:23:LEU:CD1	2:A:233:GLN:HA	2.23	0.69
2:A:64:ARG:HB2	2:A:64:ARG:NH2	2.06	0.69
2:A:140:SER:OG	2:A:171:ILE:HD12	1.92	0.69
2:A:167:LEU:HD21	2:A:253:THR:CG2	2.22	0.69
2:A:185:TYR:HD1	2:A:395:PHE:CZ	2.11	0.69
3:K:146:LYS:HA	3:K:149:ASP:OD2	1.92	0.69
3:K:182:LEU:HB3	3:K:197:LYS:N	2.08	0.69
3:K:187:ASP:H	3:K:195:ILE:CG1	2.05	0.69
3:K:224:ALA:HB1	3:K:281:ARG:CZ	2.23	0.69
1:B:227:HIS:CD2	1:B:228:LEU:HD22	2.27	0.68
1:B:311:LEU:CD1	1:B:422:TYR:HE2	2.06	0.68
2:A:30:ILE:HG12	2:A:61:HIS:CB	2.23	0.68
2:A:135:PHE:HB2	2:A:166:LYS:NZ	2.08	0.68
3:K:100:THR:HG23	3:K:262:ASN:O	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:104:TYR:H	3:K:334:ALA:HA	1.58	0.68
3:K:160:LEU:CB	3:K:172:LEU:HB3	2.19	0.68
3:K:171:LEU:HB3	3:K:220:LYS:CB	2.23	0.68
1:B:286:VAL:HG22	1:B:287:PRO:HD3	1.75	0.68
2:A:405:VAL:CB	3:K:293:LEU:HD12	2.23	0.68
3:K:126:THR:CG2	3:K:128:GLU:HG2	2.23	0.68
3:K:160:LEU:CB	3:K:172:LEU:H	2.05	0.68
3:K:170:ASP:H	3:K:178:VAL:CA	2.05	0.68
1:B:299:MET:HG3	1:B:301:ALA:O	1.93	0.68
2:A:2:ARG:CG	2:A:132:LEU:HD12	2.23	0.68
2:A:142:GLY:HA2	2:A:183:GLU:HG3	1.74	0.68
2:A:317:LEU:HD22	2:A:377:MET:HB3	1.74	0.68
3:K:232:SER:HB2	7:K:601:ANP:O3G	1.93	0.68
1:B:390:ARG:HH21	1:B:391:ARG:HA	1.58	0.68
2:A:76:ASP:HA	2:A:79:ARG:CG	2.24	0.68
2:A:143:GLY:HA3	6:A:501:GTP:PB	2.34	0.68
2:A:273:ALA:HA	2:A:300:ASN:OD1	1.93	0.68
3:K:278:VAL:HG12	3:K:281:ARG:HB2	1.76	0.68
3:K:329:ARG:HA	3:K:361:ASN:HD22	1.57	0.68
1:B:258:VAL:HG11	1:B:263:LEU:O	1.92	0.68
1:B:269:GLY:O	1:B:366:THR:HG23	1.93	0.68
1:B:344:TRP:CD2	2:A:401:LYS:HD3	2.29	0.68
2:A:31:GLN:NE2	2:A:31:GLN:HA	2.09	0.68
2:A:53:PHE:CB	2:A:63:PRO:HA	2.23	0.68
3:K:47:ARG:NH1	3:K:50:VAL:HA	2.08	0.68
3:K:119:ARG:CZ	3:K:127:TRP:HB2	2.23	0.68
1:B:213:ARG:CD	1:B:276:ARG:HH22	2.07	0.68
1:B:385:PHE:HA	1:B:388:MET:SD	2.33	0.68
2:A:304:LYS:H	2:A:304:LYS:HD2	1.59	0.68
3:K:91:ASP:O	3:K:94:ILE:HG12	1.92	0.68
3:K:183:GLN:OE1	3:K:197:LYS:HG3	1.94	0.68
1:B:375:GLN:HG3	3:K:308:HIS:CD2	2.28	0.68
2:A:122:ILE:HD13	2:A:157:LEU:CD1	2.22	0.68
3:K:33:ARG:HB3	3:K:34:LYS:HZ3	1.58	0.68
3:K:339:ALA:CB	3:K:341:LEU:HD23	2.14	0.68
1:B:29:GLY:HA3	1:B:37:HIS:NE2	2.09	0.68
1:B:123:GLU:CB	1:B:130:LEU:HD11	2.13	0.68
1:B:266:PHE:CZ	1:B:368:ILE:HA	2.29	0.68
2:A:324:VAL:HG23	2:A:327:ASP:H	1.57	0.68
3:K:29:ASN:HB2	3:K:32:GLU:CB	2.23	0.68
3:K:299:ILE:HG12	3:K:355:ARG:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2:ARG:HA	1:B:130:LEU:HD23	1.75	0.68
1:B:47:ILE:HG22	1:B:59:TYR:CD1	2.28	0.68
1:B:385:PHE:CA	1:B:388:MET:HE2	2.22	0.68
2:A:426:ALA:HA	2:A:429:GLU:OE2	1.94	0.68
3:K:352:TYR:CD2	3:K:355:ARG:HD2	2.29	0.68
2:A:217:LEU:HD12	2:A:219:ILE:CB	2.24	0.67
1:B:11:GLN:O	1:B:15:GLN:HG3	1.93	0.67
1:B:23:VAL:HG21	1:B:230:SER:CB	2.24	0.67
1:B:108:GLU:HA	1:B:111:GLU:OE2	1.93	0.67
1:B:309:ARG:HD2	1:B:372:THR:OG1	1.93	0.67
1:B:422:TYR:CA	3:K:308:HIS:CG	2.76	0.67
2:A:5:ILE:CG2	2:A:65:ALA:HA	2.21	0.67
2:A:148:GLY:O	2:A:152:LEU:HD23	1.93	0.67
2:A:405:VAL:CB	3:K:293:LEU:CD1	2.73	0.67
3:K:192:ARG:HE	3:K:327:ARG:HH11	1.43	0.67
3:K:199:LEU:HB3	3:K:201:GLU:OE2	1.93	0.67
3:K:227:LEU:HD12	3:K:227:LEU:O	1.94	0.67
1:B:303:CYS:HB2	1:B:373:ALA:CB	2.24	0.67
2:A:104:ALA:HB3	2:A:411:GLU:HB2	1.76	0.67
2:A:405:VAL:HG12	2:A:409:VAL:HG23	1.75	0.67
3:K:18:ASN:HB3	3:K:360:LEU:HD22	1.75	0.67
3:K:224:ALA:HB3	3:K:234:ARG:CB	2.11	0.67
1:B:145:SER:CB	1:B:188:SER:HB2	2.25	0.67
1:B:211:CYS:SG	1:B:220:PRO:HA	2.34	0.67
2:A:1:MET:HE3	2:A:1:MET:O	1.94	0.67
2:A:165:SER:CB	2:A:199:ASP:HB2	2.24	0.67
3:K:25:CYS:SG	3:K:43:CYS:HB3	2.34	0.67
3:K:325:GLY:HA2	3:K:362:LYS:CE	2.25	0.67
2:A:3:GLU:HA	2:A:51:THR:HG23	1.77	0.67
2:A:141:PHE:HB2	2:A:171:ILE:O	1.95	0.67
3:K:42:GLU:N	3:K:63:ARG:HH12	1.93	0.67
3:K:270:GLU:HB3	3:K:275:SER:OG	1.94	0.67
1:B:316:VAL:CA	1:B:351:THR:HG23	2.25	0.67
2:A:32:PRO:HA	2:A:86:LEU:CD1	2.16	0.67
2:A:381:THR:HG23	2:A:384:ILE:H	1.59	0.67
3:K:314:SER:HB2	3:K:317:THR:OG1	1.93	0.67
1:B:2:ARG:H	1:B:127:CYS:CB	2.05	0.67
1:B:61:PRO:HB2	1:B:85:PHE:CZ	2.29	0.67
1:B:123:GLU:HB3	1:B:130:LEU:CD1	2.14	0.67
1:B:213:ARG:HD2	1:B:276:ARG:HH22	1.60	0.67
1:B:321:MET:O	2:A:221:ARG:HG2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:79:ARG:CA	2:A:84:ARG:HG2	2.24	0.67
2:A:203:MET:HG3	2:A:384:ILE:HD11	1.76	0.67
1:B:161:ASP:HB2	1:B:162:ARG:HH11	1.59	0.67
1:B:191:GLN:HG3	1:B:195:ASN:OD1	1.95	0.67
1:B:303:CYS:HB2	1:B:373:ALA:HB3	1.75	0.67
1:B:398:TYR:OH	1:B:408:PHE:HB2	1.95	0.67
2:A:8:HIS:HB3	2:A:13:GLY:O	1.94	0.67
2:A:147:SER:CB	2:A:186:ASN:HB3	2.23	0.67
2:A:311:LYS:HE3	2:A:313:MET:HE1	1.77	0.67
2:A:422:ARG:HE	2:A:426:ALA:HB2	1.59	0.67
3:K:53:ARG:HA	3:K:63:ARG:HA	1.76	0.67
3:K:160:LEU:HD23	3:K:171:LEU:CD2	2.25	0.67
1:B:285:THR:H	1:B:288:GLU:CD	1.97	0.67
1:B:289:LEU:O	1:B:289:LEU:HD23	1.94	0.67
3:K:109:THR:HG21	3:K:335:THR:O	1.95	0.67
3:K:128:GLU:HA	3:K:137:PRO:C	2.15	0.67
3:K:210:VAL:O	3:K:214:LEU:HG	1.94	0.67
1:B:120:VAL:HG12	1:B:121:ARG:NH2	2.10	0.67
1:B:164:MET:HA	1:B:164:MET:HE2	1.77	0.67
1:B:323:MET:HG2	2:A:210:TYR:CD1	2.29	0.67
1:B:398:TYR:CD2	1:B:405:GLU:HA	2.30	0.67
2:A:125:LEU:CD2	2:A:135:PHE:HZ	2.07	0.67
1:B:42:LEU:O	1:B:46:ARG:HD2	1.95	0.66
1:B:58:LYS:CE	1:B:84:ILE:HD13	2.25	0.66
1:B:294:PHE:HB3	1:B:336:LYS:HZ3	1.60	0.66
2:A:83:TYR:HA	2:A:86:LEU:HD13	1.77	0.66
3:K:171:LEU:HB3	3:K:220:LYS:C	2.16	0.66
1:B:101:TRP:HB3	1:B:401:GLU:OE2	1.95	0.66
1:B:313:VAL:HB	1:B:341:PHE:CE2	2.30	0.66
1:B:418:LEU:HD12	1:B:419:VAL:N	2.09	0.66
2:A:265:ILE:HD11	2:A:432:TYR:HD2	1.60	0.66
3:K:206:ASN:HB3	3:K:209:GLU:HG2	1.76	0.66
3:K:269:SER:HB2	3:K:345:GLU:HG3	1.76	0.66
3:K:329:ARG:HD2	3:K:330:THR:N	2.11	0.66
1:B:100:ASN:HA	1:B:397:TRP:HE1	1.60	0.66
1:B:271:ALA:HB2	1:B:293:MET:SD	2.36	0.66
1:B:422:TYR:HB2	3:K:308:HIS:HD1	1.58	0.66
2:A:221:ARG:CG	2:A:222:PRO:HA	2.25	0.66
3:K:210:VAL:CA	3:K:213:ILE:HG22	2.25	0.66
1:B:100:ASN:HD22	1:B:103:LYS:HB2	1.61	0.66
1:B:139:LEU:HD12	1:B:140:GLY:N	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:139:LEU:HG	1:B:169:VAL:O	1.95	0.66
1:B:149:THR:HB	1:B:195:ASN:OD1	1.95	0.66
2:A:391:LEU:HD12	2:A:391:LEU:O	1.96	0.66
3:K:142:GLN:HA	3:K:145:GLU:CD	2.15	0.66
1:B:25:SER:HA	1:B:28:HIS:HD2	1.59	0.66
1:B:221:THR:HG22	1:B:224:ASP:H	1.60	0.66
2:A:153:LEU:HD13	2:A:157:LEU:HD23	1.77	0.66
2:A:188:ILE:HG13	2:A:395:PHE:CD2	2.30	0.66
3:K:40:ILE:CD1	3:K:343:LEU:HD13	2.24	0.66
3:K:55:GLY:C	3:K:59:ASP:H	1.99	0.66
3:K:347:LEU:HA	3:K:350:LEU:HD21	1.77	0.66
1:B:390:ARG:CD	1:B:391:ARG:HD3	2.26	0.66
2:A:188:ILE:HG22	2:A:421:ALA:HB1	1.77	0.66
2:A:398:MET:HA	2:A:398:MET:HE2	1.77	0.66
3:K:26:ARG:NH1	3:K:29:ASN:HD22	1.94	0.66
3:K:111:LYS:HE3	3:K:265:ASP:OD2	1.95	0.66
1:B:7:ILE:HG13	1:B:64:ILE:HG22	1.76	0.66
1:B:139:LEU:N	1:B:168:SER:HB2	2.10	0.66
1:B:173:PRO:HG2	1:B:377:LEU:HD22	1.76	0.66
2:A:154:MET:SD	2:A:198:SER:HB3	2.36	0.66
2:A:172:TYR:HD1	2:A:173:PRO:HD2	1.59	0.66
2:A:217:LEU:HD12	2:A:219:ILE:CG1	2.25	0.66
2:A:274:PRO:HA	2:A:300:ASN:ND2	2.11	0.66
3:K:169:PHE:HA	3:K:178:VAL:CG1	2.24	0.66
2:A:60:LYS:HE3	2:A:62:VAL:CG1	2.25	0.66
1:B:16:ILE:HG21	1:B:136:THR:HG21	1.76	0.66
2:A:4:CYS:H	2:A:51:THR:CG2	2.08	0.66
2:A:40:LYS:CD	2:A:44:GLY:HA2	2.25	0.66
2:A:64:ARG:HA	2:A:91:GLN:NE2	2.11	0.66
2:A:405:VAL:HG21	3:K:293:LEU:HD11	0.70	0.66
3:K:108:GLY:HA2	7:K:601:ANP:O5'	1.96	0.66
3:K:182:LEU:HD23	3:K:196:ILE:O	1.96	0.66
1:B:70:PRO:HA	1:B:92:PHE:CE1	2.31	0.66
1:B:269:GLY:CA	1:B:367:PHE:H	2.09	0.66
1:B:318:ARG:NE	1:B:364:SER:HB2	2.10	0.66
1:B:362:LYS:HD3	1:B:362:LYS:N	2.10	0.66
2:A:84:ARG:HE	2:A:85:GLN:CG	2.09	0.66
2:A:255:PHE:HA	2:A:258:ASN:OD1	1.95	0.66
2:A:269:LEU:CD1	2:A:377:MET:HG3	2.26	0.66
1:B:86:ARG:HG3	1:B:89:ASN:HD21	1.59	0.65
1:B:120:VAL:CG1	1:B:121:ARG:HH21	2.08	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:381:ILE:HA	1:B:384:GLN:HE22	1.60	0.65
1:B:382:SER:HB2	1:B:415:MET:CE	2.26	0.65
2:A:200:CYS:HB2	2:A:268:PRO:HD3	1.77	0.65
3:K:17:LYS:CE	3:K:362:LYS:HG3	2.26	0.65
2:A:213:CYS:HB3	2:A:227:LEU:CD2	2.25	0.65
3:K:53:ARG:HA	3:K:63:ARG:CB	2.27	0.65
1:B:1:MET:O	1:B:2:ARG:HG2	1.96	0.65
1:B:85:PHE:HD2	1:B:86:ARG:H	1.44	0.65
1:B:120:VAL:HG11	1:B:159:TYR:OH	1.97	0.65
1:B:174:LYS:HZ2	1:B:205:GLU:HA	1.61	0.65
2:A:99:ALA:HB3	2:A:100:ALA:O	1.95	0.65
2:A:298:PRO:HG3	2:A:307:PRO:CG	2.26	0.65
2:A:427:ALA:O	2:A:430:LYS:HG3	1.95	0.65
3:K:24:ARG:HA	3:K:72:PHE:HB2	1.78	0.65
3:K:98:ASN:HD21	3:K:366:ASN:HA	1.60	0.65
3:K:104:TYR:HE1	3:K:352:TYR:HB2	1.62	0.65
1:B:64:ILE:CD1	1:B:91:VAL:HG11	2.27	0.65
2:A:7:ILE:H	2:A:137:VAL:CG1	2.07	0.65
2:A:31:GLN:CG	2:A:37:PRO:HG3	2.21	0.65
2:A:99:ALA:C	2:A:101:ASN:HB3	2.17	0.65
2:A:132:LEU:HD11	2:A:134:GLY:O	1.96	0.65
2:A:259:LEU:CD2	2:A:378:LEU:HB3	2.21	0.65
2:A:383:ALA:HA	2:A:386:GLU:CD	2.17	0.65
3:K:45:PRO:HA	3:K:72:PHE:HA	1.78	0.65
3:K:113:PHE:HA	3:K:231:TYR:CE2	2.30	0.65
3:K:206:ASN:O	3:K:209:GLU:HB2	1.96	0.65
3:K:210:VAL:HA	3:K:213:ILE:CG2	2.26	0.65
1:B:112:LEU:HD23	1:B:151:LEU:CD2	2.24	0.65
1:B:345:ILE:HG12	2:A:401:LYS:NZ	2.10	0.65
1:B:371:SER:O	1:B:374:ILE:HG22	1.97	0.65
3:K:21:VAL:HA	3:K:332:ILE:O	1.97	0.65
3:K:26:ARG:CD	3:K:27:PRO:HD2	2.25	0.65
3:K:78:GLN:HB3	3:K:114:THR:HB	1.78	0.65
3:K:90:LEU:HA	3:K:143:ILE:HD11	1.77	0.65
3:K:167:GLU:HB3	3:K:169:PHE:CZ	2.32	0.65
3:K:229:ASN:ND2	3:K:232:SER:HB3	2.10	0.65
1:B:3:GLU:CG	1:B:49:VAL:HG12	2.26	0.65
1:B:32:PRO:HB3	1:B:83:GLN:HE21	1.62	0.65
1:B:385:PHE:HB3	1:B:408:PHE:HZ	1.61	0.65
2:A:7:ILE:O	2:A:137:VAL:HB	1.96	0.65
2:A:30:ILE:HA	2:A:36:MET:HA	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:40:LYS:HE3	2:A:45:GLY:N	2.11	0.65
1:B:167:PHE:HE1	1:B:200:TYR:CG	2.15	0.65
1:B:173:PRO:HG2	1:B:377:LEU:CD2	2.26	0.65
1:B:315:ALA:O	1:B:351:THR:HA	1.96	0.65
3:K:23:VAL:HG11	3:K:71:VAL:HG13	1.79	0.65
3:K:93:VAL:HG13	3:K:243:ILE:HD12	1.79	0.65
3:K:113:PHE:HA	3:K:231:TYR:OH	1.97	0.65
3:K:118:GLU:HG2	3:K:119:ARG:O	1.97	0.65
3:K:204:VAL:HG21	3:K:210:VAL:CG2	2.27	0.65
3:K:322:ASP:HA	3:K:327:ARG:NH2	2.12	0.65
1:B:32:PRO:HB3	1:B:83:GLN:NE2	2.11	0.65
1:B:130:LEU:HD12	1:B:133:PHE:HE2	1.61	0.65
1:B:154:LYS:O	1:B:158:GLU:HG2	1.97	0.65
2:A:140:SER:CB	2:A:171:ILE:HD12	2.26	0.65
2:A:164:LYS:HD3	2:A:165:SER:H	1.61	0.65
2:A:201:ALA:H	2:A:267:PHE:HA	1.62	0.65
2:A:203:MET:HG3	2:A:384:ILE:HD13	1.78	0.65
2:A:264:ARG:HA	2:A:264:ARG:NH2	2.12	0.65
3:K:101:ILE:HG22	3:K:263:LEU:CD2	2.26	0.65
3:K:174:PRO:CG	3:K:202:ILE:HB	2.11	0.65
1:B:64:ILE:HD11	1:B:91:VAL:HG21	1.79	0.65
1:B:137:HIS:O	1:B:168:SER:HA	1.97	0.65
2:A:213:CYS:HB2	2:A:230:LEU:CD1	2.26	0.65
3:K:51:SER:CB	3:K:65:THR:HA	2.27	0.65
3:K:104:TYR:CZ	3:K:349:THR:HA	2.32	0.65
3:K:325:GLY:H	3:K:361:ASN:CB	2.08	0.65
1:B:167:PHE:CE2	1:B:233:MET:HG3	2.25	0.65
1:B:292:GLN:O	1:B:298:ASN:HB3	1.96	0.65
2:A:259:LEU:HD22	2:A:268:PRO:HB3	1.79	0.65
2:A:306:ASP:HB3	2:A:308:ARG:NH2	2.12	0.65
1:B:3:GLU:HG2	1:B:49:VAL:HG12	1.78	0.64
1:B:113:VAL:O	1:B:117:LEU:HD13	1.97	0.64
1:B:286:VAL:HG22	1:B:287:PRO:CD	2.27	0.64
2:A:311:LYS:HB2	2:A:342:GLN:CG	2.22	0.64
3:K:79:ILE:HG21	3:K:83:ARG:NH2	2.12	0.64
3:K:160:LEU:HB2	3:K:172:LEU:N	2.10	0.64
3:K:161:LEU:HD23	3:K:238:VAL:CG1	2.26	0.64
3:K:185:PHE:CZ	3:K:197:LYS:HE2	2.31	0.64
3:K:295:LEU:O	3:K:298:VAL:HG22	1.97	0.64
1:B:294:PHE:HB3	1:B:336:LYS:NZ	2.11	0.64
1:B:345:ILE:HG12	2:A:401:LYS:HZ1	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:274:PRO:HG2	2:A:291:ILE:HD12	1.77	0.64
2:A:385:ALA:HB2	2:A:432:TYR:HE1	1.62	0.64
3:K:92:GLU:HG2	3:K:99:CYS:HB3	1.78	0.64
1:B:272:PRO:HB3	1:B:284:LEU:HD12	1.79	0.64
2:A:22:GLU:O	2:A:26:LEU:HD13	1.97	0.64
2:A:294:ALA:HB1	2:A:300:ASN:HD22	1.61	0.64
3:K:82:TYR:HD2	3:K:135:ILE:CA	2.07	0.64
3:K:86:VAL:HG22	3:K:139:THR:HG23	1.80	0.64
1:B:179:VAL:HG21	1:B:391:ARG:CG	2.26	0.64
1:B:179:VAL:CB	1:B:388:MET:HG2	2.23	0.64
1:B:221:THR:O	1:B:225:LEU:HD23	1.97	0.64
1:B:378:PHE:CD1	1:B:419:VAL:HB	2.33	0.64
1:B:401:GLU:HB2	1:B:403:MET:HG2	1.79	0.64
2:A:234:ILE:HD13	2:A:272:TYR:CD1	2.33	0.64
3:K:77:LYS:NZ	3:K:79:ILE:HG13	2.12	0.64
3:K:79:ILE:HG12	3:K:131:PRO:O	1.97	0.64
3:K:126:THR:HG23	3:K:128:GLU:HG2	1.80	0.64
1:B:286:VAL:HG13	1:B:287:PRO:CD	2.26	0.64
2:A:40:LYS:HD3	2:A:41:THR:H	1.62	0.64
2:A:262:TYR:HB3	2:A:264:ARG:HG2	1.77	0.64
3:K:160:LEU:HD12	3:K:161:LEU:N	2.12	0.64
1:B:179:VAL:HB	1:B:388:MET:CG	2.19	0.64
1:B:286:VAL:HA	1:B:363:MET:SD	2.36	0.64
1:B:417:ASP:O	1:B:421:GLU:HG3	1.98	0.64
2:A:75:ILE:HG21	2:A:94:THR:HG21	1.79	0.64
2:A:86:LEU:HD12	2:A:86:LEU:H	1.63	0.64
2:A:175:PRO:HD2	2:A:304:LYS:NZ	2.13	0.64
2:A:181:VAL:HG13	2:A:394:LYS:NZ	2.13	0.64
2:A:234:ILE:HD13	2:A:272:TYR:CB	2.25	0.64
1:B:52:ASN:N	1:B:62:ARG:HE	1.95	0.64
1:B:172:SER:H	1:B:204:ASN:HB3	1.61	0.64
1:B:266:PHE:HE2	1:B:369:GLY:H	1.45	0.64
1:B:269:GLY:HA3	1:B:367:PHE:H	1.63	0.64
1:B:404:ASP:CB	1:B:406:MET:HG2	2.25	0.64
2:A:17:GLY:HA2	2:A:20:CYS:SG	2.38	0.64
3:K:32:GLU:OE1	3:K:338:PRO:HB2	1.98	0.64
3:K:143:ILE:HG22	3:K:207:LYS:HZ1	1.62	0.64
1:B:137:HIS:CD2	1:B:166:THR:HG21	2.33	0.64
3:K:82:TYR:HE2	3:K:138:ARG:HB3	1.63	0.64
3:K:161:LEU:CD1	3:K:168:LEU:HB2	2.28	0.64
3:K:192:ARG:HB2	3:K:327:ARG:CD	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:226:THR:CG2	3:K:234:ARG:HH21	2.10	0.64
1:B:149:THR:HG21	1:B:191:GLN:HG2	1.79	0.64
1:B:318:ARG:CD	1:B:358:PRO:HG3	2.27	0.64
2:A:2:ARG:CD	2:A:133:GLN:HG2	2.28	0.64
2:A:8:HIS:HB3	2:A:13:GLY:C	2.18	0.64
2:A:102:ASN:OD1	2:A:407:TRP:HB3	1.97	0.64
3:K:111:LYS:HE3	3:K:265:ASP:HA	1.80	0.64
1:B:23:VAL:HG21	1:B:230:SER:HB2	1.80	0.64
1:B:74:ASP:N	1:B:77:ARG:HH21	1.95	0.64
1:B:140:GLY:O	1:B:184:ASN:HB2	1.98	0.64
1:B:343:GLU:HG2	1:B:429:THR:HB	1.79	0.64
2:A:267:PHE:CZ	2:A:388:TRP:HZ2	2.16	0.64
1:B:257:MET:O	1:B:312:THR:HG21	1.99	0.63
1:B:294:PHE:CD1	1:B:336:LYS:HD2	2.32	0.63
2:A:2:ARG:HE	2:A:132:LEU:CD1	2.11	0.63
2:A:140:SER:CA	2:A:171:ILE:HD12	2.28	0.63
3:K:40:ILE:HG23	3:K:340:SER:HB3	1.79	0.63
2:A:30:ILE:HG13	2:A:36:MET:HG3	1.80	0.63
2:A:65:ALA:HB3	2:A:67:PHE:CZ	2.33	0.63
2:A:81:GLY:O	2:A:84:ARG:HG3	1.98	0.63
3:K:111:LYS:HA	3:K:335:THR:HG21	1.80	0.63
3:K:182:LEU:CD2	3:K:196:ILE:HG13	2.27	0.63
1:B:344:TRP:HB3	2:A:401:LYS:HZ1	1.64	0.63
2:A:390:ARG:HA	2:A:393:HIS:HD2	1.60	0.63
3:K:96:GLY:HA2	3:K:259:GLY:HA3	1.80	0.63
3:K:224:ALA:HB1	3:K:281:ARG:NE	2.12	0.63
3:K:318:ARG:HA	3:K:321:GLN:CD	2.19	0.63
2:A:155:GLU:O	2:A:159:VAL:HG23	1.98	0.63
3:K:17:LYS:HE3	3:K:362:LYS:CB	2.28	0.63
3:K:121:PRO:O	3:K:124:GLU:HG3	1.97	0.63
3:K:234:ARG:HA	3:K:234:ARG:NH1	2.14	0.63
1:B:28:HIS:CG	1:B:47:ILE:HG23	2.34	0.63
2:A:21:TRP:HA	2:A:21:TRP:CE3	2.34	0.63
2:A:78:VAL:HG11	2:A:92:LEU:HD12	1.80	0.63
2:A:255:PHE:CD1	2:A:318:LEU:HD22	2.34	0.63
3:K:329:ARG:HG3	3:K:363:PRO:CG	2.27	0.63
1:B:11:GLN:HE21	1:B:15:GLN:CG	2.12	0.63
1:B:28:HIS:HB3	1:B:47:ILE:HG21	1.81	0.63
1:B:74:ASP:CA	1:B:77:ARG:HH21	2.12	0.63
1:B:183:TYR:HE2	1:B:408:PHE:CD2	2.17	0.63
1:B:314:ALA:O	1:B:368:ILE:HB	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:32:PRO:CA	2:A:86:LEU:HD11	2.18	0.63
2:A:102:ASN:H	2:A:105:ARG:CD	2.11	0.63
2:A:115:ILE:O	2:A:115:ILE:HD13	1.99	0.63
3:K:18:ASN:HB3	3:K:360:LEU:HD23	1.79	0.63
3:K:89:ILE:HG13	3:K:135:ILE:HG22	1.80	0.63
1:B:190:HIS:O	1:B:193:VAL:HG22	1.99	0.63
1:B:293:MET:HA	1:B:298:ASN:ND2	2.13	0.63
1:B:404:ASP:CB	1:B:407:GLU:H	2.11	0.63
2:A:1:MET:HE1	2:A:50:ASN:CB	2.28	0.63
2:A:105:ARG:HA	2:A:411:GLU:HG2	1.79	0.63
3:K:147:LEU:HD22	3:K:154:PHE:CB	2.26	0.63
3:K:229:ASN:HB2	3:K:232:SER:HB3	1.81	0.63
2:A:21:TRP:HA	2:A:21:TRP:HE3	1.62	0.63
3:K:48:LYS:C	3:K:71:VAL:HB	2.19	0.63
3:K:182:LEU:HD22	3:K:196:ILE:CD1	2.29	0.63
3:K:362:LYS:H	3:K:362:LYS:CE	2.10	0.63
1:B:1:MET:HB2	1:B:127:CYS:HB2	1.81	0.63
1:B:31:ASP:HB3	1:B:32:PRO:HD2	1.81	0.63
1:B:221:THR:HB	1:B:224:ASP:HB3	1.80	0.63
1:B:249:ASP:O	1:B:253:LEU:HD22	1.99	0.63
3:K:171:LEU:H	3:K:171:LEU:HD22	1.63	0.63
1:B:350:LYS:HD2	1:B:350:LYS:O	1.99	0.62
2:A:4:CYS:HA	2:A:135:PHE:HE2	1.62	0.62
2:A:414:GLU:HG3	3:K:345:GLU:CD	2.19	0.62
2:A:417:GLU:N	3:K:345:GLU:OE2	2.32	0.62
3:K:21:VAL:HG21	3:K:334:ALA:HB3	1.81	0.62
3:K:136:ILE:CD1	3:K:263:LEU:HD13	2.09	0.62
3:K:141:HIS:O	3:K:144:PHE:HB3	1.99	0.62
1:B:51:TYR:CB	1:B:59:TYR:HB3	2.28	0.62
1:B:131:GLN:O	1:B:162:ARG:HA	1.99	0.62
2:A:4:CYS:H	2:A:51:THR:HG22	1.64	0.62
2:A:69:ASP:HB2	2:A:75:ILE:HG22	1.80	0.62
2:A:189:LEU:HD11	2:A:418:PHE:CD2	2.33	0.62
2:A:214:ARG:CG	2:A:220:GLU:HA	2.29	0.62
3:K:66:TYR:CE1	3:K:350:LEU:HB2	2.34	0.62
3:K:79:ILE:HG23	3:K:82:TYR:CE1	2.34	0.62
1:B:215:LEU:O	1:B:216:LYS:HE3	1.98	0.62
1:B:382:SER:HA	1:B:385:PHE:CD1	2.35	0.62
1:B:421:GLU:OE2	3:K:313:GLU:HB3	2.00	0.62
2:A:417:GLU:HA	2:A:420:GLU:OE1	1.99	0.62
3:K:91:ASP:O	3:K:95:MET:HG3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:272:ILE:HG23	3:K:273:GLY:N	2.15	0.62
3:K:284:GLU:O	3:K:288:ILE:HG12	1.99	0.62
3:K:325:GLY:HA2	3:K:362:LYS:NZ	2.14	0.62
1:B:167:PHE:HE2	1:B:233:MET:CG	2.08	0.62
1:B:286:VAL:CG1	1:B:287:PRO:HD3	2.27	0.62
1:B:318:ARG:HA	1:B:354:CYS:SG	2.39	0.62
1:B:405:GLU:HG2	1:B:406:MET:N	2.14	0.62
2:A:64:ARG:NH1	2:A:91:GLN:HG2	2.13	0.62
3:K:43:CYS:HB2	3:K:74:ALA:N	2.14	0.62
1:B:59:TYR:O	1:B:84:ILE:HG23	1.99	0.62
1:B:421:GLU:CA	3:K:308:HIS:CA	2.77	0.62
2:A:190:THR:O	2:A:194:THR:HG23	1.99	0.62
2:A:210:TYR:HD1	2:A:227:LEU:HD11	1.64	0.62
2:A:317:LEU:HD23	2:A:317:LEU:N	2.14	0.62
2:A:321:GLY:HA3	2:A:360:PRO:HA	1.81	0.62
3:K:156:VAL:HG23	3:K:242:THR:O	1.99	0.62
3:K:170:ASP:H	3:K:178:VAL:CB	2.12	0.62
1:B:3:GLU:HG3	1:B:50:TYR:CA	2.29	0.62
1:B:193:VAL:HB	1:B:264:HIS:NE2	2.15	0.62
1:B:206:ALA:HB2	1:B:301:ALA:HA	1.80	0.62
2:A:1:MET:N	2:A:130:THR:HG23	2.15	0.62
2:A:21:TRP:CZ3	2:A:24:TYR:HE2	2.18	0.62
2:A:214:ARG:HG2	2:A:220:GLU:HA	1.80	0.62
2:A:317:LEU:HD12	2:A:319:TYR:OH	2.00	0.62
3:K:100:THR:H	3:K:330:THR:HA	1.64	0.62
1:B:100:ASN:HA	1:B:397:TRP:NE1	2.14	0.62
2:A:9:VAL:HG22	2:A:146:GLY:HA2	1.79	0.62
2:A:34:GLY:O	2:A:60:LYS:HG3	1.99	0.62
3:K:158:VAL:HG23	3:K:173:ASN:HA	1.81	0.62
2:A:294:ALA:O	2:A:297:GLU:HG3	2.00	0.62
3:K:90:LEU:HD12	3:K:90:LEU:N	2.15	0.62
3:K:192:ARG:HD3	3:K:327:ARG:HD3	1.82	0.62
1:B:203:ASP:HB3	1:B:205:GLU:HG2	1.80	0.62
2:A:107:HIS:HB2	2:A:152:LEU:CD2	2.30	0.62
2:A:321:GLY:O	2:A:356:ASN:HB2	1.99	0.62
3:K:17:LYS:HD2	3:K:361:ASN:O	1.99	0.62
3:K:45:PRO:HG3	3:K:73:GLY:H	1.65	0.62
1:B:51:TYR:HA	1:B:62:ARG:CD	2.29	0.62
1:B:309:ARG:NH2	1:B:427:ASP:HA	2.14	0.62
2:A:184:PRO:CB	2:A:391:LEU:HD13	2.25	0.62
2:A:269:LEU:HG	2:A:379:SER:O	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:287:PRO:HB3	1:B:328:GLU:OE2	2.00	0.61
1:B:385:PHE:HB2	1:B:412:GLU:OE1	1.99	0.61
2:A:384:ILE:HG22	2:A:388:TRP:CE2	2.34	0.61
3:K:189:ARG:HD2	3:K:190:ASN:N	2.14	0.61
1:B:3:GLU:HG2	1:B:49:VAL:CG1	2.30	0.61
1:B:262:ARG:HA	1:B:262:ARG:HE	1.65	0.61
2:A:23:LEU:HG	2:A:363:VAL:CG2	2.28	0.61
2:A:134:GLY:HA2	2:A:161:TYR:CD2	2.35	0.61
2:A:144:GLY:HA2	2:A:186:ASN:HD21	1.65	0.61
2:A:168:GLU:HG2	2:A:198:SER:CB	2.30	0.61
2:A:304:LYS:HD2	2:A:304:LYS:N	2.15	0.61
3:K:23:VAL:HA	3:K:334:ALA:O	2.00	0.61
3:K:156:VAL:HA	3:K:242:THR:O	2.00	0.61
3:K:169:PHE:CA	3:K:178:VAL:HB	2.28	0.61
1:B:269:GLY:O	1:B:366:THR:HA	1.99	0.61
1:B:318:ARG:HH11	1:B:365:ALA:CA	2.08	0.61
1:B:322:SER:HA	2:A:221:ARG:CB	2.30	0.61
2:A:153:LEU:HD11	2:A:157:LEU:HG	1.81	0.61
2:A:269:LEU:HD12	2:A:269:LEU:O	2.00	0.61
2:A:307:PRO:HD2	2:A:308:ARG:NH1	2.15	0.61
2:A:319:TYR:HB3	2:A:373:ARG:CD	2.29	0.61
3:K:272:ILE:HD11	3:K:277:ALA:O	2.00	0.61
1:B:73:MET:HB3	1:B:92:PHE:CE1	2.35	0.61
2:A:41:THR:HG22	2:A:42:ILE:N	2.15	0.61
2:A:115:ILE:HA	2:A:118:VAL:HG12	1.82	0.61
2:A:117:LEU:O	2:A:117:LEU:HD13	2.00	0.61
2:A:191:THR:CG2	2:A:195:LEU:HD11	2.31	0.61
3:K:18:ASN:HB3	3:K:360:LEU:HA	1.83	0.61
1:B:7:ILE:CB	1:B:135:LEU:HG	2.22	0.61
1:B:210:ILE:HG23	1:B:211:CYS:N	2.15	0.61
1:B:272:PRO:HG2	1:B:361:LEU:CD1	2.30	0.61
2:A:181:VAL:HG13	2:A:394:LYS:HZ2	1.65	0.61
1:B:167:PHE:CE1	1:B:200:TYR:HB2	2.35	0.61
1:B:170:VAL:HG11	1:B:381:ILE:HD11	1.81	0.61
1:B:375:GLN:HG3	1:B:422:TYR:CD1	2.36	0.61
1:B:423:GLN:NE2	3:K:308:HIS:N	2.41	0.61
2:A:31:GLN:HA	2:A:31:GLN:HE21	1.66	0.61
2:A:99:ALA:O	2:A:101:ASN:HB3	2.01	0.61
3:K:26:ARG:O	3:K:338:PRO:HG3	2.01	0.61
3:K:128:GLU:HA	3:K:137:PRO:O	2.00	0.61
2:A:2:ARG:HD2	2:A:133:GLN:CG	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:182:VAL:HG12	2:A:407:TRP:HZ3	1.63	0.61
2:A:224:TYR:CD1	2:A:227:LEU:HD12	2.35	0.61
2:A:288:VAL:CG2	2:A:324:VAL:HG21	2.31	0.61
3:K:41:VAL:HG11	3:K:50:VAL:CG1	2.31	0.61
3:K:118:GLU:OE2	3:K:120:SER:HA	2.01	0.61
3:K:160:LEU:HD23	3:K:171:LEU:CB	2.31	0.61
3:K:161:LEU:HD13	3:K:168:LEU:CB	2.30	0.61
1:B:8:GLN:HB3	1:B:13:GLY:C	2.20	0.61
1:B:179:VAL:CG2	1:B:391:ARG:HG3	2.29	0.61
3:K:104:TYR:CE1	3:K:352:TYR:HB2	2.35	0.61
3:K:115:MET:CE	3:K:263:LEU:HB3	2.30	0.61
3:K:175:SER:HB2	3:K:177:ASP:OD1	2.00	0.61
3:K:267:ALA:CB	3:K:288:ILE:HG21	2.29	0.61
3:K:323:SER:HA	3:K:328:THR:OG1	2.01	0.61
1:B:51:TYR:CD1	1:B:61:PRO:HA	2.35	0.61
2:A:247:ALA:N	2:A:357:TYR:HB2	2.16	0.61
2:A:414:GLU:HG3	3:K:345:GLU:HG3	1.78	0.61
3:K:25:CYS:HB3	3:K:73:GLY:O	2.01	0.61
3:K:206:ASN:H	3:K:209:GLU:CG	2.14	0.61
1:B:19:LYS:O	1:B:23:VAL:HG23	2.01	0.61
1:B:285:THR:HG22	1:B:286:VAL:N	2.16	0.61
2:A:1:MET:H1	2:A:130:THR:HG23	1.64	0.61
2:A:106:GLY:O	2:A:110:ILE:HG12	2.00	0.61
2:A:191:THR:HG22	2:A:195:LEU:CD1	2.31	0.61
2:A:238:ILE:HG23	2:A:239:THR:N	2.15	0.61
2:A:275:VAL:H	2:A:300:ASN:HD21	1.48	0.61
1:B:102:ALA:HB1	1:B:106:TYR:CZ	2.36	0.60
1:B:310:TYR:HB2	1:B:313:VAL:HG22	1.82	0.60
2:A:313:MET:SD	2:A:436:GLY:HA2	2.41	0.60
2:A:388:TRP:CZ3	2:A:429:GLU:HA	2.36	0.60
3:K:295:LEU:HG	3:K:320:LEU:HD12	1.83	0.60
1:B:16:ILE:HG21	1:B:136:THR:HG22	1.82	0.60
1:B:172:SER:HB2	1:B:205:GLU:N	2.14	0.60
1:B:323:MET:HB3	2:A:210:TYR:CE1	2.35	0.60
2:A:3:GLU:HB2	2:A:129:CYS:SG	2.41	0.60
2:A:6:SER:HB2	2:A:21:TRP:HZ2	1.63	0.60
2:A:124:LYS:NZ	2:A:125:LEU:HB2	2.16	0.60
2:A:274:PRO:HG2	2:A:291:ILE:CD1	2.30	0.60
2:A:420:GLU:H	3:K:344:GLU:HG3	1.66	0.60
1:B:58:LYS:HE2	1:B:84:ILE:HD13	1.83	0.60
1:B:314:ALA:C	1:B:349:VAL:HG23	2.22	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:395:LEU:HD23	1:B:395:LEU:O	2.01	0.60
2:A:224:TYR:CE2	6:A:501:GTP:N7	2.66	0.60
2:A:319:TYR:CZ	2:A:375:VAL:HG11	2.37	0.60
2:A:430:LYS:HE3	2:A:431:ASP:OD2	2.01	0.60
3:K:64:LYS:HE3	3:K:64:LYS:O	2.00	0.60
3:K:116:GLU:CA	3:K:127:TRP:HZ2	2.15	0.60
3:K:192:ARG:NE	3:K:327:ARG:HH11	1.99	0.60
3:K:194:VAL:C	3:K:195:ILE:HD13	2.22	0.60
1:B:107:THR:HG23	1:B:108:GLU:N	2.16	0.60
1:B:299:MET:CE	1:B:305:PRO:HG3	2.31	0.60
1:B:390:ARG:HD3	1:B:391:ARG:N	2.16	0.60
1:B:390:ARG:O	1:B:392:LYS:HD2	2.00	0.60
2:A:169:PHE:HA	2:A:202:PHE:HB2	1.83	0.60
3:K:24:ARG:HD2	3:K:25:CYS:N	2.17	0.60
3:K:98:ASN:OD1	3:K:328:THR:HG22	2.02	0.60
1:B:24:ILE:HG22	1:B:28:HIS:CE1	2.36	0.60
1:B:85:PHE:HB3	1:B:90:PHE:CZ	2.35	0.60
2:A:210:TYR:CB	2:A:227:LEU:HD13	2.31	0.60
2:A:425:MET:HA	2:A:425:MET:CE	2.27	0.60
1:B:273:LEU:HB3	1:B:298:ASN:OD1	2.01	0.60
1:B:377:LEU:O	1:B:377:LEU:HD13	2.01	0.60
2:A:20:CYS:HA	2:A:232:SER:OG	2.02	0.60
2:A:102:ASN:CA	2:A:105:ARG:HG2	2.32	0.60
2:A:245:ASP:O	2:A:358:GLN:HG3	2.02	0.60
2:A:385:ALA:O	2:A:388:TRP:HB2	2.02	0.60
3:K:85:VAL:O	3:K:89:ILE:HG12	2.02	0.60
3:K:98:ASN:CB	3:K:328:THR:HG22	2.32	0.60
1:B:221:THR:HB	1:B:224:ASP:CB	2.31	0.60
3:K:31:ALA:HA	3:K:34:LYS:CG	2.32	0.60
3:K:161:LEU:HG	3:K:238:VAL:HB	1.82	0.60
3:K:327:ARG:H	3:K:327:ARG:NE	2.00	0.60
1:B:50:TYR:HB2	1:B:241:ARG:NH1	2.16	0.60
1:B:53:GLU:HA	1:B:58:LYS:O	2.00	0.60
1:B:267:MET:SD	1:B:374:ILE:HB	2.41	0.60
1:B:269:GLY:HA3	1:B:367:PHE:N	2.17	0.60
1:B:381:ILE:HA	1:B:384:GLN:NE2	2.16	0.60
2:A:104:ALA:CB	2:A:411:GLU:HG3	2.31	0.60
3:K:48:LYS:HA	3:K:71:VAL:H	1.67	0.60
3:K:89:ILE:CB	3:K:139:THR:HG21	2.31	0.60
3:K:322:ASP:HA	3:K:326:GLY:HA3	1.83	0.60
1:B:19:LYS:CG	1:B:226:ASN:HB3	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:71:GLU:OE1	2:A:99:ALA:HB2	2.01	0.60
2:A:217:LEU:HD12	2:A:219:ILE:HG13	1.83	0.60
2:A:234:ILE:HG23	2:A:235:VAL:N	2.17	0.60
3:K:249:THR:HG22	3:K:250:ILE:N	2.13	0.60
3:K:278:VAL:CG1	3:K:281:ARG:HB2	2.31	0.60
1:B:218:THR:HG23	1:B:219:THR:N	2.17	0.60
1:B:309:ARG:NH2	1:B:426:GLN:HG2	2.03	0.60
2:A:309:HIS:CD2	2:A:382:THR:HG21	2.37	0.60
2:A:331:ALA:O	2:A:335:ILE:HD13	2.02	0.60
2:A:362:VAL:HG11	2:A:370:LYS:CB	2.32	0.60
2:A:414:GLU:HB2	2:A:417:GLU:HB3	1.84	0.60
3:K:20:GLN:HB2	3:K:357:LYS:HE2	1.83	0.60
3:K:192:ARG:CA	3:K:327:ARG:HD2	2.32	0.60
3:K:204:VAL:HG11	3:K:213:ILE:HG21	1.84	0.60
3:K:234:ARG:O	3:K:234:ARG:HD3	2.01	0.60
3:K:315:LYS:O	3:K:319:ILE:HG23	2.02	0.60
1:B:326:VAL:HG12	1:B:330:MET:SD	2.41	0.59
1:B:342:VAL:HG13	1:B:345:ILE:N	2.13	0.59
2:A:107:HIS:HD2	2:A:108:TYR:CD2	2.20	0.59
2:A:152:LEU:HB3	2:A:156:ARG:CZ	2.32	0.59
2:A:414:GLU:CG	3:K:345:GLU:CG	2.80	0.59
3:K:90:LEU:O	3:K:94:ILE:HG23	2.02	0.59
3:K:97:TYR:CD1	3:K:365:VAL:HG13	2.36	0.59
3:K:125:TYR:HB3	3:K:129:GLU:CB	2.22	0.59
3:K:136:ILE:CG2	3:K:263:LEU:HD11	2.32	0.59
3:K:173:ASN:OD1	3:K:174:PRO:HD2	2.01	0.59
1:B:139:LEU:HD21	1:B:170:VAL:CG2	2.32	0.59
1:B:318:ARG:HD2	1:B:358:PRO:CG	2.30	0.59
2:A:99:ALA:N	2:A:100:ALA:HA	2.17	0.59
3:K:72:PHE:CE2	3:K:81:VAL:HG12	2.37	0.59
3:K:79:ILE:HG23	3:K:131:PRO:O	2.02	0.59
3:K:143:ILE:O	3:K:147:LEU:HG	2.02	0.59
3:K:171:LEU:CB	3:K:221:ARG:HA	2.32	0.59
1:B:28:HIS:CE1	1:B:50:TYR:HD2	2.20	0.59
1:B:73:MET:HG3	1:B:77:ARG:NE	2.16	0.59
1:B:421:GLU:HG2	3:K:309:VAL:O	2.02	0.59
1:B:424:GLN:HG3	3:K:306:THR:O	2.03	0.59
2:A:104:ALA:HA	2:A:107:HIS:CE1	2.37	0.59
2:A:255:PHE:CE1	2:A:318:LEU:HD22	2.37	0.59
3:K:224:ALA:HB2	3:K:284:GLU:OE1	2.02	0.59
3:K:235:SER:HA	3:K:288:ILE:HD11	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:156:ARG:HB3	1:B:164:MET:HG3	1.84	0.59
1:B:247:ASN:N	2:A:11:GLN:HE22	2.00	0.59
1:B:367:PHE:HD2	1:B:368:ILE:H	1.48	0.59
2:A:70:LEU:N	2:A:70:LEU:HD12	2.18	0.59
2:A:136:LEU:HD21	2:A:167:LEU:HD23	1.84	0.59
2:A:360:PRO:HB3	2:A:373:ARG:NH1	2.12	0.59
2:A:377:MET:HG3	2:A:377:MET:O	2.01	0.59
3:K:17:LYS:HE3	3:K:362:LYS:HA	1.83	0.59
3:K:111:LYS:HD2	3:K:266:LEU:CD2	2.32	0.59
3:K:192:ARG:C	3:K:327:ARG:HD2	2.22	0.59
1:B:316:VAL:HG21	1:B:366:THR:HB	1.83	0.59
2:A:67:PHE:O	2:A:93:ILE:HG12	2.01	0.59
2:A:78:VAL:O	2:A:84:ARG:HB3	2.02	0.59
2:A:168:GLU:HG2	2:A:198:SER:HB2	1.84	0.59
2:A:297:GLU:CD	2:A:299:ALA:HB3	2.23	0.59
2:A:385:ALA:HB2	2:A:432:TYR:CE1	2.37	0.59
3:K:135:ILE:HD12	3:K:135:ILE:N	2.17	0.59
3:K:207:LYS:O	3:K:210:VAL:HB	2.00	0.59
1:B:9:ALA:O	1:B:137:HIS:HA	2.02	0.59
1:B:64:ILE:HD11	1:B:91:VAL:HG11	1.84	0.59
1:B:174:LYS:HG3	1:B:175:VAL:H	1.67	0.59
1:B:249:ASP:O	1:B:253:LEU:HD13	2.02	0.59
2:A:69:ASP:OD2	2:A:74:VAL:HG12	2.03	0.59
2:A:92:LEU:HD22	2:A:92:LEU:N	2.12	0.59
2:A:274:PRO:CD	2:A:291:ILE:HG23	2.33	0.59
2:A:274:PRO:HD3	2:A:291:ILE:HG23	1.85	0.59
2:A:312:TYR:HD1	2:A:315:CYS:HB3	1.67	0.59
3:K:86:VAL:CG2	3:K:138:ARG:HB3	2.33	0.59
3:K:211:TYR:O	3:K:215:GLU:HG2	2.02	0.59
1:B:4:ILE:HD11	1:B:130:LEU:HB3	1.83	0.59
1:B:16:ILE:HG23	1:B:17:GLY:N	2.18	0.59
1:B:292:GLN:HG3	1:B:298:ASN:CG	2.23	0.59
2:A:69:ASP:CB	2:A:74:VAL:HB	2.31	0.59
2:A:155:GLU:HG2	2:A:197:HIS:NE2	2.17	0.59
3:K:24:ARG:CZ	3:K:26:ARG:HA	2.32	0.59
1:B:282:ARG:HG2	1:B:282:ARG:HH11	1.68	0.59
1:B:344:TRP:HB2	2:A:401:LYS:HE3	1.85	0.59
1:B:424:GLN:H	3:K:308:HIS:HB3	1.67	0.59
2:A:212:ILE:HD12	2:A:299:ALA:O	2.02	0.59
2:A:215:ARG:HG3	2:A:216:ASN:H	1.65	0.59
2:A:275:VAL:H	2:A:300:ASN:ND2	2.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:66:TYR:CZ	3:K:350:LEU:HD13	2.38	0.59
3:K:316:LEU:N	3:K:316:LEU:HD23	2.18	0.59
3:K:343:LEU:O	3:K:346:THR:HG22	2.02	0.59
1:B:5:VAL:HG13	1:B:123:GLU:OE1	2.03	0.59
1:B:20:PHE:CE1	1:B:24:ILE:HG13	2.38	0.59
1:B:76:VAL:HG23	1:B:77:ARG:N	2.18	0.59
1:B:343:GLU:CB	1:B:429:THR:HB	2.32	0.59
1:B:358:PRO:HG2	1:B:364:SER:OG	2.03	0.59
3:K:82:TYR:O	3:K:135:ILE:HG13	2.03	0.59
3:K:159:SER:HA	3:K:170:ASP:OD1	2.02	0.59
3:K:170:ASP:CB	3:K:179:SER:H	2.14	0.59
1:B:130:LEU:H	1:B:162:ARG:CZ	2.16	0.58
1:B:263:LEU:HD11	1:B:265:PHE:HB2	1.85	0.58
1:B:374:ILE:HG23	1:B:375:GLN:N	2.18	0.58
2:A:70:LEU:HD12	2:A:70:LEU:H	1.67	0.58
3:K:24:ARG:NH1	3:K:27:PRO:HD3	2.18	0.58
3:K:51:SER:HB2	3:K:64:LYS:O	2.03	0.58
3:K:278:VAL:HG22	3:K:279:ASP:N	2.18	0.58
1:B:249:ASP:OD2	1:B:252:LYS:HD2	2.02	0.58
2:A:424:ASP:O	2:A:428:LEU:HD23	2.04	0.58
1:B:51:TYR:CE2	1:B:61:PRO:HA	2.38	0.58
1:B:170:VAL:HG11	1:B:381:ILE:CD1	2.32	0.58
1:B:238:THR:HG23	1:B:242:PHE:CE1	2.38	0.58
1:B:368:ILE:HG22	1:B:369:GLY:N	2.18	0.58
2:A:153:LEU:CD2	2:A:157:LEU:HD21	2.33	0.58
2:A:200:CYS:HG	2:A:202:PHE:HE2	1.51	0.58
2:A:405:VAL:HG21	3:K:293:LEU:CG	2.30	0.58
2:A:417:GLU:HA	3:K:344:GLU:CB	2.33	0.58
3:K:77:LYS:HG2	3:K:78:GLN:N	2.18	0.58
3:K:99:CYS:CB	3:K:329:ARG:HH21	2.16	0.58
3:K:133:ALA:HB1	3:K:137:PRO:CG	2.24	0.58
3:K:163:ILE:HA	3:K:167:GLU:O	2.02	0.58
3:K:173:ASN:OD1	3:K:201:GLU:HA	2.03	0.58
3:K:271:ASN:OD1	3:K:274:ARG:HB2	2.03	0.58
1:B:85:PHE:CD1	1:B:90:PHE:HE2	2.21	0.58
2:A:2:ARG:NE	2:A:132:LEU:HD12	2.17	0.58
2:A:133:GLN:HB3	2:A:164:LYS:HG3	1.85	0.58
2:A:269:LEU:O	2:A:378:LEU:HA	2.03	0.58
3:K:17:LYS:HB3	3:K:360:LEU:HB3	1.84	0.58
3:K:25:CYS:HB2	3:K:72:PHE:O	2.03	0.58
3:K:28:PHE:HB3	3:K:33:ARG:HH22	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:140:LEU:O	3:K:207:LYS:HD2	2.03	0.58
3:K:144:PHE:HE2	3:K:206:ASN:HD21	1.51	0.58
3:K:160:LEU:CD2	3:K:171:LEU:HD23	2.34	0.58
3:K:160:LEU:HD12	3:K:161:LEU:H	1.66	0.58
1:B:30:ILE:HD11	1:B:34:GLY:HA2	1.85	0.58
2:A:3:GLU:OE2	2:A:125:LEU:HD11	2.03	0.58
2:A:317:LEU:CD2	2:A:377:MET:HB2	2.34	0.58
3:K:20:GLN:HA	3:K:20:GLN:NE2	2.18	0.58
3:K:27:PRO:CA	3:K:74:ALA:HB1	2.11	0.58
3:K:47:ARG:NH1	3:K:51:SER:H	2.01	0.58
3:K:192:ARG:HH22	3:K:362:LYS:CE	2.16	0.58
1:B:7:ILE:HD12	1:B:7:ILE:N	2.18	0.58
1:B:97:ALA:HB1	1:B:143:THR:CB	2.27	0.58
1:B:186:THR:HB	1:B:385:PHE:CE1	2.39	0.58
2:A:70:LEU:CD2	2:A:145:THR:HB	2.34	0.58
2:A:142:GLY:HA3	6:A:501:GTP:H4'	1.85	0.58
2:A:147:SER:OG	2:A:186:ASN:HB3	2.03	0.58
3:K:66:TYR:HE1	3:K:350:LEU:O	1.86	0.58
3:K:78:GLN:O	3:K:81:VAL:HG22	2.03	0.58
3:K:116:GLU:HA	3:K:127:TRP:HZ2	1.68	0.58
1:B:217:LEU:HD12	1:B:218:THR:H	1.68	0.58
2:A:133:GLN:HA	2:A:133:GLN:NE2	2.17	0.58
2:A:215:ARG:HH12	2:A:216:ASN:HB3	1.68	0.58
2:A:268:PRO:CB	2:A:378:LEU:HB3	2.30	0.58
2:A:269:LEU:HD12	2:A:377:MET:O	2.04	0.58
3:K:78:GLN:HB3	3:K:114:THR:HG22	1.85	0.58
3:K:196:ILE:HG13	3:K:196:ILE:O	2.03	0.58
3:K:330:THR:H	3:K:361:ASN:ND2	2.02	0.58
1:B:308:GLY:HA2	1:B:372:THR:HB	1.84	0.58
1:B:322:SER:HB2	1:B:325:GLU:HB2	1.86	0.58
2:A:100:ALA:H	2:A:105:ARG:NH1	2.02	0.58
2:A:133:GLN:CB	2:A:164:LYS:HG3	2.34	0.58
2:A:133:GLN:O	2:A:164:LYS:HB3	2.04	0.58
2:A:150:THR:HG22	2:A:154:MET:CE	2.33	0.58
2:A:209:ILE:O	2:A:209:ILE:HD13	2.03	0.58
3:K:77:LYS:HD3	3:K:79:ILE:HG13	1.83	0.58
3:K:112:THR:HG23	3:K:231:TYR:CE2	2.39	0.58
3:K:162:GLU:HG3	3:K:222:THR:O	2.04	0.58
3:K:358:ASN:CG	3:K:359:ILE:HG23	2.24	0.58
1:B:172:SER:N	1:B:204:ASN:HB3	2.18	0.58
1:B:193:VAL:HG23	1:B:194:GLU:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:234:ILE:HD13	2:A:272:TYR:CG	2.39	0.58
2:A:263:PRO:HB2	2:A:264:ARG:NH1	2.19	0.58
2:A:294:ALA:O	2:A:300:ASN:HB2	2.04	0.58
2:A:405:VAL:CG2	3:K:293:LEU:CG	2.81	0.58
2:A:418:PHE:C	3:K:344:GLU:OE1	2.41	0.58
1:B:8:GLN:HA	1:B:136:THR:O	2.04	0.58
1:B:186:THR:HG21	1:B:408:PHE:HE2	1.64	0.58
1:B:225:LEU:O	1:B:229:VAL:HG23	2.03	0.58
2:A:32:PRO:O	2:A:86:LEU:HG	2.04	0.58
2:A:133:GLN:HB3	2:A:164:LYS:CD	2.34	0.58
3:K:169:PHE:HB3	3:K:178:VAL:HG12	1.86	0.58
2:A:1:MET:HE1	2:A:3:GLU:OE1	2.04	0.57
2:A:9:VAL:HG22	2:A:10:GLY:N	2.19	0.57
2:A:73:THR:HG23	2:A:74:VAL:N	2.19	0.57
3:K:41:VAL:HG22	3:K:51:SER:O	2.04	0.57
3:K:52:VAL:O	3:K:63:ARG:HB3	2.03	0.57
3:K:111:LYS:HD2	3:K:266:LEU:HD21	1.85	0.57
1:B:132:GLY:HA3	1:B:163:ILE:N	2.18	0.57
1:B:262:ARG:HH11	3:K:313:GLU:HB2	1.69	0.57
1:B:263:LEU:HD21	1:B:370:ASN:ND2	2.18	0.57
1:B:266:PHE:CE2	1:B:368:ILE:HG23	2.39	0.57
3:K:46:VAL:HG23	3:K:47:ARG:N	2.19	0.57
3:K:130:ASP:CB	3:K:133:ALA:H	2.17	0.57
3:K:161:LEU:HB3	3:K:238:VAL:O	2.04	0.57
1:B:5:VAL:HG23	1:B:7:ILE:CD1	2.35	0.57
1:B:19:LYS:HG3	1:B:226:ASN:HB2	1.86	0.57
1:B:309:ARG:HB2	1:B:339:SER:C	2.24	0.57
2:A:5:ILE:HG13	2:A:125:LEU:HD21	1.86	0.57
2:A:395:PHE:CE2	2:A:418:PHE:HE2	2.22	0.57
1:B:116:VAL:O	1:B:119:VAL:HG22	2.04	0.57
1:B:172:SER:HB2	1:B:204:ASN:HB3	1.87	0.57
2:A:274:PRO:HG3	2:A:291:ILE:CG2	2.33	0.57
2:A:411:GLU:HG3	2:A:413:MET:HE3	1.87	0.57
3:K:104:TYR:CD1	3:K:349:THR:HG23	2.40	0.57
1:B:5:VAL:HG22	1:B:133:PHE:CE1	2.40	0.57
1:B:286:VAL:HG22	1:B:287:PRO:N	2.19	0.57
1:B:318:ARG:HH21	1:B:318:ARG:HG3	1.69	0.57
2:A:9:VAL:CG1	2:A:146:GLY:HA2	2.33	0.57
3:K:144:PHE:HB2	3:K:207:LYS:HG2	1.87	0.57
1:B:83:GLN:HE21	1:B:84:ILE:HG12	1.67	0.57
1:B:258:VAL:HB	1:B:260:PHE:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:229:ARG:HG3	2:A:229:ARG:NH1	2.19	0.57
2:A:247:ALA:H	2:A:357:TYR:N	2.03	0.57
2:A:382:THR:HG23	2:A:383:ALA:N	2.20	0.57
3:K:236:HIS:HE1	3:K:288:ILE:HG23	1.69	0.57
1:B:337:ASN:HB2	1:B:340:TYR:CB	2.34	0.57
1:B:344:TRP:HZ3	2:A:400:ALA:CB	2.17	0.57
2:A:189:LEU:HA	2:A:192:HIS:CE1	2.39	0.57
2:A:240:ALA:HB1	2:A:244:PHE:CZ	2.39	0.57
3:K:49:GLU:OE2	3:K:65:THR:HG23	2.05	0.57
3:K:85:VAL:HG12	3:K:135:ILE:HG21	1.86	0.57
3:K:184:MET:HE1	3:K:194:VAL:HG21	1.83	0.57
1:B:61:PRO:HG2	1:B:85:PHE:CG	2.40	0.57
1:B:186:THR:HB	1:B:385:PHE:CD1	2.39	0.57
1:B:247:ASN:H	2:A:11:GLN:HE22	1.52	0.57
1:B:316:VAL:O	1:B:317:PHE:HD2	1.86	0.57
1:B:381:ILE:HG23	1:B:384:GLN:HE22	1.70	0.57
2:A:206:ASN:O	2:A:209:ILE:HG22	2.05	0.57
2:A:373:ARG:HD3	2:A:375:VAL:HG12	1.87	0.57
3:K:184:MET:HE3	3:K:194:VAL:HB	1.86	0.57
3:K:269:SER:CB	3:K:345:GLU:HG3	2.33	0.57
1:B:202:ILE:HD13	1:B:300:MET:HG2	1.87	0.57
3:K:21:VAL:HB	3:K:334:ALA:H	1.68	0.57
3:K:23:VAL:CG2	3:K:71:VAL:HG22	2.35	0.57
3:K:182:LEU:HD11	3:K:199:LEU:CB	2.35	0.57
3:K:189:ARG:HH21	3:K:195:ILE:CG2	2.17	0.57
3:K:318:ARG:O	3:K:321:GLN:HG2	2.05	0.57
1:B:256:ASN:HA	2:A:407:TRP:CH2	2.39	0.57
1:B:342:VAL:HG12	1:B:348:ASN:CG	2.23	0.57
2:A:432:TYR:O	2:A:435:VAL:HG12	2.05	0.57
3:K:45:PRO:CG	3:K:73:GLY:H	2.17	0.57
3:K:158:VAL:H	3:K:201:GLU:HB3	1.67	0.57
3:K:251:ASP:OD1	3:K:253:GLU:HB2	2.03	0.57
2:A:346:TRP:CE3	2:A:346:TRP:HA	2.40	0.56
3:K:78:GLN:HB3	3:K:114:THR:CG2	2.35	0.56
3:K:160:LEU:HD23	3:K:171:LEU:H	1.69	0.56
3:K:161:LEU:HD21	3:K:163:ILE:HD11	1.86	0.56
1:B:139:LEU:HB3	1:B:168:SER:OG	2.05	0.56
1:B:142:GLY:CA	1:B:184:ASN:HB3	2.35	0.56
1:B:259:PRO:HA	2:A:404:PHE:HE1	1.66	0.56
2:A:271:THR:OG1	2:A:377:MET:HG2	2.05	0.56
3:K:187:ASP:OD2	3:K:188:PRO:HD2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:23:VAL:HG21	1:B:230:SER:HB3	1.87	0.56
1:B:40:SER:CB	1:B:43:GLN:HG2	2.34	0.56
1:B:377:LEU:HD12	1:B:381:ILE:HD11	1.87	0.56
1:B:421:GLU:CA	3:K:308:HIS:C	2.69	0.56
2:A:5:ILE:HD13	2:A:64:ARG:O	2.05	0.56
2:A:9:VAL:HG13	2:A:140:SER:H	1.70	0.56
2:A:53:PHE:HD1	2:A:54:SER:O	1.88	0.56
2:A:105:ARG:NH1	2:A:106:GLY:HA2	2.20	0.56
2:A:167:LEU:HD22	2:A:167:LEU:N	2.20	0.56
3:K:48:LYS:HA	3:K:71:VAL:O	2.06	0.56
3:K:119:ARG:HG2	3:K:127:TRP:HA	1.87	0.56
3:K:138:ARG:HG2	3:K:138:ARG:HH11	1.70	0.56
3:K:160:LEU:HB3	3:K:170:ASP:CA	2.31	0.56
3:K:171:LEU:HD22	3:K:171:LEU:N	2.19	0.56
3:K:181:ARG:HB3	3:K:181:ARG:CZ	2.35	0.56
3:K:181:ARG:HG2	3:K:182:LEU:O	2.05	0.56
3:K:351:GLU:HG3	3:K:352:TYR:CD2	2.40	0.56
1:B:274:THR:HG21	1:B:279:GLN:CA	2.35	0.56
1:B:310:TYR:HB3	1:B:312:THR:O	2.04	0.56
2:A:70:LEU:HD21	2:A:145:THR:HB	1.87	0.56
2:A:180:ALA:HB3	2:A:182:VAL:HG22	1.88	0.56
2:A:201:ALA:CA	2:A:267:PHE:HB3	2.35	0.56
2:A:231:ILE:O	2:A:234:ILE:HG22	2.05	0.56
2:A:360:PRO:CB	2:A:373:ARG:HH12	2.11	0.56
3:K:47:ARG:CB	3:K:49:GLU:HG3	2.32	0.56
3:K:86:VAL:HG22	3:K:135:ILE:O	2.04	0.56
3:K:192:ARG:HD3	3:K:327:ARG:CD	2.35	0.56
1:B:131:GLN:CG	1:B:251:ARG:HB3	2.35	0.56
2:A:79:ARG:C	2:A:84:ARG:HG2	2.25	0.56
2:A:188:ILE:HD12	2:A:425:MET:CB	2.35	0.56
2:A:368:LEU:HD23	2:A:368:LEU:H	1.70	0.56
3:K:41:VAL:HG13	3:K:47:ARG:HH12	1.67	0.56
3:K:113:PHE:HA	3:K:231:TYR:CZ	2.41	0.56
3:K:161:LEU:CD1	3:K:163:ILE:HG12	2.31	0.56
3:K:324:LEU:HD11	3:K:359:ILE:O	2.05	0.56
1:B:159:TYR:HB2	1:B:162:ARG:HG2	1.87	0.56
1:B:178:THR:HG23	1:B:180:VAL:HG22	1.87	0.56
1:B:262:ARG:HA	1:B:262:ARG:NE	2.20	0.56
2:A:287:SER:H	2:A:290:GLU:HG2	1.70	0.56
1:B:73:MET:O	1:B:76:VAL:HG22	2.05	0.56
1:B:170:VAL:HG23	1:B:201:CYS:CB	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:62:VAL:HG23	2:A:62:VAL:O	2.06	0.56
2:A:79:ARG:O	2:A:84:ARG:HG2	2.06	0.56
2:A:82:THR:O	2:A:86:LEU:HD12	2.06	0.56
2:A:239:THR:HG23	2:A:240:ALA:N	2.21	0.56
3:K:227:LEU:HB3	3:K:275:SER:O	2.06	0.56
1:B:215:LEU:HD21	1:B:224:ASP:OD2	2.05	0.56
2:A:21:TRP:HE3	2:A:24:TYR:CD2	2.24	0.56
2:A:192:HIS:NE2	2:A:193:THR:HG23	2.21	0.56
2:A:388:TRP:HZ3	2:A:432:TYR:CD1	2.24	0.56
3:K:53:ARG:CA	3:K:63:ARG:HG2	2.31	0.56
3:K:90:LEU:H	3:K:90:LEU:CD1	2.19	0.56
3:K:92:GLU:OE2	3:K:329:ARG:HB3	2.05	0.56
1:B:5:VAL:HG12	1:B:62:ARG:CB	2.33	0.56
1:B:321:MET:HE2	1:B:326:VAL:HG22	1.88	0.56
1:B:331:LEU:HD11	1:B:335:ASN:HD21	1.70	0.56
2:A:53:PHE:HB2	2:A:63:PRO:HA	1.87	0.56
2:A:115:ILE:HG23	2:A:116:ASP:N	2.20	0.56
2:A:260:VAL:HG23	2:A:260:VAL:O	2.06	0.56
2:A:317:LEU:CB	2:A:319:TYR:HE1	2.02	0.56
3:K:64:LYS:HE3	3:K:64:LYS:C	2.26	0.56
3:K:146:LYS:HB2	3:K:146:LYS:HZ3	1.71	0.56
3:K:250:ILE:HG13	3:K:251:ASP:N	2.20	0.56
1:B:81:PHE:HB3	1:B:84:ILE:CB	2.35	0.56
1:B:213:ARG:HH11	1:B:213:ARG:HG3	1.71	0.56
2:A:40:LYS:HD3	2:A:61:HIS:CE1	2.41	0.56
2:A:50:ASN:HA	2:A:53:PHE:O	2.06	0.56
2:A:119:LEU:HD21	2:A:123:ARG:HD3	1.87	0.56
3:K:159:SER:HB2	3:K:199:LEU:HD21	1.88	0.56
3:K:221:ARG:HH21	3:K:223:THR:HG22	1.70	0.56
3:K:293:LEU:HD13	3:K:293:LEU:C	2.26	0.56
1:B:10:GLY:HA2	1:B:144:GLY:HA2	1.88	0.55
1:B:77:ARG:HG2	1:B:90:PHE:HE1	1.70	0.55
1:B:316:VAL:HG22	1:B:366:THR:HB	1.87	0.55
2:A:138:PHE:HD2	2:A:169:PHE:HB2	1.71	0.55
2:A:172:TYR:HH	2:A:388:TRP:HD1	1.53	0.55
2:A:235:VAL:O	2:A:238:ILE:HG22	2.07	0.55
2:A:276:ILE:HB	2:A:286:LEU:HD11	1.89	0.55
2:A:362:VAL:HG21	2:A:370:LYS:CB	2.36	0.55
3:K:107:THR:HG23	7:K:601:ANP:PG	2.45	0.55
3:K:192:ARG:CD	3:K:327:ARG:HD3	2.36	0.55
1:B:167:PHE:HE1	1:B:200:TYR:CD1	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:200:CYS:HA	2:A:266:HIS:O	2.07	0.55
2:A:318:LEU:C	2:A:319:TYR:HD1	2.09	0.55
3:K:103:ALA:HB3	3:K:111:LYS:NZ	2.22	0.55
3:K:144:PHE:HB2	3:K:207:LYS:CG	2.35	0.55
3:K:171:LEU:HB3	3:K:220:LYS:HB2	1.88	0.55
1:B:3:GLU:HB3	1:B:50:TYR:HD1	1.70	0.55
1:B:30:ILE:HD12	1:B:59:TYR:CD1	2.42	0.55
1:B:173:PRO:HB3	1:B:384:GLN:OE1	2.07	0.55
2:A:70:LEU:HB3	2:A:99:ALA:HA	1.88	0.55
2:A:103:TYR:CE2	2:A:186:ASN:HA	2.41	0.55
2:A:119:LEU:HD13	2:A:119:LEU:C	2.27	0.55
2:A:235:VAL:HG13	2:A:236:SER:N	2.21	0.55
2:A:274:PRO:HA	2:A:300:ASN:HD21	1.70	0.55
2:A:373:ARG:HG2	2:A:373:ARG:HH11	1.71	0.55
3:K:82:TYR:HA	3:K:135:ILE:HD11	1.86	0.55
1:B:20:PHE:CZ	1:B:24:ILE:HG13	2.41	0.55
1:B:121:ARG:O	1:B:125:GLU:HG2	2.05	0.55
1:B:287:PRO:HB3	1:B:328:GLU:OE1	2.06	0.55
2:A:53:PHE:CB	2:A:64:ARG:H	2.05	0.55
2:A:168:GLU:CG	2:A:198:SER:HB3	2.36	0.55
2:A:309:HIS:HD2	2:A:382:THR:HG21	1.71	0.55
3:K:22:VAL:HG23	3:K:333:ILE:CD1	2.36	0.55
3:K:44:ASP:CB	3:K:47:ARG:HG3	2.18	0.55
3:K:77:LYS:HG2	3:K:79:ILE:H	1.71	0.55
3:K:161:LEU:HB2	3:K:168:LEU:HD12	1.89	0.55
1:B:310:TYR:HA	1:B:370:ASN:O	2.06	0.55
1:B:366:THR:HG22	1:B:367:PHE:N	2.21	0.55
1:B:419:VAL:HG13	1:B:420:SER:N	2.21	0.55
2:A:52:PHE:HZ	2:A:239:THR:HG1	1.53	0.55
2:A:78:VAL:HG12	2:A:84:ARG:HB3	1.88	0.55
3:K:187:ASP:HB2	3:K:195:ILE:CG2	2.36	0.55
3:K:210:VAL:O	3:K:213:ILE:HG22	2.07	0.55
1:B:343:GLU:HB2	1:B:429:THR:HB	1.87	0.55
2:A:157:LEU:HA	2:A:160:ASP:OD1	2.07	0.55
2:A:362:VAL:HG11	2:A:370:LYS:HB3	1.89	0.55
2:A:406:HIS:H	2:A:406:HIS:CD2	2.25	0.55
3:K:53:ARG:HB2	3:K:56:GLY:CA	2.36	0.55
3:K:161:LEU:HD23	3:K:238:VAL:HG21	1.88	0.55
3:K:299:ILE:HG13	3:K:300:THR:N	2.20	0.55
3:K:302:LEU:CG	3:K:359:ILE:HG21	2.35	0.55
1:B:85:PHE:CG	1:B:90:PHE:CE2	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:105:HIS:CE1	1:B:150:LEU:HB2	2.42	0.55
1:B:183:TYR:CD2	1:B:388:MET:HE3	2.42	0.55
1:B:221:THR:CG2	1:B:224:ASP:H	2.19	0.55
1:B:246:LEU:HD11	6:A:501:GTP:C8	2.42	0.55
1:B:304:ASP:CG	1:B:307:HIS:HB3	2.27	0.55
2:A:165:SER:OG	2:A:199:ASP:HB2	2.07	0.55
2:A:221:ARG:NH1	2:A:227:LEU:HD11	2.22	0.55
3:K:194:VAL:HG23	3:K:318:ARG:NE	2.21	0.55
3:K:228:MET:HG3	3:K:275:SER:CA	2.35	0.55
1:B:172:SER:HB2	1:B:205:GLU:H	1.69	0.55
1:B:254:ALA:HA	1:B:257:MET:CE	2.33	0.55
1:B:287:PRO:HB3	1:B:328:GLU:CD	2.28	0.55
2:A:118:VAL:HG22	2:A:122:ILE:HD11	1.89	0.55
2:A:229:ARG:HG3	2:A:229:ARG:HH11	1.70	0.55
1:B:237:THR:HG23	1:B:238:THR:N	2.21	0.55
3:K:22:VAL:O	3:K:333:ILE:HG23	2.07	0.55
3:K:117:GLY:HA3	3:K:134:GLY:H	1.69	0.55
2:A:9:VAL:HG23	2:A:149:PHE:CD1	2.42	0.55
2:A:9:VAL:O	2:A:13:GLY:HA3	2.07	0.55
2:A:21:TRP:CZ3	2:A:24:TYR:CE2	2.95	0.55
2:A:118:VAL:HG13	2:A:119:LEU:N	2.21	0.55
2:A:177:VAL:HG12	2:A:178:SER:N	2.21	0.55
2:A:234:ILE:CG1	2:A:272:TYR:HB2	2.36	0.55
3:K:138:ARG:HG2	3:K:138:ARG:NH1	2.22	0.55
3:K:156:VAL:O	3:K:156:VAL:HG13	2.06	0.55
3:K:207:LYS:HG3	3:K:211:TYR:CZ	2.40	0.55
1:B:202:ILE:CD1	1:B:300:MET:HG2	2.36	0.54
1:B:351:THR:HG22	1:B:352:ALA:N	2.21	0.54
2:A:23:LEU:CD1	2:A:363:VAL:HG21	2.37	0.54
2:A:189:LEU:HD11	2:A:418:PHE:HD2	1.72	0.54
3:K:40:ILE:HD13	3:K:340:SER:HB2	1.88	0.54
3:K:184:MET:SD	3:K:196:ILE:HG22	2.47	0.54
1:B:87:PRO:HA	1:B:90:PHE:CG	2.43	0.54
1:B:131:GLN:HA	1:B:251:ARG:NH1	2.22	0.54
1:B:173:PRO:CD	1:B:377:LEU:HD21	2.36	0.54
1:B:322:SER:HB2	1:B:325:GLU:CB	2.37	0.54
1:B:356:ILE:HD13	1:B:356:ILE:N	2.17	0.54
2:A:175:PRO:O	2:A:390:ARG:HD3	2.06	0.54
2:A:288:VAL:HG11	2:A:327:ASP:N	2.22	0.54
3:K:280:LYS:HA	3:K:280:LYS:HZ2	1.72	0.54
1:B:133:PHE:O	1:B:164:MET:HE2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:31:GLN:H	2:A:37:PRO:HD3	1.72	0.54
2:A:46:ASP:H	2:A:49:PHE:HB2	1.70	0.54
2:A:343:PHE:HB3	2:A:344:VAL:O	2.06	0.54
3:K:92:GLU:CD	3:K:97:TYR:HB3	2.27	0.54
3:K:99:CYS:SG	3:K:261:LEU:HB2	2.48	0.54
3:K:341:LEU:HD22	3:K:341:LEU:N	2.22	0.54
1:B:130:LEU:HB2	1:B:162:ARG:HD2	1.90	0.54
1:B:240:LEU:CD2	1:B:250:LEU:HD13	2.37	0.54
1:B:267:MET:HG2	1:B:370:ASN:HA	1.88	0.54
1:B:377:LEU:HD13	1:B:381:ILE:HG13	1.90	0.54
2:A:71:GLU:CG	2:A:73:THR:HG22	2.38	0.54
2:A:124:LYS:O	2:A:128:GLN:HG2	2.07	0.54
2:A:153:LEU:O	2:A:153:LEU:HD13	2.07	0.54
3:K:17:LYS:HD2	3:K:362:LYS:HA	1.88	0.54
3:K:43:CYS:CB	3:K:73:GLY:HA2	2.29	0.54
3:K:104:TYR:HH	3:K:352:TYR:HD1	1.54	0.54
3:K:209:GLU:HA	3:K:212:GLN:CD	2.27	0.54
1:B:30:ILE:O	1:B:30:ILE:HG23	2.07	0.54
2:A:153:LEU:HD21	2:A:157:LEU:HD21	1.90	0.54
2:A:182:VAL:HG23	2:A:183:GLU:N	2.22	0.54
3:K:77:LYS:CD	3:K:79:ILE:HG13	2.38	0.54
3:K:82:TYR:HE2	3:K:86:VAL:HG21	1.69	0.54
3:K:106:GLN:OE1	3:K:342:ASN:HB2	2.06	0.54
3:K:207:LYS:HB2	3:K:207:LYS:NZ	2.17	0.54
3:K:341:LEU:HD22	3:K:341:LEU:H	1.73	0.54
1:B:44:LEU:C	1:B:44:LEU:HD13	2.27	0.54
1:B:232:THR:HG23	1:B:233:MET:N	2.23	0.54
1:B:249:ASP:HB2	1:B:252:LYS:HB3	1.89	0.54
1:B:342:VAL:HG12	1:B:348:ASN:ND2	2.23	0.54
2:A:110:ILE:HG22	2:A:114:ILE:CD1	2.38	0.54
3:K:184:MET:HE1	3:K:194:VAL:HB	1.88	0.54
1:B:172:SER:CB	1:B:174:LYS:HG2	2.37	0.54
1:B:310:TYR:HE2	1:B:367:PHE:CE2	2.25	0.54
2:A:31:GLN:HG2	2:A:37:PRO:CD	2.37	0.54
2:A:32:PRO:CB	2:A:82:THR:HB	2.21	0.54
2:A:225:THR:O	2:A:228:ASN:HB2	2.07	0.54
3:K:33:ARG:HB3	3:K:34:LYS:NZ	2.22	0.54
3:K:106:GLN:HB3	3:K:342:ASN:ND2	2.23	0.54
3:K:128:GLU:HB3	3:K:141:HIS:HB2	1.87	0.54
3:K:189:ARG:O	3:K:191:LYS:HE2	2.07	0.54
3:K:329:ARG:HA	3:K:361:ASN:ND2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3:GLU:O	1:B:130:LEU:HD13	2.08	0.54
1:B:139:LEU:HD12	1:B:140:GLY:CA	2.37	0.54
1:B:236:VAL:HG23	1:B:237:THR:N	2.21	0.54
1:B:375:GLN:CD	3:K:308:HIS:HD2	2.10	0.54
2:A:23:LEU:HD23	2:A:23:LEU:C	2.28	0.54
2:A:152:LEU:HB3	2:A:156:ARG:HH22	1.69	0.54
2:A:209:ILE:HG21	2:A:231:ILE:HD11	1.90	0.54
3:K:40:ILE:O	3:K:53:ARG:HD3	2.08	0.54
3:K:53:ARG:HA	3:K:63:ARG:CA	2.37	0.54
3:K:76:THR:HG22	3:K:77:LYS:N	2.23	0.54
3:K:126:THR:HG21	3:K:128:GLU:HG2	1.90	0.54
3:K:182:LEU:HG	3:K:199:LEU:HB2	1.90	0.54
3:K:194:VAL:O	3:K:195:ILE:HD13	2.07	0.54
3:K:246:LYS:HE2	3:K:254:GLU:CD	2.28	0.54
3:K:322:ASP:CG	3:K:327:ARG:HH21	2.11	0.54
1:B:73:MET:SD	1:B:90:PHE:HB3	2.48	0.54
1:B:99:ASN:C	1:B:143:THR:HG21	2.28	0.54
2:A:31:GLN:HG2	2:A:37:PRO:HD3	1.90	0.54
2:A:36:MET:CG	2:A:61:HIS:HD2	2.20	0.54
2:A:41:THR:HG21	2:A:46:ASP:CG	2.28	0.54
3:K:116:GLU:HA	3:K:127:TRP:CZ2	2.42	0.54
3:K:158:VAL:HG21	3:K:174:PRO:HD3	1.90	0.54
3:K:206:ASN:O	3:K:210:VAL:HG23	2.08	0.54
1:B:130:LEU:CD1	1:B:133:PHE:HE2	2.21	0.54
2:A:141:PHE:H	2:A:171:ILE:HB	1.73	0.54
2:A:153:LEU:HD13	2:A:153:LEU:C	2.28	0.54
2:A:199:ASP:O	2:A:266:HIS:HB3	2.07	0.54
2:A:311:LYS:HE2	2:A:433:GLU:OE1	2.08	0.54
2:A:370:LYS:NZ	2:A:372:GLN:HA	2.23	0.54
3:K:135:ILE:CD1	3:K:135:ILE:H	2.19	0.54
3:K:213:ILE:HA	3:K:216:LYS:HG2	1.90	0.54
1:B:172:SER:OG	1:B:205:GLU:HB3	2.08	0.53
1:B:318:ARG:HE	1:B:364:SER:CB	2.19	0.53
2:A:23:LEU:HD23	2:A:23:LEU:O	2.08	0.53
2:A:31:GLN:HB3	2:A:33:ASP:OD2	2.08	0.53
2:A:119:LEU:CD1	2:A:123:ARG:HG2	2.33	0.53
2:A:402:ARG:HA	2:A:402:ARG:NE	2.24	0.53
3:K:194:VAL:CG2	3:K:318:ARG:HE	2.20	0.53
3:K:224:ALA:HA	3:K:281:ARG:HH21	1.73	0.53
3:K:318:ARG:HA	3:K:321:GLN:OE1	2.08	0.53
1:B:100:ASN:ND2	1:B:103:LYS:HB2	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:206:ALA:HB1	1:B:301:ALA:HA	1.90	0.53
1:B:227:HIS:HD2	1:B:228:LEU:HD22	1.72	0.53
1:B:322:SER:O	1:B:326:VAL:HG23	2.08	0.53
2:A:31:GLN:HB3	2:A:32:PRO:HD2	1.89	0.53
2:A:45:GLY:HA2	2:A:61:HIS:HE1	1.72	0.53
2:A:121:ARG:NH1	2:A:121:ARG:HB3	2.23	0.53
2:A:269:LEU:HD12	2:A:269:LEU:C	2.28	0.53
3:K:19:ILE:HD13	3:K:331:SER:HB2	1.91	0.53
3:K:98:ASN:O	3:K:329:ARG:HB3	2.08	0.53
3:K:234:ARG:HA	3:K:234:ARG:NE	2.21	0.53
1:B:85:PHE:HD2	1:B:86:ARG:N	2.07	0.53
1:B:214:THR:HA	1:B:276:ARG:HH21	1.72	0.53
1:B:375:GLN:CD	1:B:423:GLN:HB3	2.29	0.53
2:A:152:LEU:HD22	2:A:152:LEU:N	2.23	0.53
3:K:106:GLN:CD	3:K:342:ASN:HD22	2.11	0.53
3:K:208:ASP:HA	3:K:211:TYR:CE2	2.44	0.53
3:K:329:ARG:HG2	3:K:361:ASN:HD21	1.71	0.53
1:B:21:TRP:HH2	1:B:81:PHE:O	1.90	0.53
1:B:46:ARG:HG3	1:B:46:ARG:NH1	2.23	0.53
1:B:61:PRO:HD3	1:B:84:ILE:HG22	1.90	0.53
1:B:203:ASP:CB	1:B:205:GLU:HG2	2.39	0.53
1:B:203:ASP:OD2	1:B:377:LEU:HG	2.08	0.53
1:B:269:GLY:CA	1:B:300:MET:HE1	2.37	0.53
1:B:284:LEU:HA	1:B:288:GLU:OE2	2.08	0.53
2:A:10:GLY:HA2	6:A:501:GTP:O2B	2.07	0.53
2:A:322:ASP:CG	2:A:355:ILE:HD11	2.29	0.53
2:A:402:ARG:HH21	2:A:405:VAL:HG22	1.73	0.53
3:K:171:LEU:HB3	3:K:221:ARG:N	2.22	0.53
3:K:315:LYS:O	3:K:318:ARG:HB3	2.09	0.53
1:B:86:ARG:HB2	1:B:88:ASP:OD1	2.08	0.53
1:B:179:VAL:HG23	1:B:180:VAL:N	2.24	0.53
1:B:297:LYS:HG3	1:B:298:ASN:H	1.73	0.53
2:A:191:THR:HG22	2:A:195:LEU:HD11	1.89	0.53
2:A:272:TYR:HE1	2:A:374:ALA:HA	1.73	0.53
2:A:425:MET:CE	2:A:428:LEU:HB2	2.38	0.53
3:K:182:LEU:HD22	3:K:196:ILE:HD12	1.90	0.53
3:K:190:ASN:HB2	3:K:195:ILE:CG1	2.26	0.53
1:B:1:MET:CB	1:B:49:VAL:HG11	2.38	0.53
1:B:310:TYR:CB	1:B:313:VAL:HG22	2.38	0.53
2:A:5:ILE:HD12	2:A:125:LEU:HD22	1.91	0.53
2:A:121:ARG:HH11	2:A:121:ARG:HA	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:209:ILE:HD13	2:A:209:ILE:C	2.29	0.53
2:A:209:ILE:HG23	2:A:210:TYR:N	2.21	0.53
3:K:94:ILE:HG13	3:K:95:MET:N	2.22	0.53
3:K:104:TYR:O	3:K:334:ALA:HB1	2.07	0.53
3:K:324:LEU:HD21	3:K:360:LEU:C	2.28	0.53
1:B:2:ARG:N	1:B:127:CYS:HB2	2.11	0.53
1:B:313:VAL:HG12	1:B:349:VAL:HB	1.90	0.53
2:A:30:ILE:HG22	2:A:31:GLN:O	2.08	0.53
3:K:20:GLN:HA	3:K:20:GLN:HE21	1.74	0.53
3:K:161:LEU:HD13	3:K:168:LEU:HD12	1.89	0.53
3:K:161:LEU:HD23	3:K:238:VAL:HB	1.91	0.53
3:K:170:ASP:OD1	3:K:179:SER:HB2	2.09	0.53
3:K:213:ILE:O	3:K:213:ILE:HD13	2.08	0.53
3:K:325:GLY:HA2	3:K:362:LYS:HE3	1.90	0.53
3:K:329:ARG:HD2	3:K:330:THR:O	2.08	0.53
1:B:77:ARG:HG2	1:B:90:PHE:CE1	2.43	0.53
1:B:119:VAL:HG23	1:B:120:VAL:N	2.23	0.53
1:B:318:ARG:HG3	1:B:318:ARG:NH2	2.24	0.53
2:A:69:ASP:O	2:A:94:THR:HG23	2.07	0.53
2:A:271:THR:HG22	2:A:272:TYR:N	2.23	0.53
3:K:86:VAL:HG11	3:K:138:ARG:HG2	1.90	0.53
3:K:102:PHE:HE1	3:K:264:VAL:CG2	2.22	0.53
1:B:293:MET:CE	1:B:367:PHE:HB2	2.39	0.53
1:B:385:PHE:HD2	1:B:388:MET:SD	2.32	0.53
2:A:115:ILE:HA	2:A:118:VAL:CG1	2.38	0.53
2:A:188:ILE:HG13	2:A:395:PHE:HD2	1.71	0.53
2:A:221:ARG:HH11	2:A:227:LEU:HD11	1.74	0.53
2:A:373:ARG:NH1	2:A:373:ARG:HG2	2.24	0.53
3:K:24:ARG:O	3:K:335:THR:HA	2.08	0.53
3:K:64:LYS:HD2	3:K:65:THR:N	2.24	0.53
3:K:160:LEU:HD22	3:K:171:LEU:HB2	1.91	0.53
1:B:148:GLY:O	1:B:152:ILE:HG13	2.09	0.53
1:B:170:VAL:CG2	1:B:201:CYS:HB3	2.30	0.53
1:B:252:LYS:NZ	2:A:144:GLY:H	2.07	0.53
1:B:422:TYR:CA	3:K:308:HIS:HB3	2.38	0.53
2:A:9:VAL:HG11	2:A:146:GLY:O	2.09	0.53
2:A:40:LYS:CE	2:A:44:GLY:HA2	2.39	0.53
2:A:173:PRO:HG3	2:A:183:GLU:OE1	2.08	0.53
2:A:315:CYS:HA	2:A:379:SER:OG	2.09	0.53
3:K:142:GLN:HA	3:K:145:GLU:OE2	2.08	0.53
3:K:171:LEU:O	3:K:220:LYS:HE2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2:ARG:C	1:B:130:LEU:HD22	2.30	0.52
1:B:249:ASP:HB2	1:B:252:LYS:H	1.74	0.52
1:B:289:LEU:CD2	1:B:365:ALA:HB3	2.38	0.52
1:B:322:SER:HA	2:A:221:ARG:HG2	1.89	0.52
2:A:100:ALA:N	2:A:101:ASN:HB3	2.24	0.52
2:A:362:VAL:CG1	2:A:370:LYS:HB2	2.39	0.52
2:A:409:VAL:HG12	3:K:286:GLY:C	2.29	0.52
3:K:30:LEU:HD12	3:K:30:LEU:N	2.23	0.52
3:K:300:THR:HG22	3:K:300:THR:O	2.09	0.52
1:B:51:TYR:HD1	1:B:62:ARG:HD3	1.71	0.52
1:B:139:LEU:HD12	1:B:139:LEU:C	2.28	0.52
1:B:207:LEU:HD11	1:B:229:VAL:HG21	1.91	0.52
1:B:289:LEU:HD21	1:B:365:ALA:HB3	1.92	0.52
1:B:296:ALA:HB2	1:B:305:PRO:CG	2.39	0.52
2:A:136:LEU:HD22	2:A:167:LEU:CG	2.39	0.52
3:K:17:LYS:HA	3:K:361:ASN:O	2.09	0.52
3:K:163:ILE:CG2	3:K:166:GLU:HA	2.39	0.52
1:B:267:MET:SD	1:B:374:ILE:HD12	2.49	0.52
2:A:260:VAL:HB	2:A:262:TYR:O	2.09	0.52
2:A:414:GLU:OE1	3:K:269:SER:HB3	1.57	0.52
3:K:83:ARG:HG3	3:K:83:ARG:NH1	2.23	0.52
3:K:98:ASN:OD1	3:K:260:LYS:HB3	2.09	0.52
3:K:102:PHE:CD1	3:K:264:VAL:HB	2.45	0.52
3:K:130:ASP:OD2	3:K:132:LEU:HD23	2.10	0.52
3:K:206:ASN:CB	3:K:209:GLU:HG2	2.39	0.52
3:K:217:GLY:CA	3:K:220:LYS:HD3	2.22	0.52
3:K:279:ASP:O	3:K:282:ALA:HB3	2.08	0.52
1:B:100:ASN:CG	1:B:103:LYS:H	2.12	0.52
1:B:174:LYS:NZ	1:B:205:GLU:HA	2.24	0.52
2:A:161:TYR:CD2	2:A:166:LYS:HG2	2.43	0.52
3:K:162:GLU:OE1	3:K:237:SER:HA	2.09	0.52
3:K:234:ARG:HG3	3:K:284:GLU:OE2	2.10	0.52
3:K:324:LEU:HD23	3:K:324:LEU:C	2.30	0.52
1:B:70:PRO:HA	1:B:92:PHE:HE1	1.74	0.52
2:A:102:ASN:H	2:A:105:ARG:CG	2.23	0.52
2:A:115:ILE:CA	2:A:118:VAL:HG12	2.39	0.52
2:A:139:HIS:O	2:A:171:ILE:HG13	2.09	0.52
2:A:426:ALA:HA	2:A:429:GLU:CD	2.29	0.52
3:K:22:VAL:CG2	3:K:333:ILE:HD12	2.40	0.52
3:K:26:ARG:HH22	3:K:30:LEU:HD12	1.75	0.52
3:K:64:LYS:HD2	3:K:65:THR:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:143:ILE:CG2	3:K:207:LYS:HZ1	2.22	0.52
3:K:213:ILE:HG23	3:K:214:LEU:N	2.24	0.52
3:K:322:ASP:CA	3:K:326:GLY:HA3	2.39	0.52
1:B:6:HIS:C	1:B:7:ILE:HD12	2.30	0.52
1:B:232:THR:OG1	1:B:270:PHE:HB2	2.10	0.52
1:B:328:GLU:HG2	1:B:332:ASN:ND2	2.25	0.52
1:B:424:GLN:N	3:K:308:HIS:CB	2.70	0.52
2:A:9:VAL:HG12	2:A:139:HIS:CB	2.38	0.52
2:A:69:ASP:CG	2:A:75:ILE:HG22	2.30	0.52
2:A:103:TYR:HA	2:A:144:GLY:HA3	1.90	0.52
2:A:104:ALA:HB1	2:A:411:GLU:CG	2.33	0.52
2:A:181:VAL:O	2:A:184:PRO:HD2	2.09	0.52
2:A:320:ARG:HB3	2:A:373:ARG:NH2	2.25	0.52
3:K:19:ILE:HG12	3:K:331:SER:HB2	1.92	0.52
3:K:21:VAL:HG21	3:K:334:ALA:CB	2.39	0.52
3:K:109:THR:HA	3:K:337:SER:CB	2.34	0.52
1:B:131:GLN:HG3	1:B:251:ARG:HH11	1.73	0.52
1:B:186:THR:HG23	1:B:187:LEU:N	2.23	0.52
2:A:21:TRP:CE3	2:A:24:TYR:CD2	2.97	0.52
2:A:74:VAL:HA	2:A:77:GLU:OE2	2.10	0.52
3:K:20:GLN:HG2	3:K:68:PHE:HD2	1.74	0.52
3:K:51:SER:HB3	3:K:65:THR:OG1	2.10	0.52
3:K:210:VAL:C	3:K:213:ILE:HG22	2.30	0.52
3:K:266:LEU:HD12	3:K:292:LEU:HD21	1.91	0.52
1:B:8:GLN:HB3	1:B:13:GLY:O	2.10	0.52
1:B:36:TYR:CZ	1:B:38:GLY:HA3	2.44	0.52
1:B:262:ARG:HD2	3:K:313:GLU:OE2	2.10	0.52
2:A:45:GLY:HA2	2:A:61:HIS:CE1	2.45	0.52
2:A:140:SER:HA	2:A:171:ILE:CG1	2.40	0.52
2:A:142:GLY:HA2	2:A:183:GLU:CB	2.40	0.52
2:A:267:PHE:HZ	2:A:388:TRP:CZ2	2.28	0.52
3:K:117:GLY:HA3	3:K:133:ALA:HA	1.91	0.52
3:K:128:GLU:HB3	3:K:137:PRO:O	2.09	0.52
3:K:184:MET:HE1	3:K:194:VAL:CB	2.39	0.52
1:B:6:HIS:O	1:B:63:ALA:HB1	2.10	0.52
1:B:8:GLN:CG	1:B:17:GLY:HA3	2.27	0.52
1:B:137:HIS:CE1	1:B:168:SER:HB3	2.44	0.52
1:B:170:VAL:HG13	1:B:171:PRO:HD2	1.91	0.52
1:B:310:TYR:HB2	1:B:313:VAL:CG2	2.40	0.52
1:B:356:ILE:O	1:B:356:ILE:HG12	2.10	0.52
1:B:380:ARG:O	1:B:383:GLU:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:385:PHE:HA	1:B:388:MET:HG3	1.92	0.52
2:A:14:VAL:HG11	2:A:74:VAL:HG13	1.92	0.52
2:A:30:ILE:N	2:A:30:ILE:HD12	2.25	0.52
2:A:133:GLN:HB3	2:A:164:LYS:CG	2.39	0.52
2:A:138:PHE:CD2	2:A:169:PHE:HB2	2.45	0.52
2:A:225:THR:HG22	2:A:229:ARG:NE	2.25	0.52
3:K:111:LYS:CD	3:K:266:LEU:HD23	2.39	0.52
3:K:163:ILE:HG23	3:K:166:GLU:HA	1.91	0.52
3:K:318:ARG:HA	3:K:321:GLN:NE2	2.24	0.52
3:K:321:GLN:O	3:K:326:GLY:HA3	2.10	0.52
1:B:132:GLY:HA2	1:B:162:ARG:CA	2.40	0.52
1:B:132:GLY:CA	1:B:163:ILE:H	2.21	0.52
1:B:147:MET:O	1:B:151:LEU:HD22	2.10	0.52
2:A:323:VAL:H	2:A:355:ILE:HG13	1.74	0.52
3:K:22:VAL:CB	3:K:333:ILE:HD12	2.40	0.52
3:K:87:CYS:CB	3:K:88:PRO:HD3	2.36	0.52
3:K:192:ARG:HB2	3:K:327:ARG:HH11	1.75	0.52
3:K:210:VAL:HG12	3:K:214:LEU:HG	1.91	0.52
3:K:318:ARG:HH21	3:K:322:ASP:CG	2.12	0.52
1:B:9:ALA:O	1:B:13:GLY:HA3	2.09	0.51
2:A:8:HIS:CE1	2:A:17:GLY:HA2	2.46	0.51
2:A:237:SER:HA	2:A:320:ARG:NH1	2.25	0.51
3:K:40:ILE:HG13	3:K:52:VAL:CG1	2.30	0.51
3:K:144:PHE:CB	3:K:207:LYS:HB3	2.34	0.51
3:K:161:LEU:HD23	3:K:238:VAL:CG2	2.40	0.51
3:K:190:ASN:HD22	3:K:195:ILE:HD12	1.75	0.51
1:B:18:ALA:HB2	1:B:76:VAL:HG12	1.92	0.51
1:B:137:HIS:HE1	1:B:192:LEU:HD11	1.76	0.51
1:B:139:LEU:HD12	1:B:140:GLY:HA2	1.91	0.51
1:B:211:CYS:CB	1:B:225:LEU:HD21	2.41	0.51
1:B:212:PHE:HE2	1:B:220:PRO:HD3	1.75	0.51
1:B:292:GLN:CG	1:B:298:ASN:HB2	2.23	0.51
1:B:314:ALA:C	1:B:368:ILE:HB	2.31	0.51
2:A:115:ILE:HD13	2:A:115:ILE:C	2.29	0.51
3:K:28:PHE:HB3	3:K:33:ARG:CZ	2.40	0.51
3:K:190:ASN:CB	3:K:195:ILE:HG13	2.29	0.51
3:K:199:LEU:HD22	3:K:201:GLU:OE2	2.09	0.51
1:B:4:ILE:HG23	1:B:133:PHE:HA	1.90	0.51
1:B:21:TRP:HE1	1:B:61:PRO:HG3	1.73	0.51
1:B:85:PHE:CD1	1:B:90:PHE:CE2	2.98	0.51
1:B:241:ARG:HD2	1:B:242:PHE:CE2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:404:ASP:HB2	1:B:407:GLU:H	1.76	0.51
2:A:35:GLN:HG3	2:A:35:GLN:O	2.10	0.51
2:A:124:LYS:HD2	2:A:124:LYS:C	2.30	0.51
2:A:221:ARG:HG3	2:A:222:PRO:HA	1.91	0.51
2:A:250:VAL:HG21	2:A:255:PHE:CE1	2.46	0.51
2:A:267:PHE:HZ	2:A:388:TRP:HZ2	1.55	0.51
2:A:395:PHE:CE2	2:A:418:PHE:CE2	2.98	0.51
3:K:78:GLN:O	3:K:82:TYR:HB3	2.11	0.51
3:K:104:TYR:CZ	3:K:349:THR:HG23	2.45	0.51
3:K:164:TYR:HE2	3:K:235:SER:HG	1.57	0.51
1:B:5:VAL:HG13	1:B:123:GLU:HG2	1.90	0.51
1:B:62:ARG:HH22	1:B:126:SER:HB2	1.76	0.51
1:B:100:ASN:HB3	1:B:103:LYS:CB	2.18	0.51
1:B:166:THR:HG22	1:B:167:PHE:N	2.25	0.51
1:B:258:VAL:HG23	1:B:258:VAL:O	2.10	0.51
1:B:322:SER:HB3	2:A:220:GLU:OE2	2.10	0.51
1:B:412:GLU:HA	1:B:412:GLU:OE2	2.10	0.51
2:A:30:ILE:HA	2:A:36:MET:HB3	1.92	0.51
2:A:70:LEU:HD22	2:A:145:THR:HG21	1.92	0.51
3:K:159:SER:HB2	3:K:199:LEU:CD1	2.39	0.51
3:K:170:ASP:H	3:K:178:VAL:HB	1.76	0.51
1:B:9:ALA:HB3	1:B:137:HIS:HB3	1.91	0.51
1:B:174:LYS:HA	1:B:380:ARG:NH1	2.25	0.51
1:B:289:LEU:HD22	1:B:365:ALA:CB	2.40	0.51
1:B:345:ILE:HD11	2:A:398:MET:HE2	1.92	0.51
1:B:390:ARG:NH2	1:B:391:ARG:HA	2.25	0.51
2:A:233:GLN:HG3	2:A:363:VAL:HG11	1.92	0.51
2:A:402:ARG:NH2	2:A:405:VAL:HG22	2.25	0.51
3:K:23:VAL:O	3:K:72:PHE:HB2	2.11	0.51
3:K:106:GLN:HB3	3:K:342:ASN:HD22	1.75	0.51
3:K:111:LYS:HA	3:K:335:THR:HG23	1.90	0.51
3:K:170:ASP:N	3:K:178:VAL:HA	2.20	0.51
1:B:149:THR:HG21	1:B:191:GLN:CG	2.39	0.51
1:B:167:PHE:CE1	1:B:200:TYR:CD1	2.99	0.51
1:B:274:THR:HG22	1:B:279:GLN:HB2	1.91	0.51
1:B:416:ASN:HA	1:B:419:VAL:HG12	1.93	0.51
3:K:82:TYR:HE2	3:K:138:ARG:HB2	1.74	0.51
3:K:185:PHE:CZ	3:K:187:ASP:HA	2.45	0.51
3:K:212:GLN:HG2	3:K:213:ILE:N	2.25	0.51
1:B:66:VAL:HG13	1:B:66:VAL:O	2.11	0.51
1:B:116:VAL:HG11	1:B:155:ILE:CD1	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:172:SER:CB	1:B:204:ASN:HB3	2.41	0.51
1:B:180:VAL:CG1	1:B:393:ALA:HB1	2.38	0.51
1:B:310:TYR:HB2	1:B:340:TYR:O	2.10	0.51
2:A:101:ASN:HB2	2:A:105:ARG:HH11	1.75	0.51
2:A:205:ASP:OD2	2:A:208:ALA:HB2	2.11	0.51
2:A:368:LEU:H	2:A:368:LEU:CD2	2.23	0.51
3:K:43:CYS:HB2	3:K:73:GLY:C	2.30	0.51
3:K:44:ASP:HB3	3:K:46:VAL:HG22	1.92	0.51
3:K:105:GLY:HA3	3:K:335:THR:O	2.11	0.51
3:K:155:SER:OG	3:K:244:HIS:HB2	2.11	0.51
2:A:41:THR:HG22	2:A:42:ILE:H	1.75	0.51
2:A:124:LYS:HZ2	2:A:125:LEU:HB2	1.75	0.51
2:A:208:ALA:HB1	2:A:302:MET:O	2.10	0.51
2:A:425:MET:HE3	2:A:428:LEU:HB2	1.93	0.51
3:K:48:LYS:HG2	3:K:70:MET:CE	2.41	0.51
3:K:82:TYR:OH	3:K:131:PRO:HA	2.11	0.51
3:K:107:THR:HG23	7:K:601:ANP:O2G	2.11	0.51
3:K:137:PRO:HA	3:K:140:LEU:HD12	1.93	0.51
3:K:358:ASN:HD21	3:K:359:ILE:HG23	1.71	0.51
1:B:50:TYR:O	1:B:62:ARG:HD3	2.11	0.51
1:B:178:THR:HG21	1:B:180:VAL:CG2	2.38	0.51
1:B:385:PHE:HA	1:B:388:MET:CG	2.41	0.51
2:A:65:ALA:HB3	2:A:67:PHE:CE1	2.46	0.51
2:A:167:LEU:HD11	2:A:253:THR:HG22	1.93	0.51
2:A:188:ILE:HG12	2:A:391:LEU:HD21	1.93	0.51
2:A:287:SER:N	2:A:290:GLU:HG2	2.26	0.51
2:A:388:TRP:CZ3	2:A:432:TYR:CD1	2.99	0.51
3:K:83:ARG:HG3	3:K:83:ARG:HH11	1.76	0.51
1:B:172:SER:H	1:B:204:ASN:CB	2.24	0.51
1:B:318:ARG:CG	1:B:358:PRO:HG3	2.41	0.51
1:B:377:LEU:HD13	1:B:377:LEU:C	2.31	0.51
1:B:385:PHE:HB3	1:B:408:PHE:CZ	2.45	0.51
2:A:9:VAL:CG2	2:A:149:PHE:CD1	2.94	0.51
2:A:107:HIS:CD2	2:A:108:TYR:CD2	2.99	0.51
2:A:157:LEU:HB3	2:A:166:LYS:CD	2.37	0.51
2:A:279:GLU:CD	2:A:279:GLU:H	2.13	0.51
2:A:417:GLU:OE1	2:A:418:PHE:HA	2.10	0.51
3:K:92:GLU:OE2	3:K:363:PRO:HB3	2.11	0.51
3:K:342:ASN:O	3:K:346:THR:HG22	2.10	0.51
1:B:28:HIS:O	1:B:36:TYR:HE2	1.94	0.50
1:B:180:VAL:HG23	1:B:181:GLU:N	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:68:VAL:O	2:A:68:VAL:HG13	2.10	0.50
2:A:420:GLU:N	3:K:344:GLU:HG3	2.26	0.50
3:K:127:TRP:HB3	3:K:137:PRO:HB3	1.93	0.50
3:K:229:ASN:HB3	3:K:232:SER:H	1.75	0.50
3:K:299:ILE:HG13	3:K:300:THR:H	1.75	0.50
1:B:289:LEU:HD22	1:B:365:ALA:HB2	1.92	0.50
1:B:422:TYR:HB3	3:K:308:HIS:CE1	2.32	0.50
2:A:60:LYS:CG	2:A:62:VAL:HG13	2.38	0.50
2:A:84:ARG:HD2	2:A:84:ARG:C	2.32	0.50
3:K:21:VAL:HB	3:K:334:ALA:CB	2.41	0.50
3:K:130:ASP:HB3	3:K:132:LEU:CD2	2.41	0.50
1:B:315:ALA:N	1:B:349:VAL:HG23	2.27	0.50
1:B:342:VAL:CG1	1:B:348:ASN:HD21	2.24	0.50
2:A:167:LEU:HD21	2:A:253:THR:HG22	1.93	0.50
2:A:172:TYR:CE2	2:A:387:ALA:HB3	2.45	0.50
2:A:200:CYS:SG	2:A:202:PHE:HE2	2.35	0.50
2:A:213:CYS:HA	2:A:216:ASN:OD1	2.11	0.50
2:A:368:LEU:HD23	2:A:368:LEU:N	2.26	0.50
3:K:21:VAL:CG1	3:K:334:ALA:HB2	2.41	0.50
3:K:161:LEU:CB	3:K:168:LEU:HD12	2.41	0.50
3:K:229:ASN:HD22	3:K:232:SER:CB	2.16	0.50
3:K:229:ASN:HB2	3:K:232:SER:N	2.24	0.50
3:K:266:LEU:H	3:K:266:LEU:CD2	2.23	0.50
1:B:22:GLU:HA	1:B:22:GLU:OE2	2.11	0.50
3:K:33:ARG:NE	3:K:33:ARG:HA	2.26	0.50
1:B:4:ILE:HD13	1:B:130:LEU:HB3	1.91	0.50
1:B:10:GLY:HA2	1:B:144:GLY:CA	2.41	0.50
1:B:183:TYR:HA	1:B:388:MET:SD	2.51	0.50
1:B:285:THR:CB	1:B:288:GLU:HG3	2.34	0.50
2:A:16:ILE:CB	2:A:138:PHE:HD1	2.25	0.50
2:A:92:LEU:H	2:A:92:LEU:CD2	2.16	0.50
2:A:361:THR:HG22	2:A:362:VAL:N	2.27	0.50
2:A:370:LYS:HD2	2:A:370:LYS:C	2.31	0.50
2:A:433:GLU:OE1	2:A:433:GLU:HA	2.12	0.50
3:K:19:ILE:O	3:K:19:ILE:HG13	2.12	0.50
3:K:79:ILE:CG1	3:K:132:LEU:HA	2.40	0.50
3:K:93:VAL:HG11	3:K:243:ILE:HD12	1.93	0.50
3:K:316:LEU:HD23	3:K:316:LEU:H	1.75	0.50
3:K:352:TYR:O	3:K:355:ARG:HB2	2.12	0.50
1:B:32:PRO:O	1:B:58:LYS:HG2	2.12	0.50
1:B:309:ARG:CZ	1:B:427:ASP:HA	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:424:GLN:H	3:K:308:HIS:HA	1.76	0.50
2:A:76:ASP:C	2:A:79:ARG:HG3	2.32	0.50
2:A:79:ARG:HA	2:A:84:ARG:CG	2.40	0.50
2:A:104:ALA:HA	2:A:107:HIS:HE1	1.75	0.50
2:A:259:LEU:HD23	2:A:268:PRO:HB3	1.94	0.50
2:A:273:ALA:HB1	2:A:274:PRO:HA	1.94	0.50
2:A:355:ILE:HG12	2:A:356:ASN:N	2.26	0.50
3:K:29:ASN:HB2	3:K:32:GLU:HB2	1.92	0.50
3:K:85:VAL:O	3:K:88:PRO:HD2	2.12	0.50
3:K:346:THR:HG23	3:K:347:LEU:N	2.25	0.50
1:B:2:ARG:O	1:B:2:ARG:HG3	2.11	0.50
1:B:282:ARG:HG2	1:B:282:ARG:NH1	2.26	0.50
1:B:353:VAL:HG22	1:B:354:CYS:O	2.12	0.50
1:B:377:LEU:HD13	1:B:381:ILE:CG1	2.41	0.50
2:A:87:PHE:HB3	2:A:91:GLN:NE2	2.26	0.50
2:A:117:LEU:HD13	2:A:121:ARG:HG2	1.94	0.50
2:A:417:GLU:HG3	2:A:418:PHE:N	2.26	0.50
3:K:40:ILE:HG23	3:K:340:SER:HB2	1.93	0.50
3:K:119:ARG:CZ	3:K:127:TRP:H	2.23	0.50
3:K:213:ILE:HD13	3:K:213:ILE:C	2.32	0.50
3:K:234:ARG:NH1	3:K:267:ALA:HB1	2.26	0.50
1:B:20:PHE:CZ	1:B:24:ILE:HD11	2.47	0.50
1:B:224:ASP:O	1:B:228:LEU:HD23	2.12	0.50
2:A:12:ALA:O	2:A:16:ILE:HG12	2.12	0.50
2:A:157:LEU:CB	2:A:166:LYS:HE2	2.42	0.50
2:A:188:ILE:HD12	2:A:425:MET:HG2	1.93	0.50
2:A:275:VAL:N	2:A:300:ASN:HD21	2.09	0.50
2:A:288:VAL:CG1	2:A:327:ASP:HA	2.41	0.50
3:K:83:ARG:HE	3:K:131:PRO:HB3	1.77	0.50
3:K:135:ILE:HG22	3:K:139:THR:CG2	2.42	0.50
1:B:198:GLU:HA	1:B:264:HIS:HA	1.94	0.50
1:B:211:CYS:SG	1:B:220:PRO:HB3	2.52	0.50
1:B:367:PHE:HD2	1:B:368:ILE:N	2.09	0.50
1:B:397:TRP:CD1	1:B:401:GLU:CG	2.95	0.50
2:A:16:ILE:HB	2:A:138:PHE:HD1	1.77	0.50
2:A:21:TRP:CE3	2:A:24:TYR:CE2	3.00	0.50
2:A:64:ARG:HE	2:A:121:ARG:HH22	1.60	0.50
2:A:114:ILE:N	2:A:114:ILE:HD12	2.27	0.50
3:K:82:TYR:HB2	3:K:135:ILE:HD12	1.93	0.50
3:K:97:TYR:HA	3:K:365:VAL:HA	1.93	0.50
3:K:104:TYR:HE1	3:K:352:TYR:CB	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:161:LEU:CD2	3:K:238:VAL:HB	2.41	0.50
3:K:164:TYR:HE2	3:K:235:SER:OG	1.94	0.50
1:B:47:ILE:CG2	1:B:59:TYR:CD1	2.95	0.49
2:A:168:GLU:HG3	2:A:198:SER:HB3	1.94	0.49
2:A:255:PHE:HE2	2:A:352:LYS:HB2	1.77	0.49
2:A:272:TYR:HA	2:A:375:VAL:O	2.11	0.49
2:A:285:GLN:HG2	2:A:286:LEU:N	2.27	0.49
3:K:124:GLU:C	3:K:125:TYR:HD2	2.15	0.49
3:K:182:LEU:HD12	3:K:182:LEU:N	2.27	0.49
1:B:36:TYR:HD1	1:B:44:LEU:HB2	1.71	0.49
1:B:173:PRO:HB2	1:B:380:ARG:CG	2.41	0.49
1:B:202:ILE:HG13	1:B:207:LEU:HD22	1.94	0.49
1:B:247:ASN:H	2:A:11:GLN:NE2	2.10	0.49
1:B:309:ARG:HD3	1:B:426:GLN:HG2	1.91	0.49
1:B:322:SER:HB2	1:B:325:GLU:H	1.76	0.49
2:A:157:LEU:CB	2:A:166:LYS:HD2	2.39	0.49
3:K:86:VAL:HG12	3:K:87:CYS:N	2.27	0.49
3:K:100:THR:HG22	3:K:101:ILE:N	2.27	0.49
3:K:127:TRP:CE2	3:K:137:PRO:HG3	2.47	0.49
1:B:202:ILE:HG13	1:B:207:LEU:CD2	2.42	0.49
1:B:404:ASP:O	1:B:407:GLU:HB3	2.12	0.49
2:A:70:LEU:H	2:A:70:LEU:CD1	2.26	0.49
2:A:124:LYS:HD2	2:A:125:LEU:N	2.27	0.49
2:A:213:CYS:CB	2:A:230:LEU:HD12	2.34	0.49
2:A:222:PRO:HB2	2:A:223:THR:CG2	2.42	0.49
2:A:288:VAL:HG21	2:A:324:VAL:HG21	1.93	0.49
2:A:398:MET:CE	2:A:403:ALA:HB3	2.42	0.49
3:K:132:LEU:HD22	3:K:132:LEU:N	2.16	0.49
3:K:180:GLU:HG2	3:K:181:ARG:O	2.12	0.49
3:K:185:PHE:CZ	3:K:197:LYS:CD	2.96	0.49
3:K:232:SER:HB2	7:K:601:ANP:PG	2.53	0.49
1:B:11:GLN:HE21	1:B:15:GLN:HG3	1.75	0.49
1:B:121:ARG:HA	1:B:121:ARG:CZ	2.43	0.49
1:B:202:ILE:CG2	1:B:207:LEU:HD21	2.42	0.49
1:B:241:ARG:HD2	1:B:242:PHE:HE2	1.77	0.49
1:B:293:MET:HE1	1:B:367:PHE:N	2.27	0.49
1:B:394:PHE:CE1	1:B:397:TRP:CZ3	3.00	0.49
2:A:71:GLU:HG3	2:A:73:THR:CG2	2.42	0.49
2:A:161:TYR:CD2	2:A:166:LYS:CG	2.96	0.49
2:A:188:ILE:CG1	2:A:395:PHE:CE2	2.95	0.49
2:A:214:ARG:HH21	2:A:218:ASP:HA	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:313:MET:CE	2:A:436:GLY:HA3	2.40	0.49
3:K:86:VAL:O	3:K:139:THR:HG22	2.12	0.49
1:B:286:VAL:CG2	1:B:287:PRO:HD3	2.39	0.49
2:A:3:GLU:HB3	2:A:51:THR:O	2.12	0.49
2:A:319:TYR:CD2	2:A:375:VAL:CG1	2.95	0.49
1:B:21:TRP:CE2	1:B:61:PRO:HG3	2.47	0.49
1:B:238:THR:CG2	1:B:242:PHE:CE1	2.96	0.49
1:B:323:MET:HG2	2:A:210:TYR:CE2	2.46	0.49
2:A:405:VAL:CG2	3:K:293:LEU:HG	2.42	0.49
3:K:51:SER:HB3	3:K:65:THR:HA	1.94	0.49
3:K:107:THR:HG22	3:K:229:ASN:HD21	1.77	0.49
1:B:254:ALA:CA	1:B:257:MET:HE2	2.35	0.49
1:B:344:TRP:HB3	2:A:401:LYS:NZ	2.27	0.49
1:B:350:LYS:HD2	1:B:350:LYS:C	2.32	0.49
2:A:100:ALA:CB	2:A:101:ASN:HA	2.37	0.49
2:A:182:VAL:CG1	2:A:407:TRP:HZ3	2.25	0.49
2:A:186:ASN:O	2:A:190:THR:HG23	2.13	0.49
2:A:200:CYS:HB3	2:A:256:GLN:OE1	2.13	0.49
2:A:217:LEU:CD1	2:A:219:ILE:HG13	2.42	0.49
2:A:217:LEU:HD11	2:A:219:ILE:HD12	1.94	0.49
2:A:405:VAL:HG21	3:K:293:LEU:HD12	1.73	0.49
3:K:39:SER:HB2	3:K:41:VAL:O	2.12	0.49
1:B:207:LEU:HD12	1:B:225:LEU:HD12	1.94	0.49
1:B:240:LEU:CG	1:B:250:LEU:HB2	2.34	0.49
1:B:274:THR:OG1	1:B:278:SER:HB3	2.12	0.49
2:A:399:TYR:HA	2:A:402:ARG:NH1	2.26	0.49
2:A:409:VAL:CG2	3:K:290:GLN:HA	2.42	0.49
3:K:40:ILE:CG1	3:K:52:VAL:HG12	2.33	0.49
3:K:109:THR:HG22	3:K:110:GLY:C	2.32	0.49
1:B:259:PRO:HB2	1:B:260:PHE:CD1	2.47	0.49
1:B:394:PHE:CE1	1:B:397:TRP:CE3	3.00	0.49
2:A:117:LEU:HD13	2:A:117:LEU:C	2.33	0.49
2:A:286:LEU:HB3	2:A:290:GLU:CG	2.43	0.49
3:K:47:ARG:HB3	3:K:49:GLU:CG	2.34	0.49
3:K:86:VAL:CG2	3:K:135:ILE:HG23	2.43	0.49
3:K:212:GLN:HB2	3:K:216:LYS:NZ	2.27	0.49
3:K:267:ALA:HB1	3:K:270:GLU:OE1	2.13	0.49
1:B:319:GLY:HA2	1:B:357:PRO:CB	2.42	0.49
1:B:345:ILE:HG22	1:B:346:PRO:O	2.12	0.49
1:B:378:PHE:HE1	1:B:419:VAL:HB	1.76	0.49
2:A:298:PRO:HA	2:A:301:GLN:OE1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:53:ARG:HB2	3:K:56:GLY:HA2	1.94	0.49
3:K:123:GLU:O	3:K:123:GLU:HG2	2.13	0.49
1:B:60:VAL:HG23	1:B:60:VAL:O	2.13	0.48
1:B:83:GLN:HG2	1:B:84:ILE:N	2.27	0.48
1:B:266:PHE:CE2	1:B:368:ILE:HA	2.48	0.48
1:B:266:PHE:HZ	1:B:368:ILE:HA	1.75	0.48
2:A:161:TYR:HE2	2:A:166:LYS:HG2	1.76	0.48
2:A:323:VAL:HG12	2:A:327:ASP:HB3	1.94	0.48
3:K:110:GLY:HA2	3:K:113:PHE:HB2	1.95	0.48
3:K:266:LEU:HD12	3:K:292:LEU:HG	1.95	0.48
1:B:152:ILE:HG23	1:B:164:MET:HB3	1.95	0.48
1:B:276:ARG:HD3	1:B:276:ARG:N	2.27	0.48
2:A:65:ALA:CB	2:A:67:PHE:CE1	2.96	0.48
2:A:69:ASP:OD2	2:A:75:ILE:HA	2.13	0.48
2:A:242:LEU:HD23	2:A:242:LEU:C	2.33	0.48
3:K:113:PHE:CD2	3:K:231:TYR:HE2	2.31	0.48
3:K:130:ASP:HB3	3:K:132:LEU:HD23	1.93	0.48
3:K:192:ARG:HB2	3:K:327:ARG:NH1	2.28	0.48
3:K:237:SER:HB3	3:K:265:ASP:HB3	1.95	0.48
3:K:267:ALA:HB3	3:K:288:ILE:HG23	1.90	0.48
3:K:313:GLU:HG3	3:K:314:SER:N	2.28	0.48
3:K:351:GLU:CG	3:K:352:TYR:CD2	2.96	0.48
1:B:12:CYS:SG	4:B:501:G2P:C8	3.01	0.48
1:B:50:TYR:CB	1:B:241:ARG:HH22	2.26	0.48
1:B:415:MET:O	1:B:419:VAL:HG12	2.12	0.48
2:A:2:ARG:HD2	2:A:133:GLN:N	2.18	0.48
2:A:64:ARG:HA	2:A:91:GLN:HE22	1.78	0.48
2:A:174:ALA:HA	2:A:205:ASP:OD1	2.13	0.48
2:A:346:TRP:CE3	2:A:346:TRP:CA	2.96	0.48
3:K:17:LYS:CD	3:K:362:LYS:HA	2.43	0.48
3:K:89:ILE:HB	3:K:139:THR:CG2	2.43	0.48
3:K:96:GLY:HA2	3:K:259:GLY:HA2	1.95	0.48
3:K:192:ARG:HH22	3:K:362:LYS:HE3	1.78	0.48
3:K:194:VAL:CG1	3:K:312:ARG:HD3	2.42	0.48
3:K:311:TYR:HB3	3:K:321:GLN:NE2	2.29	0.48
1:B:154:LYS:HA	1:B:154:LYS:HZ2	1.78	0.48
2:A:83:TYR:CB	2:A:87:PHE:CZ	2.96	0.48
3:K:31:ALA:CA	3:K:34:LYS:HG2	2.39	0.48
3:K:128:GLU:CG	3:K:211:TYR:CE1	2.95	0.48
3:K:195:ILE:HG22	3:K:196:ILE:N	2.28	0.48
1:B:85:PHE:CG	1:B:90:PHE:CZ	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:174:LYS:HE3	1:B:208:TYR:HD1	1.78	0.48
1:B:191:GLN:OE1	1:B:191:GLN:HA	2.14	0.48
1:B:246:LEU:HD21	6:A:501:GTP:C8	2.47	0.48
1:B:374:ILE:O	1:B:377:LEU:HB3	2.14	0.48
2:A:119:LEU:O	2:A:123:ARG:HG2	2.14	0.48
2:A:274:PRO:HD2	2:A:373:ARG:O	2.12	0.48
3:K:19:ILE:CG1	3:K:331:SER:HB2	2.43	0.48
3:K:112:THR:HG23	3:K:113:PHE:N	2.29	0.48
3:K:321:GLN:HG2	3:K:322:ASP:H	1.78	0.48
1:B:101:TRP:CH2	1:B:105:HIS:CD2	3.00	0.48
1:B:271:ALA:HA	1:B:272:PRO:C	2.33	0.48
2:A:102:ASN:N	2:A:105:ARG:HG2	2.27	0.48
2:A:321:GLY:HA2	2:A:358:GLN:O	2.14	0.48
3:K:45:PRO:HD3	3:K:73:GLY:CA	2.35	0.48
3:K:95:MET:HB2	3:K:97:TYR:H	1.78	0.48
3:K:131:PRO:CD	3:K:132:LEU:HD22	2.30	0.48
3:K:142:GLN:HA	3:K:145:GLU:OE1	2.13	0.48
3:K:158:VAL:HG23	3:K:158:VAL:O	2.13	0.48
1:B:100:ASN:C	1:B:143:THR:HG22	2.34	0.48
2:A:435:VAL:HG13	2:A:436:GLY:N	2.28	0.48
3:K:130:ASP:HB2	3:K:133:ALA:H	1.78	0.48
1:B:58:LYS:NZ	1:B:58:LYS:HB3	2.28	0.48
1:B:213:ARG:HG3	1:B:213:ARG:NH1	2.29	0.48
1:B:424:GLN:N	3:K:308:HIS:HB3	2.28	0.48
2:A:3:GLU:HG2	2:A:50:ASN:C	2.33	0.48
2:A:64:ARG:NE	2:A:121:ARG:HH22	2.12	0.48
2:A:140:SER:HA	2:A:171:ILE:HG13	1.95	0.48
2:A:164:LYS:HD2	2:A:165:SER:O	2.14	0.48
2:A:189:LEU:N	2:A:189:LEU:HD12	2.29	0.48
2:A:276:ILE:HG23	2:A:276:ILE:O	2.14	0.48
2:A:373:ARG:NH2	2:A:374:ALA:H	2.11	0.48
3:K:40:ILE:HB	3:K:52:VAL:HB	1.95	0.48
3:K:225:ALA:O	3:K:281:ARG:HD3	2.14	0.48
1:B:216:LYS:HD2	1:B:276:ARG:NH1	2.28	0.48
1:B:269:GLY:HA3	1:B:293:MET:HE1	1.95	0.48
2:A:185:TYR:HD1	2:A:395:PHE:HZ	1.62	0.48
2:A:298:PRO:HG3	2:A:307:PRO:CD	2.43	0.48
3:K:77:LYS:CD	3:K:79:ILE:HD12	2.42	0.48
3:K:85:VAL:HG12	3:K:89:ILE:CD1	2.29	0.48
3:K:312:ARG:O	3:K:318:ARG:HB2	2.12	0.48
3:K:329:ARG:CB	3:K:363:PRO:HA	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:343:LEU:HA	3:K:346:THR:HG22	1.95	0.48
1:B:131:GLN:HA	1:B:251:ARG:HH12	1.79	0.48
1:B:183:TYR:HA	1:B:388:MET:CE	2.44	0.48
2:A:64:ARG:HD3	2:A:124:LYS:CE	2.43	0.48
2:A:107:HIS:NE2	2:A:413:MET:HE1	2.29	0.48
2:A:272:TYR:CD1	2:A:273:ALA:N	2.82	0.48
2:A:394:LYS:HD3	2:A:394:LYS:C	2.34	0.48
3:K:110:GLY:HA2	7:K:601:ANP:O2A	2.13	0.48
3:K:163:ILE:HD11	3:K:238:VAL:HG21	1.96	0.48
3:K:225:ALA:N	3:K:281:ARG:HE	2.12	0.48
1:B:9:ALA:HA	1:B:66:VAL:HB	1.96	0.47
1:B:291:GLN:HE22	1:B:332:ASN:HD22	1.61	0.47
2:A:182:VAL:CG1	2:A:407:TRP:CZ3	2.95	0.47
2:A:210:TYR:OH	2:A:214:ARG:HG3	2.14	0.47
2:A:372:GLN:HA	2:A:372:GLN:NE2	2.28	0.47
1:B:152:ILE:HG23	1:B:164:MET:SD	2.53	0.47
1:B:267:MET:HG3	1:B:370:ASN:CA	2.41	0.47
1:B:309:ARG:C	1:B:310:TYR:HD1	2.17	0.47
3:K:41:VAL:HG23	3:K:52:VAL:HG13	1.95	0.47
3:K:49:GLU:CA	3:K:71:VAL:HG21	2.38	0.47
3:K:93:VAL:HG22	3:K:99:CYS:SG	2.55	0.47
3:K:107:THR:HG22	3:K:108:GLY:N	2.29	0.47
3:K:184:MET:HE2	3:K:318:ARG:HG3	1.95	0.47
3:K:187:ASP:CB	3:K:195:ILE:HB	2.36	0.47
3:K:246:LYS:HE2	3:K:254:GLU:OE1	2.14	0.47
1:B:416:ASN:O	1:B:419:VAL:HG12	2.14	0.47
2:A:117:LEU:O	2:A:121:ARG:HG2	2.13	0.47
3:K:34:LYS:HZ3	3:K:34:LYS:N	2.13	0.47
3:K:81:VAL:HG23	3:K:82:TYR:N	2.28	0.47
3:K:126:THR:HG23	3:K:129:GLU:H	1.78	0.47
1:B:34:GLY:CA	1:B:58:LYS:HA	2.45	0.47
1:B:167:PHE:CE1	1:B:200:TYR:CG	3.00	0.47
1:B:186:THR:CB	1:B:385:PHE:CE1	2.97	0.47
1:B:321:MET:CE	1:B:326:VAL:HG22	2.43	0.47
1:B:327:ASP:HA	1:B:330:MET:CE	2.45	0.47
1:B:397:TRP:CD1	1:B:401:GLU:HG3	2.49	0.47
2:A:82:THR:HA	2:A:85:GLN:OE1	2.14	0.47
2:A:250:VAL:HG21	2:A:255:PHE:CG	2.49	0.47
2:A:301:GLN:NE2	2:A:305:CYS:HB2	2.29	0.47
3:K:87:CYS:O	3:K:90:LEU:HD13	2.13	0.47
3:K:184:MET:CE	3:K:318:ARG:HG3	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:266:LEU:HD12	3:K:292:LEU:CD2	2.44	0.47
1:B:58:LYS:HZ1	1:B:84:ILE:HA	1.78	0.47
1:B:73:MET:SD	1:B:90:PHE:CG	3.08	0.47
1:B:139:LEU:CD2	1:B:170:VAL:HA	2.24	0.47
1:B:154:LYS:HZ3	1:B:154:LYS:HB2	1.80	0.47
1:B:202:ILE:HG23	1:B:202:ILE:O	2.14	0.47
2:A:4:CYS:SG	2:A:132:LEU:HD11	2.54	0.47
2:A:324:VAL:HG23	2:A:327:ASP:N	2.27	0.47
3:K:21:VAL:CG2	3:K:334:ALA:HB3	2.44	0.47
3:K:45:PRO:HB3	3:K:72:PHE:CD1	2.50	0.47
3:K:118:GLU:N	3:K:133:ALA:HA	2.29	0.47
3:K:171:LEU:CD2	3:K:171:LEU:H	2.28	0.47
3:K:347:LEU:HA	3:K:350:LEU:HG	1.95	0.47
3:K:351:GLU:HG2	3:K:352:TYR:N	2.29	0.47
1:B:263:LEU:HD21	1:B:370:ASN:HD22	1.79	0.47
1:B:267:MET:SD	1:B:374:ILE:HG21	2.54	0.47
2:A:93:ILE:HG21	2:A:117:LEU:HD11	1.91	0.47
2:A:222:PRO:CB	2:A:223:THR:HG22	2.45	0.47
2:A:279:GLU:HA	2:A:282:TYR:CD2	2.49	0.47
3:K:29:ASN:CB	3:K:32:GLU:H	2.24	0.47
3:K:40:ILE:HD13	3:K:343:LEU:HD13	1.95	0.47
3:K:136:ILE:CD1	3:K:263:LEU:HD22	2.45	0.47
3:K:185:PHE:HE2	3:K:188:PRO:CD	2.27	0.47
1:B:1:MET:CB	1:B:127:CYS:HB2	2.45	0.47
1:B:64:ILE:HG23	1:B:64:ILE:O	2.15	0.47
1:B:64:ILE:HG13	1:B:91:VAL:HG13	1.97	0.47
1:B:73:MET:HE3	1:B:91:VAL:O	2.14	0.47
1:B:262:ARG:HD3	3:K:313:GLU:HB2	1.97	0.47
1:B:270:PHE:CD2	1:B:271:ALA:N	2.83	0.47
1:B:271:ALA:HB1	1:B:272:PRO:CA	2.40	0.47
1:B:276:ARG:CD	1:B:276:ARG:H	2.27	0.47
1:B:285:THR:HG22	1:B:286:VAL:H	1.78	0.47
1:B:316:VAL:C	1:B:318:ARG:HH12	2.18	0.47
2:A:7:ILE:HD13	2:A:66:VAL:HB	1.95	0.47
2:A:76:ASP:HA	2:A:79:ARG:HD3	1.96	0.47
2:A:79:ARG:NH2	2:A:80:THR:HA	2.30	0.47
2:A:81:GLY:HA3	2:A:83:TYR:CE1	2.49	0.47
2:A:115:ILE:O	2:A:118:VAL:HG12	2.14	0.47
2:A:151:SER:HA	2:A:194:THR:HG22	1.97	0.47
2:A:182:VAL:O	2:A:185:TYR:HB2	2.14	0.47
2:A:188:ILE:HG22	2:A:421:ALA:CB	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:192:HIS:CE1	2:A:193:THR:HG23	2.49	0.47
2:A:201:ALA:H	2:A:267:PHE:CA	2.26	0.47
2:A:201:ALA:N	2:A:267:PHE:HB3	2.29	0.47
2:A:209:ILE:HB	2:A:302:MET:SD	2.54	0.47
2:A:303:VAL:HG23	2:A:305:CYS:SG	2.55	0.47
2:A:314:ALA:O	2:A:379:SER:HA	2.14	0.47
2:A:324:VAL:CG2	2:A:327:ASP:HB2	2.44	0.47
2:A:398:MET:HA	2:A:398:MET:CE	2.43	0.47
2:A:398:MET:HE1	2:A:403:ALA:HB3	1.96	0.47
2:A:406:HIS:CD2	2:A:407:TRP:HD1	2.33	0.47
2:A:414:GLU:CG	3:K:345:GLU:HG3	2.43	0.47
3:K:70:MET:SD	3:K:72:PHE:CE1	3.07	0.47
3:K:82:TYR:CE2	3:K:138:ARG:HB2	2.50	0.47
3:K:86:VAL:HG23	3:K:135:ILE:CA	2.40	0.47
3:K:117:GLY:HA3	3:K:133:ALA:C	2.35	0.47
3:K:161:LEU:HB3	3:K:238:VAL:CB	2.37	0.47
3:K:229:ASN:HB2	3:K:232:SER:HG	1.80	0.47
1:B:46:ARG:CB	1:B:241:ARG:HD3	2.38	0.47
1:B:47:ILE:HG22	1:B:59:TYR:HD1	1.76	0.47
1:B:211:CYS:HB2	1:B:225:LEU:HD21	1.95	0.47
1:B:253:LEU:HD13	1:B:253:LEU:N	2.28	0.47
1:B:424:GLN:CB	3:K:308:HIS:N	2.65	0.47
2:A:123:ARG:NE	2:A:123:ARG:HA	2.30	0.47
2:A:188:ILE:HG21	2:A:422:ARG:HA	1.97	0.47
2:A:288:VAL:O	2:A:291:ILE:HB	2.15	0.47
2:A:324:VAL:O	2:A:327:ASP:HB3	2.15	0.47
2:A:407:TRP:N	2:A:407:TRP:CD1	2.82	0.47
3:K:78:GLN:HB3	3:K:114:THR:CA	2.45	0.47
3:K:97:TYR:CD1	3:K:365:VAL:CG1	2.98	0.47
3:K:182:LEU:HD11	3:K:199:LEU:CD1	2.44	0.47
3:K:185:PHE:N	3:K:185:PHE:CD1	2.81	0.47
3:K:190:ASN:ND2	3:K:195:ILE:HD12	2.29	0.47
3:K:266:LEU:HD12	3:K:292:LEU:CG	2.44	0.47
3:K:280:LYS:HA	3:K:280:LYS:CE	2.44	0.47
3:K:321:GLN:HG2	3:K:322:ASP:N	2.30	0.47
1:B:167:PHE:CD2	1:B:233:MET:SD	3.08	0.47
1:B:200:TYR:CD1	1:B:200:TYR:N	2.83	0.47
2:A:1:MET:CE	2:A:50:ASN:HB2	2.45	0.47
2:A:84:ARG:HD2	2:A:85:GLN:N	2.29	0.47
2:A:88:HIS:O	2:A:91:GLN:HG3	2.15	0.47
2:A:164:LYS:HE3	2:A:253:THR:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:185:TYR:CD1	2:A:395:PHE:CZ	2.97	0.47
2:A:304:LYS:H	2:A:304:LYS:CD	2.22	0.47
2:A:401:LYS:CG	2:A:403:ALA:HB2	2.16	0.47
3:K:18:ASN:OD1	3:K:332:ILE:HG13	2.15	0.47
3:K:78:GLN:HB3	3:K:114:THR:HA	1.96	0.47
3:K:185:PHE:CE1	3:K:197:LYS:CG	2.95	0.47
1:B:242:PHE:CD2	1:B:242:PHE:N	2.83	0.47
1:B:314:ALA:CB	1:B:368:ILE:HB	2.43	0.47
2:A:138:PHE:CD2	2:A:139:HIS:N	2.83	0.47
3:K:171:LEU:HD12	3:K:220:LYS:O	2.15	0.47
3:K:199:LEU:HD23	3:K:200:GLU:C	2.35	0.47
3:K:292:LEU:HD12	3:K:292:LEU:N	2.30	0.47
1:B:11:GLN:CG	1:B:15:GLN:HE21	2.18	0.46
1:B:62:ARG:NH1	1:B:62:ARG:HG2	2.30	0.46
1:B:217:LEU:HD23	1:B:219:THR:O	2.14	0.46
1:B:287:PRO:O	1:B:291:GLN:HG2	2.16	0.46
1:B:313:VAL:CG1	1:B:349:VAL:HB	2.45	0.46
1:B:315:ALA:O	1:B:351:THR:HG23	2.15	0.46
2:A:182:VAL:HG12	2:A:407:TRP:CH2	2.50	0.46
2:A:200:CYS:HB2	2:A:268:PRO:CD	2.44	0.46
2:A:290:GLU:OE1	2:A:291:ILE:HA	2.15	0.46
2:A:417:GLU:CA	3:K:344:GLU:CB	2.92	0.46
3:K:59:ASP:HB2	3:K:62:SER:CB	2.35	0.46
3:K:93:VAL:HG11	3:K:243:ILE:CD1	2.45	0.46
3:K:182:LEU:HG	3:K:199:LEU:CA	2.45	0.46
3:K:266:LEU:HD23	3:K:266:LEU:N	2.25	0.46
1:B:167:PHE:CE1	1:B:200:TYR:CB	2.97	0.46
1:B:337:ASN:CB	1:B:340:TYR:H	2.28	0.46
1:B:343:GLU:HG2	1:B:429:THR:CB	2.43	0.46
2:A:174:ALA:HB2	2:A:205:ASP:OD2	2.15	0.46
2:A:333:ALA:HA	2:A:336:LYS:HE3	1.98	0.46
3:K:26:ARG:HG2	3:K:29:ASN:ND2	2.30	0.46
3:K:40:ILE:HD12	3:K:52:VAL:HG11	1.97	0.46
3:K:127:TRP:O	3:K:137:PRO:HB2	2.15	0.46
3:K:182:LEU:HB3	3:K:196:ILE:C	2.35	0.46
3:K:192:ARG:NE	3:K:327:ARG:HD3	2.31	0.46
3:K:322:ASP:O	3:K:326:GLY:HA3	2.15	0.46
3:K:344:GLU:HB3	3:K:345:GLU:OE2	2.15	0.46
1:B:15:GLN:O	1:B:19:LYS:HE2	2.14	0.46
1:B:181:GLU:HB3	1:B:182:PRO:CD	2.36	0.46
1:B:197:ASP:O	1:B:264:HIS:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:349:VAL:O	1:B:349:VAL:HG13	2.15	0.46
2:A:40:LYS:HD3	2:A:41:THR:N	2.29	0.46
2:A:83:TYR:CD1	2:A:83:TYR:N	2.82	0.46
2:A:214:ARG:HG2	2:A:220:GLU:CA	2.45	0.46
2:A:316:CYS:O	2:A:377:MET:HA	2.15	0.46
2:A:405:VAL:CG1	3:K:293:LEU:CB	2.90	0.46
2:A:417:GLU:HA	2:A:420:GLU:CD	2.36	0.46
3:K:160:LEU:H	3:K:170:ASP:CG	2.18	0.46
3:K:325:GLY:H	3:K:361:ASN:HA	1.81	0.46
1:B:105:HIS:CE1	1:B:150:LEU:HD22	2.51	0.46
1:B:130:LEU:CD1	1:B:133:PHE:CE2	2.95	0.46
2:A:172:TYR:CD2	2:A:203:MET:SD	3.08	0.46
2:A:210:TYR:HD1	2:A:227:LEU:CD1	2.28	0.46
3:K:20:GLN:HE21	3:K:21:VAL:H	1.62	0.46
3:K:97:TYR:CD1	3:K:365:VAL:N	2.84	0.46
3:K:100:THR:CG2	3:K:102:PHE:CE1	2.99	0.46
3:K:347:LEU:HA	3:K:350:LEU:CG	2.45	0.46
1:B:134:GLN:C	1:B:135:LEU:HD12	2.36	0.46
1:B:151:LEU:HD22	1:B:151:LEU:H	1.80	0.46
1:B:249:ASP:OD2	1:B:252:LYS:HB2	2.15	0.46
2:A:70:LEU:HD11	2:A:149:PHE:CZ	2.50	0.46
2:A:71:GLU:HG2	2:A:74:VAL:CG2	2.39	0.46
2:A:96:LYS:HE2	2:A:96:LYS:O	2.16	0.46
2:A:99:ALA:HB1	2:A:145:THR:HG21	1.98	0.46
2:A:242:LEU:HG	2:A:249:ASN:HD21	1.79	0.46
3:K:99:CYS:CB	3:K:261:LEU:HD13	2.46	0.46
3:K:192:ARG:NH2	3:K:362:LYS:HE3	2.30	0.46
1:B:81:PHE:HA	1:B:83:GLN:NE2	2.31	0.46
1:B:120:VAL:HG11	1:B:159:TYR:CZ	2.51	0.46
1:B:147:MET:HG2	1:B:148:GLY:N	2.30	0.46
1:B:193:VAL:HB	1:B:264:HIS:CD2	2.50	0.46
1:B:255:VAL:HG13	2:A:406:HIS:CE1	2.51	0.46
1:B:318:ARG:HG2	1:B:354:CYS:SG	2.55	0.46
1:B:390:ARG:HD3	1:B:390:ARG:C	2.36	0.46
2:A:205:ASP:CB	2:A:208:ALA:HB3	2.26	0.46
2:A:221:ARG:HG3	2:A:222:PRO:CA	2.45	0.46
2:A:234:ILE:HG12	2:A:272:TYR:HB2	1.97	0.46
2:A:406:HIS:CE1	2:A:407:TRP:CD1	3.03	0.46
3:K:65:THR:HG22	3:K:66:TYR:N	2.31	0.46
3:K:101:ILE:O	3:K:101:ILE:HG23	2.15	0.46
1:B:36:TYR:CE2	1:B:37:HIS:CD2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:186:THR:HB	1:B:385:PHE:CZ	2.51	0.46
1:B:424:GLN:OE1	3:K:308:HIS:O	2.34	0.46
2:A:153:LEU:CD1	2:A:157:LEU:HD23	2.45	0.46
2:A:298:PRO:HG3	2:A:307:PRO:HD3	1.96	0.46
2:A:402:ARG:NE	3:K:293:LEU:HD21	2.14	0.46
3:K:29:ASN:HB2	3:K:32:GLU:N	2.25	0.46
3:K:99:CYS:HA	3:K:329:ARG:O	2.16	0.46
3:K:117:GLY:HA3	3:K:133:ALA:CA	2.45	0.46
3:K:185:PHE:CE2	3:K:188:PRO:HD3	2.51	0.46
1:B:286:VAL:CB	1:B:287:PRO:HD3	2.46	0.46
2:A:55:GLU:OE1	2:A:55:GLU:HA	2.15	0.46
3:K:53:ARG:CA	3:K:63:ARG:HA	2.44	0.46
3:K:82:TYR:CG	3:K:83:ARG:N	2.83	0.46
3:K:110:GLY:CA	7:K:601:ANP:H8	2.46	0.46
3:K:329:ARG:HG3	3:K:363:PRO:CB	2.45	0.46
1:B:86:ARG:HB3	1:B:86:ARG:CZ	2.45	0.46
1:B:183:TYR:CD1	1:B:394:PHE:HB2	2.50	0.46
1:B:312:THR:O	1:B:369:GLY:HA3	2.15	0.46
1:B:370:ASN:HB2	1:B:422:TYR:OH	2.16	0.46
1:B:395:LEU:HD23	1:B:395:LEU:C	2.36	0.46
1:B:416:ASN:CA	1:B:419:VAL:HG12	2.45	0.46
2:A:3:GLU:CG	2:A:51:THR:HA	2.46	0.46
2:A:16:ILE:HG21	2:A:138:PHE:HD1	1.78	0.46
2:A:16:ILE:CG2	2:A:138:PHE:CD1	2.98	0.46
3:K:54:THR:OG1	3:K:64:LYS:HB2	2.14	0.46
3:K:106:GLN:CG	3:K:342:ASN:HD22	2.28	0.46
1:B:47:ILE:CG2	1:B:59:TYR:HD1	2.28	0.46
1:B:139:LEU:CD1	1:B:171:PRO:HD3	2.31	0.46
1:B:152:ILE:CG2	1:B:164:MET:HB3	2.45	0.46
1:B:179:VAL:O	1:B:182:PRO:HD2	2.16	0.46
2:A:142:GLY:HA2	2:A:183:GLU:CD	2.37	0.46
2:A:188:ILE:HB	2:A:395:PHE:HE2	1.81	0.46
2:A:288:VAL:CB	2:A:326:LYS:HB3	2.46	0.46
2:A:319:TYR:CD2	2:A:373:ARG:CD	2.96	0.46
3:K:185:PHE:CZ	3:K:197:LYS:CG	2.98	0.46
3:K:207:LYS:HG3	3:K:211:TYR:HE1	1.68	0.46
3:K:258:ILE:O	3:K:366:ASN:HB3	2.16	0.46
1:B:266:PHE:CD2	1:B:267:MET:N	2.84	0.45
1:B:316:VAL:HG21	1:B:366:THR:CB	2.45	0.45
1:B:322:SER:CB	1:B:324:LYS:HD3	2.45	0.45
2:A:5:ILE:HG13	2:A:125:LEU:CD2	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:86:LEU:HD12	2:A:86:LEU:N	2.30	0.45
2:A:100:ALA:N	2:A:101:ASN:CA	2.79	0.45
2:A:118:VAL:HG22	2:A:122:ILE:CD1	2.46	0.45
2:A:185:TYR:HE1	2:A:418:PHE:CE1	2.34	0.45
2:A:288:VAL:HG11	2:A:324:VAL:CG2	2.47	0.45
2:A:362:VAL:HG21	2:A:370:LYS:HD3	1.97	0.45
3:K:116:GLU:CB	3:K:127:TRP:HZ2	2.29	0.45
3:K:125:TYR:N	3:K:125:TYR:CD2	2.82	0.45
3:K:168:LEU:C	3:K:168:LEU:HD23	2.36	0.45
3:K:341:LEU:CD2	3:K:341:LEU:H	2.29	0.45
1:B:91:VAL:CG1	1:B:115:SER:HB2	2.46	0.45
1:B:322:SER:HB3	2:A:220:GLU:CD	2.36	0.45
2:A:133:GLN:O	2:A:164:LYS:HD2	2.17	0.45
2:A:268:PRO:HB2	2:A:378:LEU:CD2	2.27	0.45
3:K:77:LYS:HZ2	3:K:78:GLN:HG2	1.81	0.45
2:A:93:ILE:O	2:A:93:ILE:HG13	2.16	0.45
2:A:138:PHE:CD2	2:A:169:PHE:CB	2.99	0.45
2:A:244:PHE:N	2:A:244:PHE:CD2	2.83	0.45
2:A:312:TYR:N	2:A:312:TYR:CD2	2.85	0.45
3:K:71:VAL:HG12	3:K:72:PHE:N	2.31	0.45
3:K:170:ASP:CG	3:K:179:SER:H	2.19	0.45
1:B:61:PRO:HB2	1:B:85:PHE:CE2	2.51	0.45
1:B:81:PHE:CD2	1:B:81:PHE:N	2.83	0.45
1:B:132:GLY:C	1:B:133:PHE:HD2	2.19	0.45
1:B:207:LEU:HD11	1:B:229:VAL:CG2	2.45	0.45
1:B:371:SER:C	1:B:426:GLN:HE22	2.20	0.45
1:B:387:ALA:O	1:B:391:ARG:HG2	2.16	0.45
2:A:8:HIS:ND1	2:A:138:PHE:HB3	2.31	0.45
2:A:83:TYR:HB2	2:A:87:PHE:CZ	2.52	0.45
2:A:157:LEU:HG	2:A:166:LYS:HE2	1.98	0.45
2:A:290:GLU:HG3	2:A:291:ILE:N	2.31	0.45
2:A:313:MET:HE2	2:A:432:TYR:HE2	1.81	0.45
3:K:94:ILE:O	3:K:245:MET:HE3	2.17	0.45
3:K:142:GLN:O	3:K:145:GLU:HG2	2.16	0.45
1:B:101:TRP:HE3	1:B:102:ALA:HA	1.80	0.45
1:B:149:THR:CG2	1:B:191:GLN:HG2	2.44	0.45
1:B:190:HIS:HB2	1:B:411:ALA:CB	2.44	0.45
1:B:310:TYR:CZ	1:B:340:TYR:HE2	2.34	0.45
2:A:104:ALA:CB	2:A:411:GLU:HB2	2.44	0.45
2:A:121:ARG:HB3	2:A:121:ARG:CZ	2.47	0.45
2:A:153:LEU:CD1	2:A:157:LEU:CD2	2.95	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:319:TYR:HD1	2:A:319:TYR:N	2.15	0.45
2:A:336:LYS:NZ	2:A:336:LYS:HB3	2.31	0.45
2:A:409:VAL:O	3:K:286:GLY:HA2	2.16	0.45
2:A:415:GLU:C	3:K:344:GLU:OE2	2.49	0.45
2:A:427:ALA:HA	2:A:430:LYS:CG	2.46	0.45
3:K:30:LEU:O	3:K:34:LYS:HE2	2.16	0.45
1:B:48:ASN:HB2	1:B:59:TYR:OH	2.17	0.45
1:B:51:TYR:CD2	1:B:61:PRO:HA	2.52	0.45
1:B:101:TRP:NE1	1:B:146:GLY:CA	2.79	0.45
1:B:163:ILE:HG23	1:B:163:ILE:O	2.16	0.45
1:B:269:GLY:HA2	1:B:300:MET:CE	2.46	0.45
1:B:344:TRP:CB	2:A:401:LYS:HE3	2.47	0.45
1:B:419:VAL:CA	3:K:308:HIS:CD2	2.97	0.45
2:A:404:PHE:CD1	2:A:407:TRP:NE1	2.85	0.45
3:K:95:MET:CE	3:K:97:TYR:CZ	2.99	0.45
3:K:132:LEU:H	3:K:132:LEU:CD2	2.12	0.45
3:K:160:LEU:CA	3:K:172:LEU:HB3	2.47	0.45
1:B:66:VAL:CG2	1:B:147:MET:CE	2.95	0.45
1:B:253:LEU:HG	1:B:350:LYS:HE3	1.98	0.45
1:B:303:CYS:CB	1:B:373:ALA:HB3	2.46	0.45
2:A:30:ILE:CG1	2:A:61:HIS:HB2	2.34	0.45
2:A:185:TYR:CD1	2:A:395:PHE:CE1	3.05	0.45
2:A:251:ASP:CG	2:A:254:GLU:HB3	2.37	0.45
2:A:274:PRO:HG3	2:A:291:ILE:CA	2.43	0.45
2:A:388:TRP:CE3	2:A:429:GLU:CB	3.00	0.45
2:A:407:TRP:HD1	2:A:407:TRP:H	1.63	0.45
3:K:23:VAL:CG2	3:K:68:PHE:HD1	2.29	0.45
3:K:45:PRO:HB3	3:K:76:THR:HG1	1.82	0.45
3:K:48:LYS:CA	3:K:71:VAL:H	2.29	0.45
3:K:55:GLY:HA3	3:K:59:ASP:O	2.16	0.45
3:K:72:PHE:HA	3:K:72:PHE:HD1	1.68	0.45
3:K:78:GLN:CB	3:K:114:THR:HA	2.46	0.45
3:K:79:ILE:HA	3:K:82:TYR:CD1	2.51	0.45
1:B:36:TYR:HB2	1:B:44:LEU:HD23	1.98	0.45
1:B:41:ASP:O	1:B:44:LEU:HB3	2.17	0.45
1:B:46:ARG:HG3	1:B:46:ARG:HH11	1.81	0.45
1:B:186:THR:HB	1:B:385:PHE:CG	2.52	0.45
1:B:344:TRP:CB	2:A:401:LYS:HZ1	2.28	0.45
2:A:49:PHE:HB3	2:A:53:PHE:CE2	2.52	0.45
2:A:183:GLU:HB3	2:A:184:PRO:CD	2.37	0.45
2:A:196:GLU:OE2	2:A:196:GLU:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:422:ARG:HG2	2:A:422:ARG:HH11	1.81	0.45
2:A:425:MET:CE	2:A:425:MET:CA	2.95	0.45
3:K:182:LEU:HG	3:K:199:LEU:N	2.32	0.45
3:K:207:LYS:HA	3:K:210:VAL:CG2	2.47	0.45
1:B:85:PHE:CE1	1:B:90:PHE:HE2	2.35	0.45
1:B:210:ILE:HG23	1:B:211:CYS:H	1.81	0.45
1:B:270:PHE:N	1:B:300:MET:HE3	2.32	0.45
2:A:14:VAL:HG12	2:A:18:ASN:HD21	1.81	0.45
2:A:42:ILE:HG23	2:A:42:ILE:O	2.16	0.45
2:A:45:GLY:CA	2:A:61:HIS:HE1	2.30	0.45
2:A:72:PRO:HA	2:A:75:ILE:HG23	1.98	0.45
2:A:78:VAL:O	2:A:84:ARG:HG2	2.16	0.45
3:K:59:ASP:CB	3:K:62:SER:HB2	2.38	0.45
3:K:66:TYR:CE1	3:K:350:LEU:HD13	2.52	0.45
3:K:79:ILE:O	3:K:82:TYR:HD1	2.00	0.45
3:K:104:TYR:CE1	3:K:349:THR:HG23	2.52	0.45
3:K:298:VAL:O	3:K:302:LEU:HB2	2.16	0.45
1:B:51:TYR:CG	1:B:61:PRO:HA	2.52	0.45
1:B:130:LEU:HD12	1:B:133:PHE:CZ	2.51	0.45
1:B:133:PHE:H	1:B:164:MET:CE	2.30	0.45
1:B:163:ILE:HD11	1:B:197:ASP:OD1	2.17	0.45
1:B:289:LEU:CD2	1:B:365:ALA:CB	2.95	0.45
2:A:16:ILE:CG2	2:A:138:PHE:HD1	2.28	0.45
2:A:23:LEU:HD13	2:A:236:SER:OG	2.17	0.45
2:A:75:ILE:CG2	2:A:94:THR:CG2	2.95	0.45
2:A:119:LEU:HD13	2:A:123:ARG:CG	2.40	0.45
2:A:132:LEU:CD2	2:A:135:PHE:CD2	2.95	0.45
3:K:21:VAL:CB	3:K:334:ALA:HB2	2.47	0.45
3:K:79:ILE:HG23	3:K:82:TYR:HD1	1.77	0.45
3:K:302:LEU:CD1	3:K:359:ILE:CG2	2.94	0.45
1:B:311:LEU:CD2	1:B:426:GLN:HA	2.15	0.44
2:A:64:ARG:HD3	2:A:124:LYS:NZ	2.32	0.44
2:A:153:LEU:CD2	2:A:157:LEU:CD2	2.95	0.44
2:A:167:LEU:HD12	2:A:200:CYS:SG	2.57	0.44
2:A:184:PRO:HB3	2:A:391:LEU:CD1	2.29	0.44
3:K:95:MET:HE2	3:K:97:TYR:CZ	2.52	0.44
3:K:135:ILE:HG22	3:K:139:THR:HG21	1.98	0.44
3:K:158:VAL:HB	3:K:172:LEU:HD21	1.98	0.44
3:K:185:PHE:HE2	3:K:188:PRO:HD2	1.82	0.44
1:B:257:MET:CG	1:B:368:ILE:CG2	2.95	0.44
1:B:323:MET:CB	2:A:210:TYR:CE1	3.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:404:ASP:HB3	1:B:407:GLU:H	1.82	0.44
3:K:40:ILE:CD1	3:K:52:VAL:HG11	2.47	0.44
3:K:40:ILE:CD1	3:K:52:VAL:CG1	2.95	0.44
3:K:43:CYS:SG	3:K:74:ALA:HB2	2.57	0.44
3:K:77:LYS:CD	3:K:79:ILE:CD1	2.95	0.44
3:K:82:TYR:CD2	3:K:86:VAL:HG23	2.53	0.44
3:K:82:TYR:CD2	3:K:86:VAL:CG2	3.00	0.44
3:K:98:ASN:HB2	3:K:328:THR:CB	2.47	0.44
3:K:106:GLN:CB	3:K:342:ASN:HD22	2.30	0.44
1:B:58:LYS:NZ	1:B:84:ILE:HA	2.32	0.44
1:B:161:ASP:HB2	1:B:162:ARG:HH12	1.79	0.44
1:B:240:LEU:HD21	1:B:250:LEU:HD13	1.99	0.44
1:B:299:MET:HE3	1:B:305:PRO:CG	2.43	0.44
1:B:310:TYR:N	1:B:310:TYR:CD1	2.82	0.44
1:B:310:TYR:CE1	1:B:340:TYR:HE2	2.35	0.44
1:B:322:SER:HA	2:A:221:ARG:CG	2.47	0.44
1:B:342:VAL:HG12	1:B:348:ASN:HD21	1.80	0.44
2:A:1:MET:CE	2:A:3:GLU:CG	2.95	0.44
2:A:76:ASP:HA	2:A:79:ARG:CD	2.47	0.44
2:A:119:LEU:CD1	2:A:123:ARG:CG	2.95	0.44
2:A:153:LEU:CD1	2:A:157:LEU:HG	2.47	0.44
2:A:269:LEU:HD11	2:A:377:MET:CG	2.45	0.44
2:A:274:PRO:CA	2:A:300:ASN:HD21	2.30	0.44
2:A:297:GLU:OE2	2:A:299:ALA:HB3	2.17	0.44
2:A:409:VAL:HG13	3:K:289:ASN:HB2	2.00	0.44
2:A:416:GLY:CA	3:K:348:SER:OG	2.65	0.44
3:K:22:VAL:H	3:K:333:ILE:HA	1.82	0.44
3:K:79:ILE:CG2	3:K:83:ARG:CZ	2.95	0.44
3:K:116:GLU:HB3	3:K:127:TRP:HZ2	1.81	0.44
3:K:170:ASP:N	3:K:178:VAL:HB	2.32	0.44
1:B:113:VAL:HG12	1:B:117:LEU:HD13	2.00	0.44
1:B:145:SER:CB	1:B:188:SER:CB	2.95	0.44
1:B:170:VAL:CG1	1:B:171:PRO:HD2	2.47	0.44
1:B:266:PHE:CG	1:B:267:MET:N	2.85	0.44
1:B:321:MET:CE	1:B:326:VAL:CG2	2.95	0.44
2:A:23:LEU:HD11	2:A:363:VAL:HG21	2.00	0.44
2:A:384:ILE:CG2	2:A:388:TRP:NE1	2.81	0.44
3:K:40:ILE:HD12	3:K:52:VAL:CG1	2.48	0.44
3:K:112:THR:CG2	3:K:113:PHE:N	2.81	0.44
3:K:118:GLU:HG2	3:K:119:ARG:N	2.31	0.44
3:K:152:THR:HG22	3:K:247:GLU:HB2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:42:LEU:O	1:B:45:GLU:HB3	2.18	0.44
1:B:383:GLU:OE1	1:B:383:GLU:HA	2.18	0.44
1:B:401:GLU:HB3	1:B:403:MET:CG	2.38	0.44
2:A:79:ARG:HH21	2:A:80:THR:HA	1.83	0.44
2:A:210:TYR:CD1	2:A:227:LEU:HD11	2.49	0.44
2:A:217:LEU:CD1	2:A:219:ILE:CG1	2.95	0.44
2:A:255:PHE:HD2	2:A:258:ASN:OD1	2.01	0.44
2:A:264:ARG:HA	2:A:264:ARG:HH21	1.81	0.44
3:K:23:VAL:HG21	3:K:68:PHE:HD1	1.80	0.44
3:K:79:ILE:HA	3:K:82:TYR:HB3	2.00	0.44
3:K:128:GLU:OE1	3:K:140:LEU:HB2	2.17	0.44
1:B:50:TYR:HB2	1:B:241:ARG:HH22	1.82	0.44
1:B:70:PRO:HG3	1:B:94:GLN:CA	2.43	0.44
1:B:147:MET:HG2	1:B:148:GLY:H	1.83	0.44
1:B:202:ILE:CG1	1:B:207:LEU:CD2	2.96	0.44
1:B:262:ARG:HD2	3:K:313:GLU:CD	2.38	0.44
2:A:52:PHE:CE2	2:A:243:ARG:HD2	2.51	0.44
2:A:172:TYR:HB2	2:A:203:MET:HE1	1.95	0.44
2:A:425:MET:HE2	2:A:425:MET:O	2.17	0.44
3:K:212:GLN:HG2	3:K:213:ILE:H	1.83	0.44
3:K:246:LYS:NZ	3:K:254:GLU:HG3	2.33	0.44
3:K:351:GLU:HG3	3:K:352:TYR:HD2	1.80	0.44
1:B:208:TYR:CE2	1:B:212:PHE:CE2	3.05	0.44
1:B:309:ARG:HH22	1:B:427:ASP:HA	1.82	0.44
1:B:334:GLN:HE22	1:B:335:ASN:ND2	2.16	0.44
2:A:153:LEU:HD22	2:A:157:LEU:CD2	2.48	0.44
2:A:255:PHE:CD1	2:A:318:LEU:CD2	3.01	0.44
2:A:274:PRO:CG	2:A:291:ILE:HD12	2.47	0.44
3:K:78:GLN:CD	3:K:114:THR:HG22	2.38	0.44
3:K:96:GLY:O	3:K:259:GLY:HA2	2.17	0.44
3:K:98:ASN:CB	3:K:328:THR:HA	2.32	0.44
1:B:4:ILE:O	1:B:50:TYR:HE1	2.01	0.44
1:B:5:VAL:CG1	1:B:62:ARG:CB	2.95	0.44
1:B:51:TYR:HA	1:B:62:ARG:NE	2.33	0.44
1:B:137:HIS:CD2	1:B:166:THR:CG2	3.01	0.44
1:B:303:CYS:C	1:B:305:PRO:HD3	2.38	0.44
1:B:316:VAL:CG2	1:B:366:THR:H	2.31	0.44
2:A:9:VAL:CG1	2:A:139:HIS:CB	2.95	0.44
2:A:40:LYS:CE	2:A:44:GLY:CA	2.95	0.44
2:A:157:LEU:HB3	2:A:166:LYS:CE	2.48	0.44
2:A:166:LYS:HB2	2:A:168:GLU:OE1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:319:TYR:CG	2:A:375:VAL:HG12	2.53	0.44
3:K:29:ASN:HB2	3:K:32:GLU:HB3	2.00	0.44
1:B:100:ASN:HA	1:B:397:TRP:CE2	2.53	0.44
1:B:164:MET:CE	1:B:164:MET:CA	2.95	0.44
1:B:300:MET:HG2	1:B:301:ALA:N	2.32	0.44
1:B:405:GLU:HG2	1:B:406:MET:H	1.82	0.44
2:A:373:ARG:HH21	2:A:374:ALA:H	1.65	0.44
3:K:17:LYS:CE	3:K:362:LYS:HA	2.47	0.44
3:K:89:ILE:HB	3:K:139:THR:HG21	1.99	0.44
3:K:171:LEU:HB3	3:K:220:LYS:HB3	1.99	0.44
3:K:221:ARG:O	3:K:221:ARG:HG3	2.15	0.44
3:K:253:GLU:OE1	3:K:255:LEU:HD23	2.18	0.44
3:K:321:GLN:HE21	3:K:321:GLN:HB3	1.35	0.44
2:A:4:CYS:N	2:A:51:THR:HG23	2.33	0.43
2:A:70:LEU:CD2	2:A:145:THR:CB	2.96	0.43
2:A:142:GLY:HA2	2:A:183:GLU:HB2	1.99	0.43
2:A:185:TYR:HE1	2:A:418:PHE:CZ	2.36	0.43
2:A:255:PHE:HA	2:A:255:PHE:HD2	1.36	0.43
2:A:406:HIS:NE2	2:A:407:TRP:CD1	2.86	0.43
3:K:21:VAL:CB	3:K:334:ALA:CB	2.96	0.43
3:K:86:VAL:HG23	3:K:135:ILE:HG23	1.99	0.43
3:K:285:ALA:HA	3:K:288:ILE:CG1	2.48	0.43
3:K:285:ALA:O	3:K:288:ILE:HB	2.18	0.43
1:B:48:ASN:HA	1:B:59:TYR:CZ	2.53	0.43
1:B:91:VAL:CG1	1:B:115:SER:CB	2.96	0.43
1:B:203:ASP:O	1:B:207:LEU:HD23	2.18	0.43
1:B:375:GLN:OE1	3:K:308:HIS:HD2	2.01	0.43
1:B:428:ALA:HB2	3:K:304:GLU:OE1	2.18	0.43
2:A:12:ALA:HB1	6:A:501:GTP:C4	2.53	0.43
2:A:101:ASN:CG	2:A:145:THR:HG23	2.38	0.43
2:A:272:TYR:OH	2:A:371:VAL:HG11	2.18	0.43
2:A:313:MET:CE	2:A:436:GLY:CA	2.95	0.43
2:A:362:VAL:CG2	2:A:370:LYS:HD3	2.47	0.43
2:A:406:HIS:CD2	2:A:407:TRP:CD1	3.06	0.43
3:K:89:ILE:CG1	3:K:135:ILE:HG21	2.48	0.43
3:K:104:TYR:CG	3:K:349:THR:CG2	2.95	0.43
3:K:167:GLU:HB3	3:K:169:PHE:CE1	2.53	0.43
3:K:299:ILE:HG21	3:K:355:ARG:HB3	1.99	0.43
1:B:6:HIS:CE1	1:B:20:PHE:HZ	2.36	0.43
1:B:37:HIS:CD2	1:B:38:GLY:H	2.37	0.43
1:B:276:ARG:HD3	1:B:276:ARG:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:40:LYS:HE3	2:A:44:GLY:C	2.38	0.43
2:A:119:LEU:CD2	2:A:123:ARG:HD3	2.48	0.43
2:A:262:TYR:HD1	2:A:435:VAL:HG21	1.83	0.43
2:A:426:ALA:O	2:A:430:LYS:HG3	2.18	0.43
3:K:70:MET:CG	3:K:72:PHE:CZ	2.97	0.43
3:K:77:LYS:HE3	3:K:79:ILE:HD11	1.98	0.43
3:K:130:ASP:CB	3:K:132:LEU:HD23	2.48	0.43
3:K:183:GLN:O	3:K:196:ILE:HA	2.18	0.43
3:K:297:ARG:NH1	3:K:301:ALA:HB2	2.34	0.43
7:K:601:ANP:O2A	7:K:601:ANP:H8	2.18	0.43
1:B:37:HIS:CD2	1:B:38:GLY:N	2.87	0.43
1:B:322:SER:HA	2:A:221:ARG:HB3	1.99	0.43
1:B:324:LYS:HD3	1:B:325:GLU:N	2.33	0.43
1:B:357:PRO:HA	1:B:358:PRO:HD3	1.82	0.43
2:A:75:ILE:CG1	2:A:76:ASP:N	2.81	0.43
2:A:157:LEU:CB	2:A:166:LYS:CE	2.97	0.43
2:A:232:SER:O	2:A:235:VAL:HG12	2.19	0.43
3:K:19:ILE:HG12	3:K:332:ILE:N	2.30	0.43
3:K:53:ARG:HB3	3:K:63:ARG:HG2	2.00	0.43
3:K:89:ILE:HG13	3:K:135:ILE:HG21	1.97	0.43
3:K:118:GLU:OE1	3:K:132:LEU:HB3	2.18	0.43
3:K:324:LEU:HD21	3:K:360:LEU:O	2.18	0.43
1:B:133:PHE:CD2	1:B:133:PHE:N	2.85	0.43
1:B:202:ILE:HG21	1:B:207:LEU:HD21	2.00	0.43
1:B:385:PHE:CD2	1:B:388:MET:SD	3.11	0.43
1:B:423:GLN:HE22	3:K:308:HIS:H	1.58	0.43
2:A:9:VAL:CG1	2:A:139:HIS:HD1	2.32	0.43
2:A:259:LEU:HD12	2:A:314:ALA:HB3	2.01	0.43
2:A:272:TYR:HE1	2:A:374:ALA:CA	2.31	0.43
2:A:399:TYR:HD1	2:A:402:ARG:HH11	1.65	0.43
3:K:40:ILE:CG2	3:K:340:SER:HB2	2.48	0.43
3:K:185:PHE:CZ	3:K:197:LYS:CE	3.00	0.43
3:K:223:THR:HG21	3:K:233:SER:OG	2.18	0.43
3:K:248:THR:HG22	3:K:252:GLY:HA2	1.99	0.43
3:K:320:LEU:HD23	3:K:320:LEU:C	2.38	0.43
1:B:37:HIS:CG	1:B:38:GLY:N	2.86	0.43
1:B:90:PHE:N	1:B:90:PHE:CD2	2.86	0.43
1:B:149:THR:HG22	1:B:192:LEU:HD23	2.01	0.43
1:B:166:THR:O	1:B:200:TYR:HD1	2.01	0.43
1:B:184:ASN:ND2	1:B:397:TRP:CZ3	2.87	0.43
1:B:240:LEU:HD11	1:B:250:LEU:N	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:314:ALA:C	1:B:368:ILE:HD12	2.39	0.43
1:B:422:TYR:C	3:K:308:HIS:CG	2.90	0.43
2:A:101:ASN:CB	2:A:105:ARG:HH11	2.31	0.43
2:A:185:TYR:HA	2:A:185:TYR:HD1	1.49	0.43
2:A:298:PRO:HB3	2:A:305:CYS:O	2.18	0.43
2:A:319:TYR:CD2	2:A:375:VAL:HG12	2.54	0.43
2:A:363:VAL:HA	2:A:364:PRO:HD3	1.86	0.43
3:K:64:LYS:HD2	3:K:65:THR:C	2.38	0.43
3:K:249:THR:CG2	3:K:250:ILE:H	2.23	0.43
1:B:99:ASN:HB2	4:B:501:G2P:O3G	2.18	0.43
1:B:328:GLU:HG2	1:B:332:ASN:HD21	1.84	0.43
2:A:2:ARG:HA	2:A:129:CYS:HB3	2.00	0.43
2:A:3:GLU:HA	2:A:51:THR:CG2	2.44	0.43
2:A:210:TYR:HA	2:A:227:LEU:HD22	2.00	0.43
2:A:303:VAL:O	2:A:303:VAL:HG23	2.17	0.43
3:K:20:GLN:CG	3:K:68:PHE:CD2	3.02	0.43
3:K:124:GLU:O	3:K:125:TYR:HD2	2.01	0.43
3:K:147:LEU:HB3	3:K:154:PHE:CG	2.51	0.43
3:K:226:THR:HG21	3:K:234:ARG:NH2	2.24	0.43
3:K:319:ILE:CG1	3:K:320:LEU:N	2.82	0.43
1:B:65:LEU:HD11	1:B:76:VAL:HG21	2.00	0.43
1:B:149:THR:CB	1:B:191:GLN:HG2	2.49	0.43
1:B:344:TRP:CB	2:A:401:LYS:CE	2.97	0.43
1:B:363:MET:HB2	1:B:363:MET:HE3	1.70	0.43
1:B:419:VAL:HA	3:K:308:HIS:CD2	2.40	0.43
2:A:31:GLN:O	2:A:86:LEU:HD21	2.18	0.43
2:A:74:VAL:O	2:A:78:VAL:HG23	2.19	0.43
2:A:108:TYR:HD2	2:A:108:TYR:HA	1.60	0.43
2:A:363:VAL:O	2:A:363:VAL:HG13	2.18	0.43
3:K:90:LEU:HD11	3:K:142:GLN:CD	2.39	0.43
3:K:160:LEU:HB2	3:K:172:LEU:CA	2.48	0.43
3:K:160:LEU:HD23	3:K:171:LEU:N	2.34	0.43
1:B:68:LEU:HG	1:B:69:GLU:CD	2.39	0.43
1:B:135:LEU:HD22	1:B:152:ILE:HG12	2.00	0.43
2:A:1:MET:CE	2:A:50:ASN:CB	2.96	0.43
2:A:21:TRP:NE1	2:A:67:PHE:CE1	2.86	0.43
2:A:210:TYR:CZ	2:A:214:ARG:HG3	2.54	0.43
3:K:42:GLU:HG2	3:K:53:ARG:HH12	1.84	0.43
3:K:43:CYS:CB	3:K:74:ALA:H	2.32	0.43
3:K:86:VAL:HG11	3:K:138:ARG:CG	2.49	0.43
1:B:13:GLY:HA2	1:B:16:ILE:CG2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:20:PHE:CZ	1:B:24:ILE:CG1	3.02	0.43
1:B:86:ARG:HA	1:B:87:PRO:HD3	1.73	0.43
1:B:101:TRP:CE3	1:B:102:ALA:HA	2.53	0.43
1:B:323:MET:CG	2:A:210:TYR:CD2	2.95	0.43
1:B:389:PHE:O	1:B:392:LYS:HE2	2.19	0.43
2:A:3:GLU:CB	2:A:129:CYS:SG	3.07	0.43
2:A:21:TRP:HE3	2:A:24:TYR:HD2	1.67	0.43
2:A:75:ILE:HG21	2:A:94:THR:CG2	2.48	0.43
2:A:119:LEU:HD13	2:A:119:LEU:O	2.17	0.43
2:A:172:TYR:HB2	2:A:203:MET:SD	2.58	0.43
2:A:262:TYR:CD1	2:A:435:VAL:HG21	2.53	0.43
2:A:296:PHE:CE1	2:A:338:LYS:HD2	2.54	0.43
2:A:319:TYR:N	2:A:319:TYR:CD1	2.86	0.43
3:K:55:GLY:HA3	3:K:59:ASP:CA	2.48	0.43
3:K:120:SER:H	3:K:130:ASP:CG	2.22	0.43
3:K:136:ILE:HD11	3:K:263:LEU:HD22	2.01	0.43
3:K:164:TYR:O	3:K:167:GLU:HB2	2.19	0.43
1:B:1:MET:CB	1:B:49:VAL:CG1	2.96	0.42
1:B:4:ILE:HD12	1:B:132:GLY:O	2.18	0.42
1:B:66:VAL:HG21	1:B:147:MET:CE	2.49	0.42
1:B:168:SER:O	1:B:201:CYS:HA	2.18	0.42
1:B:218:THR:CG2	1:B:219:THR:N	2.82	0.42
1:B:396:HIS:CG	1:B:397:TRP:N	2.86	0.42
2:A:4:CYS:H	2:A:51:THR:HG23	1.80	0.42
2:A:202:PHE:N	2:A:202:PHE:HD2	2.17	0.42
2:A:395:PHE:HD1	2:A:395:PHE:HA	1.37	0.42
3:K:100:THR:CG2	3:K:102:PHE:CZ	3.00	0.42
3:K:284:GLU:O	3:K:287:ASN:HB3	2.19	0.42
1:B:30:ILE:HD13	1:B:59:TYR:N	2.34	0.42
1:B:47:ILE:HA	1:B:241:ARG:NH1	2.34	0.42
1:B:121:ARG:HA	1:B:121:ARG:NE	2.34	0.42
1:B:214:THR:HG22	1:B:276:ARG:HD2	1.99	0.42
1:B:220:PRO:HB3	1:B:225:LEU:HD21	2.01	0.42
1:B:232:THR:CG2	1:B:233:MET:N	2.82	0.42
1:B:299:MET:HE2	1:B:299:MET:HB3	1.84	0.42
1:B:385:PHE:CA	1:B:388:MET:HG3	2.49	0.42
2:A:2:ARG:HA	2:A:131:GLY:O	2.18	0.42
2:A:41:THR:HG22	2:A:46:ASP:OD1	2.20	0.42
2:A:71:GLU:CG	2:A:73:THR:CG2	2.96	0.42
2:A:103:TYR:HD1	2:A:144:GLY:O	2.01	0.42
2:A:201:ALA:H	2:A:267:PHE:HB3	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:409:VAL:CG1	3:K:290:GLN:HB2	2.24	0.42
2:A:427:ALA:C	2:A:430:LYS:HG3	2.38	0.42
3:K:21:VAL:O	3:K:21:VAL:HG23	2.17	0.42
3:K:89:ILE:CG1	3:K:135:ILE:CG2	2.95	0.42
3:K:181:ARG:HG2	3:K:182:LEU:N	2.34	0.42
3:K:327:ARG:CD	3:K:327:ARG:N	2.82	0.42
3:K:346:THR:CG2	3:K:347:LEU:N	2.82	0.42
1:B:16:ILE:CG2	1:B:17:GLY:N	2.83	0.42
1:B:52:ASN:H	1:B:62:ARG:HE	1.65	0.42
1:B:109:GLY:HA3	1:B:150:LEU:HD23	2.01	0.42
1:B:193:VAL:CG2	1:B:194:GLU:N	2.82	0.42
1:B:267:MET:SD	1:B:374:ILE:CG2	3.07	0.42
1:B:323:MET:CG	2:A:210:TYR:CE2	3.02	0.42
1:B:419:VAL:CG1	1:B:420:SER:N	2.83	0.42
2:A:83:TYR:HB3	2:A:87:PHE:CZ	2.55	0.42
2:A:118:VAL:HG22	2:A:122:ILE:CG1	2.49	0.42
2:A:118:VAL:HG22	2:A:122:ILE:HG13	2.00	0.42
2:A:209:ILE:CA	2:A:302:MET:SD	3.07	0.42
2:A:213:CYS:CB	2:A:227:LEU:CD2	2.95	0.42
2:A:406:HIS:H	2:A:406:HIS:HD2	1.66	0.42
2:A:406:HIS:NE2	2:A:407:TRP:NE1	2.67	0.42
3:K:20:GLN:CG	3:K:68:PHE:HD2	2.32	0.42
3:K:22:VAL:CG2	3:K:333:ILE:CD1	2.96	0.42
3:K:23:VAL:CG2	3:K:68:PHE:CD1	3.02	0.42
3:K:194:VAL:HG23	3:K:194:VAL:O	2.19	0.42
1:B:83:GLN:CG	1:B:84:ILE:N	2.83	0.42
1:B:210:ILE:CG2	1:B:211:CYS:N	2.82	0.42
1:B:255:VAL:CG1	2:A:407:TRP:CD1	3.02	0.42
2:A:2:ARG:HB2	2:A:131:GLY:O	2.19	0.42
2:A:53:PHE:CD1	2:A:63:PRO:HA	2.52	0.42
2:A:225:THR:HG22	2:A:229:ARG:CD	2.49	0.42
2:A:404:PHE:CD1	2:A:404:PHE:N	2.83	0.42
3:K:66:TYR:CZ	3:K:354:HIS:CD2	3.07	0.42
3:K:112:THR:HB	3:K:265:ASP:OD1	2.18	0.42
3:K:187:ASP:HB2	3:K:195:ILE:HG21	2.00	0.42
3:K:351:GLU:CG	3:K:352:TYR:N	2.83	0.42
1:B:44:LEU:HD13	1:B:44:LEU:O	2.18	0.42
1:B:186:THR:CG2	1:B:187:LEU:N	2.82	0.42
1:B:208:TYR:CE2	1:B:212:PHE:CZ	3.08	0.42
1:B:315:ALA:N	1:B:368:ILE:HD12	2.35	0.42
1:B:351:THR:CG2	1:B:352:ALA:N	2.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1:MET:SD	2:A:3:GLU:HG2	2.59	0.42
2:A:9:VAL:CG1	2:A:146:GLY:CA	2.97	0.42
2:A:27:GLU:HG3	2:A:243:ARG:HH22	1.85	0.42
2:A:165:SER:HB3	2:A:199:ASP:HB2	1.98	0.42
2:A:213:CYS:CB	2:A:230:LEU:CD1	2.95	0.42
2:A:371:VAL:HG22	2:A:373:ARG:H	1.84	0.42
3:K:45:PRO:HB3	3:K:76:THR:OG1	2.18	0.42
3:K:46:VAL:CG2	3:K:47:ARG:N	2.82	0.42
3:K:211:TYR:N	3:K:211:TYR:CD1	2.86	0.42
3:K:342:ASN:HB3	3:K:345:GLU:HB2	2.00	0.42
1:B:6:HIS:CE1	1:B:20:PHE:CZ	3.08	0.42
1:B:7:ILE:CG2	1:B:64:ILE:CG2	2.95	0.42
1:B:58:LYS:HE2	1:B:84:ILE:CD1	2.47	0.42
1:B:183:TYR:CA	1:B:388:MET:SD	3.08	0.42
1:B:234:SER:O	1:B:237:THR:HG22	2.19	0.42
1:B:262:ARG:HE	1:B:262:ARG:CA	2.31	0.42
1:B:262:ARG:HH21	1:B:264:HIS:HE1	1.67	0.42
1:B:267:MET:SD	1:B:374:ILE:CB	3.08	0.42
1:B:345:ILE:HG21	2:A:181:VAL:HG22	2.02	0.42
2:A:1:MET:HE2	2:A:1:MET:H3	1.84	0.42
2:A:21:TRP:NE1	2:A:67:PHE:HE1	2.18	0.42
2:A:34:GLY:HA2	2:A:86:LEU:CD2	2.44	0.42
2:A:36:MET:HG3	2:A:61:HIS:HD2	1.84	0.42
2:A:102:ASN:N	2:A:105:ARG:CG	2.83	0.42
2:A:175:PRO:HD2	2:A:304:LYS:HZ3	1.82	0.42
2:A:188:ILE:HG13	2:A:395:PHE:CE2	2.55	0.42
2:A:306:ASP:HB2	2:A:309:HIS:CB	2.50	0.42
2:A:399:TYR:O	2:A:399:TYR:HD1	2.03	0.42
3:K:82:TYR:CE2	3:K:86:VAL:CG2	2.96	0.42
3:K:111:LYS:HE2	3:K:265:ASP:HA	1.97	0.42
3:K:113:PHE:CD2	3:K:231:TYR:CE2	3.07	0.42
3:K:292:LEU:N	3:K:292:LEU:CD1	2.83	0.42
3:K:364:GLU:HG2	3:K:365:VAL:O	2.20	0.42
1:B:7:ILE:CG1	1:B:64:ILE:HG22	2.49	0.42
1:B:73:MET:CB	1:B:92:PHE:CE1	3.00	0.42
1:B:94:GLN:CG	1:B:95:SER:N	2.83	0.42
1:B:217:LEU:HG	1:B:219:THR:O	2.20	0.42
1:B:251:ARG:HG3	1:B:252:LYS:N	2.35	0.42
1:B:282:ARG:HG3	1:B:283:ALA:N	2.34	0.42
1:B:296:ALA:N	1:B:305:PRO:HG2	2.34	0.42
1:B:394:PHE:CD1	1:B:397:TRP:HE3	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:3:GLU:CA	2:A:51:THR:HG23	2.47	0.42
2:A:8:HIS:NE2	2:A:17:GLY:HA3	2.33	0.42
2:A:70:LEU:HD22	2:A:145:THR:CB	2.49	0.42
2:A:177:VAL:CG1	2:A:178:SER:N	2.83	0.42
2:A:192:HIS:CG	2:A:193:THR:N	2.87	0.42
2:A:222:PRO:HB2	2:A:223:THR:HG23	2.00	0.42
2:A:384:ILE:CG2	2:A:388:TRP:CE2	3.01	0.42
2:A:401:LYS:HZ2	2:A:401:LYS:CB	2.33	0.42
3:K:169:PHE:CA	3:K:178:VAL:CG1	2.95	0.42
3:K:169:PHE:HB3	3:K:178:VAL:CG1	2.49	0.42
3:K:170:ASP:HB2	3:K:178:VAL:HA	2.01	0.42
3:K:194:VAL:HG13	3:K:312:ARG:HD3	2.01	0.42
3:K:330:THR:H	3:K:361:ASN:HD21	1.66	0.42
3:K:347:LEU:C	3:K:350:LEU:HG	2.40	0.42
1:B:50:TYR:CE2	1:B:51:TYR:CE1	3.07	0.42
1:B:106:TYR:N	1:B:106:TYR:CD2	2.83	0.42
1:B:167:PHE:CE2	1:B:233:MET:CG	2.96	0.42
1:B:257:MET:HG2	1:B:368:ILE:CG2	2.49	0.42
1:B:276:ARG:CD	1:B:276:ARG:N	2.83	0.42
1:B:285:THR:CG2	1:B:286:VAL:N	2.83	0.42
1:B:293:MET:CE	1:B:367:PHE:N	2.83	0.42
2:A:99:ALA:N	2:A:100:ALA:CA	2.83	0.42
2:A:101:ASN:HD22	2:A:101:ASN:N	2.18	0.42
2:A:123:ARG:HA	2:A:123:ARG:CZ	2.50	0.42
2:A:221:ARG:CZ	2:A:221:ARG:HB2	2.49	0.42
2:A:269:LEU:HG	2:A:379:SER:C	2.40	0.42
2:A:271:THR:CG2	2:A:272:TYR:N	2.82	0.42
2:A:277:SER:HB3	2:A:279:GLU:OE1	2.20	0.42
2:A:292:THR:HG21	2:A:330:ALA:CB	2.50	0.42
2:A:417:GLU:HA	3:K:344:GLU:HB2	2.01	0.42
2:A:419:SER:OG	3:K:344:GLU:HG3	2.20	0.42
3:K:100:THR:HG21	3:K:102:PHE:CE1	2.55	0.42
3:K:110:GLY:HA2	7:K:601:ANP:H8	2.02	0.42
3:K:168:LEU:HD23	3:K:168:LEU:O	2.20	0.42
3:K:184:MET:SD	3:K:196:ILE:CG2	3.07	0.42
3:K:337:SER:HA	3:K:338:PRO:HD3	1.81	0.42
1:B:11:GLN:NE2	1:B:15:GLN:HG3	2.35	0.42
1:B:76:VAL:CG2	1:B:77:ARG:N	2.82	0.42
1:B:119:VAL:CG2	1:B:120:VAL:N	2.83	0.42
1:B:132:GLY:HA2	1:B:162:ARG:HA	2.00	0.42
1:B:208:TYR:HE2	1:B:220:PRO:CD	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:269:GLY:CA	1:B:300:MET:CE	2.98	0.42
1:B:343:GLU:OE1	1:B:343:GLU:HA	2.19	0.42
1:B:356:ILE:HA	1:B:357:PRO:HD3	1.85	0.42
2:A:2:ARG:HG3	2:A:132:LEU:CD1	2.44	0.42
2:A:3:GLU:HG2	2:A:51:THR:HA	2.01	0.42
2:A:24:TYR:N	2:A:24:TYR:CD1	2.83	0.42
2:A:34:GLY:HA3	2:A:62:VAL:HG12	2.02	0.42
2:A:202:PHE:N	2:A:202:PHE:CD2	2.88	0.42
2:A:236:SER:O	2:A:239:THR:HG22	2.20	0.42
2:A:275:VAL:O	2:A:275:VAL:HG13	2.20	0.42
2:A:386:GLU:CG	2:A:387:ALA:N	2.83	0.42
3:K:59:ASP:CB	3:K:62:SER:CB	2.97	0.42
3:K:343:LEU:CA	3:K:346:THR:HG22	2.49	0.42
3:K:347:LEU:CA	3:K:350:LEU:HG	2.49	0.42
1:B:1:MET:HB3	1:B:49:VAL:CG1	2.49	0.42
1:B:23:VAL:HG11	1:B:234:SER:HB2	2.02	0.42
1:B:51:TYR:CD1	1:B:62:ARG:HD3	2.53	0.42
1:B:180:VAL:CG2	1:B:181:GLU:N	2.83	0.42
1:B:228:LEU:HD22	1:B:228:LEU:N	2.34	0.42
1:B:253:LEU:CD1	1:B:253:LEU:N	2.82	0.42
1:B:308:GLY:HA2	1:B:372:THR:CB	2.49	0.42
1:B:366:THR:CG2	1:B:367:PHE:N	2.83	0.42
1:B:420:SER:OG	3:K:308:HIS:CA	2.68	0.42
2:A:3:GLU:HB3	2:A:51:THR:HA	1.99	0.42
2:A:30:ILE:N	2:A:30:ILE:CD1	2.83	0.42
2:A:64:ARG:NE	2:A:91:GLN:HG2	2.34	0.42
2:A:101:ASN:HB2	2:A:105:ARG:NH1	2.34	0.42
2:A:124:LYS:CG	2:A:125:LEU:N	2.83	0.42
2:A:182:VAL:CG2	2:A:183:GLU:N	2.82	0.42
2:A:189:LEU:N	2:A:189:LEU:CD1	2.83	0.42
2:A:209:ILE:CG2	2:A:210:TYR:N	2.82	0.42
3:K:113:PHE:HD1	7:K:601:ANP:C4	2.33	0.42
3:K:130:ASP:HB3	3:K:133:ALA:H	1.85	0.42
3:K:162:GLU:O	3:K:169:PHE:HD1	2.03	0.42
3:K:216:LYS:HD3	3:K:216:LYS:N	2.35	0.42
1:B:236:VAL:CG2	1:B:237:THR:N	2.82	0.41
1:B:311:LEU:CD1	1:B:422:TYR:CE2	2.96	0.41
1:B:313:VAL:HG12	1:B:314:ALA:N	2.35	0.41
1:B:317:PHE:N	1:B:351:THR:CG2	2.83	0.41
1:B:391:ARG:O	1:B:392:LYS:HB2	2.20	0.41
2:A:9:VAL:CG1	2:A:139:HIS:HA	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:22:GLU:CA	2:A:83:TYR:HE2	2.33	0.41
2:A:104:ALA:HB1	2:A:413:MET:HE3	2.01	0.41
2:A:104:ALA:CB	2:A:411:GLU:CB	2.98	0.41
3:K:40:ILE:HG13	3:K:41:VAL:N	2.35	0.41
3:K:113:PHE:CA	3:K:231:TYR:CE2	3.02	0.41
3:K:170:ASP:CG	3:K:179:SER:HB2	2.40	0.41
3:K:207:LYS:HA	3:K:210:VAL:HG23	2.01	0.41
3:K:297:ARG:HH11	3:K:301:ALA:HB2	1.83	0.41
3:K:346:THR:O	3:K:349:THR:HB	2.21	0.41
1:B:7:ILE:N	1:B:7:ILE:CD1	2.83	0.41
1:B:9:ALA:HB1	1:B:147:MET:HG3	2.01	0.41
1:B:46:ARG:HB3	1:B:241:ARG:CD	2.40	0.41
1:B:107:THR:CG2	1:B:108:GLU:N	2.83	0.41
1:B:134:GLN:NE2	1:B:167:PHE:CD2	2.88	0.41
1:B:145:SER:HB2	1:B:188:SER:HB2	2.00	0.41
1:B:174:LYS:HZ2	1:B:205:GLU:CA	2.32	0.41
1:B:216:LYS:HE3	1:B:216:LYS:HB2	1.93	0.41
1:B:425:TYR:N	1:B:425:TYR:CD1	2.85	0.41
2:A:16:ILE:HD11	6:A:501:GTP:C2	2.54	0.41
2:A:110:ILE:CG2	2:A:149:PHE:CZ	2.98	0.41
2:A:115:ILE:C	2:A:118:VAL:HG12	2.41	0.41
2:A:118:VAL:CG1	2:A:119:LEU:N	2.84	0.41
3:K:86:VAL:HA	3:K:139:THR:CG2	2.50	0.41
3:K:86:VAL:HG22	3:K:139:THR:CG2	2.49	0.41
3:K:110:GLY:HA3	7:K:601:ANP:N7	2.35	0.41
3:K:329:ARG:HD2	3:K:330:THR:C	2.41	0.41
1:B:30:ILE:CG1	1:B:34:GLY:HA2	2.51	0.41
1:B:137:HIS:HE2	1:B:166:THR:HG21	1.83	0.41
1:B:199:THR:HG22	1:B:264:HIS:HB2	1.96	0.41
1:B:327:ASP:OD2	1:B:330:MET:HE2	2.20	0.41
2:A:7:ILE:H	2:A:137:VAL:CB	2.32	0.41
2:A:21:TRP:CE3	2:A:21:TRP:CA	3.02	0.41
2:A:36:MET:HG2	2:A:61:HIS:HD2	1.85	0.41
2:A:115:ILE:CG2	2:A:116:ASP:N	2.82	0.41
2:A:235:VAL:CG1	2:A:236:SER:N	2.84	0.41
2:A:251:ASP:OD2	2:A:254:GLU:HB3	2.21	0.41
2:A:351:PHE:O	2:A:352:LYS:HG3	2.20	0.41
3:K:30:LEU:O	3:K:34:LYS:HG2	2.20	0.41
3:K:79:ILE:HA	3:K:82:TYR:HD1	1.85	0.41
3:K:113:PHE:HA	3:K:231:TYR:HE2	1.79	0.41
1:B:6:HIS:CG	1:B:20:PHE:CE1	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:314:ALA:CB	1:B:368:ILE:HD12	2.51	0.41
1:B:318:ARG:CG	1:B:354:CYS:SG	3.08	0.41
2:A:9:VAL:CG2	2:A:10:GLY:N	2.83	0.41
2:A:73:THR:CG2	2:A:74:VAL:N	2.83	0.41
2:A:102:ASN:H	2:A:105:ARG:HG2	1.85	0.41
2:A:114:ILE:CD1	2:A:114:ILE:N	2.83	0.41
2:A:150:THR:CG2	2:A:154:MET:CE	2.98	0.41
2:A:175:PRO:HG3	2:A:387:ALA:CA	2.50	0.41
2:A:224:TYR:CE2	6:A:501:GTP:C5	3.08	0.41
2:A:238:ILE:HG23	2:A:239:THR:H	1.82	0.41
2:A:368:LEU:HG	2:A:369:ALA:O	2.20	0.41
2:A:382:THR:CG2	2:A:383:ALA:N	2.83	0.41
3:K:53:ARG:HD3	3:K:63:ARG:HD3	2.02	0.41
3:K:72:PHE:CE2	3:K:81:VAL:CG1	3.03	0.41
3:K:79:ILE:HG12	3:K:132:LEU:HA	2.01	0.41
3:K:113:PHE:CG	3:K:231:TYR:CE2	2.95	0.41
3:K:236:HIS:HD1	3:K:267:ALA:H	1.69	0.41
1:B:12:CYS:HB2	1:B:138:SER:CB	2.35	0.41
1:B:68:LEU:HD12	1:B:97:ALA:H	1.85	0.41
1:B:74:ASP:HA	1:B:77:ARG:HH21	1.85	0.41
1:B:91:VAL:HG12	1:B:115:SER:HB2	2.03	0.41
1:B:137:HIS:CE1	1:B:192:LEU:HD11	2.55	0.41
1:B:284:LEU:HB3	1:B:288:GLU:HB2	2.02	0.41
1:B:286:VAL:HG11	1:B:320:ARG:HH22	1.86	0.41
1:B:388:MET:O	1:B:391:ARG:HB2	2.21	0.41
2:A:31:GLN:N	2:A:37:PRO:HD3	2.33	0.41
2:A:102:ASN:HD22	2:A:105:ARG:H	1.69	0.41
2:A:107:HIS:HD2	2:A:152:LEU:HD21	1.80	0.41
2:A:133:GLN:HE21	2:A:164:LYS:HG3	1.85	0.41
2:A:154:MET:HE2	2:A:168:GLU:HG3	1.96	0.41
2:A:172:TYR:CZ	2:A:387:ALA:HB3	2.55	0.41
2:A:286:LEU:HB3	2:A:290:GLU:CD	2.40	0.41
3:K:43:CYS:HB2	3:K:74:ALA:H	1.81	0.41
3:K:79:ILE:CG2	3:K:82:TYR:HD1	2.33	0.41
3:K:94:ILE:CG1	3:K:95:MET:N	2.83	0.41
3:K:110:GLY:CA	7:K:601:ANP:C8	2.98	0.41
3:K:189:ARG:HH21	3:K:195:ILE:HG23	1.85	0.41
3:K:199:LEU:HD23	3:K:199:LEU:C	2.39	0.41
3:K:278:VAL:CG2	3:K:279:ASP:N	2.83	0.41
1:B:64:ILE:HD12	1:B:115:SER:HB3	2.02	0.41
1:B:139:LEU:HD22	1:B:170:VAL:HG22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:173:PRO:CB	1:B:380:ARG:HG2	2.50	0.41
1:B:179:VAL:CG2	1:B:180:VAL:N	2.84	0.41
1:B:274:THR:HG21	1:B:279:GLN:N	2.36	0.41
1:B:318:ARG:CA	1:B:354:CYS:SG	3.07	0.41
1:B:334:GLN:HE21	1:B:334:GLN:HB3	1.51	0.41
2:A:278:ALA:CA	2:A:369:ALA:HB2	2.36	0.41
2:A:380:ASN:ND2	2:A:432:TYR:CE2	2.89	0.41
3:K:18:ASN:O	3:K:360:LEU:HD22	2.21	0.41
3:K:45:PRO:HB3	3:K:72:PHE:HD1	1.85	0.41
3:K:98:ASN:HD22	3:K:98:ASN:H	1.68	0.41
3:K:119:ARG:HH21	3:K:127:TRP:HB2	1.77	0.41
3:K:157:LYS:HD3	3:K:201:GLU:OE1	2.20	0.41
3:K:182:LEU:HD21	3:K:199:LEU:CB	2.31	0.41
3:K:206:ASN:H	3:K:209:GLU:HG3	1.82	0.41
3:K:212:GLN:CG	3:K:213:ILE:N	2.83	0.41
3:K:216:LYS:O	3:K:220:LYS:HD2	2.20	0.41
3:K:312:ARG:HH21	3:K:312:ARG:HD2	1.57	0.41
1:B:28:HIS:HB2	1:B:30:ILE:HG22	2.03	0.41
1:B:100:ASN:HA	1:B:397:TRP:CZ2	2.56	0.41
1:B:265:PHE:N	1:B:265:PHE:CD1	2.85	0.41
1:B:300:MET:CG	1:B:301:ALA:N	2.83	0.41
1:B:314:ALA:CB	1:B:368:ILE:HG21	2.37	0.41
1:B:381:ILE:HG23	1:B:384:GLN:NE2	2.35	0.41
2:A:23:LEU:HD11	2:A:233:GLN:HA	2.02	0.41
2:A:36:MET:CE	2:A:40:LYS:HA	2.34	0.41
2:A:84:ARG:HH11	2:A:84:ARG:HD3	1.77	0.41
2:A:155:GLU:CG	2:A:197:HIS:NE2	2.83	0.41
2:A:188:ILE:CG1	2:A:395:PHE:CD2	3.02	0.41
2:A:268:PRO:CB	2:A:378:LEU:HD22	2.28	0.41
2:A:288:VAL:CG1	2:A:324:VAL:HG21	2.51	0.41
2:A:302:MET:HB2	2:A:302:MET:HE2	1.91	0.41
3:K:51:SER:HB3	3:K:65:THR:CB	2.50	0.41
3:K:76:THR:CG2	3:K:77:LYS:N	2.83	0.41
3:K:129:GLU:OE1	3:K:141:HIS:HD2	2.03	0.41
3:K:161:LEU:HA	3:K:168:LEU:HD12	2.03	0.41
3:K:187:ASP:OD1	3:K:189:ARG:HG2	2.20	0.41
3:K:250:ILE:CG1	3:K:251:ASP:N	2.83	0.41
3:K:325:GLY:H	3:K:361:ASN:CA	2.32	0.41
1:B:7:ILE:O	1:B:135:LEU:HA	2.20	0.41
1:B:139:LEU:CD1	1:B:140:GLY:N	2.83	0.41
1:B:208:TYR:HD2	1:B:208:TYR:HA	1.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:138:PHE:HA	2:A:138:PHE:HD2	1.62	0.41
2:A:409:VAL:HG11	3:K:290:GLN:CA	2.51	0.41
3:K:43:CYS:C	3:K:73:GLY:HA2	2.41	0.41
3:K:66:TYR:CE1	3:K:354:HIS:CE1	3.09	0.41
3:K:117:GLY:CA	3:K:133:ALA:HA	2.50	0.41
3:K:171:LEU:CB	3:K:221:ARG:CA	2.97	0.41
3:K:183:GLN:H	3:K:183:GLN:CD	2.24	0.41
3:K:210:VAL:HG12	3:K:214:LEU:CD1	2.50	0.41
3:K:290:GLN:HE21	3:K:290:GLN:HB3	1.49	0.41
1:B:5:VAL:HG13	1:B:123:GLU:CD	2.41	0.41
1:B:18:ALA:CB	1:B:76:VAL:HG12	2.50	0.41
1:B:51:TYR:HD1	1:B:62:ARG:CD	2.34	0.41
1:B:105:HIS:HD2	1:B:146:GLY:O	2.03	0.41
1:B:173:PRO:HB2	1:B:380:ARG:HG2	2.03	0.41
1:B:245:GLN:HA	1:B:355:ASP:OD1	2.20	0.41
1:B:318:ARG:CD	1:B:364:SER:HB2	2.50	0.41
1:B:330:MET:HE3	2:A:177:VAL:CG2	2.45	0.41
1:B:372:THR:O	1:B:376:GLU:HG2	2.21	0.41
1:B:374:ILE:CG2	1:B:375:GLN:N	2.82	0.41
1:B:394:PHE:HD2	1:B:394:PHE:HA	1.54	0.41
1:B:418:LEU:HD12	1:B:419:VAL:CA	2.50	0.41
2:A:8:HIS:NE2	2:A:17:GLY:CA	2.84	0.41
2:A:8:HIS:HB2	2:A:14:VAL:HA	2.03	0.41
2:A:9:VAL:CG1	2:A:139:HIS:HB3	2.50	0.41
2:A:30:ILE:HG21	2:A:61:HIS:O	2.21	0.41
2:A:41:THR:CG2	2:A:42:ILE:N	2.82	0.41
2:A:69:ASP:CB	2:A:75:ILE:CG2	2.95	0.41
2:A:88:HIS:HA	2:A:89:PRO:HD3	1.89	0.41
2:A:89:PRO:HA	2:A:92:LEU:CD2	2.43	0.41
2:A:110:ILE:CG2	2:A:114:ILE:CD1	2.98	0.41
2:A:137:VAL:HG21	2:A:139:HIS:NE2	2.36	0.41
2:A:171:ILE:HG23	2:A:206:ASN:OD1	2.21	0.41
2:A:370:LYS:HZ2	2:A:372:GLN:HA	1.84	0.41
3:K:19:ILE:HG13	3:K:332:ILE:H	1.83	0.41
3:K:77:LYS:CG	3:K:78:GLN:N	2.84	0.41
3:K:79:ILE:O	3:K:82:TYR:CD1	2.73	0.41
3:K:81:VAL:CG2	3:K:82:TYR:N	2.84	0.41
3:K:103:ALA:HB3	3:K:111:LYS:HG3	1.96	0.41
3:K:107:THR:HG22	3:K:229:ASN:ND2	2.36	0.41
3:K:119:ARG:NE	3:K:127:TRP:HB2	2.36	0.41
3:K:178:VAL:HG23	3:K:179:SER:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:184:MET:HE1	3:K:194:VAL:HG23	1.97	0.41
3:K:192:ARG:CD	3:K:327:ARG:CD	2.99	0.41
3:K:199:LEU:HD23	3:K:200:GLU:O	2.21	0.41
3:K:299:ILE:HG21	3:K:355:ARG:C	2.42	0.41
1:B:74:ASP:HA	1:B:77:ARG:HE	1.86	0.41
1:B:80:PRO:HB2	1:B:81:PHE:HD2	1.86	0.41
1:B:81:PHE:HB3	1:B:84:ILE:CG1	2.50	0.41
1:B:91:VAL:HG11	1:B:115:SER:CB	2.51	0.41
2:A:40:LYS:CE	2:A:61:HIS:CE1	3.04	0.41
2:A:49:PHE:O	2:A:53:PHE:CD2	2.74	0.41
2:A:107:HIS:NE2	2:A:413:MET:CE	2.84	0.41
2:A:124:LYS:HG3	2:A:125:LEU:N	2.36	0.41
2:A:152:LEU:HD22	2:A:152:LEU:H	1.85	0.41
2:A:154:MET:SD	2:A:168:GLU:HG3	2.61	0.41
2:A:388:TRP:HB3	2:A:429:GLU:OE1	2.21	0.41
3:K:18:ASN:CB	3:K:360:LEU:HD22	2.49	0.41
3:K:82:TYR:C	3:K:135:ILE:HG13	2.42	0.41
3:K:95:MET:HE2	3:K:95:MET:HB3	1.97	0.41
3:K:97:TYR:HA	3:K:364:GLU:C	2.41	0.41
3:K:109:THR:HG21	3:K:335:THR:C	2.42	0.41
3:K:158:VAL:HB	3:K:172:LEU:HG	2.03	0.41
3:K:169:PHE:CD1	3:K:169:PHE:N	2.89	0.41
1:B:2:ARG:CA	1:B:130:LEU:HD22	2.51	0.40
1:B:102:ALA:O	1:B:106:TYR:CG	2.74	0.40
1:B:167:PHE:CE2	1:B:233:MET:SD	3.14	0.40
1:B:367:PHE:CD2	1:B:368:ILE:N	2.88	0.40
1:B:368:ILE:HG22	1:B:369:GLY:H	1.85	0.40
1:B:422:TYR:CB	3:K:308:HIS:CE1	2.95	0.40
2:A:76:ASP:HA	2:A:79:ARG:HG2	1.99	0.40
2:A:213:CYS:CB	2:A:227:LEU:HD23	2.51	0.40
2:A:267:PHE:CD2	2:A:267:PHE:N	2.89	0.40
2:A:317:LEU:HA	2:A:376:CYS:O	2.21	0.40
3:K:100:THR:HB	3:K:330:THR:OG1	2.21	0.40
3:K:163:ILE:O	3:K:235:SER:HB2	2.21	0.40
3:K:187:ASP:HB3	3:K:189:ARG:HG3	2.03	0.40
1:B:10:GLY:CA	1:B:144:GLY:CA	2.99	0.40
1:B:77:ARG:NH2	1:B:92:PHE:HZ	2.19	0.40
1:B:322:SER:HB3	1:B:324:LYS:HD3	2.02	0.40
1:B:324:LYS:CD	1:B:325:GLU:N	2.83	0.40
1:B:337:ASN:HB2	1:B:340:TYR:H	1.86	0.40
2:A:69:ASP:HB2	2:A:94:THR:CG2	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:205:ASP:CB	2:A:208:ALA:CB	2.95	0.40
2:A:238:ILE:CG2	2:A:239:THR:N	2.83	0.40
2:A:240:ALA:HB2	2:A:243:ARG:NH1	2.36	0.40
2:A:282:TYR:CD1	2:A:282:TYR:N	2.83	0.40
2:A:417:GLU:CG	2:A:418:PHE:N	2.83	0.40
3:K:26:ARG:HB3	3:K:337:SER:HA	2.03	0.40
3:K:40:ILE:CG1	3:K:52:VAL:CG1	2.96	0.40
3:K:102:PHE:CE1	3:K:264:VAL:HB	2.55	0.40
3:K:161:LEU:HA	3:K:168:LEU:CD1	2.50	0.40
3:K:307:PRO:O	3:K:309:VAL:HA	2.21	0.40
1:B:28:HIS:CG	1:B:47:ILE:CG2	3.04	0.40
1:B:36:TYR:CD1	1:B:38:GLY:O	2.75	0.40
1:B:59:TYR:HD2	1:B:59:TYR:HA	1.58	0.40
2:A:8:HIS:CE1	2:A:17:GLY:CA	3.04	0.40
2:A:104:ALA:CB	2:A:411:GLU:CG	2.98	0.40
2:A:137:VAL:O	2:A:169:PHE:CG	2.75	0.40
2:A:222:PRO:HB3	2:A:223:THR:HG22	2.03	0.40
2:A:234:ILE:CG2	2:A:235:VAL:N	2.83	0.40
2:A:239:THR:CG2	2:A:240:ALA:N	2.83	0.40
2:A:261:PRO:C	2:A:262:TYR:CD2	2.95	0.40
2:A:288:VAL:CG1	2:A:324:VAL:CG2	2.99	0.40
3:K:144:PHE:CE2	3:K:206:ASN:ND2	2.87	0.40
3:K:145:GLU:O	3:K:148:THR:HB	2.21	0.40
3:K:182:LEU:HG	3:K:199:LEU:CB	2.52	0.40
3:K:293:LEU:HD13	3:K:293:LEU:O	2.20	0.40
3:K:318:ARG:NH1	3:K:319:ILE:HA	2.36	0.40
1:B:186:THR:CB	1:B:385:PHE:CD1	3.04	0.40
1:B:289:LEU:HD23	1:B:289:LEU:C	2.40	0.40
2:A:88:HIS:O	2:A:92:LEU:HD22	2.22	0.40
2:A:152:LEU:CD2	2:A:152:LEU:H	2.35	0.40
2:A:210:TYR:CD2	2:A:211:ASP:N	2.89	0.40
2:A:312:TYR:CD2	2:A:380:ASN:O	2.75	0.40
2:A:313:MET:CE	2:A:432:TYR:CE2	3.05	0.40
2:A:426:ALA:C	2:A:429:GLU:HG2	2.42	0.40
3:K:49:GLU:CA	3:K:71:VAL:HB	2.52	0.40
3:K:159:SER:HB2	3:K:199:LEU:CD2	2.50	0.40
3:K:159:SER:C	3:K:172:LEU:HD23	2.39	0.40
3:K:182:LEU:CG	3:K:199:LEU:CB	2.95	0.40
1:B:3:GLU:HG3	1:B:49:VAL:HG12	2.02	0.40
1:B:20:PHE:CZ	1:B:24:ILE:CD1	3.05	0.40
1:B:34:GLY:HA3	1:B:58:LYS:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:60:VAL:HA	1:B:61:PRO:HD3	1.83	0.40
1:B:94:GLN:HE21	1:B:94:GLN:HB2	1.51	0.40
1:B:183:TYR:N	1:B:388:MET:SD	2.95	0.40
1:B:215:LEU:CD1	1:B:221:THR:H	2.34	0.40
1:B:310:TYR:CD1	1:B:370:ASN:O	2.75	0.40
1:B:321:MET:O	1:B:321:MET:HG3	2.21	0.40
1:B:382:SER:CB	1:B:415:MET:SD	3.09	0.40
2:A:31:GLN:HB3	2:A:32:PRO:CD	2.51	0.40
2:A:36:MET:SD	2:A:36:MET:N	2.95	0.40
2:A:66:VAL:C	2:A:67:PHE:CD1	2.95	0.40
2:A:184:PRO:O	2:A:395:PHE:CZ	2.75	0.40
2:A:262:TYR:HA	2:A:263:PRO:HD3	1.84	0.40
2:A:288:VAL:CG1	2:A:327:ASP:CA	3.00	0.40
3:K:23:VAL:CG1	3:K:71:VAL:HG13	2.47	0.40
3:K:40:ILE:HD12	3:K:343:LEU:HD13	2.01	0.40
3:K:70:MET:SD	3:K:71:VAL:N	2.95	0.40
3:K:77:LYS:CE	3:K:79:ILE:CD1	2.99	0.40
3:K:92:GLU:HG2	3:K:99:CYS:CB	2.47	0.40
3:K:120:SER:HB2	3:K:125:TYR:H	1.85	0.40
3:K:143:ILE:HB	3:K:207:LYS:HZ3	1.85	0.40
3:K:173:ASN:ND2	3:K:175:SER:H	2.19	0.40
3:K:185:PHE:CD2	3:K:186:ASP:O	2.75	0.40
3:K:322:ASP:C	3:K:326:GLY:HA3	2.42	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	427/429 (100%)	425 (100%)	2 (0%)	0	100	100
2	A	436/438 (100%)	434 (100%)	2 (0%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	K	348/391 (89%)	343 (99%)	4 (1%)	1 (0%)	41	76
All	All	1211/1258 (96%)	1202 (99%)	8 (1%)	1 (0%)	54	85

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	K	308	HIS

5.3.2   Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	369/369 (100%)	328 (89%)	41 (11%)	6	22
2	A	369/369 (100%)	308 (84%)	61 (16%)	2	12
3	K	307/343 (90%)	255 (83%)	52 (17%)	2	12
All	All	1045/1081 (97%)	891 (85%)	154 (15%)	6	15

All (154) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	27	GLU
1	B	46	ARG
1	B	62	ARG
1	B	85	PHE
1	B	86	ARG
1	B	92	PHE
1	B	94	GLN
1	B	114	ASP
1	B	118	ASP
1	B	134	GLN
1	B	154	LYS
1	B	156	ARG
1	B	183	TYR
1	B	208	TYR

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Mol	Chain	Res	Type
1	B	216	LYS
1	B	253	LEU
1	B	276	ARG
1	B	279	GLN
1	B	286	VAL
1	B	297	LYS
1	B	304	ASP
1	B	306	ARG
1	B	309	ARG
1	B	320	ARG
1	B	324	LYS
1	B	330	MET
1	B	334	GLN
1	B	339	SER
1	B	340	TYR
1	B	341	PHE
1	B	350	LYS
1	B	356	ILE
1	B	362	LYS
1	B	367	PHE
1	B	375	GLN
1	B	384	GLN
1	B	390	ARG
1	B	392	LYS
1	B	398	TYR
1	B	406	MET
1	B	415	MET
2	A	1	MET
2	A	36	MET
2	A	64	ARG
2	A	69	ASP
2	A	71	GLU
2	A	75	ILE
2	A	79	ARG
2	A	83	TYR
2	A	84	ARG
2	A	92	LEU
2	A	96	LYS
2	A	101	ASN
2	A	115	ILE
2	A	116	ASP
2	A	120	ASP

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Mol	Chain	Res	Type
2	A	135	PHE
2	A	141	PHE
2	A	164	LYS
2	A	185	TYR
2	A	203	MET
2	A	209	ILE
2	A	210	TYR
2	A	214	ARG
2	A	221	ARG
2	A	229	ARG
2	A	254	GLU
2	A	255	PHE
2	A	264	ARG
2	A	290	GLU
2	A	300	ASN
2	A	304	LYS
2	A	308	ARG
2	A	311	LYS
2	A	315	CYS
2	A	317	LEU
2	A	320	ARG
2	A	322	ASP
2	A	323	VAL
2	A	326	LYS
2	A	332	ILE
2	A	334	THR
2	A	336	LYS
2	A	338	LYS
2	A	340	SER
2	A	341	ILE
2	A	346	TRP
2	A	351	PHE
2	A	353	VAL
2	A	370	LYS
2	A	373	ARG
2	A	390	ARG
2	A	395	PHE
2	A	396	ASP
2	A	399	TYR
2	A	401	LYS
2	A	406	HIS
2	A	407	TRP

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Mol	Chain	Res	Type
2	A	417	GLU
2	A	422	ARG
2	A	430	LYS
2	A	432	TYR
3	K	24	ARG
3	K	26	ARG
3	K	33	ARG
3	K	53	ARG
3	K	64	LYS
3	K	66	TYR
3	K	82	TYR
3	K	91	ASP
3	K	99	CYS
3	K	104	TYR
3	K	109	THR
3	K	113	PHE
3	K	118	GLU
3	K	127	TRP
3	K	128	GLU
3	K	132	LEU
3	K	145	GLU
3	K	146	LYS
3	K	162	GLU
3	K	167	GLU
3	K	168	LEU
3	K	170	ASP
3	K	180	GLU
3	K	181	ARG
3	K	185	PHE
3	K	189	ARG
3	K	192	ARG
3	K	207	LYS
3	K	212	GLN
3	K	213	ILE
3	K	220	LYS
3	K	227	LEU
3	K	234	ARG
3	K	271	ASN
3	K	274	ARG
3	K	280	LYS
3	K	281	ARG
3	K	287	ASN

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Mol	Chain	Res	Type
3	K	290	GLN
3	K	297	ARG
3	K	302	LEU
3	K	303	VAL
3	K	305	ARG
3	K	308	HIS
3	K	309	VAL
3	K	316	LEU
3	K	318	ARG
3	K	321	GLN
3	K	327	ARG
3	K	329	ARG
3	K	354	HIS
3	K	362	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (49) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	15	GLN
1	B	37	HIS
1	B	52	ASN
1	B	89	ASN
1	B	94	GLN
1	B	105	HIS
1	B	204	ASN
1	B	227	HIS
1	B	245	GLN
1	B	279	GLN
1	B	291	GLN
1	B	307	HIS
1	B	334	GLN
1	B	375	GLN
1	B	423	GLN
1	B	426	GLN
2	A	11	GLN
2	A	15	GLN
2	A	18	ASN
2	A	31	GLN
2	A	50	ASN
2	A	91	GLN
2	A	107	HIS
2	A	133	GLN

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Mol	Chain	Res	Type
2	A	228	ASN
2	A	233	GLN
2	A	249	ASN
2	A	256	GLN
2	A	300	ASN
2	A	309	HIS
2	A	356	ASN
2	A	372	GLN
2	A	393	HIS
2	A	406	HIS
3	K	29	ASN
3	K	98	ASN
3	K	141	HIS
3	K	190	ASN
3	K	205	HIS
3	K	229	ASN
3	K	244	HIS
3	K	262	ASN
3	K	290	GLN
3	K	308	HIS
3	K	321	GLN
3	K	342	ASN
3	K	354	HIS
3	K	358	ASN
3	K	361	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 6 ligands modelled in this entry, 3 are monoatomic - leaving 3 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
7	ANP	K	601	5	29,33,33	1.82	7 (24%)	31,52,52	3.20	18 (58%)
6	GTP	A	501	5	26,34,34	0.93	3 (11%)	32,54,54	0.55	0
4	G2P	B	501	5	27,34,34	1.19	3 (11%)	33,54,54	2.13	7 (21%)

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
7	ANP	K	601	5	-	3/14/38/38	0/3/3/3
6	GTP	A	501	5	-	7/18/38/38	0/3/3/3
4	G2P	B	501	5	-	4/15/38/38	0/3/3/3

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	K	601	ANP	PG-O1G	4.55	1.53	1.46
7	K	601	ANP	O4'-C1'	4.11	1.46	1.41
7	K	601	ANP	PA-O5'	3.83	1.74	1.59
7	K	601	ANP	O5'-C5'	-3.18	1.32	1.44
4	B	501	G2P	C6-N1	2.99	1.38	1.33
4	B	501	G2P	PA-O1A	-2.47	1.50	1.56
7	K	601	ANP	PB-N3B	2.46	1.69	1.63
4	B	501	G2P	PB-O1B	-2.41	1.50	1.56
7	K	601	ANP	PG-O3G	-2.35	1.50	1.56
6	A	501	GTP	C5-C6	-2.25	1.42	1.47
6	A	501	GTP	C5-C4	-2.08	1.37	1.43
6	A	501	GTP	C8-N7	-2.05	1.31	1.35
7	K	601	ANP	PG-O2G	-2.00	1.51	1.56

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	B	501	G2P	C5-C6-N1	-8.03	112.45	123.43
7	K	601	ANP	C5'-C4'-C3'	-7.24	88.04	115.18
7	K	601	ANP	PB-O3A-PA	-6.42	109.99	132.62
7	K	601	ANP	O5'-C5'-C4'	5.95	129.46	108.99
4	B	501	G2P	C2-N1-C6	5.76	125.08	115.93
7	K	601	ANP	O3A-PB-N3B	-5.26	91.99	106.59
7	K	601	ANP	N3-C2-N1	-4.97	120.92	128.68
7	K	601	ANP	O5'-PA-O1A	-4.78	90.39	109.07
7	K	601	ANP	O2A-PA-O5'	-4.75	85.66	107.75
7	K	601	ANP	O2B-PB-O3A	3.44	116.13	104.64
4	B	501	G2P	O1B-PB-C3A	3.18	119.60	106.58
7	K	601	ANP	PA-O5'-C5'	-3.10	103.50	121.68
4	B	501	G2P	N3-C2-N1	-3.04	123.16	127.22
4	B	501	G2P	O1A-PA-C3A	2.95	118.64	106.58
7	K	601	ANP	O1G-PG-N3B	2.73	115.78	111.77
7	K	601	ANP	O4'-C4'-C5'	-2.62	100.77	109.37
7	K	601	ANP	O2A-PA-O1A	2.60	125.11	112.24
7	K	601	ANP	C2'-C3'-C4'	2.55	107.60	102.64
4	B	501	G2P	C4-C5-C6	-2.53	118.38	120.80
7	K	601	ANP	O4'-C1'-C2'	2.52	110.60	106.93
7	K	601	ANP	O2G-PG-O1G	-2.39	107.45	113.45
7	K	601	ANP	C1'-N9-C4	-2.31	122.58	126.64
4	B	501	G2P	C2-N3-C4	-2.28	112.75	115.36
7	K	601	ANP	O4'-C4'-C3'	2.05	109.18	105.11
7	K	601	ANP	C3'-C2'-C1'	2.01	104.00	100.98

There are no chirality outliers.

All (14) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	B	501	G2P	PB-C3A-PA-O1A
4	B	501	G2P	PB-C3A-PA-O2A
4	B	501	G2P	PB-C3A-PA-O5'
7	K	601	ANP	PB-N3B-PG-O1G
7	K	601	ANP	PG-N3B-PB-O1B
4	B	501	G2P	PB-O3B-PG-O3G
6	A	501	GTP	C5'-O5'-PA-O3A
6	A	501	GTP	C5'-O5'-PA-O1A
6	A	501	GTP	PB-O3B-PG-O1G
6	A	501	GTP	PB-O3B-PG-O2G
6	A	501	GTP	PB-O3B-PG-O3G

Continued from previous page...
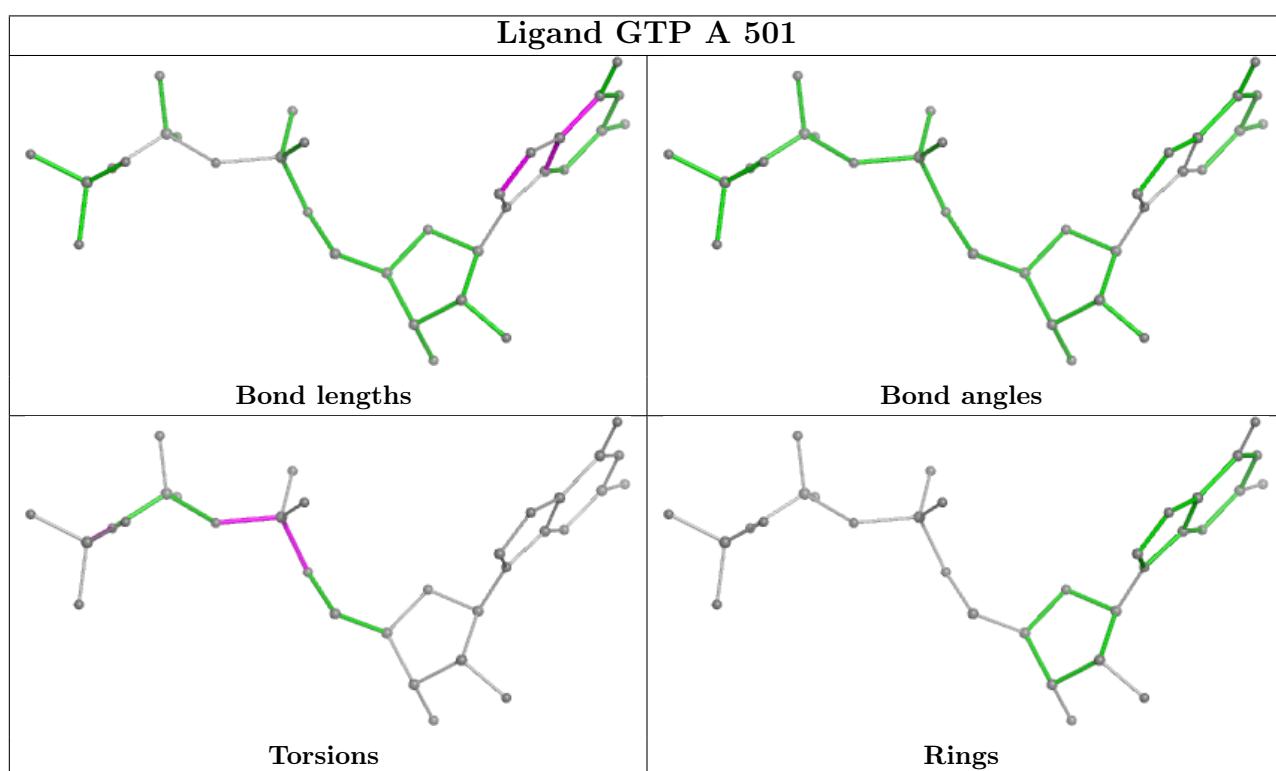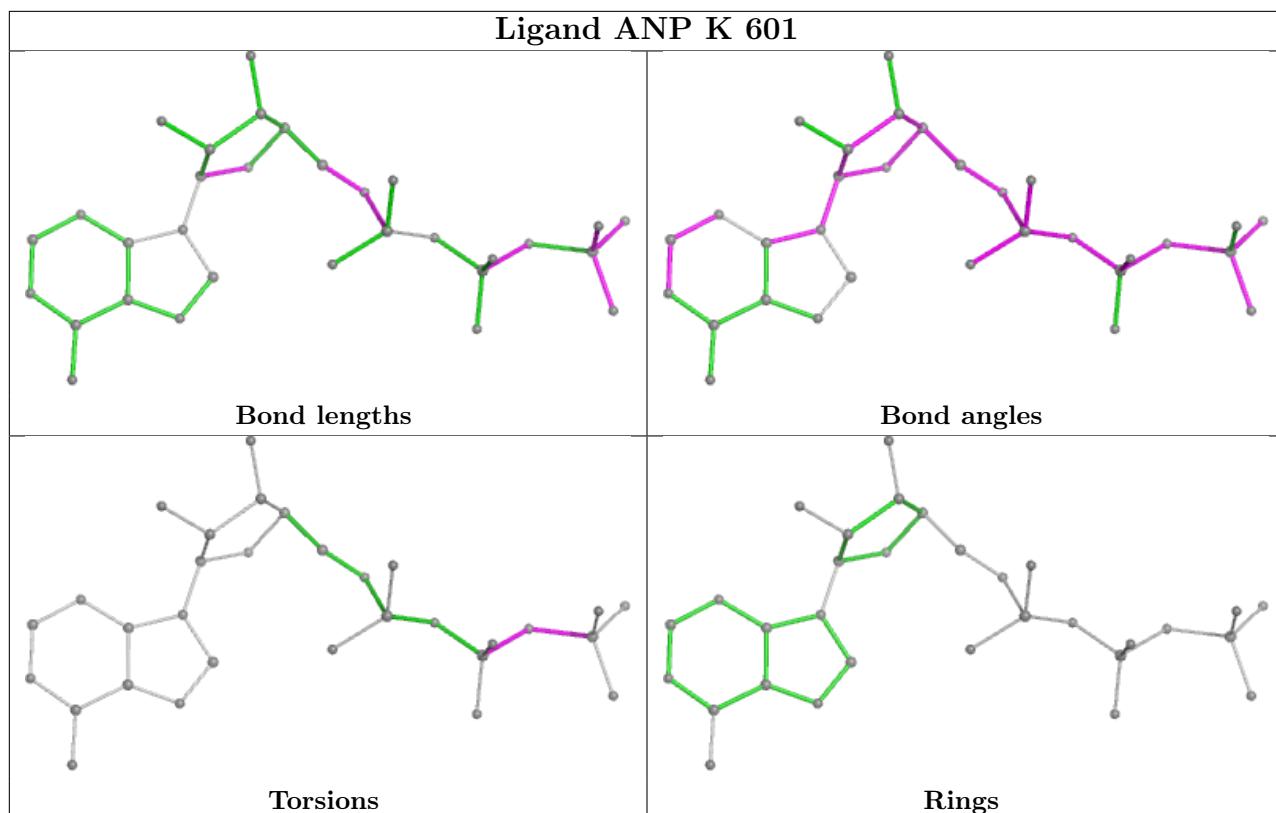
Mol	Chain	Res	Type	Atoms
6	A	501	GTP	PB-O3A-PA-O1A
6	A	501	GTP	C5'-O5'-PA-O2A
7	K	601	ANP	PG-N3B-PB-O3A
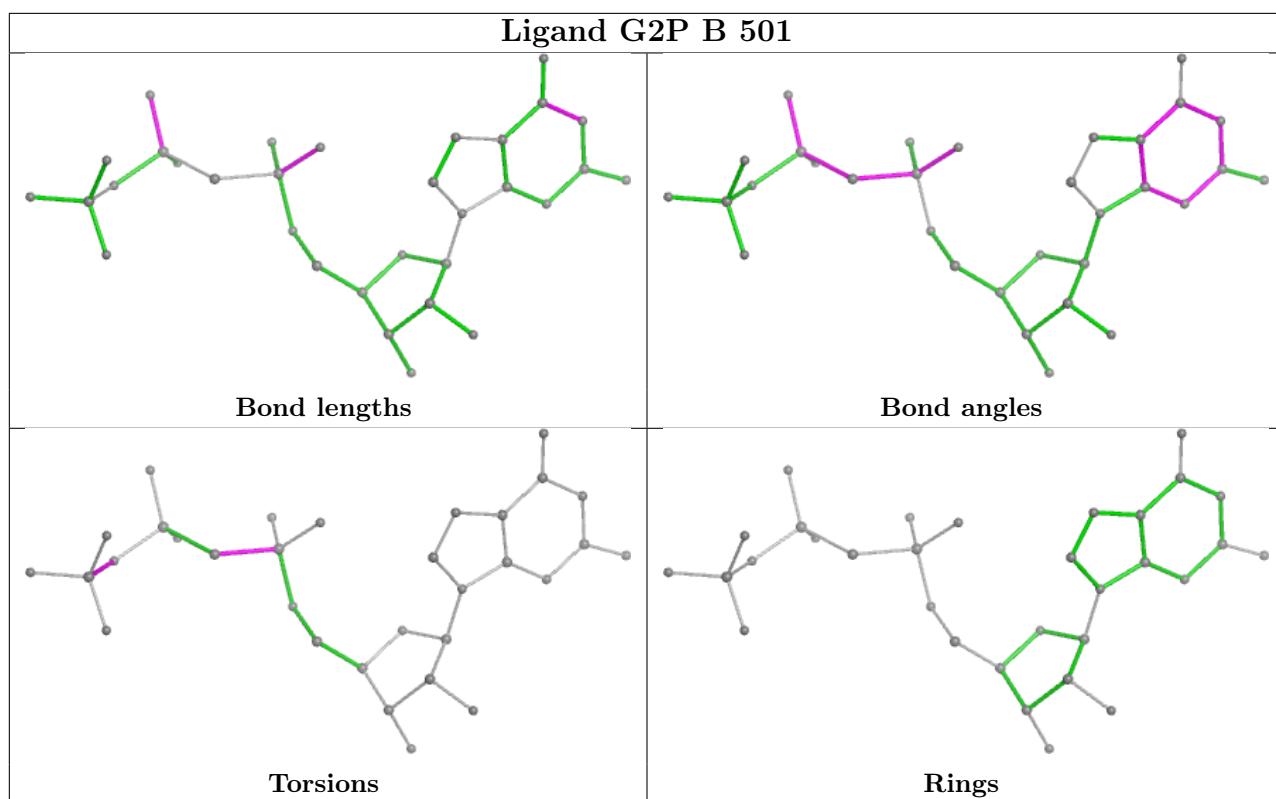
There are no ring outliers.

3 monomers are involved in 34 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	K	601	ANP	16	0
6	A	501	GTP	14	0
4	B	501	G2P	4	0

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

Ligand ANP K 601

Bond lengths

Bond angles

Torsions

Rings

Ligand GTP A 501

Bond lengths

Bond angles

Torsions

Rings

Ligand G2P B 501

Bond lengths

Bond angles

Torsions

Rings

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.
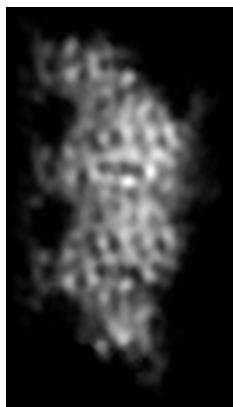
6 Map visualisation ⓘ

This section contains visualisations of the EMDB entry EMD-10422. These allow visual inspection of the internal detail of the map and identification of artifacts.
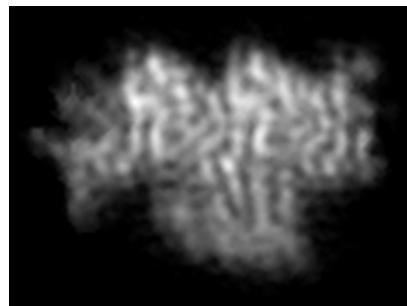
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections ⓘ
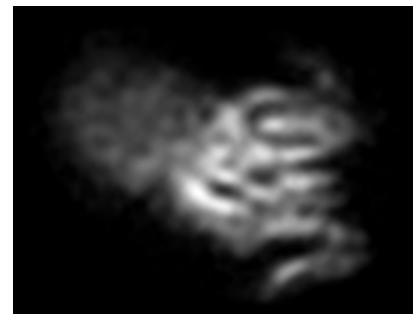
6.1.1 Primary map

X

Y

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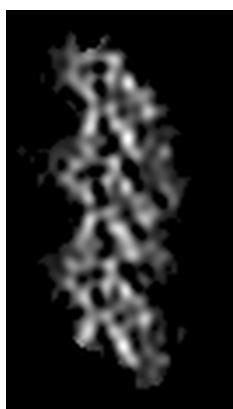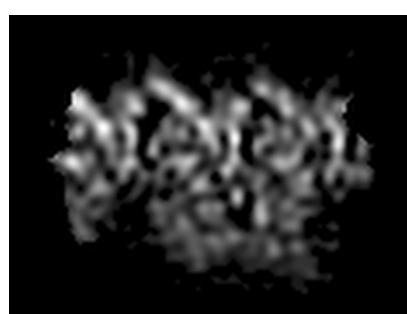
The images above show the map projected in three orthogonal directions.

6.2 Central slices ⓘ

6.2.1 Primary map

X Index: 43

Y Index: 33
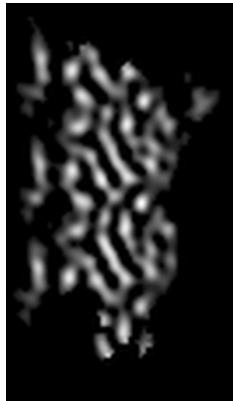
Z Index: 57

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

6.3   Largest variance slices ⓘ

6.3.1   Primary map
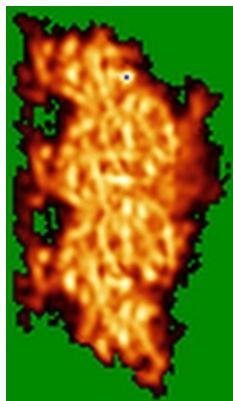
| X Index: 59 | Y Index: 34 | Z Index: 72 |
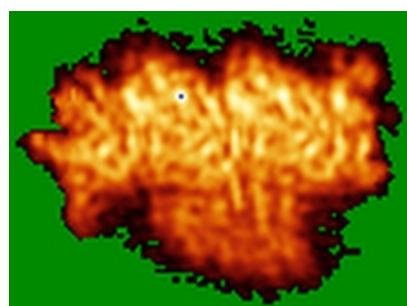
The images above show the largest variance slices of the map in three orthogonal directions.

6.4   Orthogonal standard-deviation projections (False-color) ⓘ
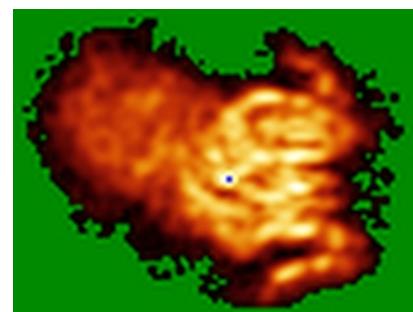
6.4.1   Primary map

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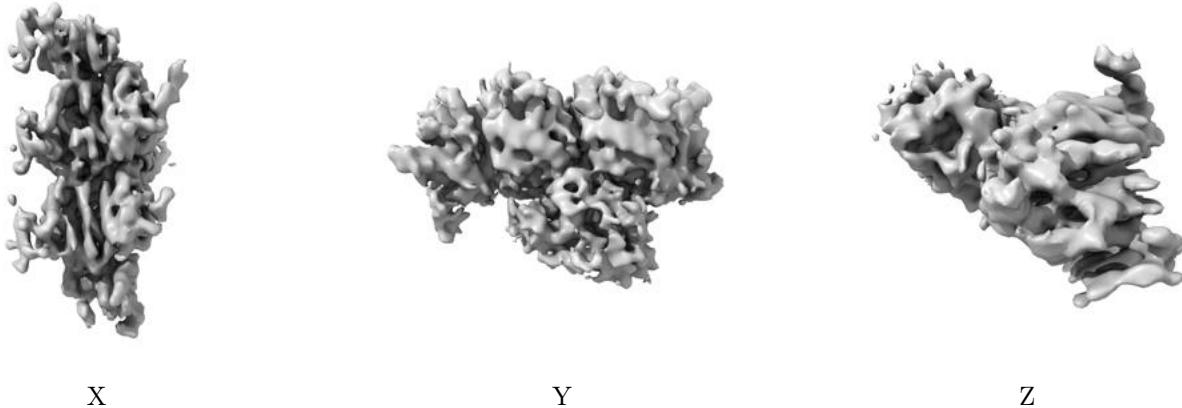
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X   Y   Z

The images above show the 3D surface view of the map at the recommended contour level 0.0125. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.
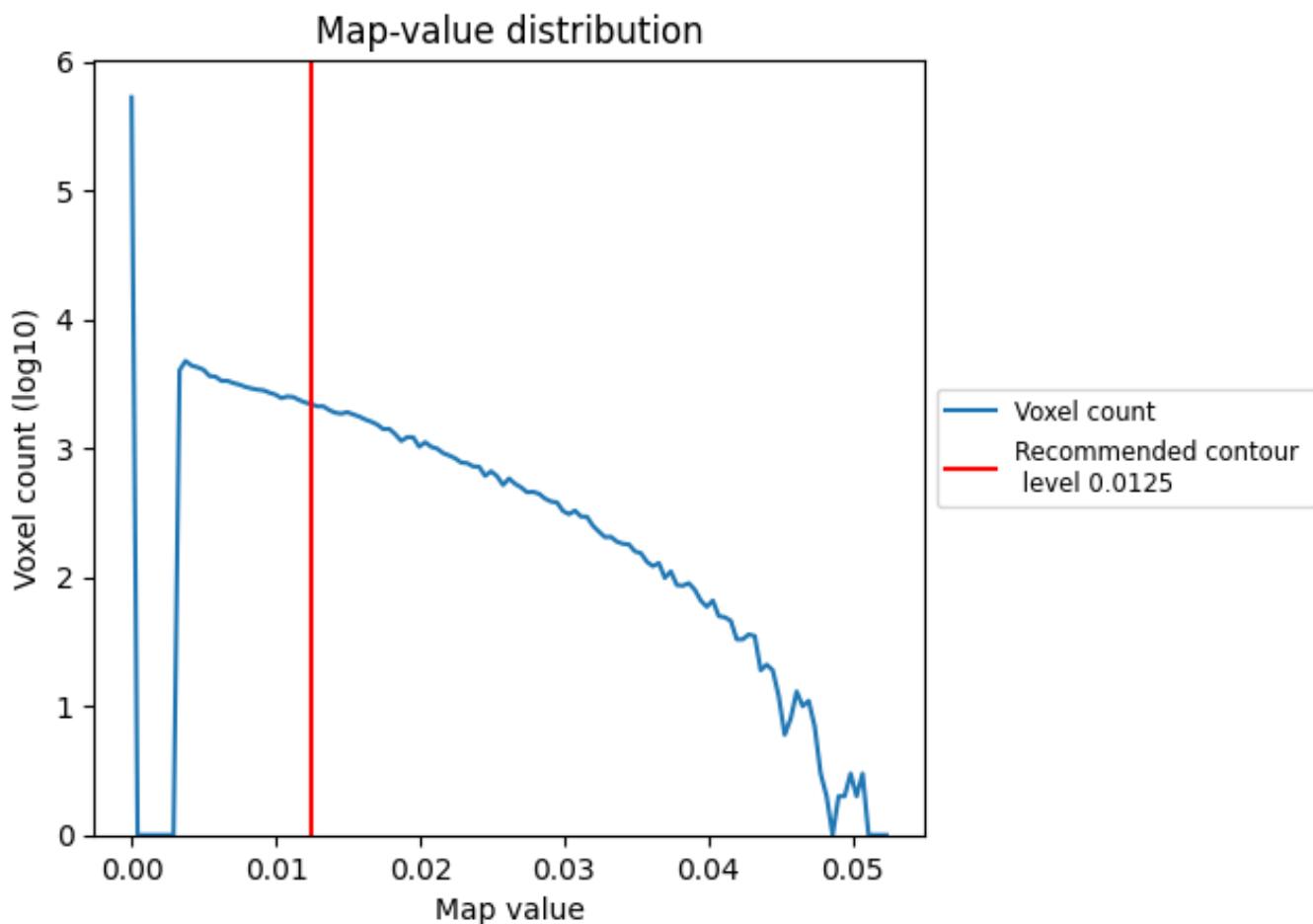
6.6 Mask visualisation (i)

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

7 Map analysis ⓘ
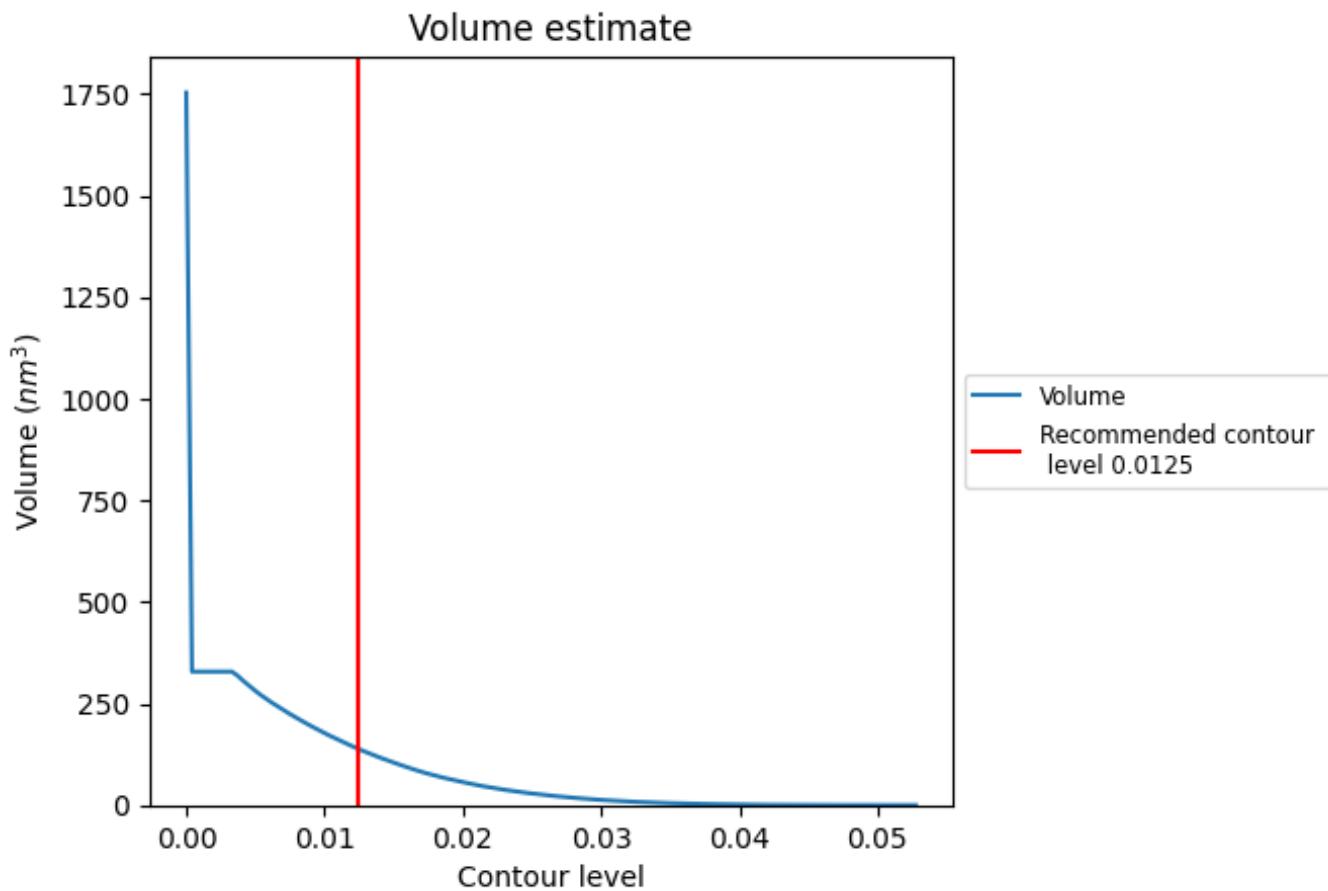
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution ⓘ

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

7.2　Volume estimate ⓘ

The volume at the recommended contour level is 138 nm^3; this corresponds to an approximate mass of 124 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.
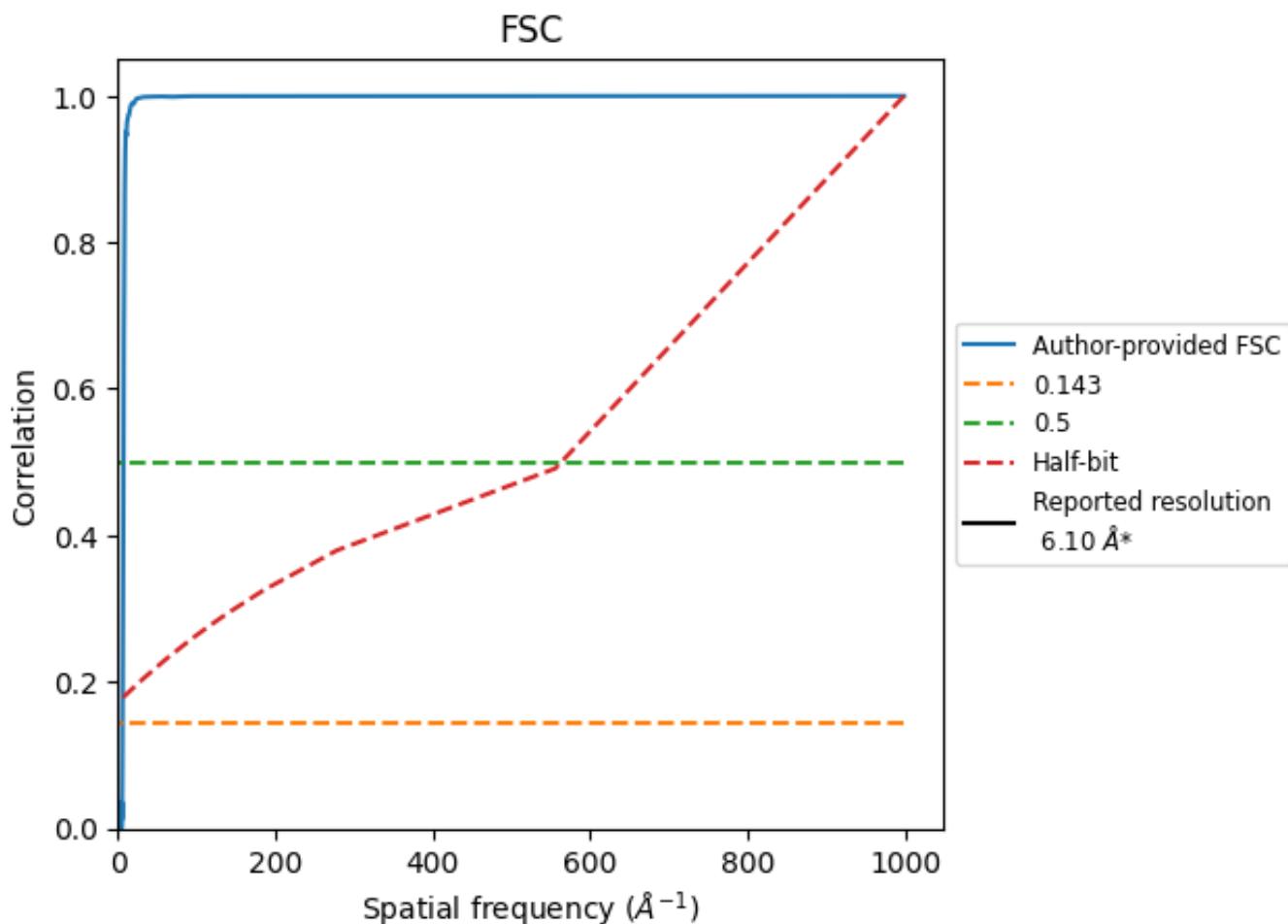
7.3　Rotationally averaged power spectrum ⓘ

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

8   Fourier-Shell correlation ⓘ

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

8.1   FSC ⓘ

*Reported resolution corresponds to spatial frequency of 0.164 Å^{-1}

8.2 Resolution estimates ⓘ
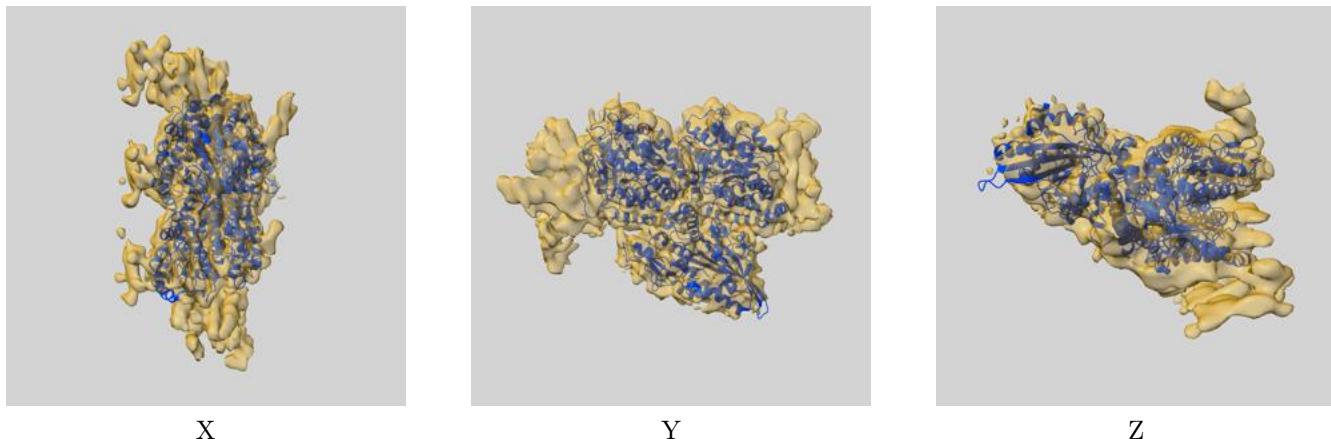
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	6.10	-	-
Author-provided FSC curve	0.17	0.14	0.16
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from author-provided FSC intersecting FSC 0.143 CUT-OFF 0.17 differs from the reported value 6.1 by more than 10 %

9 Map-model fit ⓘ
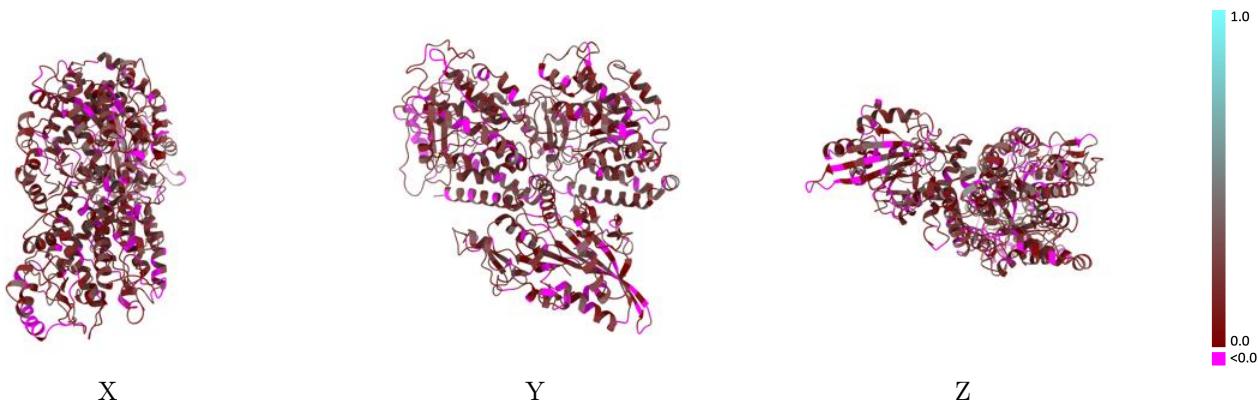
This section contains information regarding the fit between EMDB map EMD-10422 and PDB model 6TA4. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlay ⓘ
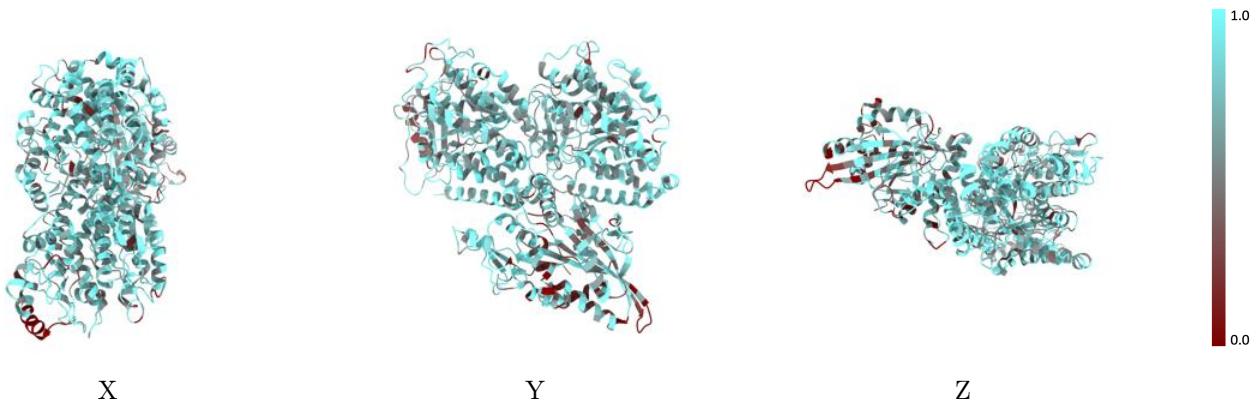
X	Y	Z

The images above show the 3D surface view of the map at the recommended contour level 0.0125 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model ⓘ

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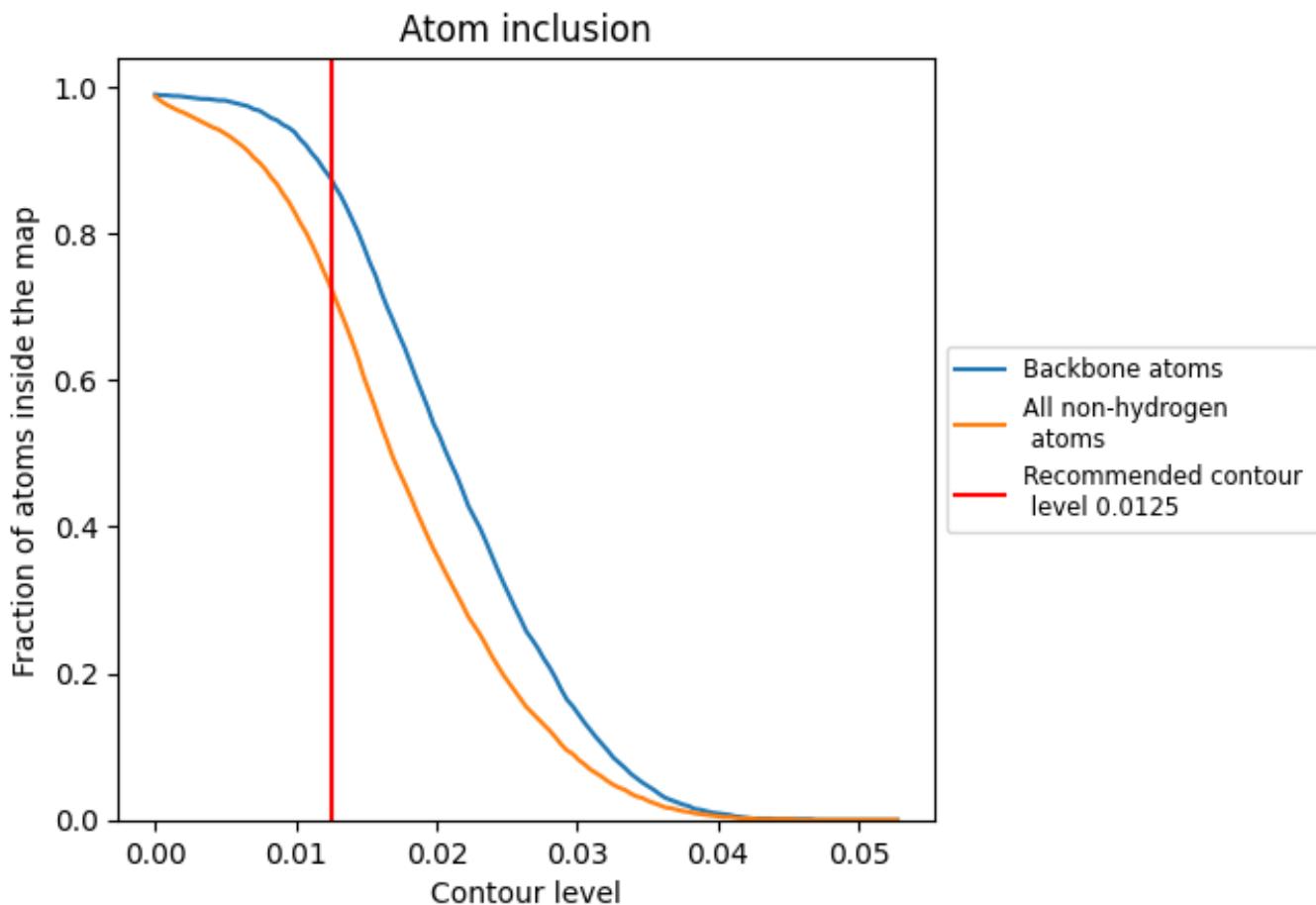
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model ⓘ

X   Y   Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0125).

9.4 Atom inclusion ⓘ

At the recommended contour level, 87% of all backbone atoms, 72% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.0125) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7250	0.1560
A	0.7330	0.1530
B	0.7760	0.1700
K	0.6520	0.1430

1.0

0.0
<0.0