Full wwPDB EM Validation Report ⓘ

Nov 20, 2022 – 05:51 pm GMT

PDB ID	:	4BIL
EMDB ID	:	EMD-2356
Title	:	Threading model of the T7 large terminase within the gp8gp19 complex
Authors	:	Dauden, M.I.; Martin-Benito, J.; Sanchez-Ferrero, J.C.; Pulido-Cid, M.; Valpuesta, J.M.; Carrascosa, J.L.
Deposited on	:	2013-04-10
Resolution	:	29.00 Å(reported)
Based on initial model	:	3CPE

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

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

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

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

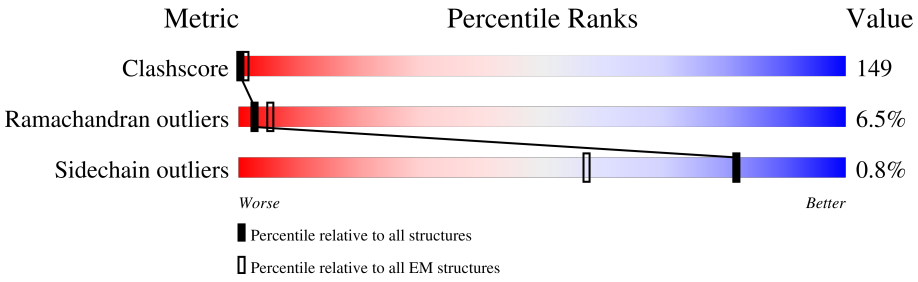
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 29.00 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	476	6% 22% 61% 12% .
1	B	476	6% 19% 64% 13% .
1	C	476	6% 19% 64% 13% .
1	D	476	6% 19% 64% 12% 5%
1	E	476	6% 19% 64% 13% .

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 18925 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.

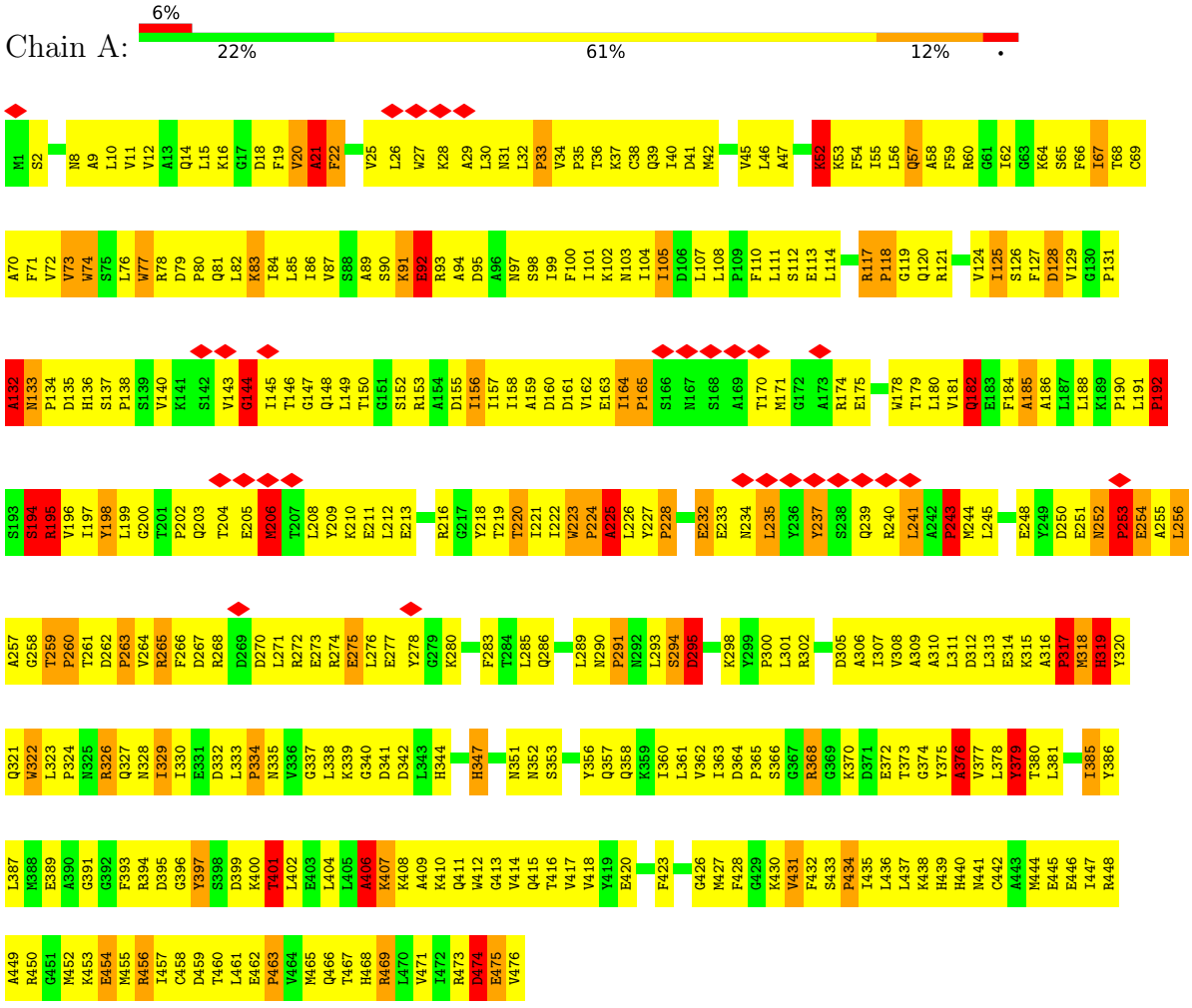
- Molecule 1 is a protein called DNA MATURASE B.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	476	Total	C	N	O	S	0	0
			3785	2412	650	705	18		
1	B	476	Total	C	N	O	S	0	0
			3785	2412	650	705	18		
1	C	476	Total	C	N	O	S	0	0
			3785	2412	650	705	18		
1	D	476	Total	C	N	O	S	0	0
			3785	2412	650	705	18		
1	E	476	Total	C	N	O	S	0	0
			3785	2412	650	705	18		

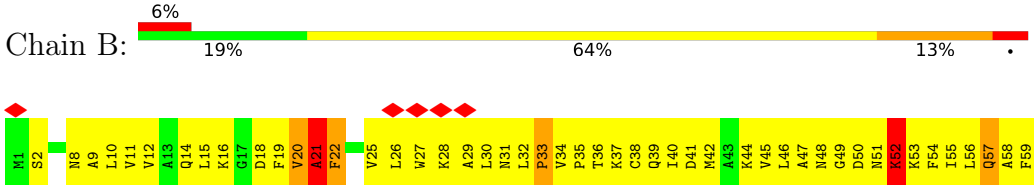
3 Residue-property plots (i)

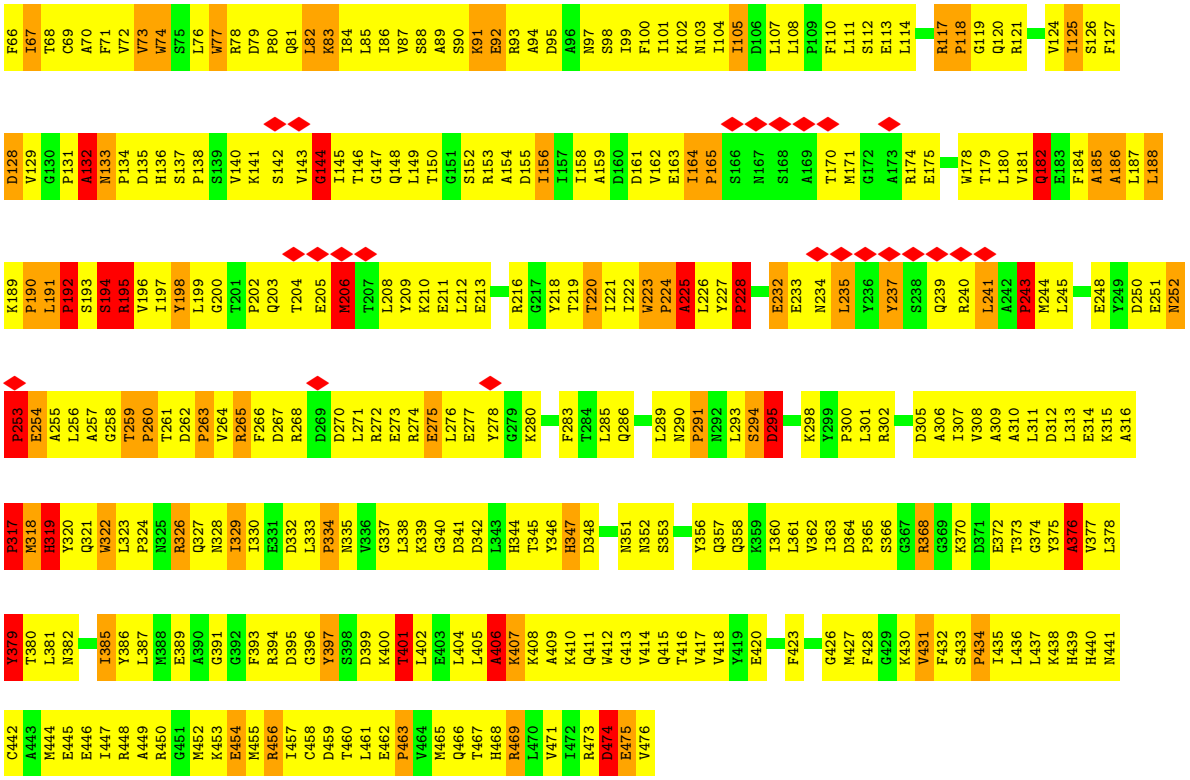
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: DNA MATURASE B



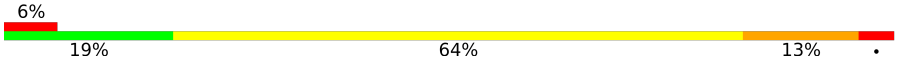
• Molecule 1: DNA MATURASE B

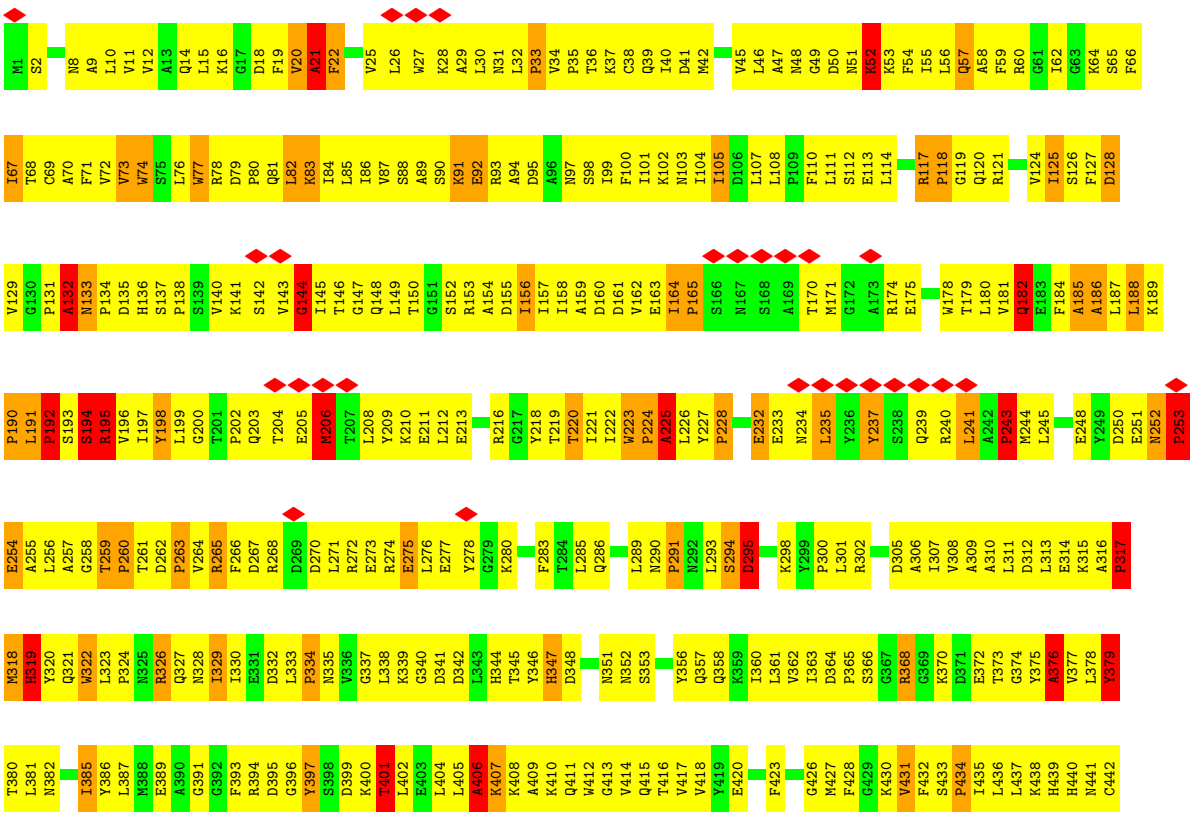


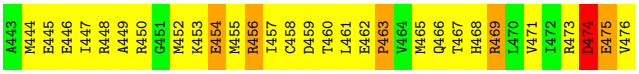


• Molecule 1: DNA MATURASE B

Chain C:

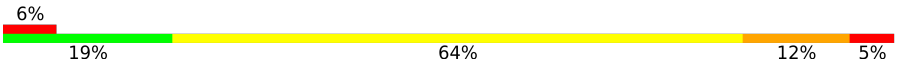


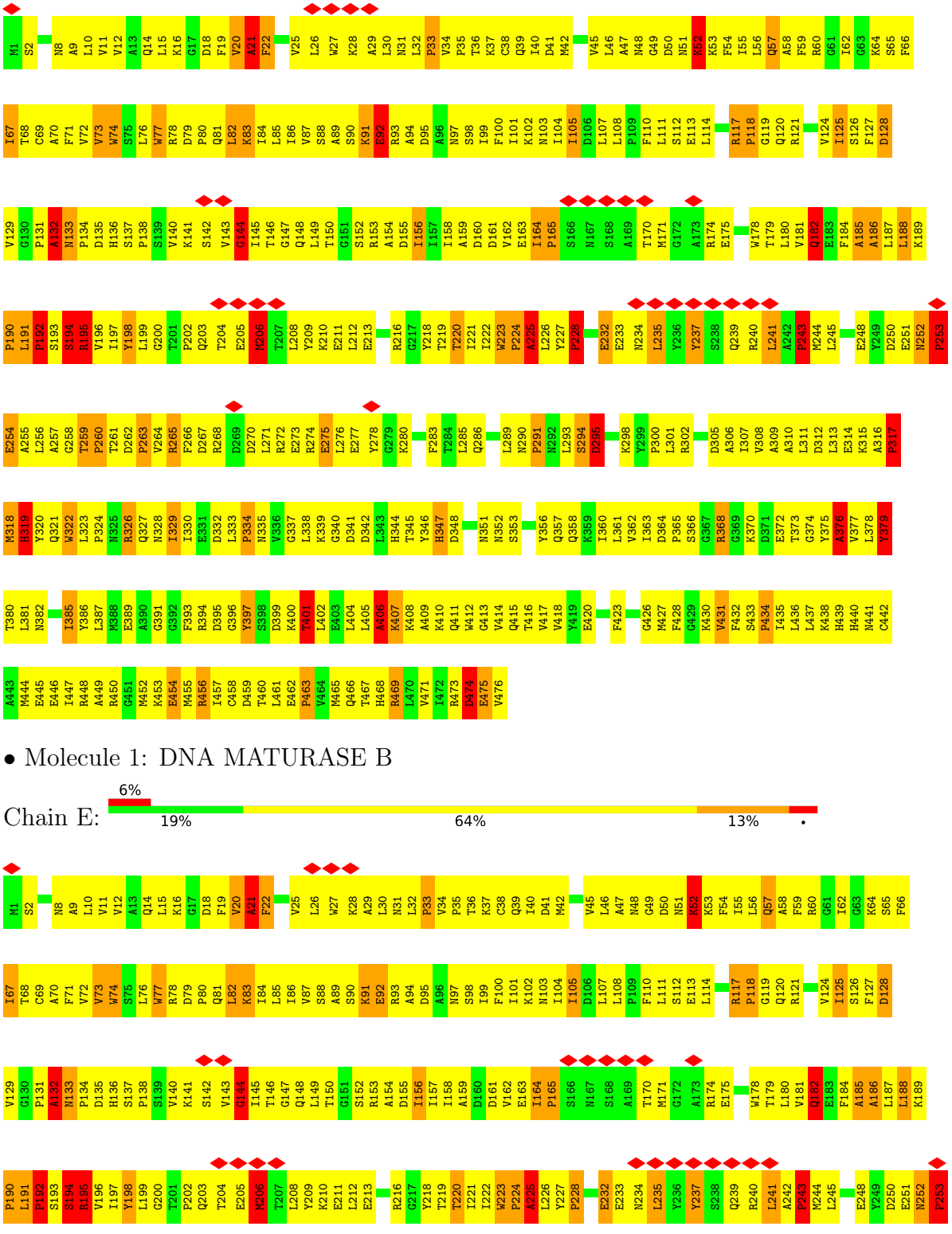




• Molecule 1: DNA MATURASE B

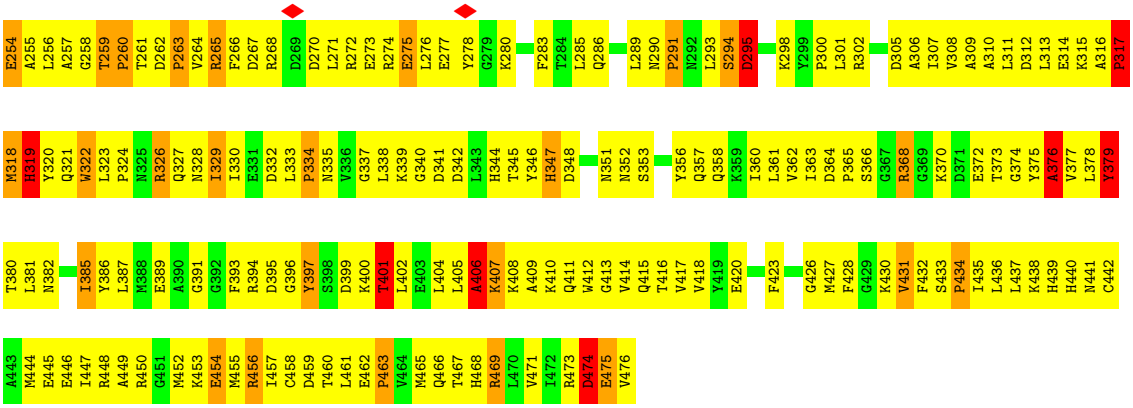
Chain D:





• Molecule 1: DNA MATURASE B

Chain E:


E254 A255 L256 A257 G258 T259 P260 T261 D262 P263 V264 R265 F266 D267 R268 D269 D270 L271 R272 E273 R274 E275 L276 E277 Y278 G279 K280 F283 T284 L285 Q286 L289 N290 P291 N292 L293 S294 D295 K298 Y299 P300 L301 R302 D305 A306 I307 V308 A309 A310 L311 D312 L313 E314 K315 A316 P317
M318 H319 Y320 Q321 W322 L323 P324 N325 R326 Q327 N328 I329 I330 E331 D332 L333 P334 N335 V336 G337 L338 K339 G340 D341 D342 L343 H344 T345 Y346 H347 D348 N351 N352 S353 Y356 Q357 Q358 K359 I360 L361 V362 I363 D364 P365 S366 G367 R368 G369 K370 D371 E372 T373 G374 Y375 A376 V377 L378 Y379
T380 L381 N382 I385 Y386 L387 M388 E389 A390 G391 G392 F393 R394 D395 G396 Y397 S398 D399 K400 T401 L402 E403 L404 L405 A406 K407 K408 A409 K410 Q411 W412 G413 V414 Q415 T416 V417 V418 Y419 E420 F423 G426 M427 F428 G429 K430 V431 F432 S433 P434 I435 L436 L437 K438 H439 H440 N441 C442
A443 M444 E445 E446 I447 R448 A449 R450 G451 M452 K453 E454 M455 R456 I457 C458 D459 T460 L461 E462 P463 V464 M465 Q466 T467 H468 R469 L470 V471 I472 R473 D474 E475 V476

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C5	Depositor
Number of particles used	837	Depositor
Resolution determination method	Not provided	
CTF correction method	EACH PLATE	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	Not provided	
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	3200	Depositor
Magnification	67000	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor
Maximum map value	0.068	Depositor
Minimum map value	-0.027	Depositor
Average map value	-0.001	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.0248	Depositor
Map size (Å)	470.39996, 470.39996, 470.39996	wwPDB
Map dimensions	112, 112, 112	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	4.2, 4.2, 4.2	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.86	13/3868 (0.3%)	1.52	86/5242 (1.6%)
1	B	0.86	13/3868 (0.3%)	1.52	85/5242 (1.6%)
1	C	0.86	13/3868 (0.3%)	1.52	85/5242 (1.6%)
1	D	0.86	13/3868 (0.3%)	1.52	86/5242 (1.6%)
1	E	0.86	12/3868 (0.3%)	1.52	84/5242 (1.6%)
All	All	0.86	64/19340 (0.3%)	1.52	426/26210 (1.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	14
1	B	0	13
1	C	0	14
1	D	0	14
1	E	0	14
All	All	0	69

All (64) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	223	TRP	NE1-CE2	-7.16	1.28	1.37
1	A	223	TRP	NE1-CE2	-7.11	1.28	1.37
1	E	223	TRP	NE1-CE2	-7.10	1.28	1.37
1	C	223	TRP	NE1-CE2	-7.10	1.28	1.37
1	B	223	TRP	NE1-CE2	-7.07	1.28	1.37
1	D	77	TRP	CD2-CE2	-6.95	1.33	1.41
1	E	77	TRP	CD2-CE2	-6.92	1.33	1.41
1	C	77	TRP	CD2-CE2	-6.91	1.33	1.41
1	B	77	TRP	CD2-CE2	-6.89	1.33	1.41
1	A	77	TRP	CD2-CE2	-6.87	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	260	PRO	N-CD	-6.70	1.38	1.47
1	A	260	PRO	N-CD	-6.63	1.38	1.47
1	B	260	PRO	N-CD	-6.61	1.38	1.47
1	E	260	PRO	N-CD	-6.59	1.38	1.47
1	D	260	PRO	N-CD	-6.59	1.38	1.47
1	D	77	TRP	NE1-CE2	-6.14	1.29	1.37
1	C	77	TRP	NE1-CE2	-6.10	1.29	1.37
1	E	77	TRP	NE1-CE2	-6.08	1.29	1.37
1	B	77	TRP	NE1-CE2	-6.08	1.29	1.37
1	A	77	TRP	NE1-CE2	-6.06	1.29	1.37
1	B	190	PRO	N-CD	-6.06	1.39	1.47
1	D	190	PRO	N-CD	-6.04	1.39	1.47
1	C	190	PRO	N-CD	-6.01	1.39	1.47
1	A	190	PRO	N-CD	-6.00	1.39	1.47
1	D	194	SER	CA-CB	-5.97	1.44	1.52
1	A	194	SER	CA-CB	-5.96	1.44	1.52
1	E	190	PRO	N-CD	-5.95	1.39	1.47
1	B	194	SER	CA-CB	-5.94	1.44	1.52
1	C	194	SER	CA-CB	-5.94	1.44	1.52
1	E	194	SER	CA-CB	-5.88	1.44	1.52
1	C	379	TYR	CE2-CZ	-5.74	1.31	1.38
1	A	379	TYR	CE2-CZ	-5.73	1.31	1.38
1	B	379	TYR	CE2-CZ	-5.73	1.31	1.38
1	E	379	TYR	CE2-CZ	-5.73	1.31	1.38
1	D	379	TYR	CE2-CZ	-5.73	1.31	1.38
1	E	77	TRP	CZ3-CH2	-5.55	1.31	1.40
1	A	77	TRP	CZ3-CH2	-5.53	1.31	1.40
1	D	77	TRP	CZ3-CH2	-5.52	1.31	1.40
1	C	33	PRO	N-CD	-5.51	1.40	1.47
1	A	33	PRO	N-CD	-5.50	1.40	1.47
1	B	77	TRP	CZ3-CH2	-5.50	1.31	1.40
1	C	77	TRP	CZ3-CH2	-5.50	1.31	1.40
1	D	33	PRO	N-CD	-5.50	1.40	1.47
1	E	33	PRO	N-CD	-5.49	1.40	1.47
1	B	33	PRO	N-CD	-5.47	1.40	1.47
1	D	223	TRP	CD1-NE1	-5.46	1.28	1.38
1	E	223	TRP	CD1-NE1	-5.46	1.28	1.38
1	C	223	TRP	CD1-NE1	-5.46	1.28	1.38
1	A	223	TRP	CD1-NE1	-5.45	1.28	1.38
1	B	223	TRP	CD1-NE1	-5.44	1.28	1.38
1	B	77	TRP	CD1-NE1	-5.20	1.29	1.38
1	E	77	TRP	CD1-NE1	-5.19	1.29	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	192	PRO	N-CA	-5.19	1.38	1.47
1	A	77	TRP	CD1-NE1	-5.18	1.29	1.38
1	D	77	TRP	CD1-NE1	-5.17	1.29	1.38
1	C	77	TRP	CD1-NE1	-5.16	1.29	1.38
1	B	192	PRO	N-CA	-5.16	1.38	1.47
1	C	192	PRO	N-CA	-5.14	1.38	1.47
1	D	192	PRO	N-CA	-5.10	1.38	1.47
1	A	192	PRO	N-CA	-5.09	1.38	1.47
1	C	322	TRP	NE1-CE2	-5.08	1.30	1.37
1	D	322	TRP	NE1-CE2	-5.04	1.30	1.37
1	B	322	TRP	NE1-CE2	-5.04	1.31	1.37
1	A	322	TRP	NE1-CE2	-5.02	1.31	1.37

All (426) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	77	TRP	CH2-CZ2-CE2	14.72	132.12	117.40
1	A	77	TRP	CH2-CZ2-CE2	14.68	132.08	117.40
1	E	77	TRP	CH2-CZ2-CE2	14.66	132.06	117.40
1	B	77	TRP	CH2-CZ2-CE2	14.65	132.05	117.40
1	C	77	TRP	CH2-CZ2-CE2	14.63	132.03	117.40
1	D	379	TYR	CZ-CE2-CD2	13.89	132.30	119.80
1	B	379	TYR	CZ-CE2-CD2	13.88	132.29	119.80
1	A	379	TYR	CZ-CE2-CD2	13.82	132.24	119.80
1	C	379	TYR	CZ-CE2-CD2	13.80	132.22	119.80
1	E	379	TYR	CZ-CE2-CD2	13.79	132.21	119.80
1	E	192	PRO	N-CD-CG	12.91	122.56	103.20
1	B	192	PRO	N-CD-CG	12.88	122.53	103.20
1	C	192	PRO	N-CD-CG	12.88	122.53	103.20
1	A	192	PRO	N-CD-CG	12.88	122.52	103.20
1	D	192	PRO	N-CD-CG	12.86	122.49	103.20
1	D	77	TRP	CZ3-CH2-CZ2	-12.66	106.41	121.60
1	E	77	TRP	CZ3-CH2-CZ2	-12.63	106.44	121.60
1	A	77	TRP	CZ3-CH2-CZ2	-12.61	106.47	121.60
1	C	77	TRP	CZ3-CH2-CZ2	-12.61	106.47	121.60
1	B	77	TRP	CZ3-CH2-CZ2	-12.61	106.47	121.60
1	D	379	TYR	CG-CD2-CE2	-10.66	112.77	121.30
1	B	379	TYR	CG-CD2-CE2	-10.64	112.78	121.30
1	A	379	TYR	CG-CD2-CE2	-10.64	112.79	121.30
1	C	379	TYR	CG-CD2-CE2	-10.64	112.79	121.30
1	E	379	TYR	CG-CD2-CE2	-10.58	112.83	121.30
1	E	73	VAL	CG1-CB-CG2	-10.06	94.80	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	73	VAL	CG1-CB-CG2	-10.05	94.82	110.90
1	D	73	VAL	CG1-CB-CG2	-10.05	94.82	110.90
1	C	73	VAL	CG1-CB-CG2	-10.05	94.82	110.90
1	B	73	VAL	CG1-CB-CG2	-10.03	94.85	110.90
1	B	188	LEU	CB-CG-CD1	-9.67	94.56	111.00
1	C	188	LEU	CB-CG-CD1	-9.65	94.59	111.00
1	D	188	LEU	CB-CG-CD1	-9.64	94.61	111.00
1	A	188	LEU	CB-CG-CD1	-9.64	94.61	111.00
1	E	188	LEU	CB-CG-CD1	-9.64	94.61	111.00
1	E	192	PRO	CA-N-CD	-9.63	98.01	111.50
1	C	192	PRO	CA-N-CD	-9.62	98.03	111.50
1	A	192	PRO	CA-N-CD	-9.61	98.04	111.50
1	D	192	PRO	CA-N-CD	-9.60	98.06	111.50
1	B	192	PRO	CA-N-CD	-9.58	98.08	111.50
1	D	195	ARG	NE-CZ-NH2	-9.52	115.54	120.30
1	B	195	ARG	NE-CZ-NH2	-9.42	115.59	120.30
1	C	195	ARG	NE-CZ-NH2	-9.40	115.60	120.30
1	E	195	ARG	NE-CZ-NH2	-9.40	115.60	120.30
1	A	195	ARG	NE-CZ-NH2	-9.38	115.61	120.30
1	C	225	ALA	N-CA-CB	9.37	123.22	110.10
1	E	431	VAL	CG1-CB-CG2	-9.37	95.92	110.90
1	A	225	ALA	N-CA-CB	9.36	123.21	110.10
1	A	431	VAL	CG1-CB-CG2	-9.36	95.92	110.90
1	B	225	ALA	N-CA-CB	9.36	123.20	110.10
1	B	431	VAL	CG1-CB-CG2	-9.35	95.94	110.90
1	D	431	VAL	CG1-CB-CG2	-9.35	95.94	110.90
1	C	431	VAL	CG1-CB-CG2	-9.34	95.95	110.90
1	D	225	ALA	N-CA-CB	9.34	123.18	110.10
1	E	225	ALA	N-CA-CB	9.32	123.15	110.10
1	B	368	ARG	NE-CZ-NH2	9.13	124.86	120.30
1	A	368	ARG	NE-CZ-NH2	9.06	124.83	120.30
1	C	368	ARG	NE-CZ-NH2	9.04	124.82	120.30
1	E	368	ARG	NE-CZ-NH2	8.97	124.79	120.30
1	D	368	ARG	NE-CZ-NH2	8.92	124.76	120.30
1	C	237	TYR	CB-CG-CD1	-8.55	115.87	121.00
1	E	237	TYR	CB-CG-CD1	-8.54	115.87	121.00
1	D	319	HIS	N-CA-CB	-8.54	95.23	110.60
1	A	319	HIS	N-CA-CB	-8.53	95.24	110.60
1	E	319	HIS	N-CA-CB	-8.53	95.24	110.60
1	B	319	HIS	N-CA-CB	-8.53	95.25	110.60
1	D	237	TYR	CB-CG-CD1	-8.53	115.89	121.00
1	C	319	HIS	N-CA-CB	-8.50	95.31	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	237	TYR	CB-CG-CD1	-8.49	115.91	121.00
1	B	376	ALA	CB-CA-C	8.46	122.78	110.10
1	E	376	ALA	CB-CA-C	8.44	122.77	110.10
1	A	237	TYR	CB-CG-CD1	-8.44	115.94	121.00
1	A	376	ALA	CB-CA-C	8.44	122.76	110.10
1	C	376	ALA	CB-CA-C	8.43	122.75	110.10
1	D	376	ALA	CB-CA-C	8.42	122.73	110.10
1	B	190	PRO	N-CD-CG	8.30	115.65	103.20
1	A	190	PRO	N-CD-CG	8.27	115.61	103.20
1	C	190	PRO	N-CD-CG	8.26	115.59	103.20
1	D	190	PRO	N-CD-CG	8.26	115.59	103.20
1	E	190	PRO	N-CD-CG	8.26	115.58	103.20
1	D	132	ALA	CB-CA-C	-8.04	98.04	110.10
1	B	132	ALA	CB-CA-C	-8.03	98.05	110.10
1	C	132	ALA	CB-CA-C	-8.03	98.06	110.10
1	E	132	ALA	CB-CA-C	-8.02	98.06	110.10
1	A	132	ALA	CB-CA-C	-8.02	98.07	110.10
1	A	128	ASP	CB-CG-OD2	-7.96	111.14	118.30
1	E	128	ASP	CB-CG-OD2	-7.93	111.16	118.30
1	C	128	ASP	CB-CG-OD2	-7.93	111.16	118.30
1	B	128	ASP	CB-CG-OD2	-7.91	111.18	118.30
1	C	182	GLN	N-CA-CB	7.88	124.79	110.60
1	E	182	GLN	N-CA-CB	7.88	124.79	110.60
1	B	182	GLN	N-CA-CB	7.88	124.79	110.60
1	D	128	ASP	CB-CG-OD2	-7.88	111.21	118.30
1	D	182	GLN	N-CA-CB	7.88	124.79	110.60
1	A	182	GLN	N-CA-CB	7.88	124.78	110.60
1	E	259	THR	O-C-N	-7.70	106.47	121.10
1	E	194	SER	CB-CA-C	7.69	124.71	110.10
1	C	194	SER	CB-CA-C	7.68	124.70	110.10
1	A	259	THR	O-C-N	-7.68	106.51	121.10
1	A	194	SER	CB-CA-C	7.67	124.68	110.10
1	B	259	THR	O-C-N	-7.66	106.54	121.10
1	D	259	THR	O-C-N	-7.66	106.54	121.10
1	C	259	THR	O-C-N	-7.66	106.55	121.10
1	D	194	SER	CB-CA-C	7.66	124.65	110.10
1	B	194	SER	CB-CA-C	7.65	124.63	110.10
1	D	105	ILE	CG1-CB-CG2	7.49	127.88	111.40
1	A	105	ILE	CG1-CB-CG2	7.49	127.88	111.40
1	B	105	ILE	CG1-CB-CG2	7.48	127.86	111.40
1	E	105	ILE	CG1-CB-CG2	7.48	127.86	111.40
1	C	105	ILE	CG1-CB-CG2	7.45	127.79	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	322	TRP	CG-CD1-NE1	7.40	117.50	110.10
1	B	322	TRP	CG-CD1-NE1	7.35	117.45	110.10
1	A	322	TRP	CG-CD1-NE1	7.34	117.44	110.10
1	C	322	TRP	CG-CD1-NE1	7.31	117.41	110.10
1	E	434	PRO	N-CD-CG	7.26	114.09	103.20
1	D	322	TRP	CG-CD1-NE1	7.26	117.36	110.10
1	C	434	PRO	N-CD-CG	7.25	114.08	103.20
1	A	434	PRO	N-CD-CG	7.25	114.07	103.20
1	D	434	PRO	N-CD-CG	7.25	114.07	103.20
1	E	186	ALA	CA-C-O	-7.24	104.89	120.10
1	B	186	ALA	CA-C-O	-7.24	104.89	120.10
1	B	434	PRO	N-CD-CG	7.24	114.06	103.20
1	D	186	ALA	CA-C-O	-7.23	104.91	120.10
1	D	456	ARG	NE-CZ-NH1	-7.23	116.68	120.30
1	C	186	ALA	CA-C-O	-7.23	104.92	120.10
1	A	186	ALA	CA-C-O	-7.22	104.95	120.10
1	E	291	PRO	CA-N-CD	-7.15	101.49	111.50
1	A	291	PRO	CA-N-CD	-7.12	101.53	111.50
1	B	456	ARG	NE-CZ-NH1	-7.12	116.74	120.30
1	B	291	PRO	CA-N-CD	-7.11	101.55	111.50
1	D	291	PRO	CA-N-CD	-7.10	101.56	111.50
1	C	291	PRO	CA-N-CD	-7.09	101.57	111.50
1	C	456	ARG	NE-CZ-NH1	-7.07	116.77	120.30
1	B	294	SER	N-CA-CB	-7.07	99.90	110.50
1	E	294	SER	N-CA-CB	-7.06	99.91	110.50
1	C	294	SER	N-CA-CB	-7.06	99.91	110.50
1	A	463	PRO	N-CD-CG	7.05	113.78	103.20
1	D	294	SER	N-CA-CB	-7.05	99.92	110.50
1	A	294	SER	N-CA-CB	-7.05	99.92	110.50
1	D	463	PRO	N-CD-CG	7.04	113.76	103.20
1	E	463	PRO	N-CD-CG	7.03	113.75	103.20
1	C	463	PRO	N-CD-CG	7.03	113.74	103.20
1	B	463	PRO	N-CD-CG	7.02	113.73	103.20
1	A	456	ARG	NE-CZ-NH1	-7.01	116.80	120.30
1	A	469	ARG	CB-CA-C	-7.01	96.39	110.40
1	D	469	ARG	CB-CA-C	-7.00	96.39	110.40
1	B	469	ARG	CB-CA-C	-7.00	96.40	110.40
1	C	469	ARG	CB-CA-C	-6.99	96.41	110.40
1	E	456	ARG	NE-CZ-NH1	-6.99	116.81	120.30
1	E	469	ARG	CB-CA-C	-6.98	96.45	110.40
1	D	77	TRP	CE3-CZ3-CH2	6.82	128.70	121.20
1	E	77	TRP	CE3-CZ3-CH2	6.80	128.68	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	77	TRP	CE3-CZ3-CH2	6.79	128.67	121.20
1	B	206	MET	CG-SD-CE	-6.79	89.34	100.20
1	A	206	MET	CG-SD-CE	-6.79	89.34	100.20
1	C	206	MET	CG-SD-CE	-6.78	89.35	100.20
1	C	77	TRP	CE3-CZ3-CH2	6.78	128.66	121.20
1	B	77	TRP	CE3-CZ3-CH2	6.77	128.65	121.20
1	D	206	MET	CG-SD-CE	-6.77	89.36	100.20
1	E	206	MET	CG-SD-CE	-6.76	89.39	100.20
1	C	401	THR	CA-CB-CG2	-6.72	102.99	112.40
1	D	401	THR	CA-CB-CG2	-6.71	103.01	112.40
1	B	225	ALA	O-C-N	-6.69	111.99	122.70
1	E	401	THR	CA-CB-CG2	-6.69	103.03	112.40
1	A	401	THR	CA-CB-CG2	-6.69	103.03	112.40
1	B	182	GLN	CB-CA-C	-6.68	97.03	110.40
1	B	401	THR	CA-CB-CG2	-6.68	103.05	112.40
1	C	182	GLN	CB-CA-C	-6.67	97.05	110.40
1	A	182	GLN	CB-CA-C	-6.67	97.06	110.40
1	D	182	GLN	CB-CA-C	-6.67	97.06	110.40
1	E	182	GLN	CB-CA-C	-6.66	97.08	110.40
1	A	225	ALA	O-C-N	-6.66	112.05	122.70
1	C	295	ASP	O-C-N	-6.64	112.08	122.70
1	D	295	ASP	O-C-N	-6.64	112.08	122.70
1	E	225	ALA	O-C-N	-6.64	112.08	122.70
1	A	295	ASP	O-C-N	-6.63	112.08	122.70
1	D	225	ALA	O-C-N	-6.62	112.10	122.70
1	E	295	ASP	O-C-N	-6.62	112.11	122.70
1	B	295	ASP	O-C-N	-6.60	112.14	122.70
1	C	225	ALA	O-C-N	-6.58	112.17	122.70
1	E	165	PRO	N-CD-CG	6.58	113.08	103.20
1	A	165	PRO	N-CD-CG	6.57	113.05	103.20
1	C	33	PRO	N-CD-CG	6.57	113.05	103.20
1	D	33	PRO	N-CD-CG	6.56	113.04	103.20
1	D	165	PRO	N-CD-CG	6.55	113.03	103.20
1	B	33	PRO	N-CD-CG	6.55	113.02	103.20
1	C	165	PRO	N-CD-CG	6.55	113.02	103.20
1	A	33	PRO	N-CD-CG	6.54	113.02	103.20
1	E	33	PRO	N-CD-CG	6.54	113.01	103.20
1	B	165	PRO	N-CD-CG	6.53	112.99	103.20
1	C	241	LEU	CB-CG-CD2	6.51	122.07	111.00
1	A	241	LEU	CB-CG-CD2	6.49	122.04	111.00
1	E	241	LEU	CB-CG-CD2	6.49	122.03	111.00
1	B	241	LEU	CB-CG-CD2	6.47	121.99	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	241	LEU	CB-CG-CD2	6.46	121.98	111.00
1	D	319	HIS	CA-CB-CG	6.45	124.57	113.60
1	E	319	HIS	CA-CB-CG	6.44	124.55	113.60
1	B	319	HIS	CA-CB-CG	6.44	124.55	113.60
1	A	319	HIS	CA-CB-CG	6.43	124.54	113.60
1	C	319	HIS	CA-CB-CG	6.43	124.52	113.60
1	B	117	ARG	NE-CZ-NH1	-6.39	117.10	120.30
1	D	368	ARG	NE-CZ-NH1	-6.38	117.11	120.30
1	C	368	ARG	NE-CZ-NH1	-6.37	117.11	120.30
1	E	117	ARG	NE-CZ-NH1	-6.37	117.11	120.30
1	A	117	ARG	NE-CZ-NH1	-6.36	117.12	120.30
1	B	368	ARG	NE-CZ-NH1	-6.34	117.13	120.30
1	C	67	ILE	CA-CB-CG2	-6.30	98.30	110.90
1	C	117	ARG	NE-CZ-NH1	-6.30	117.15	120.30
1	A	67	ILE	CA-CB-CG2	-6.29	98.33	110.90
1	D	67	ILE	CA-CB-CG2	-6.28	98.33	110.90
1	A	368	ARG	NE-CZ-NH1	-6.28	117.16	120.30
1	B	67	ILE	CA-CB-CG2	-6.28	98.34	110.90
1	D	117	ARG	NE-CZ-NH1	-6.28	117.16	120.30
1	E	67	ILE	CA-CB-CG2	-6.27	98.35	110.90
1	B	397	TYR	CD1-CE1-CZ	6.26	125.44	119.80
1	A	260	PRO	N-CD-CG	6.24	112.55	103.20
1	A	397	TYR	CD1-CE1-CZ	6.21	125.39	119.80
1	C	260	PRO	N-CD-CG	6.20	112.50	103.20
1	A	220	THR	CA-CB-CG2	-6.20	103.72	112.40
1	B	260	PRO	N-CD-CG	6.19	112.49	103.20
1	D	397	TYR	CD1-CE1-CZ	6.19	125.37	119.80
1	D	260	PRO	N-CD-CG	6.18	112.48	103.20
1	D	220	THR	CA-CB-CG2	-6.18	103.75	112.40
1	E	397	TYR	CD1-CE1-CZ	6.17	125.36	119.80
1	E	220	THR	CA-CB-CG2	-6.17	103.77	112.40
1	E	260	PRO	N-CD-CG	6.16	112.44	103.20
1	C	397	TYR	CD1-CE1-CZ	6.15	125.34	119.80
1	C	220	THR	CA-CB-CG2	-6.14	103.80	112.40
1	E	368	ARG	NE-CZ-NH1	-6.14	117.23	120.30
1	B	220	THR	CA-CB-CG2	-6.14	103.81	112.40
1	D	232	GLU	OE1-CD-OE2	6.13	130.66	123.30
1	C	232	GLU	OE1-CD-OE2	6.13	130.65	123.30
1	A	232	GLU	OE1-CD-OE2	6.08	130.59	123.30
1	D	376	ALA	O-C-N	-6.07	112.98	122.70
1	B	376	ALA	O-C-N	-6.07	112.99	122.70
1	B	232	GLU	OE1-CD-OE2	6.06	130.57	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	401	THR	OG1-CB-CG2	6.05	123.93	110.00
1	E	376	ALA	O-C-N	-6.05	113.01	122.70
1	E	401	THR	OG1-CB-CG2	6.05	123.92	110.00
1	D	401	THR	OG1-CB-CG2	6.05	123.92	110.00
1	A	401	THR	OG1-CB-CG2	6.04	123.90	110.00
1	B	401	THR	OG1-CB-CG2	6.04	123.90	110.00
1	E	232	GLU	OE1-CD-OE2	6.04	130.55	123.30
1	A	376	ALA	O-C-N	-6.02	113.06	122.70
1	C	376	ALA	O-C-N	-5.99	113.11	122.70
1	C	463	PRO	CA-N-CD	-5.99	103.11	111.50
1	A	463	PRO	CA-N-CD	-5.98	103.12	111.50
1	D	52	LYS	N-CA-CB	-5.98	99.83	110.60
1	D	463	PRO	CA-N-CD	-5.98	103.12	111.50
1	E	52	LYS	N-CA-CB	-5.98	99.84	110.60
1	E	463	PRO	CA-N-CD	-5.98	103.13	111.50
1	A	52	LYS	N-CA-CB	-5.97	99.84	110.60
1	D	22	PHE	CG-CD1-CE1	5.97	127.37	120.80
1	C	52	LYS	N-CA-CB	-5.97	99.85	110.60
1	E	22	PHE	CG-CD1-CE1	5.97	127.37	120.80
1	B	463	PRO	CA-N-CD	-5.97	103.15	111.50
1	B	52	LYS	N-CA-CB	-5.96	99.86	110.60
1	B	22	PHE	CG-CD1-CE1	5.95	127.35	120.80
1	A	22	PHE	CG-CD1-CE1	5.94	127.34	120.80
1	C	22	PHE	CG-CD1-CE1	5.92	127.32	120.80
1	B	228	PRO	CA-N-CD	-5.88	103.27	111.50
1	A	195	ARG	N-CA-CB	5.87	121.17	110.60
1	B	195	ARG	N-CA-CB	5.86	121.16	110.60
1	C	195	ARG	N-CA-CB	5.86	121.15	110.60
1	D	198	TYR	CB-CG-CD2	5.86	124.52	121.00
1	C	195	ARG	CD-NE-CZ	-5.85	115.41	123.60
1	D	195	ARG	N-CA-CB	5.85	121.14	110.60
1	D	195	ARG	CD-NE-CZ	-5.85	115.41	123.60
1	E	144	GLY	CA-C-O	-5.83	110.11	120.60
1	A	144	GLY	CA-C-O	-5.83	110.11	120.60
1	C	228	PRO	CA-N-CD	-5.83	103.34	111.50
1	B	195	ARG	CD-NE-CZ	-5.82	115.45	123.60
1	E	195	ARG	CD-NE-CZ	-5.82	115.45	123.60
1	E	195	ARG	N-CA-CB	5.82	121.08	110.60
1	E	228	PRO	CA-N-CD	-5.81	103.37	111.50
1	A	195	ARG	CD-NE-CZ	-5.81	115.47	123.60
1	A	228	PRO	CA-N-CD	-5.81	103.37	111.50
1	D	228	PRO	CA-N-CD	-5.80	103.37	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	144	GLY	CA-C-O	-5.80	110.16	120.60
1	D	144	GLY	CA-C-O	-5.80	110.16	120.60
1	E	265	ARG	CD-NE-CZ	5.80	131.72	123.60
1	C	144	GLY	CA-C-O	-5.78	110.20	120.60
1	B	456	ARG	CD-NE-CZ	5.77	131.68	123.60
1	A	198	TYR	CB-CG-CD2	5.77	124.46	121.00
1	A	265	ARG	CD-NE-CZ	5.77	131.67	123.60
1	D	456	ARG	CD-NE-CZ	5.77	131.67	123.60
1	B	198	TYR	CB-CG-CD2	5.75	124.45	121.00
1	C	198	TYR	CB-CG-CD2	5.75	124.45	121.00
1	C	456	ARG	CD-NE-CZ	5.75	131.65	123.60
1	B	20	VAL	CG1-CB-CG2	-5.75	101.71	110.90
1	C	265	ARG	CD-NE-CZ	5.75	131.65	123.60
1	D	265	ARG	CD-NE-CZ	5.75	131.65	123.60
1	E	322	TRP	CD1-NE1-CE2	-5.75	103.83	109.00
1	E	20	VAL	CG1-CB-CG2	-5.74	101.71	110.90
1	D	20	VAL	CG1-CB-CG2	-5.74	101.72	110.90
1	A	20	VAL	CG1-CB-CG2	-5.73	101.73	110.90
1	A	322	TRP	CD1-NE1-CE2	-5.73	103.84	109.00
1	A	456	ARG	CD-NE-CZ	5.73	131.62	123.60
1	B	322	TRP	CD1-NE1-CE2	-5.71	103.86	109.00
1	E	198	TYR	CB-CG-CD2	5.71	124.42	121.00
1	A	454	GLU	CG-CD-OE1	-5.70	106.90	118.30
1	B	265	ARG	CD-NE-CZ	5.70	131.58	123.60
1	C	20	VAL	CG1-CB-CG2	-5.70	101.78	110.90
1	C	454	GLU	CG-CD-OE1	-5.70	106.90	118.30
1	E	456	ARG	CD-NE-CZ	5.70	131.57	123.60
1	B	454	GLU	CG-CD-OE1	-5.69	106.92	118.30
1	C	322	TRP	CD1-NE1-CE2	-5.69	103.88	109.00
1	E	454	GLU	CG-CD-OE1	-5.68	106.94	118.30
1	D	454	GLU	CG-CD-OE1	-5.67	106.95	118.30
1	D	182	GLN	CG-CD-OE1	5.66	132.93	121.60
1	C	235	LEU	CD1-CG-CD2	5.65	127.46	110.50
1	D	322	TRP	CD1-NE1-CE2	-5.65	103.91	109.00
1	B	456	ARG	NE-CZ-NH2	5.65	123.12	120.30
1	D	235	LEU	CD1-CG-CD2	5.64	127.43	110.50
1	E	182	GLN	CG-CD-OE1	5.64	132.88	121.60
1	E	74	TRP	CH2-CZ2-CE2	5.64	123.04	117.40
1	A	235	LEU	CD1-CG-CD2	5.63	127.40	110.50
1	B	182	GLN	CG-CD-OE1	5.63	132.86	121.60
1	B	235	LEU	CD1-CG-CD2	5.63	127.39	110.50
1	E	235	LEU	CD1-CG-CD2	5.63	127.38	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	182	GLN	CG-CD-OE1	5.62	132.84	121.60
1	A	182	GLN	CG-CD-OE1	5.61	132.82	121.60
1	D	456	ARG	NE-CZ-NH2	5.61	123.10	120.30
1	A	74	TRP	CH2-CZ2-CE2	5.61	123.00	117.40
1	A	456	ARG	NE-CZ-NH2	5.59	123.10	120.30
1	C	456	ARG	NE-CZ-NH2	5.58	123.09	120.30
1	D	74	TRP	CH2-CZ2-CE2	5.58	122.98	117.40
1	B	379	TYR	CB-CG-CD1	5.57	124.34	121.00
1	C	74	TRP	CH2-CZ2-CE2	5.57	122.97	117.40
1	B	74	TRP	CH2-CZ2-CE2	5.56	122.96	117.40
1	E	379	TYR	CB-CG-CD1	5.56	124.34	121.00
1	C	326	ARG	NE-CZ-NH2	5.55	123.08	120.30
1	A	326	ARG	NE-CZ-NH2	5.55	123.08	120.30
1	B	198	TYR	CB-CG-CD1	-5.55	117.67	121.00
1	A	185	ALA	CB-CA-C	-5.55	101.78	110.10
1	B	185	ALA	CB-CA-C	-5.54	101.79	110.10
1	C	185	ALA	CB-CA-C	-5.54	101.80	110.10
1	E	185	ALA	CB-CA-C	-5.54	101.80	110.10
1	A	379	TYR	CB-CG-CD1	5.52	124.31	121.00
1	E	326	ARG	NE-CZ-NH2	5.50	123.05	120.30
1	D	185	ALA	CB-CA-C	-5.50	101.85	110.10
1	D	326	ARG	NE-CZ-NH2	5.50	123.05	120.30
1	B	253	PRO	CA-N-CD	-5.49	103.81	111.50
1	C	253	PRO	CA-N-CD	-5.49	103.82	111.50
1	E	253	PRO	CA-N-CD	-5.48	103.82	111.50
1	D	253	PRO	CA-N-CD	-5.48	103.83	111.50
1	A	253	PRO	CA-N-CD	-5.47	103.84	111.50
1	C	52	LYS	CA-CB-CG	5.47	125.44	113.40
1	C	379	TYR	CB-CG-CD1	5.47	124.28	121.00
1	A	52	LYS	CA-CB-CG	5.47	125.44	113.40
1	B	326	ARG	NE-CZ-NH2	5.47	123.03	120.30
1	D	379	TYR	CB-CG-CD1	5.47	124.28	121.00
1	E	52	LYS	CA-CB-CG	5.47	125.43	113.40
1	B	52	LYS	CA-CB-CG	5.47	125.43	113.40
1	D	198	TYR	CB-CG-CD1	-5.46	117.72	121.00
1	D	52	LYS	CA-CB-CG	5.45	125.40	113.40
1	A	198	TYR	CB-CG-CD1	-5.45	117.73	121.00
1	E	456	ARG	NE-CZ-NH2	5.43	123.02	120.30
1	C	198	TYR	CB-CG-CD1	-5.42	117.75	121.00
1	B	376	ALA	CA-C-O	5.40	131.45	120.10
1	E	190	PRO	CA-N-CD	-5.40	103.94	111.50
1	E	198	TYR	CB-CG-CD1	-5.40	117.76	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	190	PRO	CA-N-CD	-5.39	103.95	111.50
1	A	190	PRO	CA-N-CD	-5.38	103.96	111.50
1	B	190	PRO	CA-N-CD	-5.38	103.96	111.50
1	D	190	PRO	CA-N-CD	-5.38	103.97	111.50
1	E	376	ALA	CA-C-O	5.38	131.39	120.10
1	D	376	ALA	CA-C-O	5.35	131.33	120.10
1	A	376	ALA	CA-C-O	5.34	131.32	120.10
1	B	243	PRO	N-CD-CG	5.33	111.19	103.20
1	C	376	ALA	CA-C-O	5.33	131.29	120.10
1	D	57	GLN	CG-CD-OE1	-5.32	110.97	121.60
1	C	243	PRO	N-CD-CG	5.31	111.17	103.20
1	A	243	PRO	N-CD-CG	5.31	111.17	103.20
1	B	228	PRO	N-CD-CG	5.30	111.16	103.20
1	D	243	PRO	N-CD-CG	5.30	111.16	103.20
1	A	57	GLN	CG-CD-OE1	-5.30	111.00	121.60
1	E	57	GLN	CG-CD-OE1	-5.30	111.00	121.60
1	E	243	PRO	N-CD-CG	5.29	111.14	103.20
1	B	57	GLN	CG-CD-OE1	-5.29	111.02	121.60
1	D	228	PRO	N-CD-CG	5.29	111.14	103.20
1	C	228	PRO	N-CD-CG	5.29	111.14	103.20
1	E	228	PRO	N-CD-CG	5.29	111.13	103.20
1	A	228	PRO	N-CD-CG	5.28	111.12	103.20
1	C	57	GLN	CG-CD-OE1	-5.28	111.04	121.60
1	B	186	ALA	O-C-N	5.27	131.13	122.70
1	C	156	ILE	CG1-CB-CG2	5.26	122.97	111.40
1	D	156	ILE	CG1-CB-CG2	5.26	122.97	111.40
1	E	186	ALA	O-C-N	5.24	131.09	122.70
1	A	186	ALA	O-C-N	5.24	131.08	122.70
1	A	156	ILE	CG1-CB-CG2	5.24	122.92	111.40
1	D	186	ALA	O-C-N	5.22	131.06	122.70
1	B	156	ILE	CG1-CB-CG2	5.22	122.89	111.40
1	E	156	ILE	CG1-CB-CG2	5.21	122.87	111.40
1	C	186	ALA	O-C-N	5.21	131.03	122.70
1	E	322	TRP	CD1-CG-CD2	-5.17	102.17	106.30
1	E	275	GLU	OE1-CD-OE2	5.16	129.50	123.30
1	A	275	GLU	OE1-CD-OE2	5.16	129.49	123.30
1	C	322	TRP	CD1-CG-CD2	-5.16	102.18	106.30
1	B	379	TYR	CE1-CZ-CE2	-5.15	111.56	119.80
1	D	379	TYR	CE1-CZ-CE2	-5.14	111.57	119.80
1	C	275	GLU	OE1-CD-OE2	5.13	129.46	123.30
1	D	275	GLU	OE1-CD-OE2	5.13	129.46	123.30
1	A	379	TYR	CE1-CZ-CE2	-5.13	111.59	119.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	21	ALA	CA-C-O	-5.12	109.34	120.10
1	C	21	ALA	CA-C-O	-5.12	109.35	120.10
1	D	21	ALA	CA-C-O	-5.12	109.35	120.10
1	B	275	GLU	OE1-CD-OE2	5.12	129.44	123.30
1	E	21	ALA	CA-C-O	-5.12	109.36	120.10
1	C	379	TYR	CE1-CZ-CE2	-5.11	111.63	119.80
1	E	379	TYR	CE1-CZ-CE2	-5.11	111.63	119.80
1	B	21	ALA	CA-C-O	-5.10	109.40	120.10
1	A	322	TRP	CD1-CG-CD2	-5.09	102.22	106.30
1	D	322	TRP	CD1-CG-CD2	-5.09	102.23	106.30
1	B	368	ARG	CD-NE-CZ	5.08	130.72	123.60
1	B	322	TRP	CD1-CG-CD2	-5.08	102.24	106.30
1	C	368	ARG	CD-NE-CZ	5.04	130.66	123.60
1	C	22	PHE	CB-CG-CD2	5.03	124.32	120.80
1	A	92	GLU	OE1-CD-OE2	5.03	129.34	123.30
1	A	368	ARG	CD-NE-CZ	5.03	130.64	123.60
1	D	92	GLU	OE1-CD-OE2	5.03	129.33	123.30
1	D	22	PHE	CB-CG-CD2	5.02	124.31	120.80
1	D	368	ARG	CD-NE-CZ	5.01	130.62	123.60
1	A	256	LEU	CA-C-O	-5.01	109.58	120.10
1	B	22	PHE	CB-CG-CD2	5.00	124.30	120.80
1	E	22	PHE	CB-CG-CD2	5.00	124.30	120.80

There are no chirality outliers.

All (69) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	144	GLY	Peptide
1	A	194	SER	Mainchain
1	A	21	ALA	Mainchain
1	A	225	ALA	Mainchain
1	A	295	ASP	Mainchain
1	A	319	HIS	Sidechain
1	A	347	HIS	Peptide
1	A	379	TYR	Sidechain
1	A	406	ALA	Peptide,Mainchain
1	A	474	ASP	Peptide,Mainchain
1	A	82	LEU	Peptide
1	A	91	LYS	Peptide
1	B	144	GLY	Peptide
1	B	194	SER	Mainchain
1	B	21	ALA	Mainchain

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Mol	Chain	Res	Type	Group
1	B	225	ALA	Mainchain
1	B	295	ASP	Mainchain
1	B	319	HIS	Sidechain
1	B	347	HIS	Peptide
1	B	379	TYR	Sidechain
1	B	406	ALA	Peptide,Mainchain
1	B	474	ASP	Peptide
1	B	82	LEU	Peptide
1	B	91	LYS	Peptide
1	C	144	GLY	Peptide
1	C	194	SER	Mainchain
1	C	21	ALA	Mainchain
1	C	225	ALA	Mainchain
1	C	295	ASP	Mainchain
1	C	319	HIS	Sidechain
1	C	347	HIS	Peptide
1	C	379	TYR	Sidechain
1	C	406	ALA	Peptide,Mainchain
1	C	474	ASP	Peptide,Mainchain
1	C	82	LEU	Peptide
1	C	91	LYS	Peptide
1	D	144	GLY	Peptide
1	D	194	SER	Mainchain
1	D	21	ALA	Mainchain
1	D	225	ALA	Mainchain
1	D	295	ASP	Mainchain
1	D	319	HIS	Sidechain
1	D	347	HIS	Peptide
1	D	379	TYR	Sidechain
1	D	406	ALA	Peptide,Mainchain
1	D	474	ASP	Peptide,Mainchain
1	D	82	LEU	Peptide
1	D	91	LYS	Peptide
1	E	144	GLY	Peptide
1	E	194	SER	Mainchain
1	E	21	ALA	Mainchain
1	E	225	ALA	Mainchain
1	E	295	ASP	Mainchain
1	E	319	HIS	Sidechain
1	E	347	HIS	Peptide
1	E	379	TYR	Sidechain
1	E	406	ALA	Peptide,Mainchain

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Mol	Chain	Res	Type	Group
1	E	474	ASP	Peptide,Mainchain
1	E	82	LEU	Peptide
1	E	91	LYS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3785	0	3794	1055	0
1	B	3785	0	3794	1141	0
1	C	3785	0	3794	1131	0
1	D	3785	0	3794	1139	0
1	E	3785	0	3794	1143	0
All	All	18925	0	18970	5609	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 149.

All (5609) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:83:LYS:CE	1:E:192:PRO:HA	1.71	1.20
1:B:83:LYS:CE	1:B:192:PRO:HA	1.71	1.19
1:D:83:LYS:CE	1:D:192:PRO:HA	1.71	1.18
1:C:83:LYS:CE	1:C:192:PRO:HA	1.71	1.18
1:B:124:VAL:HB	1:B:125:ILE:HB	1.18	1.17
1:E:52:LYS:HB2	1:E:184:PHE:HZ	1.04	1.17
1:C:124:VAL:HB	1:C:125:ILE:HB	1.18	1.16
1:C:417:VAL:HB	1:C:465:MET:HG3	1.21	1.16
1:A:280:LYS:HE2	1:A:438:LYS:HA	1.28	1.16
1:A:433:SER:HA	1:A:457:ILE:HD12	1.27	1.16
1:C:433:SER:HA	1:C:457:ILE:HD12	1.27	1.15
1:D:433:SER:HA	1:D:457:ILE:HD12	1.27	1.15
1:E:280:LYS:HE2	1:E:438:LYS:HA	1.28	1.14
1:B:280:LYS:HE2	1:B:438:LYS:HA	1.28	1.14
1:C:280:LYS:HE2	1:C:438:LYS:HA	1.28	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:433:SER:HA	1:E:457:ILE:HD12	1.27	1.13
1:A:291:PRO:HG2	1:A:295:ASP:HB3	1.30	1.13
1:B:52:LYS:HB2	1:B:184:PHE:HZ	1.04	1.13
1:A:202:PRO:HD3	1:A:265:ARG:HD2	1.14	1.13
1:D:124:VAL:HB	1:D:125:ILE:HB	1.18	1.13
1:D:202:PRO:HD3	1:D:265:ARG:HD2	1.14	1.13
1:B:433:SER:HA	1:B:457:ILE:HD12	1.27	1.12
1:D:280:LYS:HE2	1:D:438:LYS:HA	1.28	1.12
1:A:52:LYS:HB2	1:A:184:PHE:HZ	1.04	1.12
1:B:202:PRO:HD3	1:B:265:ARG:HD2	1.14	1.12
1:C:52:LYS:HB2	1:C:184:PHE:HZ	1.04	1.12
1:D:52:LYS:HB2	1:D:184:PHE:HZ	1.04	1.12
1:A:124:VAL:HB	1:A:125:ILE:HB	1.18	1.12
1:A:417:VAL:HB	1:A:465:MET:HG3	1.21	1.12
1:C:202:PRO:HD3	1:C:265:ARG:HD2	1.14	1.11
1:A:182:GLN:HE21	1:A:185:ALA:HB2	1.06	1.11
1:E:202:PRO:HD3	1:E:265:ARG:HD2	1.14	1.11
1:B:83:LYS:HE3	1:B:192:PRO:HA	1.33	1.10
1:D:52:LYS:HB2	1:D:184:PHE:CZ	1.86	1.10
1:E:52:LYS:HB2	1:E:184:PHE:CZ	1.86	1.10
1:E:417:VAL:HB	1:E:465:MET:HG3	1.21	1.10
1:D:83:LYS:HE3	1:D:192:PRO:HA	1.33	1.10
1:D:51:ASN:HB3	1:D:54:PHE:CZ	1.87	1.09
1:C:182:GLN:HE21	1:C:185:ALA:HB2	1.06	1.09
1:D:326:ARG:HH11	1:D:335:ASN:HB2	1.17	1.09
1:D:417:VAL:HB	1:D:465:MET:HG3	1.21	1.09
1:B:417:VAL:HA	1:B:465:MET:SD	1.92	1.09
1:C:51:ASN:HB3	1:C:54:PHE:CZ	1.87	1.09
1:E:51:ASN:HB3	1:E:54:PHE:CZ	1.87	1.09
1:E:124:VAL:HB	1:E:125:ILE:HB	1.18	1.09
1:A:52:LYS:HB2	1:A:184:PHE:CZ	1.86	1.09
1:D:417:VAL:HA	1:D:465:MET:SD	1.92	1.09
1:A:417:VAL:HA	1:A:465:MET:SD	1.92	1.08
1:B:52:LYS:HB2	1:B:184:PHE:CZ	1.86	1.08
1:B:182:GLN:HE21	1:B:185:ALA:HB2	1.06	1.08
1:B:417:VAL:HB	1:B:465:MET:HG3	1.22	1.08
1:C:417:VAL:HA	1:C:465:MET:SD	1.92	1.08
1:E:417:VAL:HA	1:E:465:MET:SD	1.92	1.08
1:C:52:LYS:HB2	1:C:184:PHE:CZ	1.86	1.08
1:A:220:THR:HG21	1:A:446:GLU:HG2	1.34	1.08
1:C:326:ARG:HH11	1:C:335:ASN:HB2	1.17	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:433:SER:HA	1:A:457:ILE:CD1	1.84	1.08
1:D:368:ARG:O	1:D:401:THR:HB	1.54	1.08
1:E:313:LEU:HD12	1:E:374:GLY:HA2	1.35	1.08
1:B:433:SER:HA	1:B:457:ILE:CD1	1.84	1.08
1:E:182:GLN:HE21	1:E:185:ALA:HB2	1.06	1.07
1:B:291:PRO:HG2	1:B:295:ASP:HB3	1.30	1.07
1:B:368:ARG:NE	1:B:378:LEU:HD23	1.70	1.07
1:C:368:ARG:O	1:C:401:THR:HB	1.54	1.07
1:D:368:ARG:NE	1:D:378:LEU:HD23	1.70	1.07
1:E:220:THR:HG21	1:E:446:GLU:HG2	1.34	1.07
1:E:291:PRO:HG2	1:E:295:ASP:HB3	1.30	1.07
1:C:83:LYS:HE3	1:C:192:PRO:HA	1.33	1.07
1:C:433:SER:HA	1:C:457:ILE:CD1	1.84	1.07
1:E:433:SER:HA	1:E:457:ILE:CD1	1.84	1.07
1:B:51:ASN:HB3	1:B:54:PHE:CZ	1.87	1.07
1:C:368:ARG:NE	1:C:378:LEU:HD23	1.70	1.07
1:E:368:ARG:O	1:E:401:THR:HB	1.54	1.07
1:A:368:ARG:NE	1:A:378:LEU:HD23	1.70	1.06
1:D:182:GLN:HE21	1:D:185:ALA:HB2	1.05	1.06
1:B:89:ALA:O	1:B:140:VAL:HA	1.55	1.06
1:B:368:ARG:O	1:B:401:THR:HB	1.54	1.06
1:C:52:LYS:HD2	1:C:184:PHE:HE2	1.20	1.06
1:E:52:LYS:HD2	1:E:184:PHE:HE2	1.20	1.06
1:E:89:ALA:O	1:E:140:VAL:HA	1.55	1.06
1:E:368:ARG:NE	1:E:378:LEU:HD23	1.70	1.06
1:A:326:ARG:HH11	1:A:335:ASN:HB2	1.17	1.06
1:D:184:PHE:CE2	1:D:188:LEU:HD11	1.91	1.06
1:D:433:SER:HA	1:D:457:ILE:CD1	1.84	1.06
1:A:89:ALA:O	1:A:140:VAL:HA	1.55	1.05
1:A:233:GLU:HA	1:A:243:PRO:HD3	1.38	1.05
1:B:313:LEU:HD12	1:B:374:GLY:HA2	1.35	1.05
1:C:291:PRO:HG2	1:C:295:ASP:HB3	1.30	1.05
1:D:52:LYS:HD2	1:D:184:PHE:HE2	1.20	1.05
1:E:184:PHE:CE2	1:E:188:LEU:HD11	1.91	1.05
1:A:163:GLU:HG3	1:A:203:GLN:HB3	1.38	1.05
1:C:220:THR:HG21	1:C:446:GLU:HG2	1.34	1.05
1:D:83:LYS:HE2	1:D:193:SER:H	1.22	1.05
1:C:83:LYS:HE2	1:C:193:SER:H	1.22	1.05
1:C:184:PHE:CE2	1:C:188:LEU:HD11	1.91	1.05
1:D:220:THR:HG21	1:D:446:GLU:HG2	1.34	1.05
1:A:313:LEU:HD12	1:A:374:GLY:HA2	1.35	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:368:ARG:O	1:A:401:THR:HB	1.54	1.05
1:E:163:GLU:HG3	1:E:203:GLN:HB3	1.38	1.05
1:B:52:LYS:HD2	1:B:184:PHE:HE2	1.20	1.04
1:B:184:PHE:CE2	1:B:188:LEU:HD11	1.91	1.04
1:D:291:PRO:HG2	1:D:295:ASP:HB3	1.30	1.04
1:C:89:ALA:O	1:C:140:VAL:HA	1.55	1.04
1:A:52:LYS:HD2	1:A:184:PHE:HE2	1.20	1.04
1:B:220:THR:HG21	1:B:446:GLU:HG2	1.34	1.04
1:B:233:GLU:HA	1:B:243:PRO:HD3	1.38	1.04
1:E:83:LYS:HE3	1:E:192:PRO:HA	1.33	1.04
1:E:375:TYR:HA	1:E:378:LEU:HD12	1.40	1.04
1:B:326:ARG:HH11	1:B:335:ASN:HB2	1.17	1.03
1:C:313:LEU:HD12	1:C:374:GLY:HA2	1.35	1.03
1:D:89:ALA:O	1:D:140:VAL:HA	1.55	1.03
1:E:233:GLU:HA	1:E:243:PRO:HD3	1.39	1.03
1:C:375:TYR:HA	1:C:378:LEU:HD12	1.40	1.03
1:E:326:ARG:HH11	1:E:335:ASN:HB2	1.18	1.03
1:D:163:GLU:HG3	1:D:203:GLN:HB3	1.38	1.03
1:D:375:TYR:HA	1:D:378:LEU:HD12	1.40	1.03
1:B:83:LYS:HE2	1:B:193:SER:H	1.21	1.03
1:B:22:PHE:HA	1:B:33:PRO:HD3	1.41	1.03
1:A:285:LEU:HD13	1:A:431:VAL:HA	1.41	1.02
1:B:375:TYR:HA	1:B:378:LEU:HD12	1.40	1.02
1:C:163:GLU:HB2	1:C:208:LEU:HD13	1.41	1.02
1:C:163:GLU:HG3	1:C:203:GLN:HB3	1.38	1.02
1:D:285:LEU:HD13	1:D:431:VAL:HA	1.42	1.02
1:D:313:LEU:HD12	1:D:374:GLY:HA2	1.35	1.02
1:C:22:PHE:HA	1:C:33:PRO:HD3	1.41	1.02
1:C:291:PRO:HD3	1:C:295:ASP:O	1.60	1.02
1:E:285:LEU:HD13	1:E:431:VAL:HA	1.41	1.02
1:B:77:TRP:CZ3	1:B:113:GLU:HA	1.95	1.02
1:C:233:GLU:HA	1:C:243:PRO:HD3	1.38	1.02
1:A:375:TYR:HA	1:A:378:LEU:HD12	1.40	1.01
1:D:77:TRP:CZ3	1:D:113:GLU:HA	1.95	1.01
1:E:77:TRP:CZ3	1:E:113:GLU:HA	1.95	1.01
1:B:285:LEU:HD13	1:B:431:VAL:HA	1.41	1.01
1:C:56:LEU:HD23	1:C:222:ILE:HB	1.42	1.01
1:A:77:TRP:CZ3	1:A:113:GLU:HA	1.95	1.01
1:B:468:HIS:HA	1:B:473:ARG:HD3	1.42	1.01
1:D:163:GLU:HB2	1:D:208:LEU:HD13	1.41	1.01
1:E:83:LYS:HE2	1:E:193:SER:H	1.22	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:163:GLU:HG3	1:B:203:GLN:HB3	1.38	1.01
1:C:77:TRP:CZ3	1:C:113:GLU:HA	1.95	1.01
1:A:468:HIS:HA	1:A:473:ARG:HD3	1.42	1.01
1:B:204:THR:HG22	1:B:205:GLU:H	1.26	1.01
1:C:204:THR:HG22	1:C:205:GLU:H	1.26	1.01
1:D:233:GLU:HA	1:D:243:PRO:HD3	1.38	1.01
1:D:468:HIS:HA	1:D:473:ARG:HD3	1.42	1.01
1:E:291:PRO:HD3	1:E:295:ASP:O	1.60	1.01
1:B:56:LEU:HD23	1:B:222:ILE:HB	1.42	1.00
1:E:163:GLU:HB2	1:E:208:LEU:HD13	1.42	1.00
1:C:59:PHE:CD1	1:C:225:ALA:HA	1.97	1.00
1:C:77:TRP:HE1	1:C:105:ILE:HG12	1.26	1.00
1:B:163:GLU:HB2	1:B:208:LEU:HD13	1.41	1.00
1:B:291:PRO:HD3	1:B:295:ASP:O	1.60	1.00
1:E:59:PHE:CD1	1:E:225:ALA:HA	1.96	1.00
1:B:256:LEU:O	1:B:260:PRO:HD3	1.60	1.00
1:D:59:PHE:CD1	1:D:225:ALA:HA	1.96	1.00
1:D:256:LEU:O	1:D:260:PRO:HD3	1.60	1.00
1:E:22:PHE:HA	1:E:33:PRO:HD3	1.41	1.00
1:E:256:LEU:O	1:E:260:PRO:HD3	1.60	1.00
1:C:285:LEU:HD13	1:C:431:VAL:HA	1.41	1.00
1:D:291:PRO:HD3	1:D:295:ASP:O	1.60	1.00
1:B:376:ALA:HA	1:B:379:TYR:CE2	1.97	0.99
1:D:28:LYS:HB2	1:D:31:ASN:HD21	1.27	0.99
1:A:256:LEU:O	1:A:260:PRO:HD3	1.60	0.99
1:C:28:LYS:HB2	1:C:31:ASN:HD21	1.28	0.99
1:C:468:HIS:HA	1:C:473:ARG:HD3	1.42	0.99
1:D:77:TRP:HE1	1:D:105:ILE:HG12	1.26	0.99
1:D:376:ALA:HA	1:D:379:TYR:CE2	1.97	0.99
1:A:370:LYS:HE3	1:A:375:TYR:CE1	1.97	0.99
1:C:256:LEU:O	1:C:260:PRO:HD3	1.60	0.99
1:E:376:ALA:HA	1:E:379:TYR:CE2	1.97	0.99
1:A:291:PRO:HD3	1:A:295:ASP:O	1.60	0.99
1:A:376:ALA:HA	1:A:379:TYR:CE2	1.97	0.99
1:D:22:PHE:HA	1:D:33:PRO:HD3	1.41	0.99
1:E:370:LYS:HE3	1:E:375:TYR:CE1	1.97	0.99
1:D:370:LYS:HE3	1:D:375:TYR:CE1	1.97	0.99
1:E:28:LYS:HB2	1:E:31:ASN:HD21	1.27	0.99
1:C:376:ALA:HA	1:C:379:TYR:CE2	1.97	0.99
1:E:468:HIS:HA	1:E:473:ARG:HD3	1.42	0.99
1:A:22:PHE:HA	1:A:33:PRO:HD3	1.41	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:59:PHE:CD1	1:A:225:ALA:HA	1.96	0.98
1:D:204:THR:HG22	1:D:205:GLU:H	1.26	0.98
1:A:376:ALA:HA	1:A:379:TYR:CD2	1.98	0.98
1:B:28:LYS:HB2	1:B:31:ASN:HD21	1.27	0.98
1:B:59:PHE:CD1	1:B:225:ALA:HA	1.96	0.98
1:E:194:SER:HA	1:E:195:ARG:CB	1.93	0.98
1:A:9:ALA:HB1	1:A:16:LYS:HD3	1.44	0.98
1:C:376:ALA:HA	1:C:379:TYR:CD2	1.98	0.98
1:E:56:LEU:HD23	1:E:222:ILE:HB	1.42	0.98
1:A:56:LEU:HD23	1:A:222:ILE:HB	1.42	0.98
1:B:370:LYS:HE3	1:B:375:TYR:CE1	1.98	0.98
1:A:204:THR:HG22	1:A:205:GLU:H	1.26	0.98
1:D:376:ALA:HA	1:D:379:TYR:CD2	1.98	0.98
1:A:77:TRP:HE1	1:A:105:ILE:HG12	1.26	0.98
1:B:376:ALA:HA	1:B:379:TYR:CD2	1.98	0.98
1:D:56:LEU:HD23	1:D:222:ILE:HB	1.42	0.98
1:C:370:LYS:HE3	1:C:375:TYR:CE1	1.97	0.98
1:E:376:ALA:HA	1:E:379:TYR:CD2	1.98	0.98
1:B:227:TYR:CD2	1:B:228:PRO:HD3	1.99	0.97
1:C:51:ASN:OD1	1:C:52:LYS:HG2	1.64	0.97
1:C:227:TYR:CD2	1:C:228:PRO:HD3	1.99	0.97
1:B:77:TRP:HE1	1:B:105:ILE:HG12	1.26	0.97
1:D:9:ALA:HB1	1:D:16:LYS:HD3	1.44	0.97
1:A:163:GLU:HB2	1:A:208:LEU:HD13	1.41	0.97
1:E:227:TYR:CD2	1:E:228:PRO:HD3	1.99	0.97
1:A:28:LYS:HB2	1:A:31:ASN:HD21	1.27	0.97
1:D:194:SER:HA	1:D:195:ARG:CB	1.93	0.97
1:C:83:LYS:HA	1:C:155:ASP:OD2	1.65	0.97
1:D:83:LYS:HA	1:D:155:ASP:OD2	1.65	0.97
1:D:51:ASN:OD1	1:D:52:LYS:HG2	1.64	0.97
1:D:227:TYR:CD2	1:D:228:PRO:HD3	1.99	0.97
1:E:9:ALA:HB1	1:E:16:LYS:HD3	1.44	0.97
1:A:227:TYR:CD2	1:A:228:PRO:HD3	1.99	0.97
1:D:181:VAL:HA	1:D:182:GLN:HG2	1.47	0.97
1:E:181:VAL:HA	1:E:182:GLN:HG2	1.47	0.97
1:E:83:LYS:HA	1:E:155:ASP:OD2	1.65	0.97
1:C:9:ALA:HB1	1:C:16:LYS:HD3	1.44	0.96
1:C:223:TRP:HE1	1:C:265:ARG:HB3	1.29	0.96
1:E:83:LYS:HE2	1:E:193:SER:N	1.80	0.96
1:E:300:PRO:HG2	1:E:302:ARG:HH22	1.30	0.96
1:C:83:LYS:HE2	1:C:193:SER:N	1.81	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:51:ASN:OD1	1:B:52:LYS:HG2	1.64	0.96
1:D:300:PRO:HG2	1:D:302:ARG:HH22	1.30	0.96
1:E:77:TRP:HE1	1:E:105:ILE:HG12	1.26	0.96
1:B:83:LYS:HE2	1:B:193:SER:N	1.80	0.96
1:E:52:LYS:HD2	1:E:184:PHE:CE2	2.01	0.96
1:E:204:THR:HG22	1:E:205:GLU:H	1.26	0.96
1:B:83:LYS:HA	1:B:155:ASP:OD2	1.65	0.96
1:A:52:LYS:HD2	1:A:184:PHE:CE2	2.01	0.95
1:A:83:LYS:HA	1:A:155:ASP:OD2	1.65	0.95
1:B:223:TRP:HE1	1:B:265:ARG:HB3	1.29	0.95
1:C:194:SER:HA	1:C:195:ARG:CB	1.93	0.95
1:E:51:ASN:OD1	1:E:52:LYS:HG2	1.64	0.95
1:D:83:LYS:HE2	1:D:193:SER:N	1.81	0.95
1:B:9:ALA:HB1	1:B:16:LYS:HD3	1.44	0.95
1:E:182:GLN:NE2	1:E:185:ALA:HB2	1.82	0.95
1:C:52:LYS:HD2	1:C:184:PHE:CE2	2.01	0.95
1:A:300:PRO:HG2	1:A:302:ARG:HH22	1.30	0.95
1:D:326:ARG:NH1	1:D:335:ASN:HB2	1.82	0.95
1:E:76:LEU:HG	1:E:134:PRO:HB2	1.49	0.95
1:A:182:GLN:NE2	1:A:185:ALA:HB2	1.82	0.94
1:B:52:LYS:HD2	1:B:184:PHE:CE2	2.01	0.94
1:D:52:LYS:HD2	1:D:184:PHE:CE2	2.01	0.94
1:A:76:LEU:HG	1:A:134:PRO:HB2	1.49	0.94
1:D:76:LEU:HG	1:D:134:PRO:HB2	1.49	0.94
1:E:326:ARG:NH1	1:E:335:ASN:HB2	1.82	0.94
1:B:194:SER:HA	1:B:195:ARG:CB	1.93	0.94
1:B:181:VAL:HA	1:B:182:GLN:HG2	1.47	0.94
1:C:182:GLN:NE2	1:C:185:ALA:HB2	1.82	0.94
1:C:439:HIS:CG	1:C:453:LYS:HD3	2.03	0.94
1:A:223:TRP:HE1	1:A:265:ARG:HB3	1.29	0.94
1:C:300:PRO:HG2	1:C:302:ARG:HH22	1.30	0.94
1:D:182:GLN:NE2	1:D:185:ALA:HB2	1.81	0.94
1:D:439:HIS:CG	1:D:453:LYS:HD3	2.03	0.94
1:A:439:HIS:CG	1:A:453:LYS:HD3	2.03	0.94
1:B:76:LEU:HG	1:B:134:PRO:HB2	1.49	0.94
1:B:180:LEU:HD23	1:B:181:VAL:HG12	1.50	0.94
1:B:326:ARG:NH1	1:B:335:ASN:HB2	1.82	0.94
1:B:91:LYS:HB2	1:B:93:ARG:HB2	1.50	0.94
1:B:439:HIS:CG	1:B:453:LYS:HD3	2.03	0.94
1:D:180:LEU:HD23	1:D:181:VAL:HG12	1.50	0.94
1:A:449:ALA:H	1:A:455:MET:HE1	1.30	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:180:LEU:HD23	1:C:181:VAL:HG12	1.50	0.94
1:C:326:ARG:NH1	1:C:335:ASN:HB2	1.82	0.93
1:A:181:VAL:HA	1:A:182:GLN:HG2	1.47	0.93
1:E:322:TRP:CH2	1:E:338:LEU:HD23	2.04	0.93
1:E:368:ARG:HE	1:E:378:LEU:HD23	1.33	0.93
1:A:319:HIS:CB	1:A:456:ARG:HE	1.82	0.93
1:B:182:GLN:NE2	1:B:185:ALA:HB2	1.82	0.93
1:B:300:PRO:HG2	1:B:302:ARG:HH22	1.30	0.93
1:D:223:TRP:HE1	1:D:265:ARG:HB3	1.29	0.93
1:B:21:ALA:O	1:B:33:PRO:HD2	1.68	0.93
1:D:322:TRP:CH2	1:D:338:LEU:HD23	2.04	0.93
1:E:223:TRP:HE1	1:E:265:ARG:HB3	1.29	0.93
1:B:319:HIS:CB	1:B:456:ARG:HE	1.82	0.93
1:C:181:VAL:HA	1:C:182:GLN:HG2	1.47	0.93
1:C:412:TRP:CZ3	1:C:469:ARG:HB2	2.04	0.93
1:E:439:HIS:CG	1:E:453:LYS:HD3	2.03	0.93
1:C:378:LEU:HD22	1:C:400:LYS:O	1.68	0.93
1:E:180:LEU:HD23	1:E:181:VAL:HG12	1.50	0.93
1:B:378:LEU:HD22	1:B:400:LYS:O	1.68	0.92
1:A:21:ALA:O	1:A:33:PRO:HD2	1.68	0.92
1:A:322:TRP:CH2	1:A:338:LEU:HD23	2.04	0.92
1:D:285:LEU:HD21	1:D:434:PRO:HG3	1.51	0.92
1:E:319:HIS:CB	1:E:456:ARG:HE	1.82	0.92
1:C:162:VAL:HG13	1:C:208:LEU:HD12	1.50	0.92
1:D:378:LEU:HD22	1:D:400:LYS:O	1.68	0.92
1:E:162:VAL:HG13	1:E:208:LEU:HD12	1.50	0.92
1:A:80:PRO:HD2	1:A:83:LYS:HZ2	1.30	0.92
1:A:326:ARG:NH1	1:A:335:ASN:HB2	1.82	0.92
1:C:322:TRP:CH2	1:C:338:LEU:HD23	2.04	0.92
1:E:91:LYS:HB2	1:E:93:ARG:HB2	1.50	0.92
1:B:368:ARG:HE	1:B:378:LEU:HD23	1.33	0.92
1:C:21:ALA:O	1:C:33:PRO:HD2	1.68	0.92
1:D:91:LYS:HB2	1:D:93:ARG:HB2	1.50	0.92
1:A:180:LEU:HD23	1:A:181:VAL:HG12	1.50	0.92
1:A:412:TRP:CH2	1:A:469:ARG:HB2	2.05	0.92
1:C:2:SER:HB3	1:C:111:LEU:HD11	1.52	0.92
1:C:76:LEU:HG	1:C:134:PRO:HB2	1.49	0.92
1:D:319:HIS:HB3	1:D:456:ARG:HE	1.34	0.92
1:D:412:TRP:CH2	1:D:469:ARG:HB2	2.05	0.92
1:D:431:VAL:HG23	1:D:432:PHE:CD1	2.04	0.92
1:E:378:LEU:HD22	1:E:400:LYS:O	1.68	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:431:VAL:HG23	1:E:432:PHE:CD1	2.04	0.92
1:A:412:TRP:CZ3	1:A:469:ARG:HB2	2.04	0.92
1:C:319:HIS:CB	1:C:456:ARG:HE	1.82	0.92
1:D:52:LYS:HE3	1:D:53:LYS:HZ3	1.34	0.92
1:B:322:TRP:CH2	1:B:338:LEU:HD23	2.04	0.92
1:B:412:TRP:CZ3	1:B:469:ARG:HB2	2.04	0.92
1:B:412:TRP:CH2	1:B:469:ARG:HB2	2.05	0.92
1:E:21:ALA:O	1:E:33:PRO:HD2	1.68	0.92
1:A:319:HIS:HB3	1:A:456:ARG:HE	1.34	0.91
1:A:431:VAL:HG23	1:A:432:PHE:CD1	2.04	0.91
1:B:2:SER:HB3	1:B:111:LEU:HD11	1.52	0.91
1:B:431:VAL:HG23	1:B:432:PHE:CD1	2.04	0.91
1:C:285:LEU:HD21	1:C:434:PRO:HG3	1.51	0.91
1:C:319:HIS:HB3	1:C:456:ARG:HE	1.34	0.91
1:D:275:GLU:OE2	1:D:418:VAL:HA	1.70	0.91
1:D:21:ALA:O	1:D:33:PRO:HD2	1.68	0.91
1:E:412:TRP:CH2	1:E:469:ARG:HB2	2.05	0.91
1:A:132:ALA:N	1:A:133:ASN:HA	1.86	0.91
1:A:378:LEU:HD22	1:A:400:LYS:O	1.68	0.91
1:D:412:TRP:CZ3	1:D:469:ARG:HB2	2.04	0.91
1:A:275:GLU:OE2	1:A:418:VAL:HA	1.70	0.91
1:B:56:LEU:CD2	1:B:222:ILE:HB	2.01	0.91
1:B:162:VAL:HG13	1:B:208:LEU:HD12	1.50	0.91
1:A:56:LEU:CD2	1:A:222:ILE:HB	2.01	0.91
1:C:80:PRO:HD2	1:C:83:LYS:NZ	1.86	0.91
1:D:319:HIS:CB	1:D:456:ARG:HE	1.82	0.91
1:B:368:ARG:NH2	1:B:378:LEU:HA	1.86	0.91
1:A:80:PRO:HD2	1:A:83:LYS:NZ	1.86	0.91
1:E:275:GLU:OE2	1:E:418:VAL:HA	1.70	0.91
1:D:162:VAL:HG13	1:D:208:LEU:HD12	1.50	0.91
1:E:80:PRO:HD2	1:E:83:LYS:NZ	1.86	0.91
1:B:80:PRO:HD2	1:B:83:LYS:NZ	1.86	0.91
1:C:275:GLU:OE2	1:C:418:VAL:HA	1.70	0.91
1:C:328:ASN:HA	1:C:333:LEU:CD2	2.01	0.91
1:E:412:TRP:CZ3	1:E:469:ARG:HB2	2.04	0.91
1:A:118:PRO:HD2	1:A:128:ASP:HA	1.54	0.90
1:C:412:TRP:CH2	1:C:469:ARG:HB2	2.05	0.90
1:E:132:ALA:N	1:E:133:ASN:HA	1.86	0.90
1:A:162:VAL:HG13	1:A:208:LEU:HD12	1.51	0.90
1:C:368:ARG:NH2	1:C:378:LEU:HA	1.86	0.90
1:E:328:ASN:HA	1:E:333:LEU:CD2	2.01	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:368:ARG:NH2	1:E:378:LEU:HA	1.86	0.90
1:A:322:TRP:CE3	1:A:457:ILE:HG22	2.07	0.90
1:A:328:ASN:HA	1:A:333:LEU:CD2	2.01	0.90
1:B:275:GLU:OE2	1:B:418:VAL:HA	1.70	0.90
1:B:285:LEU:HD21	1:B:434:PRO:HG3	1.51	0.90
1:C:124:VAL:CB	1:C:125:ILE:HB	2.01	0.90
1:D:2:SER:HB3	1:D:111:LEU:HD11	1.52	0.90
1:B:118:PRO:HD2	1:B:128:ASP:HA	1.54	0.90
1:C:301:LEU:HB2	1:C:361:LEU:HD23	1.53	0.90
1:C:431:VAL:HG23	1:C:432:PHE:CD1	2.04	0.90
1:D:328:ASN:HA	1:D:333:LEU:CD2	2.01	0.90
1:E:56:LEU:CD2	1:E:222:ILE:HB	2.01	0.90
1:E:308:VAL:HG13	1:E:328:ASN:HD22	1.37	0.90
1:E:322:TRP:CE3	1:E:457:ILE:HG22	2.07	0.90
1:A:124:VAL:CB	1:A:125:ILE:HB	2.01	0.90
1:A:308:VAL:HG13	1:A:328:ASN:HD22	1.37	0.90
1:D:56:LEU:CD2	1:D:222:ILE:HB	2.00	0.90
1:D:308:VAL:HG13	1:D:328:ASN:HD22	1.37	0.90
1:D:368:ARG:NH2	1:D:378:LEU:HA	1.86	0.90
1:A:301:LEU:HB2	1:A:361:LEU:HD23	1.53	0.90
1:C:322:TRP:CE3	1:C:457:ILE:HG22	2.07	0.90
1:D:80:PRO:HD2	1:D:83:LYS:NZ	1.85	0.90
1:A:285:LEU:HD21	1:A:434:PRO:HG3	1.51	0.90
1:A:368:ARG:NH2	1:A:378:LEU:HA	1.86	0.90
1:B:8:ASN:O	1:B:12:VAL:HG12	1.72	0.90
1:B:322:TRP:CE3	1:B:457:ILE:HG22	2.07	0.90
1:C:91:LYS:HB2	1:C:93:ARG:HB2	1.50	0.90
1:E:124:VAL:CB	1:E:125:ILE:HB	2.01	0.90
1:E:301:LEU:HB2	1:E:361:LEU:HD23	1.53	0.90
1:C:308:VAL:HG13	1:C:328:ASN:HD22	1.37	0.90
1:B:124:VAL:CB	1:B:125:ILE:HB	2.01	0.89
1:B:328:ASN:HA	1:B:333:LEU:CD2	2.01	0.89
1:D:322:TRP:CE3	1:D:457:ILE:HG22	2.07	0.89
1:B:274:ARG:NH2	1:B:437:LEU:HG	1.88	0.89
1:B:335:ASN:HD21	1:B:338:LEU:HD11	1.38	0.89
1:C:132:ALA:N	1:C:133:ASN:HA	1.86	0.89
1:D:45:VAL:HG13	1:D:46:LEU:HD12	1.54	0.89
1:E:285:LEU:HD21	1:E:434:PRO:HG3	1.51	0.89
1:A:2:SER:HB3	1:A:111:LEU:HD11	1.52	0.89
1:A:156:ILE:HB	1:A:194:SER:CB	2.03	0.89
1:A:221:ILE:HB	1:A:222:ILE:HG13	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:91:LYS:HB2	1:A:93:ARG:HB2	1.50	0.89
1:B:45:VAL:HG21	1:B:222:ILE:HD11	1.55	0.89
1:D:118:PRO:HD2	1:D:128:ASP:HA	1.54	0.89
1:D:124:VAL:CB	1:D:125:ILE:HB	2.01	0.89
1:E:8:ASN:O	1:E:12:VAL:HG12	1.72	0.89
1:A:45:VAL:HG21	1:A:222:ILE:HD11	1.55	0.89
1:D:132:ALA:N	1:D:133:ASN:HA	1.86	0.89
1:E:156:ILE:HB	1:E:194:SER:CB	2.02	0.89
1:C:56:LEU:CD2	1:C:222:ILE:HB	2.01	0.89
1:E:45:VAL:HG21	1:E:222:ILE:HD11	1.55	0.89
1:A:90:SER:HA	1:A:140:VAL:HG23	1.55	0.89
1:E:118:PRO:HD2	1:E:128:ASP:HA	1.54	0.89
1:D:335:ASN:HD21	1:D:338:LEU:HD11	1.38	0.89
1:D:412:TRP:CE2	1:D:469:ARG:HD3	2.08	0.89
1:E:45:VAL:HG13	1:E:46:LEU:HD12	1.54	0.89
1:E:379:TYR:O	1:E:385:ILE:HB	1.73	0.89
1:D:8:ASN:O	1:D:12:VAL:HG12	1.72	0.89
1:D:156:ILE:HB	1:D:194:SER:CB	2.03	0.89
1:E:144:GLY:HA2	1:E:146:THR:N	1.88	0.89
1:E:335:ASN:ND2	1:E:338:LEU:HD11	1.88	0.89
1:B:221:ILE:HB	1:B:222:ILE:HG13	1.54	0.89
1:C:45:VAL:HG13	1:C:46:LEU:HD12	1.54	0.89
1:B:335:ASN:ND2	1:B:338:LEU:HD11	1.88	0.88
1:C:45:VAL:HG21	1:C:222:ILE:HD11	1.55	0.88
1:C:144:GLY:HA2	1:C:146:THR:N	1.88	0.88
1:C:274:ARG:NH2	1:C:437:LEU:HG	1.88	0.88
1:E:2:SER:HB3	1:E:111:LEU:HD11	1.52	0.88
1:B:412:TRP:CE2	1:B:469:ARG:HD3	2.08	0.88
1:C:335:ASN:ND2	1:C:338:LEU:HD11	1.88	0.88
1:C:379:TYR:O	1:C:385:ILE:HB	1.73	0.88
1:C:412:TRP:CE2	1:C:469:ARG:HD3	2.08	0.88
1:C:8:ASN:O	1:C:12:VAL:HG12	1.72	0.88
1:C:459:ASP:O	1:C:463:PRO:HD3	1.74	0.88
1:D:301:LEU:HB2	1:D:361:LEU:HD23	1.53	0.88
1:E:459:ASP:O	1:E:463:PRO:HD3	1.74	0.88
1:B:144:GLY:HA2	1:B:146:THR:N	1.88	0.88
1:C:156:ILE:HB	1:C:194:SER:CB	2.03	0.88
1:A:274:ARG:NH2	1:A:437:LEU:HG	1.88	0.88
1:A:379:TYR:O	1:A:385:ILE:HB	1.73	0.88
1:C:368:ARG:HE	1:C:378:LEU:HD23	1.33	0.88
1:D:335:ASN:ND2	1:D:338:LEU:HD11	1.88	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:295:ASP:HB2	1:A:339:LYS:HZ2	1.38	0.88
1:D:45:VAL:HG21	1:D:222:ILE:HD11	1.55	0.88
1:D:90:SER:HA	1:D:140:VAL:HG23	1.55	0.88
1:D:144:GLY:HA2	1:D:146:THR:N	1.88	0.88
1:D:221:ILE:HB	1:D:222:ILE:HG13	1.54	0.88
1:E:90:SER:HA	1:E:140:VAL:HG23	1.55	0.88
1:B:156:ILE:HB	1:B:194:SER:CB	2.03	0.88
1:C:118:PRO:HD2	1:C:128:ASP:HA	1.53	0.88
1:C:368:ARG:CZ	1:C:378:LEU:HA	2.04	0.88
1:D:368:ARG:CZ	1:D:378:LEU:HA	2.04	0.88
1:E:412:TRP:CE2	1:E:469:ARG:HD3	2.08	0.88
1:A:8:ASN:O	1:A:12:VAL:HG12	1.72	0.88
1:A:335:ASN:HD21	1:A:338:LEU:HD11	1.38	0.88
1:A:368:ARG:HE	1:A:378:LEU:HD23	1.33	0.88
1:B:301:LEU:HB2	1:B:361:LEU:HD23	1.53	0.88
1:E:319:HIS:HB3	1:E:456:ARG:HE	1.34	0.88
1:B:368:ARG:CZ	1:B:378:LEU:HA	2.04	0.88
1:E:221:ILE:HB	1:E:222:ILE:HG13	1.54	0.88
1:A:335:ASN:ND2	1:A:338:LEU:HD11	1.88	0.87
1:B:132:ALA:N	1:B:133:ASN:HA	1.86	0.87
1:E:274:ARG:NH2	1:E:437:LEU:HG	1.88	0.87
1:E:428:PHE:CE2	1:E:461:LEU:HD13	2.10	0.87
1:B:319:HIS:HB3	1:B:456:ARG:HE	1.34	0.87
1:B:459:ASP:O	1:B:463:PRO:HD3	1.74	0.87
1:A:368:ARG:CZ	1:A:378:LEU:HA	2.04	0.87
1:C:449:ALA:H	1:C:455:MET:HE1	1.39	0.87
1:D:274:ARG:NH2	1:D:437:LEU:HG	1.88	0.87
1:D:379:TYR:O	1:D:385:ILE:HB	1.73	0.87
1:E:368:ARG:CZ	1:E:378:LEU:HA	2.04	0.87
1:A:412:TRP:CE2	1:A:469:ARG:HD3	2.08	0.87
1:A:430:LYS:O	1:A:434:PRO:HD3	1.75	0.87
1:D:428:PHE:CE2	1:D:461:LEU:HD13	2.09	0.87
1:A:428:PHE:CE2	1:A:461:LEU:HD13	2.09	0.87
1:E:235:LEU:HD21	1:E:241:LEU:HD22	1.56	0.87
1:E:374:GLY:O	1:E:378:LEU:HG	1.75	0.87
1:B:430:LYS:O	1:B:434:PRO:HD3	1.75	0.87
1:C:76:LEU:HA	1:C:79:ASP:OD2	1.75	0.87
1:C:374:GLY:O	1:C:378:LEU:HG	1.75	0.87
1:D:45:VAL:HG22	1:D:54:PHE:CD1	2.10	0.87
1:D:430:LYS:O	1:D:434:PRO:HD3	1.75	0.87
1:E:45:VAL:HG22	1:E:54:PHE:CD1	2.10	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:45:VAL:HG13	1:A:46:LEU:HD12	1.55	0.87
1:A:45:VAL:HG22	1:A:54:PHE:CD1	2.10	0.87
1:D:95:ASP:O	1:D:99:ILE:HG12	1.75	0.87
1:D:459:ASP:O	1:D:463:PRO:HD3	1.74	0.87
1:A:144:GLY:HA2	1:A:146:THR:N	1.88	0.86
1:B:90:SER:HA	1:B:140:VAL:HG23	1.55	0.86
1:B:379:TYR:O	1:B:385:ILE:HB	1.73	0.86
1:C:95:ASP:O	1:C:99:ILE:HG12	1.75	0.86
1:E:148:GLN:NE2	1:E:171:MET:SD	2.48	0.86
1:B:45:VAL:HG13	1:B:46:LEU:HD12	1.55	0.86
1:B:148:GLN:NE2	1:B:171:MET:SD	2.48	0.86
1:B:156:ILE:HB	1:B:194:SER:OG	1.76	0.86
1:C:428:PHE:CE2	1:C:461:LEU:HD13	2.09	0.86
1:A:459:ASP:O	1:A:463:PRO:HD3	1.74	0.86
1:C:8:ASN:OD1	1:C:15:LEU:HD23	1.75	0.86
1:C:221:ILE:HB	1:C:222:ILE:HG13	1.54	0.86
1:C:45:VAL:HG22	1:C:54:PHE:CD1	2.10	0.86
1:D:148:GLN:NE2	1:D:171:MET:SD	2.48	0.86
1:D:156:ILE:HB	1:D:194:SER:OG	1.75	0.86
1:E:8:ASN:OD1	1:E:15:LEU:HD23	1.76	0.86
1:E:76:LEU:HA	1:E:79:ASP:OD2	1.75	0.86
1:C:295:ASP:HB2	1:C:339:LYS:HZ2	1.39	0.86
1:B:374:GLY:O	1:B:378:LEU:HG	1.75	0.86
1:B:428:PHE:CE2	1:B:461:LEU:HD13	2.10	0.86
1:A:235:LEU:HD21	1:A:241:LEU:HD22	1.57	0.86
1:B:45:VAL:HG22	1:B:54:PHE:CD1	2.10	0.86
1:B:308:VAL:HG13	1:B:328:ASN:HD22	1.37	0.86
1:A:76:LEU:HA	1:A:79:ASP:OD2	1.75	0.86
1:B:76:LEU:HA	1:B:79:ASP:OD2	1.75	0.86
1:D:76:LEU:HA	1:D:79:ASP:OD2	1.75	0.86
1:D:449:ALA:H	1:D:455:MET:HE1	1.41	0.86
1:E:95:ASP:O	1:E:99:ILE:HG12	1.75	0.86
1:E:430:LYS:O	1:E:434:PRO:HD3	1.75	0.86
1:B:449:ALA:H	1:B:455:MET:HE1	1.41	0.86
1:C:208:LEU:O	1:C:211:GLU:HG2	1.76	0.86
1:C:241:LEU:CD2	1:C:244:MET:HB2	2.06	0.86
1:D:8:ASN:OD1	1:D:15:LEU:HD23	1.75	0.86
1:E:208:LEU:O	1:E:211:GLU:HG2	1.76	0.86
1:E:335:ASN:HD21	1:E:338:LEU:HD11	1.38	0.86
1:B:83:LYS:HE2	1:B:192:PRO:HA	1.57	0.85
1:B:235:LEU:HD21	1:B:241:LEU:HD22	1.56	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:300:PRO:HG2	1:B:302:ARG:NH2	1.91	0.85
1:C:90:SER:HA	1:C:140:VAL:HG23	1.55	0.85
1:D:300:PRO:HG2	1:D:302:ARG:NH2	1.91	0.85
1:B:8:ASN:OD1	1:B:15:LEU:HD23	1.75	0.85
1:C:64:LYS:O	1:C:67:ILE:HG12	1.77	0.85
1:C:148:GLN:NE2	1:C:171:MET:SD	2.48	0.85
1:C:156:ILE:HB	1:C:194:SER:OG	1.75	0.85
1:D:241:LEU:CD2	1:D:244:MET:HB2	2.06	0.85
1:A:95:ASP:O	1:A:99:ILE:HG12	1.75	0.85
1:A:148:GLN:NE2	1:A:171:MET:SD	2.48	0.85
1:A:300:PRO:HG2	1:A:302:ARG:NH2	1.91	0.85
1:A:374:GLY:O	1:A:378:LEU:HG	1.75	0.85
1:E:329:ILE:HG13	1:E:330:ILE:H	1.42	0.85
1:C:235:LEU:HD21	1:C:241:LEU:HD22	1.56	0.85
1:D:83:LYS:HE3	1:D:192:PRO:CA	2.07	0.85
1:A:156:ILE:HB	1:A:194:SER:OG	1.75	0.85
1:C:430:LYS:O	1:C:434:PRO:HD3	1.75	0.85
1:E:241:LEU:CD2	1:E:244:MET:HB2	2.06	0.85
1:A:8:ASN:OD1	1:A:15:LEU:HD23	1.76	0.85
1:B:208:LEU:O	1:B:211:GLU:HG2	1.76	0.85
1:C:22:PHE:HD2	1:C:30:LEU:HG	1.42	0.85
1:C:335:ASN:HD21	1:C:338:LEU:HD11	1.38	0.85
1:E:300:PRO:HG2	1:E:302:ARG:NH2	1.91	0.85
1:B:95:ASP:O	1:B:99:ILE:HG12	1.75	0.85
1:D:374:GLY:O	1:D:378:LEU:HG	1.75	0.85
1:B:241:LEU:CD2	1:B:244:MET:HB2	2.06	0.85
1:E:156:ILE:HB	1:E:194:SER:OG	1.75	0.85
1:A:235:LEU:HD13	1:A:241:LEU:HB3	1.59	0.85
1:A:329:ILE:HG13	1:A:330:ILE:H	1.42	0.85
1:D:72:VAL:HG23	1:D:85:LEU:HD13	1.58	0.85
1:D:368:ARG:HE	1:D:378:LEU:HD23	1.33	0.85
1:E:368:ARG:HB2	1:E:378:LEU:HD21	1.58	0.85
1:A:64:LYS:O	1:A:67:ILE:HG12	1.77	0.84
1:A:233:GLU:CA	1:A:243:PRO:HD3	2.07	0.84
1:B:233:GLU:CA	1:B:243:PRO:HD3	2.07	0.84
1:C:300:PRO:HG2	1:C:302:ARG:NH2	1.91	0.84
1:E:22:PHE:HD2	1:E:30:LEU:HG	1.42	0.84
1:B:83:LYS:HE3	1:B:192:PRO:CA	2.07	0.84
1:A:235:LEU:HG	1:A:245:LEU:HB3	1.60	0.84
1:D:208:LEU:O	1:D:211:GLU:HG2	1.76	0.84
1:A:72:VAL:HG23	1:A:85:LEU:HD13	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:368:ARG:HB2	1:B:378:LEU:HD21	1.58	0.84
1:D:235:LEU:HG	1:D:245:LEU:HB3	1.60	0.84
1:A:125:ILE:O	1:A:138:PRO:HD2	1.77	0.84
1:A:208:LEU:O	1:A:211:GLU:HG2	1.76	0.84
1:B:22:PHE:HD2	1:B:30:LEU:HG	1.42	0.84
1:C:368:ARG:HB2	1:C:378:LEU:HD21	1.59	0.84
1:E:125:ILE:O	1:E:138:PRO:HD2	1.77	0.84
1:C:52:LYS:HE3	1:C:53:LYS:HZ3	1.42	0.84
1:C:72:VAL:HG23	1:C:85:LEU:HD13	1.58	0.84
1:C:83:LYS:HE3	1:C:192:PRO:CA	2.07	0.84
1:C:444:MET:SD	1:C:445:GLU:HA	2.18	0.84
1:A:22:PHE:HD2	1:A:30:LEU:HG	1.42	0.84
1:B:444:MET:SD	1:B:445:GLU:HA	2.18	0.84
1:D:235:LEU:HD21	1:D:241:LEU:HD22	1.57	0.84
1:E:235:LEU:HD13	1:E:241:LEU:HB3	1.59	0.84
1:A:241:LEU:CD2	1:A:244:MET:HB2	2.06	0.84
1:B:64:LYS:O	1:B:67:ILE:HG12	1.77	0.84
1:C:83:LYS:HE2	1:C:192:PRO:HA	1.57	0.84
1:A:118:PRO:CG	1:A:129:VAL:H	1.91	0.84
1:C:233:GLU:CA	1:C:243:PRO:HD3	2.07	0.84
1:D:64:LYS:O	1:D:67:ILE:HG12	1.77	0.84
1:E:64:LYS:O	1:E:67:ILE:HG12	1.77	0.84
1:D:125:ILE:O	1:D:138:PRO:HD2	1.77	0.84
1:B:118:PRO:CG	1:B:129:VAL:H	1.91	0.83
1:B:235:LEU:HD13	1:B:241:LEU:HB3	1.59	0.83
1:A:439:HIS:CE1	1:A:453:LYS:HB3	2.13	0.83
1:B:439:HIS:CE1	1:B:453:LYS:HB3	2.13	0.83
1:C:125:ILE:O	1:C:138:PRO:HD2	1.77	0.83
1:D:80:PRO:HD2	1:D:83:LYS:HZ2	1.42	0.83
1:E:233:GLU:CA	1:E:243:PRO:HD3	2.07	0.83
1:E:439:HIS:CE1	1:E:453:LYS:HB3	2.13	0.83
1:A:444:MET:SD	1:A:445:GLU:HA	2.18	0.83
1:B:125:ILE:O	1:B:138:PRO:HD2	1.77	0.83
1:B:235:LEU:HG	1:B:245:LEU:HB3	1.60	0.83
1:B:329:ILE:HG13	1:B:330:ILE:H	1.42	0.83
1:B:365:PRO:HG3	1:B:476:VAL:HG22	1.61	0.83
1:C:439:HIS:CE1	1:C:453:LYS:HB3	2.13	0.83
1:D:98:SER:O	1:D:101:ILE:HG12	1.78	0.83
1:C:329:ILE:HG13	1:C:330:ILE:H	1.42	0.83
1:A:368:ARG:HB2	1:A:378:LEU:HD21	1.58	0.83
1:D:329:ILE:HG13	1:D:330:ILE:H	1.42	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:220:THR:CG2	1:B:446:GLU:HG2	2.09	0.83
1:C:220:THR:CG2	1:C:446:GLU:HG2	2.09	0.83
1:D:22:PHE:HD2	1:D:30:LEU:HG	1.42	0.83
1:D:368:ARG:HB2	1:D:378:LEU:HD21	1.58	0.83
1:E:83:LYS:HE3	1:E:192:PRO:CA	2.07	0.83
1:E:365:PRO:HG3	1:E:476:VAL:HG22	1.61	0.83
1:B:80:PRO:HD2	1:B:83:LYS:HZ2	1.40	0.83
1:D:233:GLU:CA	1:D:243:PRO:HD3	2.07	0.83
1:B:322:TRP:CZ2	1:B:338:LEU:HD23	2.14	0.83
1:C:98:SER:O	1:C:101:ILE:HG12	1.78	0.83
1:C:235:LEU:HD13	1:C:241:LEU:HB3	1.59	0.83
1:E:72:VAL:HG23	1:E:85:LEU:HD13	1.58	0.83
1:B:98:SER:O	1:B:101:ILE:HG12	1.78	0.83
1:C:80:PRO:CG	1:C:83:LYS:HZ3	1.92	0.83
1:C:235:LEU:HG	1:C:245:LEU:HB3	1.60	0.83
1:C:322:TRP:CZ2	1:C:338:LEU:HD23	2.14	0.83
1:D:83:LYS:HE2	1:D:192:PRO:HA	1.57	0.83
1:E:83:LYS:HE2	1:E:192:PRO:HA	1.57	0.83
1:E:118:PRO:CG	1:E:129:VAL:H	1.91	0.83
1:B:80:PRO:CG	1:B:83:LYS:HZ3	1.92	0.83
1:D:295:ASP:HB2	1:D:339:LYS:HZ2	1.41	0.83
1:D:444:MET:SD	1:D:445:GLU:HA	2.18	0.83
1:C:118:PRO:CG	1:C:129:VAL:H	1.91	0.82
1:D:80:PRO:CG	1:D:83:LYS:HZ3	1.92	0.82
1:D:322:TRP:CZ2	1:D:457:ILE:HB	2.15	0.82
1:D:439:HIS:CE1	1:D:453:LYS:HB3	2.13	0.82
1:E:80:PRO:CG	1:E:83:LYS:HZ3	1.92	0.82
1:B:370:LYS:HB3	1:B:375:TYR:CZ	2.15	0.82
1:A:365:PRO:HG3	1:A:476:VAL:HG22	1.61	0.82
1:B:337:GLY:C	1:B:338:LEU:HD12	2.00	0.82
1:C:370:LYS:HB3	1:C:375:TYR:CZ	2.15	0.82
1:D:322:TRP:CZ2	1:D:338:LEU:HD23	2.14	0.82
1:A:337:GLY:C	1:A:338:LEU:HD12	2.00	0.82
1:A:370:LYS:HB3	1:A:375:TYR:CZ	2.15	0.82
1:B:72:VAL:HG23	1:B:85:LEU:HD13	1.58	0.82
1:C:322:TRP:CZ2	1:C:457:ILE:HB	2.15	0.82
1:C:337:GLY:C	1:C:338:LEU:HD12	2.00	0.82
1:D:76:LEU:HG	1:D:134:PRO:CB	2.10	0.82
1:D:235:LEU:HD13	1:D:241:LEU:HB3	1.59	0.82
1:E:295:ASP:HB2	1:E:339:LYS:HZ2	1.41	0.82
1:E:337:GLY:C	1:E:338:LEU:HD12	2.00	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:444:MET:SD	1:E:445:GLU:HA	2.18	0.82
1:A:55:ILE:HD12	1:A:198:TYR:HB2	1.61	0.82
1:B:55:ILE:HD12	1:B:198:TYR:HB2	1.61	0.82
1:D:118:PRO:CG	1:D:129:VAL:H	1.91	0.82
1:D:220:THR:CG2	1:D:446:GLU:HG2	2.09	0.82
1:E:98:SER:O	1:E:101:ILE:HG12	1.78	0.82
1:E:322:TRP:CZ2	1:E:338:LEU:HD23	2.14	0.82
1:A:98:SER:O	1:A:101:ILE:HG12	1.78	0.82
1:A:118:PRO:HG3	1:A:129:VAL:H	1.45	0.82
1:A:322:TRP:CZ2	1:A:338:LEU:HD23	2.14	0.82
1:A:368:ARG:H	1:A:401:THR:CG2	1.93	0.82
1:B:18:ASP:OD1	1:B:35:PRO:HG3	1.80	0.82
1:D:194:SER:HA	1:D:195:ARG:HB2	1.62	0.82
1:E:368:ARG:H	1:E:401:THR:CG2	1.93	0.82
1:B:409:ALA:HA	1:B:466:GLN:NE2	1.95	0.81
1:D:18:ASP:OD1	1:D:35:PRO:HG3	1.80	0.81
1:A:52:LYS:HE3	1:A:53:LYS:HZ3	1.45	0.81
1:D:368:ARG:H	1:D:401:THR:CG2	1.93	0.81
1:E:181:VAL:HA	1:E:182:GLN:CG	2.10	0.81
1:E:202:PRO:HD3	1:E:265:ARG:CD	2.07	0.81
1:A:39:GLN:HG2	1:A:67:ILE:HG21	1.62	0.81
1:C:194:SER:HA	1:C:195:ARG:HB2	1.62	0.81
1:C:365:PRO:HG3	1:C:476:VAL:HG22	1.61	0.81
1:D:181:VAL:HA	1:D:182:GLN:CG	2.10	0.81
1:E:235:LEU:HG	1:E:245:LEU:HB3	1.60	0.81
1:A:181:VAL:HA	1:A:182:GLN:CG	2.10	0.81
1:B:322:TRP:CZ2	1:B:457:ILE:HB	2.15	0.81
1:D:55:ILE:HD12	1:D:198:TYR:HB2	1.61	0.81
1:E:449:ALA:H	1:E:455:MET:HE1	1.45	0.81
1:A:220:THR:CG2	1:A:446:GLU:HG2	2.09	0.81
1:B:76:LEU:HG	1:B:134:PRO:CB	2.10	0.81
1:B:194:SER:HA	1:B:195:ARG:HB2	1.63	0.81
1:C:76:LEU:HG	1:C:134:PRO:CB	2.10	0.81
1:C:285:LEU:CD1	1:C:431:VAL:HA	2.11	0.81
1:D:203:GLN:O	1:D:206:MET:HE2	1.79	0.81
1:E:322:TRP:CZ2	1:E:457:ILE:HB	2.15	0.81
1:A:162:VAL:O	1:A:165:PRO:HD2	1.81	0.81
1:A:322:TRP:CZ2	1:A:457:ILE:HB	2.15	0.81
1:A:409:ALA:HA	1:A:466:GLN:NE2	1.95	0.81
1:B:368:ARG:H	1:B:401:THR:CG2	1.93	0.81
1:C:181:VAL:HA	1:C:182:GLN:CG	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:368:ARG:H	1:C:401:THR:CG2	1.93	0.81
1:D:370:LYS:HB3	1:D:375:TYR:CZ	2.15	0.81
1:E:194:SER:HA	1:E:195:ARG:HB2	1.63	0.81
1:A:328:ASN:HA	1:A:333:LEU:HD22	1.63	0.81
1:B:285:LEU:CD1	1:B:431:VAL:HA	2.11	0.81
1:C:80:PRO:HD2	1:C:83:LYS:HZ2	1.44	0.81
1:C:162:VAL:O	1:C:165:PRO:HD2	1.81	0.81
1:E:370:LYS:HB3	1:E:375:TYR:CZ	2.15	0.81
1:A:12:VAL:HG13	1:A:15:LEU:HB3	1.63	0.81
1:A:18:ASP:OD1	1:A:35:PRO:HG3	1.80	0.81
1:D:337:GLY:C	1:D:338:LEU:HD12	2.00	0.81
1:E:55:ILE:HD12	1:E:198:TYR:HB2	1.61	0.81
1:B:118:PRO:HG3	1:B:129:VAL:H	1.45	0.81
1:C:18:ASP:OD1	1:C:35:PRO:HG3	1.80	0.81
1:D:223:TRP:CB	1:D:444:MET:HG2	2.11	0.81
1:E:235:LEU:CD1	1:E:241:LEU:HB3	2.11	0.81
1:C:235:LEU:CD1	1:C:241:LEU:HB3	2.11	0.81
1:D:162:VAL:O	1:D:165:PRO:HD2	1.81	0.81
1:D:409:ALA:HA	1:D:466:GLN:NE2	1.95	0.81
1:E:182:GLN:HE21	1:E:185:ALA:CB	1.92	0.81
1:C:409:ALA:HA	1:C:466:GLN:NE2	1.95	0.80
1:D:235:LEU:CD1	1:D:241:LEU:HB3	2.11	0.80
1:E:294:SER:HB2	1:E:340:GLY:O	1.81	0.80
1:B:235:LEU:CD1	1:B:241:LEU:HB3	2.11	0.80
1:D:285:LEU:CD1	1:D:431:VAL:HA	2.11	0.80
1:E:162:VAL:O	1:E:165:PRO:HD2	1.81	0.80
1:B:12:VAL:HG13	1:B:15:LEU:HB3	1.63	0.80
1:C:294:SER:HB2	1:C:340:GLY:O	1.81	0.80
1:D:52:LYS:HE3	1:D:53:LYS:NZ	1.96	0.80
1:D:118:PRO:HG3	1:D:129:VAL:H	1.45	0.80
1:E:39:GLN:HG2	1:E:67:ILE:HG21	1.63	0.80
1:E:460:THR:C	1:E:463:PRO:HD2	2.02	0.80
1:A:76:LEU:HG	1:A:134:PRO:CB	2.10	0.80
1:A:91:LYS:HB2	1:A:93:ARG:CB	2.12	0.80
1:A:285:LEU:CD1	1:A:431:VAL:HA	2.11	0.80
1:B:328:ASN:HA	1:B:333:LEU:HD22	1.63	0.80
1:C:55:ILE:HD12	1:C:198:TYR:HB2	1.61	0.80
1:D:91:LYS:HB3	1:D:92:GLU:CG	2.12	0.80
1:D:280:LYS:CE	1:D:438:LYS:HA	2.11	0.80
1:D:365:PRO:HG3	1:D:476:VAL:HG22	1.61	0.80
1:E:91:LYS:HB2	1:E:93:ARG:CB	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:273:GLU:OE1	1:A:280:LYS:HD3	1.82	0.80
1:A:460:THR:C	1:A:463:PRO:HD2	2.02	0.80
1:B:181:VAL:HA	1:B:182:GLN:CG	2.10	0.80
1:B:285:LEU:HD13	1:B:431:VAL:CA	2.11	0.80
1:D:39:GLN:HG2	1:D:67:ILE:HG21	1.63	0.80
1:E:273:GLU:OE1	1:E:280:LYS:HD3	1.82	0.80
1:A:80:PRO:CG	1:A:83:LYS:HZ3	1.93	0.80
1:C:39:GLN:HG2	1:C:67:ILE:HG21	1.62	0.80
1:C:91:LYS:HB3	1:C:92:GLU:CG	2.12	0.80
1:E:18:ASP:OD1	1:E:35:PRO:HG3	1.80	0.80
1:E:220:THR:CG2	1:E:446:GLU:HG2	2.09	0.80
1:B:39:GLN:HG2	1:B:67:ILE:HG21	1.62	0.80
1:B:84:ILE:HA	1:B:135:ASP:OD1	1.82	0.80
1:E:52:LYS:HE3	1:E:53:LYS:NZ	1.96	0.80
1:E:76:LEU:HG	1:E:134:PRO:CB	2.10	0.80
1:A:294:SER:HB2	1:A:340:GLY:O	1.81	0.80
1:A:417:VAL:HB	1:A:465:MET:CG	2.08	0.80
1:B:202:PRO:HB3	1:B:265:ARG:NH1	1.97	0.80
1:C:223:TRP:CD1	1:C:265:ARG:HG2	2.17	0.80
1:C:273:GLU:OE1	1:C:280:LYS:HD3	1.82	0.80
1:A:84:ILE:HA	1:A:135:ASP:OD1	1.82	0.80
1:A:235:LEU:CD1	1:A:241:LEU:HB3	2.11	0.80
1:D:460:THR:C	1:D:463:PRO:HD2	2.02	0.80
1:E:91:LYS:HB3	1:E:92:GLU:CG	2.12	0.80
1:E:223:TRP:CD1	1:E:265:ARG:HG2	2.17	0.80
1:B:162:VAL:O	1:B:165:PRO:HD2	1.81	0.80
1:C:202:PRO:HB3	1:C:265:ARG:NH1	1.97	0.80
1:D:436:LEU:HB2	1:D:457:ILE:HD11	1.64	0.80
1:E:84:ILE:CG2	1:E:154:ALA:HA	2.12	0.80
1:E:285:LEU:CD1	1:E:431:VAL:HA	2.11	0.80
1:A:202:PRO:HB3	1:A:265:ARG:NH1	1.97	0.79
1:A:285:LEU:HD13	1:A:431:VAL:CA	2.12	0.79
1:B:91:LYS:HB3	1:B:92:GLU:CG	2.12	0.79
1:B:202:PRO:HD3	1:B:265:ARG:CD	2.07	0.79
1:B:273:GLU:OE1	1:B:280:LYS:HD3	1.82	0.79
1:C:220:THR:HG21	1:C:446:GLU:CG	2.12	0.79
1:C:285:LEU:HD13	1:C:431:VAL:CA	2.12	0.79
1:E:202:PRO:HB3	1:E:265:ARG:NH1	1.97	0.79
1:E:381:LEU:HD23	1:E:381:LEU:O	1.82	0.79
1:A:182:GLN:HE21	1:A:185:ALA:CB	1.92	0.79
1:A:223:TRP:CD1	1:A:265:ARG:HG2	2.17	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:223:TRP:CB	1:B:444:MET:HG2	2.11	0.79
1:B:291:PRO:CG	1:B:295:ASP:HB3	2.12	0.79
1:B:414:VAL:HA	1:B:417:VAL:HG12	1.64	0.79
1:C:84:ILE:HA	1:C:135:ASP:OD1	1.82	0.79
1:C:91:LYS:HB2	1:C:93:ARG:CB	2.12	0.79
1:D:223:TRP:HE1	1:D:265:ARG:CB	1.96	0.79
1:D:294:SER:HB2	1:D:340:GLY:O	1.82	0.79
1:A:77:TRP:NE1	1:A:105:ILE:HG12	1.97	0.79
1:C:280:LYS:CE	1:C:438:LYS:HA	2.11	0.79
1:E:223:TRP:CB	1:E:444:MET:HG2	2.11	0.79
1:E:328:ASN:HA	1:E:333:LEU:HD22	1.63	0.79
1:E:409:ALA:HA	1:E:466:GLN:NE2	1.95	0.79
1:A:52:LYS:HE3	1:A:53:LYS:NZ	1.96	0.79
1:A:91:LYS:HB3	1:A:92:GLU:CG	2.12	0.79
1:A:223:TRP:CB	1:A:444:MET:HG2	2.11	0.79
1:A:414:VAL:HA	1:A:417:VAL:HG12	1.64	0.79
1:B:321:GLN:HB3	1:B:341:ASP:OD1	1.83	0.79
1:C:414:VAL:HA	1:C:417:VAL:HG12	1.65	0.79
1:D:84:ILE:CG2	1:D:154:ALA:HA	2.13	0.79
1:B:52:LYS:HE3	1:B:53:LYS:NZ	1.96	0.79
1:B:223:TRP:HE1	1:B:265:ARG:CB	1.96	0.79
1:B:223:TRP:CD1	1:B:265:ARG:HG2	2.17	0.79
1:C:12:VAL:HG13	1:C:15:LEU:HB3	1.63	0.79
1:C:84:ILE:CG2	1:C:154:ALA:HA	2.12	0.79
1:A:322:TRP:CD1	1:A:457:ILE:HA	2.17	0.79
1:C:381:LEU:O	1:C:381:LEU:HD23	1.82	0.79
1:D:91:LYS:HB2	1:D:93:ARG:CB	2.12	0.79
1:E:80:PRO:HD2	1:E:83:LYS:HZ2	1.45	0.79
1:B:294:SER:HB2	1:B:340:GLY:O	1.81	0.79
1:C:52:LYS:HE3	1:C:53:LYS:NZ	1.96	0.79
1:C:436:LEU:HB2	1:C:457:ILE:HD11	1.64	0.79
1:C:460:THR:C	1:C:463:PRO:HD2	2.02	0.79
1:D:12:VAL:HG13	1:D:15:LEU:HB3	1.63	0.79
1:D:220:THR:HG21	1:D:446:GLU:CG	2.12	0.79
1:E:223:TRP:HE1	1:E:265:ARG:CB	1.96	0.79
1:E:417:VAL:HB	1:E:465:MET:CG	2.08	0.79
1:E:436:LEU:HB2	1:E:457:ILE:HD11	1.64	0.79
1:A:220:THR:HG21	1:A:446:GLU:CG	2.12	0.79
1:B:144:GLY:HA2	1:B:147:GLY:H	1.48	0.79
1:B:417:VAL:HB	1:B:465:MET:CG	2.08	0.79
1:D:202:PRO:HB3	1:D:265:ARG:NH1	1.97	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:285:LEU:HD13	1:D:431:VAL:CA	2.12	0.79
1:E:285:LEU:HD13	1:E:431:VAL:CA	2.12	0.79
1:E:313:LEU:HD12	1:E:374:GLY:CA	2.12	0.79
1:E:321:GLN:HB3	1:E:341:ASP:OD1	1.83	0.79
1:B:84:ILE:CG2	1:B:154:ALA:HA	2.13	0.79
1:C:144:GLY:HA2	1:C:147:GLY:H	1.48	0.79
1:C:300:PRO:HG2	1:C:302:ARG:HH12	1.48	0.79
1:D:84:ILE:HA	1:D:135:ASP:OD1	1.82	0.79
1:A:376:ALA:O	1:A:379:TYR:CD2	2.36	0.79
1:B:45:VAL:HG13	1:B:46:LEU:CD1	2.13	0.79
1:B:295:ASP:HB2	1:B:339:LYS:HZ2	1.45	0.79
1:D:223:TRP:CD1	1:D:265:ARG:HG2	2.17	0.79
1:D:300:PRO:HG2	1:D:302:ARG:HH12	1.48	0.79
1:D:328:ASN:HA	1:D:333:LEU:HD22	1.63	0.79
1:E:84:ILE:HA	1:E:135:ASP:OD1	1.82	0.79
1:E:291:PRO:CG	1:E:295:ASP:HB3	2.12	0.79
1:E:322:TRP:CD1	1:E:457:ILE:HA	2.17	0.79
1:A:42:MET:SD	1:A:56:LEU:HD13	2.23	0.78
1:A:45:VAL:HG13	1:A:46:LEU:CD1	2.13	0.78
1:B:300:PRO:HG2	1:B:302:ARG:HH12	1.48	0.78
1:B:322:TRP:CD1	1:B:457:ILE:HA	2.17	0.78
1:C:77:TRP:NE1	1:C:105:ILE:HG12	1.98	0.78
1:C:118:PRO:HG3	1:C:129:VAL:H	1.45	0.78
1:C:223:TRP:CB	1:C:444:MET:HG2	2.11	0.78
1:D:182:GLN:HE21	1:D:185:ALA:CB	1.92	0.78
1:E:280:LYS:CE	1:E:438:LYS:HA	2.11	0.78
1:D:315:LYS:HZ2	1:D:372:GLU:HG2	1.48	0.78
1:D:381:LEU:HD23	1:D:381:LEU:O	1.82	0.78
1:E:42:MET:SD	1:E:56:LEU:HD13	2.23	0.78
1:E:118:PRO:HG3	1:E:129:VAL:H	1.45	0.78
1:B:77:TRP:NE1	1:B:105:ILE:HG12	1.98	0.78
1:B:431:VAL:HG23	1:B:432:PHE:HD1	1.47	0.78
1:C:202:PRO:HD3	1:C:265:ARG:CD	2.07	0.78
1:C:328:ASN:HA	1:C:333:LEU:HD22	1.63	0.78
1:C:417:VAL:HB	1:C:465:MET:CG	2.08	0.78
1:D:42:MET:SD	1:D:56:LEU:HD13	2.23	0.78
1:E:412:TRP:CZ2	1:E:469:ARG:HD3	2.19	0.78
1:A:449:ALA:N	1:A:455:MET:HE1	1.99	0.78
1:B:42:MET:SD	1:B:56:LEU:HD13	2.23	0.78
1:B:91:LYS:HB2	1:B:93:ARG:CB	2.12	0.78
1:B:182:GLN:HE21	1:B:185:ALA:CB	1.92	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:321:GLN:HB3	1:C:341:ASP:OD1	1.83	0.78
1:D:376:ALA:O	1:D:379:TYR:CD2	2.36	0.78
1:B:376:ALA:O	1:B:379:TYR:CD2	2.36	0.78
1:C:376:ALA:O	1:C:379:TYR:CD2	2.36	0.78
1:E:77:TRP:NE1	1:E:105:ILE:HG12	1.98	0.78
1:A:144:GLY:HA2	1:A:147:GLY:H	1.48	0.78
1:A:321:GLN:HB3	1:A:341:ASP:OD1	1.83	0.78
1:B:412:TRP:CZ2	1:B:469:ARG:HD3	2.19	0.78
1:C:223:TRP:HE1	1:C:265:ARG:CB	1.96	0.78
1:D:273:GLU:OE1	1:D:280:LYS:HD3	1.82	0.78
1:D:321:GLN:HB3	1:D:341:ASP:OD1	1.83	0.78
1:D:412:TRP:CZ2	1:D:469:ARG:HD3	2.19	0.78
1:A:179:THR:HG21	1:A:196:VAL:HG21	1.66	0.78
1:C:223:TRP:CZ2	1:C:225:ALA:HB2	2.19	0.78
1:E:45:VAL:HG13	1:E:46:LEU:CD1	2.13	0.78
1:E:222:ILE:HA	1:E:445:GLU:OE2	1.83	0.78
1:B:460:THR:C	1:B:463:PRO:HD2	2.02	0.78
1:C:45:VAL:HG13	1:C:46:LEU:CD1	2.13	0.78
1:D:144:GLY:HA2	1:D:147:GLY:H	1.48	0.78
1:D:414:VAL:HA	1:D:417:VAL:HG12	1.64	0.78
1:E:12:VAL:HG13	1:E:15:LEU:HB3	1.63	0.78
1:E:300:PRO:HG2	1:E:302:ARG:HH12	1.48	0.78
1:E:376:ALA:O	1:E:379:TYR:CD2	2.36	0.78
1:A:121:ARG:O	1:A:124:VAL:HG22	1.84	0.78
1:A:223:TRP:HE1	1:A:265:ARG:CB	1.96	0.78
1:A:300:PRO:HG2	1:A:302:ARG:HH12	1.48	0.78
1:A:291:PRO:CG	1:A:295:ASP:HB3	2.12	0.78
1:B:121:ARG:O	1:B:124:VAL:HG22	1.84	0.78
1:B:179:THR:HG21	1:B:196:VAL:HG21	1.66	0.78
1:C:42:MET:SD	1:C:56:LEU:HD13	2.23	0.78
1:C:222:ILE:HA	1:C:445:GLU:OE2	1.83	0.78
1:D:222:ILE:HA	1:D:445:GLU:OE2	1.84	0.78
1:B:223:TRP:CZ2	1:B:225:ALA:HB2	2.19	0.77
1:C:313:LEU:HD12	1:C:374:GLY:CA	2.12	0.77
1:D:45:VAL:HG13	1:D:46:LEU:CD1	2.13	0.77
1:A:73:VAL:HG11	1:A:104:ILE:HG21	1.66	0.77
1:A:280:LYS:CE	1:A:438:LYS:HA	2.11	0.77
1:B:222:ILE:HA	1:B:445:GLU:OE2	1.83	0.77
1:B:280:LYS:CE	1:B:438:LYS:HA	2.11	0.77
1:B:381:LEU:HD23	1:B:381:LEU:O	1.83	0.77
1:B:436:LEU:HB2	1:B:457:ILE:HD11	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:223:TRP:CZ2	1:D:225:ALA:HB2	2.19	0.77
1:D:322:TRP:CD1	1:D:457:ILE:HA	2.17	0.77
1:E:121:ARG:O	1:E:124:VAL:HG22	1.84	0.77
1:A:404:LEU:O	1:A:404:LEU:HD23	1.85	0.77
1:B:52:LYS:HE3	1:B:53:LYS:HZ3	1.49	0.77
1:B:404:LEU:HD23	1:B:404:LEU:O	1.85	0.77
1:C:412:TRP:CZ2	1:C:469:ARG:HD3	2.19	0.77
1:D:156:ILE:CA	1:D:194:SER:HB3	2.15	0.77
1:E:179:THR:HG21	1:E:196:VAL:HG21	1.66	0.77
1:B:156:ILE:CA	1:B:194:SER:HB3	2.15	0.77
1:D:124:VAL:HA	1:D:125:ILE:HG13	1.66	0.77
1:E:124:VAL:HA	1:E:125:ILE:HG13	1.66	0.77
1:A:381:LEU:O	1:A:381:LEU:HD23	1.82	0.77
1:C:124:VAL:HA	1:C:125:ILE:HG13	1.66	0.77
1:C:179:THR:HG21	1:C:196:VAL:HG21	1.66	0.77
1:D:121:ARG:O	1:D:124:VAL:HG22	1.84	0.77
1:E:223:TRP:CZ2	1:E:225:ALA:HB2	2.19	0.77
1:E:414:VAL:HA	1:E:417:VAL:HG12	1.64	0.77
1:B:313:LEU:HD12	1:B:374:GLY:CA	2.12	0.77
1:C:322:TRP:CD1	1:C:457:ILE:HA	2.18	0.77
1:D:25:VAL:HG13	1:D:28:LYS:H	1.49	0.77
1:E:52:LYS:HE3	1:E:53:LYS:HZ3	1.47	0.77
1:E:345:THR:HG23	1:E:346:TYR:CD1	2.20	0.77
1:E:404:LEU:HD23	1:E:404:LEU:O	1.85	0.77
1:A:222:ILE:HA	1:A:445:GLU:OE2	1.83	0.77
1:A:223:TRP:CZ2	1:A:225:ALA:HB2	2.19	0.77
1:A:412:TRP:CZ2	1:A:469:ARG:HD3	2.19	0.77
1:A:431:VAL:HG23	1:A:432:PHE:HD1	1.47	0.77
1:D:202:PRO:HD3	1:D:265:ARG:CD	2.07	0.77
1:D:313:LEU:HD12	1:D:374:GLY:CA	2.12	0.77
1:D:417:VAL:HB	1:D:465:MET:CG	2.08	0.77
1:A:64:LYS:HG3	1:A:65:SER:N	2.00	0.77
1:B:84:ILE:HG23	1:B:154:ALA:HA	1.67	0.77
1:B:225:ALA:O	1:B:228:PRO:HD2	1.85	0.77
1:D:291:PRO:CG	1:D:295:ASP:HB3	2.13	0.77
1:A:156:ILE:CA	1:A:194:SER:HB3	2.15	0.77
1:A:370:LYS:HE2	1:A:399:ASP:HA	1.67	0.77
1:D:221:ILE:HB	1:D:222:ILE:CG1	2.15	0.77
1:B:124:VAL:HA	1:B:125:ILE:HG13	1.66	0.77
1:B:345:THR:HG23	1:B:346:TYR:CD1	2.20	0.77
1:C:225:ALA:O	1:C:228:PRO:HD2	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:404:LEU:O	1:C:404:LEU:HD23	1.85	0.77
1:D:77:TRP:NE1	1:D:105:ILE:HG12	1.98	0.77
1:D:368:ARG:H	1:D:401:THR:HG22	1.51	0.77
1:E:25:VAL:HG13	1:E:28:LYS:H	1.49	0.77
1:E:45:VAL:HG11	1:E:222:ILE:CD1	2.15	0.77
1:E:144:GLY:HA2	1:E:147:GLY:H	1.48	0.77
1:A:436:LEU:HB2	1:A:457:ILE:HD11	1.64	0.76
1:B:73:VAL:HG11	1:B:104:ILE:HG21	1.66	0.76
1:E:80:PRO:CD	1:E:83:LYS:HZ3	1.97	0.76
1:B:302:ARG:HB2	1:B:305:ASP:OD2	1.86	0.76
1:C:25:VAL:HG13	1:C:28:LYS:H	1.49	0.76
1:C:121:ARG:O	1:C:124:VAL:HG22	1.84	0.76
1:C:302:ARG:HB2	1:C:305:ASP:OD2	1.86	0.76
1:D:45:VAL:O	1:D:54:PHE:CZ	2.39	0.76
1:D:225:ALA:O	1:D:228:PRO:HD2	1.84	0.76
1:D:302:ARG:HB2	1:D:305:ASP:OD2	1.86	0.76
1:D:431:VAL:HG23	1:D:432:PHE:HD1	1.47	0.76
1:A:221:ILE:HB	1:A:222:ILE:CG1	2.15	0.76
1:C:45:VAL:HG11	1:C:222:ILE:CD1	2.16	0.76
1:D:91:LYS:CB	1:D:93:ARG:H	1.99	0.76
1:D:179:THR:HG21	1:D:196:VAL:HG21	1.66	0.76
1:D:404:LEU:O	1:D:404:LEU:HD23	1.85	0.76
1:E:73:VAL:HG11	1:E:104:ILE:HG21	1.66	0.76
1:E:156:ILE:CA	1:E:194:SER:HB3	2.15	0.76
1:E:221:ILE:HB	1:E:222:ILE:CG1	2.15	0.76
1:E:313:LEU:CD2	1:E:321:GLN:HE21	1.99	0.76
1:A:450:ARG:NH2	1:A:453:LYS:HE2	2.00	0.76
1:C:156:ILE:CA	1:C:194:SER:HB3	2.15	0.76
1:E:45:VAL:O	1:E:54:PHE:CZ	2.39	0.76
1:E:91:LYS:CB	1:E:93:ARG:H	1.99	0.76
1:E:187:LEU:O	1:E:190:PRO:HD2	1.85	0.76
1:E:220:THR:HG21	1:E:446:GLU:CG	2.13	0.76
1:A:225:ALA:O	1:A:228:PRO:HD2	1.85	0.76
1:B:45:VAL:HG11	1:B:222:ILE:CD1	2.16	0.76
1:C:345:THR:HG23	1:C:346:TYR:CD1	2.20	0.76
1:C:368:ARG:H	1:C:401:THR:HG22	1.50	0.76
1:E:225:ALA:O	1:E:228:PRO:HD2	1.84	0.76
1:E:302:ARG:HB2	1:E:305:ASP:OD2	1.86	0.76
1:A:22:PHE:CE1	1:A:32:LEU:HD23	2.21	0.76
1:A:91:LYS:CB	1:A:93:ARG:H	1.99	0.76
1:A:202:PRO:HD3	1:A:265:ARG:CD	2.07	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:64:LYS:HG3	1:E:65:SER:N	2.00	0.76
1:E:80:PRO:CD	1:E:83:LYS:NZ	2.49	0.76
1:A:45:VAL:HG11	1:A:222:ILE:CD1	2.16	0.76
1:A:415:GLN:O	1:A:418:VAL:HG12	1.86	0.76
1:B:64:LYS:HG3	1:B:65:SER:N	2.00	0.76
1:C:182:GLN:HE21	1:C:185:ALA:CB	1.92	0.76
1:C:221:ILE:HB	1:C:222:ILE:CG1	2.15	0.76
1:D:45:VAL:HG11	1:D:222:ILE:CD1	2.16	0.76
1:E:461:LEU:O	1:E:465:MET:HG2	1.86	0.76
1:A:45:VAL:O	1:A:54:PHE:CZ	2.39	0.76
1:A:461:LEU:O	1:A:465:MET:HG2	1.86	0.76
1:B:220:THR:HG21	1:B:446:GLU:CG	2.12	0.76
1:B:221:ILE:HB	1:B:222:ILE:CG1	2.15	0.76
1:B:313:LEU:CD2	1:B:321:GLN:HE21	1.99	0.76
1:E:450:ARG:NH2	1:E:453:LYS:HE2	2.00	0.76
1:C:450:ARG:NH2	1:C:453:LYS:HE2	2.00	0.76
1:D:313:LEU:CD2	1:D:321:GLN:HE21	1.99	0.76
1:D:376:ALA:HA	1:D:379:TYR:HE2	1.50	0.76
1:E:368:ARG:H	1:E:401:THR:HG22	1.51	0.76
1:C:91:LYS:CB	1:C:93:ARG:H	1.99	0.76
1:C:351:ASN:ND2	1:C:377:VAL:HG13	2.01	0.76
1:D:73:VAL:HG11	1:D:104:ILE:HG21	1.66	0.76
1:D:84:ILE:HG23	1:D:154:ALA:HA	1.67	0.76
1:D:187:LEU:O	1:D:190:PRO:HD2	1.85	0.76
1:A:313:LEU:CD2	1:A:321:GLN:HE21	1.99	0.75
1:B:80:PRO:CD	1:B:83:LYS:NZ	2.49	0.75
1:B:91:LYS:CB	1:B:93:ARG:H	1.99	0.75
1:C:187:LEU:O	1:C:190:PRO:HD2	1.85	0.75
1:B:25:VAL:HG13	1:B:28:LYS:H	1.49	0.75
1:B:51:ASN:O	1:B:52:LYS:HB3	1.87	0.75
1:C:80:PRO:CD	1:C:83:LYS:HZ3	1.99	0.75
1:D:450:ARG:NH2	1:D:453:LYS:HE2	2.00	0.75
1:E:370:LYS:HE2	1:E:399:ASP:HA	1.68	0.75
1:E:415:GLN:O	1:E:418:VAL:HG12	1.86	0.75
1:B:370:LYS:HE3	1:B:375:TYR:HE1	1.52	0.75
1:C:370:LYS:HE2	1:C:399:ASP:HA	1.67	0.75
1:D:64:LYS:HG3	1:D:65:SER:N	2.00	0.75
1:D:80:PRO:CD	1:D:83:LYS:NZ	2.49	0.75
1:D:461:LEU:O	1:D:465:MET:HG2	1.86	0.75
1:E:117:ARG:HB2	1:E:118:PRO:HD3	1.69	0.75
1:E:322:TRP:CG	1:E:457:ILE:HA	2.22	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:313:LEU:HD12	1:A:374:GLY:CA	2.12	0.75
1:A:368:ARG:H	1:A:401:THR:HG22	1.51	0.75
1:C:45:VAL:O	1:C:54:PHE:CZ	2.39	0.75
1:C:64:LYS:HG3	1:C:65:SER:N	2.00	0.75
1:D:322:TRP:CG	1:D:457:ILE:HA	2.22	0.75
1:D:370:LYS:HE2	1:D:399:ASP:HA	1.67	0.75
1:A:302:ARG:HB2	1:A:305:ASP:OD2	1.86	0.75
1:A:351:ASN:ND2	1:A:377:VAL:HG13	2.01	0.75
1:A:376:ALA:HA	1:A:379:TYR:HE2	1.50	0.75
1:B:45:VAL:O	1:B:54:PHE:CZ	2.39	0.75
1:B:368:ARG:H	1:B:401:THR:HG22	1.50	0.75
1:B:461:LEU:O	1:B:465:MET:HG2	1.86	0.75
1:C:73:VAL:HG11	1:C:104:ILE:HG21	1.67	0.75
1:D:345:THR:HG23	1:D:346:TYR:CD1	2.20	0.75
1:E:22:PHE:CE1	1:E:32:LEU:HD23	2.21	0.75
1:A:25:VAL:HG13	1:A:28:LYS:H	1.49	0.75
1:A:133:ASN:H	1:A:134:PRO:CD	2.00	0.75
1:B:22:PHE:CE1	1:B:32:LEU:HD23	2.21	0.75
1:C:322:TRP:CG	1:C:457:ILE:HA	2.22	0.75
1:C:370:LYS:HE3	1:C:375:TYR:HE1	1.51	0.75
1:D:22:PHE:CE1	1:D:32:LEU:HD23	2.21	0.75
1:A:322:TRP:HD1	1:A:460:THR:HB	1.52	0.75
1:B:80:PRO:CG	1:B:83:LYS:NZ	2.50	0.75
1:B:187:LEU:O	1:B:190:PRO:HD2	1.85	0.75
1:B:351:ASN:ND2	1:B:377:VAL:HG13	2.01	0.75
1:C:80:PRO:CD	1:C:83:LYS:NZ	2.49	0.75
1:C:461:LEU:O	1:C:465:MET:HG2	1.86	0.75
1:A:80:PRO:CG	1:A:83:LYS:NZ	2.50	0.75
1:B:322:TRP:CG	1:B:457:ILE:HA	2.22	0.75
1:B:370:LYS:HE2	1:B:399:ASP:HA	1.67	0.75
1:B:415:GLN:O	1:B:418:VAL:HG12	1.86	0.75
1:C:84:ILE:HG23	1:C:154:ALA:HA	1.67	0.75
1:C:295:ASP:HA	1:C:339:LYS:HD2	1.69	0.75
1:C:313:LEU:CD2	1:C:321:GLN:HE21	1.99	0.75
1:E:84:ILE:HG23	1:E:154:ALA:HA	1.67	0.75
1:E:351:ASN:ND2	1:E:377:VAL:HG13	2.01	0.75
1:E:431:VAL:HG23	1:E:432:PHE:HD1	1.47	0.75
1:A:80:PRO:CD	1:A:83:LYS:NZ	2.49	0.75
1:A:370:LYS:HE3	1:A:375:TYR:HE1	1.51	0.75
1:B:431:VAL:O	1:B:435:ILE:HG23	1.87	0.75
1:B:22:PHE:HA	1:B:33:PRO:CD	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:450:ARG:NH2	1:B:453:LYS:HE2	2.00	0.74
1:C:431:VAL:O	1:C:435:ILE:HG23	1.87	0.74
1:C:22:PHE:CE1	1:C:32:LEU:HD23	2.21	0.74
1:C:322:TRP:HD1	1:C:460:THR:HB	1.52	0.74
1:C:431:VAL:HG23	1:C:432:PHE:HD1	1.47	0.74
1:D:351:ASN:ND2	1:D:377:VAL:HG13	2.02	0.74
1:D:415:GLN:O	1:D:418:VAL:HG12	1.86	0.74
1:E:338:LEU:HD22	1:E:430:LYS:HB2	1.70	0.74
1:E:439:HIS:HE1	1:E:454:GLU:O	1.70	0.74
1:A:117:ARG:HB2	1:A:118:PRO:HD3	1.69	0.74
1:A:322:TRP:CG	1:A:457:ILE:HA	2.22	0.74
1:A:439:HIS:HE1	1:A:454:GLU:O	1.71	0.74
1:C:164:ILE:HG12	1:C:203:GLN:OE1	1.88	0.74
1:C:376:ALA:HA	1:C:379:TYR:HE2	1.50	0.74
1:D:80:PRO:CD	1:D:83:LYS:HZ3	1.99	0.74
1:D:117:ARG:HB2	1:D:118:PRO:HD3	1.69	0.74
1:D:433:SER:CA	1:D:457:ILE:HD12	2.14	0.74
1:E:431:VAL:O	1:E:435:ILE:HG23	1.87	0.74
1:B:295:ASP:HA	1:B:339:LYS:HD2	1.69	0.74
1:C:22:PHE:HA	1:C:33:PRO:CD	2.17	0.74
1:E:133:ASN:H	1:E:134:PRO:CD	2.00	0.74
1:E:315:LYS:HZ2	1:E:372:GLU:HG2	1.53	0.74
1:A:431:VAL:O	1:A:435:ILE:HG23	1.87	0.74
1:B:439:HIS:HE1	1:B:454:GLU:O	1.71	0.74
1:C:80:PRO:CG	1:C:83:LYS:NZ	2.50	0.74
1:C:163:GLU:HG3	1:C:203:GLN:CB	2.17	0.74
1:E:376:ALA:HA	1:E:379:TYR:HE2	1.50	0.74
1:C:51:ASN:O	1:C:52:LYS:HB3	1.87	0.74
1:D:439:HIS:HE1	1:D:454:GLU:O	1.71	0.74
1:B:164:ILE:HG12	1:B:203:GLN:OE1	1.88	0.74
1:C:73:VAL:HG23	1:C:105:ILE:HG12	1.70	0.74
1:C:415:GLN:O	1:C:418:VAL:HG12	1.86	0.74
1:D:322:TRP:HD1	1:D:460:THR:HB	1.52	0.74
1:D:338:LEU:HD22	1:D:430:LYS:HB2	1.69	0.74
1:A:338:LEU:HD22	1:A:430:LYS:HB2	1.69	0.74
1:A:368:ARG:HB2	1:A:401:THR:HG21	1.70	0.74
1:B:133:ASN:H	1:B:134:PRO:CD	2.00	0.74
1:D:51:ASN:O	1:D:52:LYS:HB3	1.86	0.74
1:D:431:VAL:O	1:D:435:ILE:HG23	1.87	0.74
1:E:84:ILE:HG13	1:E:135:ASP:OD2	1.88	0.74
1:E:433:SER:CA	1:E:457:ILE:HD12	2.15	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:368:ARG:HB2	1:B:401:THR:HG21	1.70	0.74
1:D:80:PRO:CG	1:D:83:LYS:NZ	2.50	0.74
1:E:80:PRO:CG	1:E:83:LYS:NZ	2.50	0.74
1:A:144:GLY:CA	1:A:147:GLY:H	2.01	0.74
1:E:45:VAL:HG11	1:E:222:ILE:HD12	1.70	0.74
1:E:368:ARG:HB2	1:E:401:THR:HG21	1.70	0.74
1:A:22:PHE:HA	1:A:33:PRO:CD	2.17	0.73
1:B:84:ILE:HG13	1:B:135:ASP:OD2	1.88	0.73
1:B:144:GLY:CA	1:B:147:GLY:H	2.01	0.73
1:D:159:ALA:HB3	1:D:198:TYR:CD1	2.23	0.73
1:D:164:ILE:HG12	1:D:203:GLN:OE1	1.88	0.73
1:A:164:ILE:HG12	1:A:203:GLN:OE1	1.88	0.73
1:B:159:ALA:HB3	1:B:198:TYR:CD1	2.23	0.73
1:B:161:ASP:O	1:B:165:PRO:HD3	1.88	0.73
1:C:161:ASP:O	1:C:165:PRO:HD3	1.88	0.73
1:C:376:ALA:CA	1:C:379:TYR:CE2	2.71	0.73
1:D:84:ILE:HG13	1:D:135:ASP:OD2	1.88	0.73
1:D:295:ASP:HA	1:D:339:LYS:HD2	1.69	0.73
1:E:159:ALA:HB3	1:E:198:TYR:CD1	2.23	0.73
1:E:161:ASP:O	1:E:165:PRO:HD3	1.88	0.73
1:A:295:ASP:HA	1:A:339:LYS:HD2	1.69	0.73
1:B:376:ALA:CA	1:B:379:TYR:CE2	2.71	0.73
1:D:22:PHE:HA	1:D:33:PRO:CD	2.17	0.73
1:D:45:VAL:HG11	1:D:222:ILE:HD12	1.71	0.73
1:D:144:GLY:CA	1:D:147:GLY:H	2.01	0.73
1:E:322:TRP:HD1	1:E:460:THR:HB	1.52	0.73
1:C:84:ILE:HG13	1:C:135:ASP:OD2	1.88	0.73
1:C:128:ASP:O	1:C:135:ASP:HB3	1.89	0.73
1:C:144:GLY:CA	1:C:147:GLY:H	2.01	0.73
1:A:45:VAL:HG11	1:A:222:ILE:HD12	1.71	0.73
1:A:433:SER:CA	1:A:457:ILE:HD12	2.15	0.73
1:B:300:PRO:HG2	1:B:302:ARG:NH1	2.04	0.73
1:B:338:LEU:HD22	1:B:430:LYS:HB2	1.70	0.73
1:C:241:LEU:HD21	1:C:244:MET:HB2	1.70	0.73
1:A:144:GLY:O	1:A:171:MET:SD	2.47	0.73
1:B:117:ARG:HB2	1:B:118:PRO:HD3	1.69	0.73
1:B:128:ASP:O	1:B:135:ASP:HB3	1.89	0.73
1:B:272:ARG:HB3	1:B:442:CYS:H	1.53	0.73
1:B:322:TRP:HD1	1:B:460:THR:HB	1.52	0.73
1:C:141:LYS:HZ1	1:C:171:MET:HB3	1.53	0.73
1:C:291:PRO:CG	1:C:295:ASP:HB3	2.12	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:133:ASN:H	1:D:134:PRO:CD	2.00	0.73
1:D:368:ARG:HB2	1:D:401:THR:HG21	1.70	0.73
1:E:25:VAL:HG12	1:E:29:ALA:O	1.89	0.73
1:E:128:ASP:O	1:E:135:ASP:HB3	1.89	0.73
1:C:133:ASN:H	1:C:134:PRO:CD	2.00	0.73
1:C:300:PRO:HG2	1:C:302:ARG:NH1	2.04	0.73
1:C:368:ARG:HB2	1:C:401:THR:HG21	1.70	0.73
1:C:460:THR:O	1:C:463:PRO:HD2	1.89	0.73
1:D:73:VAL:HG23	1:D:105:ILE:HG12	1.70	0.73
1:D:117:ARG:HD2	1:D:132:ALA:HB2	1.70	0.73
1:D:241:LEU:HD21	1:D:244:MET:HB2	1.70	0.73
1:A:272:ARG:HB3	1:A:442:CYS:H	1.54	0.73
1:B:73:VAL:HG23	1:B:105:ILE:HG12	1.70	0.73
1:C:91:LYS:HB3	1:C:92:GLU:HG2	1.71	0.73
1:C:117:ARG:HB2	1:C:118:PRO:HD3	1.69	0.73
1:C:159:ALA:HB3	1:C:198:TYR:CD1	2.23	0.73
1:C:449:ALA:H	1:C:455:MET:CE	2.02	0.73
1:E:144:GLY:O	1:E:171:MET:SD	2.47	0.73
1:E:164:ILE:HG12	1:E:203:GLN:OE1	1.88	0.73
1:E:417:VAL:CB	1:E:465:MET:HG3	2.13	0.73
1:A:356:TYR:O	1:A:360:ILE:HG13	1.89	0.73
1:B:163:GLU:HG3	1:B:203:GLN:CB	2.17	0.73
1:C:25:VAL:HG12	1:C:29:ALA:O	1.89	0.73
1:A:161:ASP:O	1:A:165:PRO:HD3	1.88	0.73
1:A:373:THR:O	1:A:376:ALA:HB3	1.89	0.73
1:B:45:VAL:HG11	1:B:222:ILE:HD12	1.70	0.73
1:B:373:THR:O	1:B:376:ALA:HB3	1.89	0.73
1:C:45:VAL:HG11	1:C:222:ILE:HD12	1.71	0.73
1:D:370:LYS:HB3	1:D:375:TYR:CE1	2.24	0.73
1:D:449:ALA:H	1:D:455:MET:CE	2.02	0.73
1:E:51:ASN:O	1:E:52:LYS:HB3	1.87	0.73
1:E:163:GLU:HG3	1:E:203:GLN:CB	2.17	0.73
1:A:59:PHE:HD1	1:A:225:ALA:HA	1.53	0.72
1:A:300:PRO:HG2	1:A:302:ARG:NH1	2.04	0.72
1:B:25:VAL:HG12	1:B:29:ALA:O	1.89	0.72
1:B:315:LYS:HZ2	1:B:372:GLU:HG2	1.54	0.72
1:C:144:GLY:O	1:C:171:MET:SD	2.47	0.72
1:C:327:GLN:HB3	1:C:334:PRO:HD2	1.71	0.72
1:C:338:LEU:HD22	1:C:430:LYS:HB2	1.70	0.72
1:D:25:VAL:HG12	1:D:29:ALA:O	1.89	0.72
1:D:161:ASP:O	1:D:165:PRO:HD3	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:194:SER:N	1:D:195:ARG:HD3	2.04	0.72
1:D:272:ARG:HB3	1:D:442:CYS:H	1.54	0.72
1:D:356:TYR:O	1:D:360:ILE:HG13	1.89	0.72
1:E:22:PHE:HA	1:E:33:PRO:CD	2.17	0.72
1:A:460:THR:O	1:A:463:PRO:HD2	1.89	0.72
1:B:272:ARG:HB2	1:B:441:ASN:HB2	1.70	0.72
1:C:439:HIS:HE1	1:C:454:GLU:O	1.71	0.72
1:D:128:ASP:O	1:D:135:ASP:HB3	1.88	0.72
1:D:301:LEU:HD22	1:D:360:ILE:O	1.90	0.72
1:D:373:THR:O	1:D:376:ALA:HB3	1.89	0.72
1:D:376:ALA:CA	1:D:379:TYR:CE2	2.71	0.72
1:E:141:LYS:HZ1	1:E:171:MET:HB3	1.54	0.72
1:E:144:GLY:CA	1:E:147:GLY:H	2.01	0.72
1:E:295:ASP:HA	1:E:339:LYS:HD2	1.69	0.72
1:E:376:ALA:CA	1:E:379:TYR:CE2	2.71	0.72
1:A:117:ARG:HD2	1:A:132:ALA:HB2	1.70	0.72
1:A:301:LEU:HD22	1:A:360:ILE:O	1.90	0.72
1:B:356:TYR:O	1:B:360:ILE:HG13	1.89	0.72
1:C:433:SER:CA	1:C:457:ILE:HD12	2.15	0.72
1:D:144:GLY:O	1:D:171:MET:SD	2.47	0.72
1:E:59:PHE:HD1	1:E:225:ALA:HA	1.53	0.72
1:E:272:ARG:HB3	1:E:442:CYS:H	1.54	0.72
1:E:370:LYS:HB3	1:E:375:TYR:CE1	2.24	0.72
1:A:84:ILE:HG13	1:A:135:ASP:OD2	1.88	0.72
1:A:272:ARG:HB2	1:A:441:ASN:HB2	1.70	0.72
1:C:59:PHE:HD1	1:C:225:ALA:HA	1.53	0.72
1:C:194:SER:N	1:C:195:ARG:HD3	2.04	0.72
1:C:329:ILE:HG13	1:C:330:ILE:N	2.05	0.72
1:C:356:TYR:O	1:C:360:ILE:HG13	1.89	0.72
1:E:370:LYS:HE3	1:E:375:TYR:HE1	1.51	0.72
1:E:373:THR:O	1:E:376:ALA:HB3	1.89	0.72
1:A:42:MET:O	1:A:45:VAL:HG12	1.90	0.72
1:A:118:PRO:HG3	1:A:129:VAL:N	2.05	0.72
1:A:128:ASP:O	1:A:135:ASP:HB3	1.89	0.72
1:A:132:ALA:H	1:A:133:ASN:HA	1.55	0.72
1:A:433:SER:O	1:A:437:LEU:HD13	1.90	0.72
1:B:83:LYS:CE	1:B:192:PRO:CA	2.61	0.72
1:C:272:ARG:HB2	1:C:441:ASN:HB2	1.70	0.72
1:C:315:LYS:HZ2	1:C:372:GLU:HG2	1.53	0.72
1:C:373:THR:O	1:C:376:ALA:HB3	1.89	0.72
1:D:329:ILE:HG13	1:D:330:ILE:N	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:73:VAL:HG23	1:E:105:ILE:HG12	1.70	0.72
1:E:356:TYR:O	1:E:360:ILE:HG13	1.89	0.72
1:B:433:SER:O	1:B:437:LEU:HD13	1.90	0.72
1:C:272:ARG:HB3	1:C:442:CYS:H	1.53	0.72
1:D:300:PRO:HG2	1:D:302:ARG:NH1	2.04	0.72
1:E:301:LEU:HD22	1:E:360:ILE:O	1.89	0.72
1:E:433:SER:O	1:E:437:LEU:HD13	1.90	0.72
1:A:376:ALA:CA	1:A:379:TYR:CE2	2.71	0.72
1:C:442:CYS:HA	1:C:447:ILE:HD13	1.72	0.72
1:D:59:PHE:HD1	1:D:225:ALA:HA	1.53	0.72
1:E:300:PRO:HG2	1:E:302:ARG:NH1	2.04	0.72
1:A:73:VAL:HG23	1:A:105:ILE:HG12	1.70	0.72
1:A:73:VAL:HG23	1:A:77:TRP:NE1	2.05	0.72
1:A:315:LYS:HZ2	1:A:372:GLU:HG2	1.55	0.72
1:B:80:PRO:CD	1:B:83:LYS:HZ3	2.02	0.72
1:B:156:ILE:HA	1:B:194:SER:HB3	1.71	0.72
1:C:39:GLN:CG	1:C:67:ILE:HG21	2.20	0.72
1:C:156:ILE:HA	1:C:194:SER:HB3	1.71	0.72
1:C:433:SER:O	1:C:437:LEU:HD13	1.89	0.72
1:D:42:MET:O	1:D:45:VAL:HG12	1.90	0.72
1:D:118:PRO:HA	1:D:121:ARG:HE	1.55	0.72
1:D:272:ARG:HB2	1:D:441:ASN:HB2	1.70	0.72
1:D:460:THR:O	1:D:463:PRO:HD2	1.89	0.72
1:E:156:ILE:HB	1:E:194:SER:HB3	1.72	0.72
1:B:156:ILE:HB	1:B:194:SER:HB3	1.72	0.72
1:B:442:CYS:HA	1:B:447:ILE:HD13	1.72	0.72
1:B:449:ALA:H	1:B:455:MET:CE	2.02	0.72
1:C:301:LEU:HD22	1:C:360:ILE:O	1.89	0.72
1:C:370:LYS:HB3	1:C:375:TYR:CE1	2.24	0.72
1:D:223:TRP:NE1	1:D:265:ARG:HB3	2.05	0.72
1:E:42:MET:O	1:E:45:VAL:HG12	1.90	0.72
1:E:118:PRO:HG3	1:E:129:VAL:N	2.05	0.72
1:E:449:ALA:H	1:E:455:MET:CE	2.02	0.72
1:A:140:VAL:HG13	1:A:143:VAL:HG12	1.71	0.72
1:A:159:ALA:HB3	1:A:198:TYR:CD1	2.23	0.72
1:B:118:PRO:HG3	1:B:129:VAL:N	2.05	0.72
1:B:144:GLY:O	1:B:171:MET:SD	2.47	0.72
1:A:25:VAL:HG12	1:A:29:ALA:O	1.89	0.71
1:A:241:LEU:HD21	1:A:244:MET:HB2	1.70	0.71
1:B:265:ARG:HG3	1:B:265:ARG:O	1.90	0.71
1:B:301:LEU:HD22	1:B:360:ILE:O	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:329:ILE:HG13	1:B:330:ILE:N	2.05	0.71
1:E:223:TRP:NE1	1:E:265:ARG:HB3	2.05	0.71
1:E:442:CYS:HA	1:E:447:ILE:HD13	1.72	0.71
1:B:194:SER:N	1:B:195:ARG:HD3	2.04	0.71
1:B:241:LEU:HD21	1:B:244:MET:HB2	1.70	0.71
1:C:140:VAL:HG13	1:C:143:VAL:HG12	1.71	0.71
1:D:140:VAL:HG13	1:D:143:VAL:HG12	1.71	0.71
1:E:194:SER:N	1:E:195:ARG:HD3	2.04	0.71
1:A:370:LYS:HB3	1:A:375:TYR:CE1	2.24	0.71
1:B:47:ALA:HB3	1:B:50:ASP:OD1	1.90	0.71
1:B:117:ARG:HD2	1:B:132:ALA:HB2	1.70	0.71
1:B:370:LYS:HB3	1:B:375:TYR:CE1	2.25	0.71
1:B:433:SER:CA	1:B:457:ILE:HD12	2.15	0.71
1:E:216:ARG:NH2	1:E:444:MET:SD	2.63	0.71
1:A:449:ALA:H	1:A:455:MET:CE	2.02	0.71
1:B:42:MET:O	1:B:45:VAL:HG12	1.90	0.71
1:B:190:PRO:HB2	1:B:192:PRO:CD	2.21	0.71
1:C:42:MET:O	1:C:45:VAL:HG12	1.90	0.71
1:D:216:ARG:NH2	1:D:444:MET:SD	2.63	0.71
1:D:433:SER:O	1:D:437:LEU:HD13	1.90	0.71
1:E:156:ILE:HA	1:E:194:SER:HB3	1.71	0.71
1:E:272:ARG:HB2	1:E:441:ASN:HB2	1.70	0.71
1:A:329:ILE:HG13	1:A:330:ILE:N	2.05	0.71
1:B:59:PHE:HD1	1:B:225:ALA:HA	1.53	0.71
1:B:460:THR:O	1:B:463:PRO:HD2	1.89	0.71
1:C:223:TRP:NE1	1:C:265:ARG:HB3	2.05	0.71
1:C:265:ARG:O	1:C:265:ARG:HG3	1.90	0.71
1:D:39:GLN:CG	1:D:67:ILE:HG21	2.20	0.71
1:E:73:VAL:HG23	1:E:77:TRP:NE1	2.05	0.71
1:E:140:VAL:HG13	1:E:143:VAL:HG12	1.71	0.71
1:E:241:LEU:HD21	1:E:244:MET:HB2	1.70	0.71
1:A:223:TRP:NE1	1:A:265:ARG:HB3	2.05	0.71
1:B:140:VAL:HG13	1:B:143:VAL:HG12	1.71	0.71
1:B:319:HIS:CD2	1:B:454:GLU:OE1	2.43	0.71
1:C:241:LEU:O	1:C:244:MET:HG3	1.90	0.71
1:D:118:PRO:HG3	1:D:129:VAL:N	2.05	0.71
1:D:132:ALA:H	1:D:133:ASN:HA	1.55	0.71
1:D:319:HIS:CD2	1:D:454:GLU:OE1	2.43	0.71
1:D:327:GLN:HB3	1:D:334:PRO:HD2	1.71	0.71
1:E:47:ALA:HB3	1:E:50:ASP:OD1	1.90	0.71
1:B:25:VAL:HG11	1:B:28:LYS:HB2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:91:LYS:HB3	1:B:92:GLU:HG2	1.71	0.71
1:B:241:LEU:O	1:B:244:MET:HG3	1.90	0.71
1:C:73:VAL:HG23	1:C:77:TRP:NE1	2.05	0.71
1:C:118:PRO:HG3	1:C:129:VAL:N	2.05	0.71
1:A:216:ARG:NH2	1:A:444:MET:SD	2.63	0.71
1:B:223:TRP:NE1	1:B:265:ARG:HB3	2.05	0.71
1:C:117:ARG:HD2	1:C:132:ALA:HB2	1.70	0.71
1:C:163:GLU:HG2	1:C:203:GLN:N	2.06	0.71
1:D:73:VAL:HG23	1:D:77:TRP:NE1	2.05	0.71
1:D:190:PRO:HB2	1:D:192:PRO:CD	2.21	0.71
1:D:241:LEU:O	1:D:244:MET:HG3	1.90	0.71
1:E:110:PHE:HA	1:E:113:GLU:HG2	1.73	0.71
1:E:319:HIS:CD2	1:E:454:GLU:OE1	2.43	0.71
1:B:73:VAL:HG23	1:B:77:TRP:NE1	2.05	0.71
1:C:25:VAL:HG11	1:C:28:LYS:HB2	1.72	0.71
1:C:118:PRO:HA	1:C:121:ARG:HE	1.55	0.71
1:D:442:CYS:HA	1:D:447:ILE:HD13	1.72	0.71
1:E:117:ARG:HD2	1:E:132:ALA:HB2	1.70	0.71
1:E:265:ARG:HG3	1:E:265:ARG:O	1.90	0.71
1:A:25:VAL:HG11	1:A:28:LYS:HB2	1.72	0.71
1:C:47:ALA:HB3	1:C:50:ASP:OD1	1.90	0.71
1:D:91:LYS:HB3	1:D:92:GLU:HG2	1.71	0.71
1:A:156:ILE:HA	1:A:194:SER:HB3	1.71	0.70
1:A:163:GLU:HG3	1:A:203:GLN:CB	2.17	0.70
1:B:39:GLN:CG	1:B:67:ILE:HG21	2.20	0.70
1:B:417:VAL:CB	1:B:465:MET:HG3	2.13	0.70
1:C:190:PRO:HB2	1:C:192:PRO:CD	2.21	0.70
1:D:156:ILE:HA	1:D:194:SER:HB3	1.71	0.70
1:D:468:HIS:HA	1:D:473:ARG:CD	2.21	0.70
1:E:460:THR:O	1:E:463:PRO:HD2	1.89	0.70
1:A:156:ILE:HB	1:A:194:SER:HB3	1.72	0.70
1:A:319:HIS:CD2	1:A:454:GLU:OE1	2.43	0.70
1:A:327:GLN:HB3	1:A:334:PRO:HD2	1.71	0.70
1:B:59:PHE:CZ	1:B:62:ILE:HB	2.26	0.70
1:B:163:GLU:HG2	1:B:203:GLN:N	2.06	0.70
1:C:59:PHE:CZ	1:C:62:ILE:HB	2.26	0.70
1:C:319:HIS:CD2	1:C:454:GLU:OE1	2.43	0.70
1:C:439:HIS:HA	1:C:450:ARG:NH1	2.06	0.70
1:E:118:PRO:HA	1:E:121:ARG:HE	1.55	0.70
1:E:329:ILE:HG13	1:E:330:ILE:N	2.05	0.70
1:A:39:GLN:CG	1:A:67:ILE:HG21	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:91:LYS:HB3	1:A:92:GLU:HG2	1.71	0.70
1:B:407:LYS:O	1:B:411:GLN:HG2	1.92	0.70
1:D:141:LYS:HZ1	1:D:171:MET:HB3	1.56	0.70
1:D:368:ARG:CZ	1:D:378:LEU:HD23	2.21	0.70
1:E:181:VAL:N	1:E:182:GLN:HB3	2.07	0.70
1:E:327:GLN:HB3	1:E:334:PRO:HD2	1.71	0.70
1:E:368:ARG:CZ	1:E:378:LEU:HD23	2.21	0.70
1:A:181:VAL:N	1:A:182:GLN:HB3	2.07	0.70
1:B:85:LEU:HD12	1:B:156:ILE:HG21	1.74	0.70
1:B:432:PHE:O	1:B:436:LEU:HD13	1.91	0.70
1:B:468:HIS:HA	1:B:473:ARG:CD	2.21	0.70
1:C:156:ILE:HB	1:C:194:SER:HB3	1.72	0.70
1:C:181:VAL:N	1:C:182:GLN:HB3	2.07	0.70
1:C:432:PHE:O	1:C:436:LEU:HD13	1.91	0.70
1:D:85:LEU:HD12	1:D:156:ILE:HG21	1.74	0.70
1:D:163:GLU:HG2	1:D:203:GLN:N	2.06	0.70
1:D:417:VAL:CA	1:D:465:MET:SD	2.78	0.70
1:E:39:GLN:CG	1:E:67:ILE:HG21	2.20	0.70
1:E:59:PHE:CZ	1:E:62:ILE:HB	2.26	0.70
1:E:163:GLU:HG2	1:E:203:GLN:N	2.06	0.70
1:E:407:LYS:O	1:E:411:GLN:HG2	1.92	0.70
1:A:241:LEU:O	1:A:244:MET:HG3	1.90	0.70
1:A:280:LYS:HZ1	1:A:438:LYS:N	1.89	0.70
1:A:407:LYS:O	1:A:411:GLN:HG2	1.92	0.70
1:B:181:VAL:N	1:B:182:GLN:HB3	2.07	0.70
1:C:216:ARG:NH2	1:C:444:MET:SD	2.63	0.70
1:D:407:LYS:O	1:D:411:GLN:HG2	1.92	0.70
1:D:439:HIS:HA	1:D:450:ARG:NH1	2.06	0.70
1:E:45:VAL:CG2	1:E:222:ILE:HD11	2.22	0.70
1:E:190:PRO:HB2	1:E:192:PRO:CD	2.21	0.70
1:E:241:LEU:O	1:E:244:MET:HG3	1.90	0.70
1:A:59:PHE:CD1	1:A:225:ALA:CA	2.75	0.70
1:A:432:PHE:O	1:A:436:LEU:HD13	1.91	0.70
1:B:85:LEU:HD13	1:B:136:HIS:CE1	2.27	0.70
1:B:376:ALA:HA	1:B:379:TYR:HE2	1.50	0.70
1:C:80:PRO:O	1:C:81:GLN:HG2	1.92	0.70
1:D:110:PHE:HA	1:D:113:GLU:HG2	1.73	0.70
1:D:181:VAL:N	1:D:182:GLN:HB3	2.07	0.70
1:E:85:LEU:HD12	1:E:156:ILE:HG21	1.74	0.70
1:A:118:PRO:HA	1:A:121:ARG:HE	1.55	0.70
1:A:216:ARG:HA	1:A:219:THR:O	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:439:HIS:HA	1:A:450:ARG:NH1	2.06	0.70
1:B:110:PHE:HA	1:B:113:GLU:HG2	1.73	0.70
1:B:118:PRO:HA	1:B:121:ARG:HE	1.55	0.70
1:B:131:PRO:HA	1:B:133:ASN:ND2	2.07	0.70
1:C:83:LYS:CE	1:C:192:PRO:CA	2.61	0.70
1:C:85:LEU:HD12	1:C:156:ILE:HG21	1.74	0.70
1:D:47:ALA:HB3	1:D:50:ASP:OD1	1.90	0.70
1:D:216:ARG:HA	1:D:219:THR:O	1.92	0.70
1:E:91:LYS:HB3	1:E:92:GLU:HG2	1.71	0.70
1:A:45:VAL:CG2	1:A:222:ILE:HD11	2.22	0.70
1:A:409:ALA:HA	1:A:466:GLN:HE21	1.56	0.70
1:C:368:ARG:CZ	1:C:378:LEU:HD23	2.21	0.70
1:A:85:LEU:HD12	1:A:156:ILE:HG21	1.74	0.70
1:A:163:GLU:HG2	1:A:203:GLN:N	2.06	0.70
1:A:335:ASN:CG	1:A:338:LEU:HD11	2.12	0.70
1:B:216:ARG:NH2	1:B:444:MET:SD	2.63	0.70
1:C:85:LEU:HD13	1:C:136:HIS:CE1	2.27	0.70
1:C:335:ASN:CG	1:C:338:LEU:HD11	2.12	0.70
1:D:59:PHE:CZ	1:D:62:ILE:HB	2.26	0.70
1:D:85:LEU:HD13	1:D:136:HIS:CE1	2.27	0.70
1:E:85:LEU:HD13	1:E:136:HIS:CE1	2.27	0.70
1:E:187:LEU:O	1:E:192:PRO:HD2	1.91	0.70
1:A:80:PRO:O	1:A:81:GLN:HG2	1.92	0.70
1:B:327:GLN:HB3	1:B:334:PRO:HD2	1.71	0.70
1:C:468:HIS:HA	1:C:473:ARG:CD	2.21	0.70
1:D:80:PRO:O	1:D:81:GLN:HG2	1.92	0.70
1:D:117:ARG:HB2	1:D:118:PRO:CD	2.22	0.70
1:D:131:PRO:HA	1:D:133:ASN:ND2	2.07	0.70
1:D:370:LYS:HE3	1:D:375:TYR:HE1	1.51	0.70
1:E:59:PHE:CE1	1:E:225:ALA:O	2.45	0.70
1:E:80:PRO:O	1:E:81:GLN:HG2	1.92	0.70
1:A:85:LEU:HD13	1:A:136:HIS:CE1	2.27	0.69
1:A:163:GLU:O	1:A:206:MET:HE1	1.92	0.69
1:A:265:ARG:HG3	1:A:265:ARG:O	1.90	0.69
1:A:316:ALA:HB1	1:A:317:PRO:HD2	1.74	0.69
1:B:45:VAL:CG2	1:B:222:ILE:HD11	2.22	0.69
1:B:80:PRO:O	1:B:81:GLN:HG2	1.92	0.69
1:E:117:ARG:HB2	1:E:118:PRO:CD	2.22	0.69
1:E:132:ALA:H	1:E:133:ASN:HA	1.55	0.69
1:B:141:LYS:HZ1	1:B:171:MET:HB3	1.57	0.69
1:B:163:GLU:O	1:B:206:MET:HE1	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:368:ARG:CZ	1:B:378:LEU:HD23	2.21	0.69
1:D:265:ARG:HG3	1:D:265:ARG:O	1.91	0.69
1:E:216:ARG:HA	1:E:219:THR:O	1.92	0.69
1:E:439:HIS:HA	1:E:450:ARG:NH1	2.06	0.69
1:A:368:ARG:CZ	1:A:378:LEU:HD23	2.21	0.69
1:A:442:CYS:HA	1:A:447:ILE:HD13	1.72	0.69
1:C:59:PHE:CD1	1:C:225:ALA:CA	2.75	0.69
1:C:59:PHE:CE1	1:C:225:ALA:O	2.45	0.69
1:C:163:GLU:O	1:C:206:MET:HE3	1.93	0.69
1:D:45:VAL:CG2	1:D:222:ILE:HD11	2.22	0.69
1:E:131:PRO:HA	1:E:133:ASN:ND2	2.07	0.69
1:E:345:THR:HG23	1:E:346:TYR:HD1	1.56	0.69
1:A:117:ARG:HB2	1:A:118:PRO:CD	2.22	0.69
1:C:110:PHE:HA	1:C:113:GLU:HG2	1.74	0.69
1:D:335:ASN:CG	1:D:338:LEU:HD11	2.12	0.69
1:E:409:ALA:HA	1:E:466:GLN:HE21	1.56	0.69
1:A:152:SER:O	1:A:153:ARG:HG2	1.92	0.69
1:B:20:VAL:HG12	1:B:108:LEU:HD23	1.75	0.69
1:B:368:ARG:NE	1:B:378:LEU:HA	2.08	0.69
1:C:77:TRP:HZ3	1:C:114:LEU:N	1.91	0.69
1:C:187:LEU:O	1:C:192:PRO:HD2	1.91	0.69
1:D:187:LEU:O	1:D:192:PRO:HD2	1.91	0.69
1:D:432:PHE:O	1:D:436:LEU:HD13	1.91	0.69
1:E:25:VAL:HG11	1:E:28:LYS:HB2	1.73	0.69
1:A:59:PHE:CE1	1:A:225:ALA:O	2.45	0.69
1:C:132:ALA:H	1:C:133:ASN:HA	1.55	0.69
1:C:323:LEU:HB3	1:C:339:LYS:HB2	1.74	0.69
1:D:25:VAL:HG11	1:D:28:LYS:HB2	1.72	0.69
1:E:152:SER:O	1:E:153:ARG:HG2	1.92	0.69
1:A:417:VAL:CA	1:A:465:MET:SD	2.78	0.69
1:B:54:PHE:O	1:B:55:ILE:HD13	1.93	0.69
1:B:474:ASP:O	1:B:475:GLU:HG3	1.93	0.69
1:C:45:VAL:CG2	1:C:222:ILE:HD11	2.22	0.69
1:C:72:VAL:HG11	1:C:101:ILE:CG2	2.23	0.69
1:C:407:LYS:O	1:C:411:GLN:HG2	1.92	0.69
1:D:163:GLU:HG3	1:D:203:GLN:CB	2.18	0.69
1:D:432:PHE:HA	1:D:435:ILE:HG12	1.74	0.69
1:A:110:PHE:HA	1:A:113:GLU:HG2	1.73	0.69
1:A:131:PRO:HA	1:A:133:ASN:ND2	2.07	0.69
1:B:187:LEU:O	1:B:192:PRO:HD2	1.91	0.69
1:B:216:ARG:HA	1:B:219:THR:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:54:PHE:O	1:C:55:ILE:HD13	1.93	0.69
1:C:345:THR:HG23	1:C:346:TYR:HD1	1.56	0.69
1:D:20:VAL:HG12	1:D:108:LEU:HD23	1.75	0.69
1:D:156:ILE:HB	1:D:194:SER:HB3	1.73	0.69
1:D:326:ARG:HD2	1:D:335:ASN:HA	1.75	0.69
1:E:20:VAL:HG12	1:E:108:LEU:HD23	1.75	0.69
1:E:91:LYS:HB3	1:E:92:GLU:HG3	1.75	0.69
1:E:212:LEU:HD11	1:E:444:MET:HE1	1.75	0.69
1:E:368:ARG:NE	1:E:378:LEU:HA	2.08	0.69
1:E:432:PHE:O	1:E:436:LEU:HD13	1.91	0.69
1:E:432:PHE:HA	1:E:435:ILE:HG12	1.74	0.69
1:E:474:ASP:O	1:E:475:GLU:HG3	1.93	0.69
1:A:326:ARG:HD2	1:A:335:ASN:HA	1.75	0.69
1:B:132:ALA:H	1:B:133:ASN:HA	1.55	0.69
1:B:409:ALA:HA	1:B:466:GLN:HE21	1.56	0.69
1:C:131:PRO:HA	1:C:133:ASN:ND2	2.07	0.69
1:D:368:ARG:NE	1:D:378:LEU:HA	2.08	0.69
1:A:72:VAL:HG11	1:A:101:ILE:CG2	2.23	0.69
1:B:69:CYS:HA	1:B:101:ILE:HG22	1.75	0.69
1:B:335:ASN:CG	1:B:338:LEU:HD11	2.12	0.69
1:C:117:ARG:HB2	1:C:118:PRO:CD	2.22	0.69
1:D:77:TRP:HE1	1:D:105:ILE:CG1	2.05	0.69
1:D:83:LYS:CE	1:D:192:PRO:CA	2.62	0.69
1:D:91:LYS:HB3	1:D:92:GLU:HG3	1.74	0.69
1:D:152:SER:O	1:D:153:ARG:HG2	1.92	0.69
1:E:326:ARG:HD2	1:E:335:ASN:HA	1.75	0.69
1:A:59:PHE:CZ	1:A:62:ILE:HB	2.26	0.68
1:A:69:CYS:HA	1:A:101:ILE:HG22	1.75	0.68
1:A:226:LEU:HD11	1:A:232:GLU:OE2	1.93	0.68
1:A:468:HIS:HA	1:A:473:ARG:CD	2.21	0.68
1:B:59:PHE:CE1	1:B:225:ALA:O	2.45	0.68
1:B:77:TRP:HZ3	1:B:114:LEU:N	1.91	0.68
1:C:97:ASN:O	1:C:101:ILE:HG23	1.93	0.68
1:C:216:ARG:HA	1:C:219:THR:O	1.92	0.68
1:D:212:LEU:HD11	1:D:444:MET:HE1	1.75	0.68
1:E:335:ASN:CG	1:E:338:LEU:HD11	2.12	0.68
1:A:368:ARG:NE	1:A:378:LEU:HA	2.08	0.68
1:B:77:TRP:CZ3	1:B:113:GLU:CA	2.76	0.68
1:B:97:ASN:O	1:B:101:ILE:HG23	1.93	0.68
1:B:417:VAL:CA	1:B:465:MET:SD	2.78	0.68
1:C:77:TRP:CZ3	1:C:113:GLU:CA	2.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:91:LYS:HB3	1:C:92:GLU:HG3	1.75	0.68
1:C:474:ASP:O	1:C:475:GLU:HG3	1.93	0.68
1:D:409:ALA:HA	1:D:466:GLN:HE21	1.56	0.68
1:A:28:LYS:CB	1:A:31:ASN:HD21	2.04	0.68
1:A:323:LEU:HB3	1:A:339:LYS:HB2	1.74	0.68
1:A:432:PHE:HA	1:A:435:ILE:HG12	1.74	0.68
1:A:474:ASP:O	1:A:475:GLU:HG3	1.93	0.68
1:B:455:MET:HB2	1:B:458:CYS:SG	2.33	0.68
1:C:226:LEU:HD11	1:C:232:GLU:OE2	1.94	0.68
1:D:28:LYS:CB	1:D:31:ASN:HD21	2.04	0.68
1:D:59:PHE:CE1	1:D:225:ALA:O	2.45	0.68
1:D:69:CYS:HA	1:D:101:ILE:HG22	1.75	0.68
1:D:97:ASN:O	1:D:101:ILE:HG23	1.93	0.68
1:D:316:ALA:HB1	1:D:317:PRO:HD2	1.74	0.68
1:D:345:THR:HG23	1:D:346:TYR:HD1	1.56	0.68
1:E:448:ARG:HB3	1:E:455:MET:HE1	1.74	0.68
1:B:28:LYS:CB	1:B:31:ASN:HD21	2.04	0.68
1:C:77:TRP:CZ2	1:C:105:ILE:HG23	2.29	0.68
1:D:72:VAL:HG11	1:D:101:ILE:CG2	2.23	0.68
1:D:77:TRP:HZ3	1:D:114:LEU:N	1.91	0.68
1:D:323:LEU:HB3	1:D:339:LYS:HB2	1.74	0.68
1:E:69:CYS:HA	1:E:101:ILE:HG22	1.75	0.68
1:E:72:VAL:HG11	1:E:101:ILE:CG2	2.23	0.68
1:E:83:LYS:CE	1:E:192:PRO:CA	2.61	0.68
1:E:163:GLU:O	1:E:206:MET:HE1	1.94	0.68
1:E:226:LEU:HD11	1:E:232:GLU:OE2	1.93	0.68
1:E:316:ALA:HB1	1:E:317:PRO:HD2	1.74	0.68
1:A:54:PHE:O	1:A:55:ILE:HD13	1.93	0.68
1:B:117:ARG:HB2	1:B:118:PRO:CD	2.22	0.68
1:B:439:HIS:HA	1:B:450:ARG:NH1	2.06	0.68
1:C:316:ALA:HB1	1:C:317:PRO:HD2	1.74	0.68
1:C:368:ARG:NE	1:C:378:LEU:HA	2.08	0.68
1:C:409:ALA:HA	1:C:466:GLN:HE21	1.57	0.68
1:A:202:PRO:CD	1:A:265:ARG:HD2	2.09	0.68
1:E:77:TRP:HE1	1:E:105:ILE:CG1	2.05	0.68
1:A:77:TRP:HZ3	1:A:114:LEU:N	1.91	0.68
1:B:72:VAL:HG11	1:B:101:ILE:CG2	2.23	0.68
1:B:73:VAL:HG23	1:B:77:TRP:HE1	1.58	0.68
1:B:212:LEU:HD11	1:B:444:MET:HE1	1.75	0.68
1:C:152:SER:O	1:C:153:ARG:HG2	1.92	0.68
1:C:432:PHE:HA	1:C:435:ILE:HG12	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:460:THR:HA	1:D:463:PRO:HG2	1.75	0.68
1:A:77:TRP:HE1	1:A:105:ILE:CG1	2.05	0.68
1:A:86:ILE:HD12	1:A:137:SER:HB2	1.76	0.68
1:A:368:ARG:HH21	1:A:378:LEU:HA	1.58	0.68
1:A:455:MET:HB2	1:A:458:CYS:SG	2.33	0.68
1:B:59:PHE:CD1	1:B:225:ALA:CA	2.75	0.68
1:B:152:SER:O	1:B:153:ARG:HG2	1.92	0.68
1:B:300:PRO:HG2	1:B:302:ARG:CZ	2.24	0.68
1:B:345:THR:HG23	1:B:346:TYR:HD1	1.56	0.68
1:B:444:MET:CE	1:B:445:GLU:HG3	2.24	0.68
1:D:202:PRO:CD	1:D:265:ARG:HD2	2.09	0.68
1:D:203:GLN:CD	1:D:206:MET:HE1	2.14	0.68
1:D:326:ARG:HH11	1:D:335:ASN:CB	2.03	0.68
1:E:77:TRP:HZ3	1:E:114:LEU:N	1.91	0.68
1:A:77:TRP:CZ2	1:A:105:ILE:HG23	2.29	0.68
1:B:460:THR:HA	1:B:463:PRO:HG2	1.76	0.68
1:C:20:VAL:HG12	1:C:108:LEU:HD23	1.75	0.68
1:C:28:LYS:CB	1:C:31:ASN:HD21	2.04	0.68
1:D:54:PHE:O	1:D:55:ILE:HD13	1.93	0.68
1:E:15:LEU:HD11	1:E:19:PHE:CE2	2.29	0.68
1:E:28:LYS:CB	1:E:31:ASN:HD21	2.04	0.68
1:E:54:PHE:O	1:E:55:ILE:HD13	1.93	0.68
1:E:468:HIS:HA	1:E:473:ARG:CD	2.21	0.68
1:A:20:VAL:HG12	1:A:108:LEU:HD23	1.75	0.68
1:A:300:PRO:CG	1:A:302:ARG:HH12	2.07	0.68
1:B:15:LEU:HD11	1:B:19:PHE:CE2	2.29	0.68
1:B:86:ILE:CD1	1:B:137:SER:HB2	2.24	0.68
1:B:226:LEU:HD11	1:B:232:GLU:OE2	1.93	0.68
1:C:73:VAL:HG23	1:C:77:TRP:HE1	1.58	0.68
1:C:326:ARG:HD2	1:C:335:ASN:HA	1.75	0.68
1:D:300:PRO:HG2	1:D:302:ARG:CZ	2.24	0.68
1:E:444:MET:CE	1:E:445:GLU:HG3	2.24	0.68
1:B:37:LYS:O	1:B:40:ILE:HG12	1.94	0.67
1:D:234:ASN:HD21	1:D:240:ARG:CD	2.08	0.67
1:D:455:MET:HB2	1:D:458:CYS:SG	2.33	0.67
1:E:220:THR:CA	1:E:445:GLU:HB2	2.24	0.67
1:E:300:PRO:CG	1:E:302:ARG:HH12	2.07	0.67
1:E:323:LEU:HB3	1:E:339:LYS:HB2	1.74	0.67
1:A:91:LYS:C	1:A:93:ARG:H	1.97	0.67
1:A:220:THR:CA	1:A:445:GLU:HB2	2.24	0.67
1:B:432:PHE:HA	1:B:435:ILE:HG12	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:69:CYS:HA	1:C:101:ILE:HG22	1.75	0.67
1:C:86:ILE:CD1	1:C:137:SER:HB2	2.25	0.67
1:D:194:SER:HA	1:D:195:ARG:CG	2.24	0.67
1:D:400:LYS:O	1:D:401:THR:HG23	1.94	0.67
1:E:73:VAL:HG23	1:E:77:TRP:HE1	1.58	0.67
1:A:91:LYS:HB3	1:A:92:GLU:HG3	1.75	0.67
1:A:234:ASN:HD21	1:A:240:ARG:CD	2.08	0.67
1:A:300:PRO:HG2	1:A:302:ARG:CZ	2.24	0.67
1:A:417:VAL:CB	1:A:465:MET:HG3	2.13	0.67
1:B:234:ASN:HD21	1:B:240:ARG:CD	2.08	0.67
1:C:77:TRP:HE1	1:C:105:ILE:CG1	2.05	0.67
1:D:86:ILE:CD1	1:D:137:SER:HB2	2.25	0.67
1:D:474:ASP:O	1:D:475:GLU:HG3	1.93	0.67
1:E:86:ILE:CD1	1:E:137:SER:HB2	2.24	0.67
1:E:400:LYS:O	1:E:401:THR:HG23	1.94	0.67
1:A:86:ILE:CD1	1:A:137:SER:HB2	2.25	0.67
1:A:400:LYS:O	1:A:401:THR:HG23	1.94	0.67
1:B:77:TRP:CE3	1:B:113:GLU:HA	2.29	0.67
1:B:77:TRP:CZ2	1:B:105:ILE:HG23	2.29	0.67
1:B:204:THR:CG2	1:B:205:GLU:H	2.03	0.67
1:B:300:PRO:CG	1:B:302:ARG:HH12	2.07	0.67
1:B:323:LEU:HB3	1:B:339:LYS:HB2	1.74	0.67
1:B:433:SER:HA	1:B:457:ILE:HD11	1.76	0.67
1:C:78:ARG:HH22	1:C:112:SER:CB	2.07	0.67
1:C:455:MET:HB2	1:C:458:CYS:SG	2.33	0.67
1:E:77:TRP:CZ2	1:E:105:ILE:HG23	2.29	0.67
1:E:91:LYS:C	1:E:93:ARG:H	1.98	0.67
1:E:194:SER:HA	1:E:195:ARG:CG	2.24	0.67
1:A:444:MET:CE	1:A:445:GLU:HG3	2.24	0.67
1:B:316:ALA:HB1	1:B:317:PRO:HD2	1.74	0.67
1:C:37:LYS:O	1:C:40:ILE:HG12	1.94	0.67
1:D:77:TRP:CE3	1:D:113:GLU:HA	2.29	0.67
1:D:77:TRP:CZ2	1:D:105:ILE:HG23	2.29	0.67
1:E:37:LYS:O	1:E:40:ILE:HG12	1.94	0.67
1:E:234:ASN:HD21	1:E:240:ARG:CD	2.08	0.67
1:E:300:PRO:HG2	1:E:302:ARG:CZ	2.24	0.67
1:A:97:ASN:O	1:A:101:ILE:HG23	1.93	0.67
1:A:394:ARG:HD3	1:A:400:LYS:HZ3	1.59	0.67
1:A:468:HIS:CA	1:A:473:ARG:HD3	2.24	0.67
1:B:91:LYS:HB3	1:B:92:GLU:HG3	1.75	0.67
1:B:190:PRO:HB2	1:B:192:PRO:HD2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:460:THR:HA	1:C:463:PRO:HG2	1.76	0.67
1:D:444:MET:CE	1:D:445:GLU:HG3	2.24	0.67
1:C:220:THR:CA	1:C:445:GLU:HB2	2.24	0.67
1:C:444:MET:CE	1:C:445:GLU:HG3	2.24	0.67
1:D:226:LEU:HD11	1:D:232:GLU:OE2	1.93	0.67
1:E:218:TYR:CE1	1:E:408:LYS:HE2	2.30	0.67
1:E:455:MET:HB2	1:E:458:CYS:SG	2.33	0.67
1:B:86:ILE:HD12	1:B:137:SER:HB2	1.76	0.67
1:B:194:SER:HA	1:B:195:ARG:CG	2.24	0.67
1:B:400:LYS:O	1:B:401:THR:HG23	1.94	0.67
1:B:448:ARG:HB3	1:B:455:MET:HE1	1.77	0.67
1:C:15:LEU:HD11	1:C:19:PHE:CE2	2.29	0.67
1:C:400:LYS:O	1:C:401:THR:HG23	1.94	0.67
1:D:15:LEU:HD11	1:D:19:PHE:CE2	2.29	0.67
1:D:73:VAL:HG23	1:D:77:TRP:HE1	1.58	0.67
1:D:220:THR:CA	1:D:445:GLU:HB2	2.24	0.67
1:B:326:ARG:HD2	1:B:335:ASN:HA	1.75	0.67
1:E:190:PRO:HB2	1:E:192:PRO:HD2	1.77	0.67
1:A:77:TRP:CE3	1:A:113:GLU:HA	2.29	0.67
1:A:218:TYR:CE1	1:A:408:LYS:HE2	2.30	0.67
1:A:310:ALA:O	1:A:324:PRO:HD2	1.95	0.67
1:B:91:LYS:C	1:B:93:ARG:H	1.97	0.67
1:C:91:LYS:C	1:C:93:ARG:H	1.98	0.67
1:C:300:PRO:HG2	1:C:302:ARG:CZ	2.24	0.67
1:D:78:ARG:HH22	1:D:112:SER:CB	2.08	0.67
1:A:460:THR:HA	1:A:463:PRO:HG2	1.76	0.66
1:B:57:GLN:HB2	1:B:265:ARG:CZ	2.25	0.66
1:B:220:THR:CA	1:B:445:GLU:HB2	2.24	0.66
1:D:218:TYR:CE1	1:D:408:LYS:HE2	2.30	0.66
1:E:463:PRO:O	1:E:467:THR:HG23	1.96	0.66
1:A:15:LEU:HD11	1:A:19:PHE:CE2	2.29	0.66
1:A:57:GLN:HB2	1:A:265:ARG:CZ	2.25	0.66
1:B:463:PRO:O	1:B:467:THR:HG23	1.95	0.66
1:C:86:ILE:HD12	1:C:137:SER:HB2	1.76	0.66
1:C:194:SER:HA	1:C:195:ARG:CG	2.24	0.66
1:C:218:TYR:CE1	1:C:408:LYS:HE2	2.30	0.66
1:C:300:PRO:CG	1:C:302:ARG:HH12	2.07	0.66
1:C:417:VAL:CB	1:C:465:MET:HG3	2.13	0.66
1:D:300:PRO:CG	1:D:302:ARG:HH12	2.07	0.66
1:E:78:ARG:HH22	1:E:112:SER:CB	2.07	0.66
1:E:86:ILE:HD12	1:E:137:SER:HB2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:97:ASN:O	1:E:101:ILE:HG23	1.93	0.66
1:E:439:HIS:HA	1:E:450:ARG:HH12	1.60	0.66
1:A:37:LYS:O	1:A:40:ILE:HG12	1.94	0.66
1:A:448:ARG:CZ	1:A:455:MET:SD	2.84	0.66
1:A:463:PRO:O	1:A:467:THR:HG23	1.96	0.66
1:B:78:ARG:HH22	1:B:112:SER:CB	2.08	0.66
1:C:52:LYS:CD	1:C:184:PHE:HE2	2.05	0.66
1:C:163:GLU:HB2	1:C:208:LEU:CD1	2.23	0.66
1:C:234:ASN:HD21	1:C:240:ARG:CD	2.08	0.66
1:D:59:PHE:CD1	1:D:225:ALA:CA	2.75	0.66
1:D:91:LYS:C	1:D:93:ARG:H	1.98	0.66
1:D:163:GLU:HB2	1:D:208:LEU:CD1	2.23	0.66
1:D:310:ALA:O	1:D:324:PRO:HD2	1.95	0.66
1:E:220:THR:C	1:E:445:GLU:HB2	2.16	0.66
1:B:82:LEU:O	1:B:134:PRO:HG3	1.95	0.66
1:B:272:ARG:CB	1:B:441:ASN:HB2	2.25	0.66
1:B:274:ARG:CD	1:B:440:HIS:HD2	2.09	0.66
1:E:82:LEU:O	1:E:134:PRO:HG3	1.96	0.66
1:E:433:SER:HA	1:E:457:ILE:HD11	1.76	0.66
1:A:220:THR:C	1:A:445:GLU:HB2	2.16	0.66
1:C:77:TRP:CE3	1:C:113:GLU:HA	2.29	0.66
1:C:241:LEU:O	1:C:241:LEU:HG	1.96	0.66
1:C:261:THR:HG23	1:C:268:ARG:NH2	2.11	0.66
1:C:449:ALA:N	1:C:455:MET:HE1	2.09	0.66
1:D:37:LYS:O	1:D:40:ILE:HG12	1.94	0.66
1:D:128:ASP:HB3	1:D:134:PRO:O	1.96	0.66
1:D:204:THR:CG2	1:D:205:GLU:H	2.03	0.66
1:E:310:ALA:O	1:E:324:PRO:HD2	1.95	0.66
1:E:460:THR:HA	1:E:463:PRO:HG2	1.76	0.66
1:B:128:ASP:HB3	1:B:134:PRO:O	1.96	0.66
1:C:448:ARG:CZ	1:C:455:MET:SD	2.84	0.66
1:D:368:ARG:HH21	1:D:378:LEU:CA	2.09	0.66
1:E:59:PHE:CD1	1:E:225:ALA:CA	2.75	0.66
1:E:77:TRP:CE3	1:E:113:GLU:HA	2.29	0.66
1:E:128:ASP:HB3	1:E:134:PRO:O	1.96	0.66
1:E:261:THR:HG23	1:E:268:ARG:NH2	2.11	0.66
1:A:78:ARG:HH22	1:A:112:SER:CB	2.08	0.66
1:D:220:THR:C	1:D:445:GLU:HB2	2.16	0.66
1:A:54:PHE:HD1	1:A:221:ILE:HD12	1.61	0.66
1:A:272:ARG:CB	1:A:441:ASN:HB2	2.26	0.66
1:B:218:TYR:CE1	1:B:408:LYS:HE2	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:368:ARG:HH21	1:B:378:LEU:HA	1.58	0.66
1:C:57:GLN:HB2	1:C:265:ARG:CZ	2.25	0.66
1:C:204:THR:CG2	1:C:205:GLU:H	2.03	0.66
1:C:274:ARG:CD	1:C:440:HIS:HD2	2.09	0.66
1:C:322:TRP:NE1	1:C:324:PRO:HG3	2.11	0.66
1:C:368:ARG:HH21	1:C:378:LEU:CA	2.09	0.66
1:C:368:ARG:HH21	1:C:378:LEU:HA	1.58	0.66
1:D:57:GLN:HB2	1:D:265:ARG:CZ	2.25	0.66
1:D:79:ASP:OD1	1:D:83:LYS:HD2	1.96	0.66
1:D:82:LEU:O	1:D:134:PRO:HG3	1.96	0.66
1:D:261:THR:HG23	1:D:268:ARG:NH2	2.10	0.66
1:D:448:ARG:CZ	1:D:455:MET:SD	2.84	0.66
1:E:272:ARG:CB	1:E:441:ASN:HB2	2.25	0.66
1:A:73:VAL:HG23	1:A:77:TRP:HE1	1.58	0.66
1:A:368:ARG:HH21	1:A:378:LEU:CA	2.09	0.66
1:B:310:ALA:O	1:B:324:PRO:HD2	1.95	0.66
1:C:272:ARG:CB	1:C:441:ASN:HB2	2.25	0.66
1:C:306:ALA:H	1:C:329:ILE:HG22	1.61	0.66
1:C:313:LEU:HD11	1:C:377:VAL:HB	1.78	0.66
1:D:86:ILE:HD12	1:D:137:SER:HB2	1.76	0.66
1:D:252:ASN:HB3	1:D:253:PRO:HD2	1.78	0.66
1:D:280:LYS:HZ3	1:D:437:LEU:C	1.99	0.66
1:D:294:SER:HB3	1:D:341:ASP:HB3	1.78	0.66
1:E:448:ARG:CZ	1:E:455:MET:SD	2.84	0.66
1:A:294:SER:HB3	1:A:341:ASP:HB3	1.78	0.66
1:B:322:TRP:NE1	1:B:324:PRO:HG3	2.11	0.66
1:C:79:ASP:OD1	1:C:83:LYS:HD2	1.96	0.66
1:D:322:TRP:NE1	1:D:324:PRO:HG3	2.11	0.66
1:D:449:ALA:N	1:D:455:MET:HE1	2.11	0.66
1:E:57:GLN:HB2	1:E:265:ARG:CZ	2.25	0.66
1:E:77:TRP:CZ3	1:E:113:GLU:CA	2.76	0.66
1:E:306:ALA:H	1:E:329:ILE:HG22	1.61	0.66
1:B:57:GLN:HB2	1:B:265:ARG:NE	2.11	0.65
1:B:241:LEU:O	1:B:241:LEU:HG	1.96	0.65
1:B:449:ALA:N	1:B:455:MET:HE1	2.11	0.65
1:C:190:PRO:HB2	1:C:192:PRO:HD2	1.77	0.65
1:C:326:ARG:HH11	1:C:335:ASN:CB	2.03	0.65
1:D:52:LYS:CE	1:D:53:LYS:HZ3	2.08	0.65
1:D:57:GLN:HB2	1:D:265:ARG:NE	2.12	0.65
1:D:439:HIS:HA	1:D:450:ARG:HH12	1.60	0.65
1:E:79:ASP:OD1	1:E:83:LYS:HD2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:ARG:CD	1:A:440:HIS:HD2	2.09	0.65
1:A:432:PHE:O	1:A:435:ILE:HG12	1.97	0.65
1:B:79:ASP:OD1	1:B:83:LYS:HD2	1.96	0.65
1:B:326:ARG:HH11	1:B:335:ASN:CB	2.03	0.65
1:B:448:ARG:CZ	1:B:455:MET:SD	2.84	0.65
1:D:203:GLN:NE2	1:D:206:MET:HE1	2.11	0.65
1:D:233:GLU:CB	1:D:243:PRO:HD3	2.27	0.65
1:D:306:ALA:H	1:D:329:ILE:HG22	1.61	0.65
1:D:412:TRP:CH2	1:D:469:ARG:CB	2.80	0.65
1:E:252:ASN:HB3	1:E:253:PRO:HD2	1.78	0.65
1:E:322:TRP:NE1	1:E:324:PRO:HG3	2.11	0.65
1:A:252:ASN:HB3	1:A:253:PRO:HD2	1.78	0.65
1:A:307:ILE:HD13	1:A:327:GLN:HA	1.79	0.65
1:A:439:HIS:HA	1:A:450:ARG:HH12	1.60	0.65
1:B:220:THR:C	1:B:445:GLU:HB2	2.16	0.65
1:B:233:GLU:CB	1:B:243:PRO:HD3	2.27	0.65
1:B:300:PRO:CG	1:B:302:ARG:HH22	2.08	0.65
1:C:82:LEU:O	1:C:134:PRO:HG3	1.96	0.65
1:C:119:GLY:HA2	1:C:127:PHE:HD1	1.62	0.65
1:C:412:TRP:CH2	1:C:469:ARG:CB	2.80	0.65
1:D:132:ALA:H	1:D:133:ASN:CA	2.10	0.65
1:D:272:ARG:CB	1:D:441:ASN:HB2	2.26	0.65
1:D:300:PRO:CB	1:D:302:ARG:HH12	2.10	0.65
1:D:379:TYR:HA	1:D:385:ILE:HG13	1.78	0.65
1:D:463:PRO:O	1:D:467:THR:HG23	1.95	0.65
1:E:52:LYS:CD	1:E:184:PHE:HE2	2.05	0.65
1:E:57:GLN:O	1:E:223:TRP:CD1	2.50	0.65
1:E:432:PHE:O	1:E:435:ILE:HG12	1.97	0.65
1:A:77:TRP:CZ3	1:A:114:LEU:N	2.65	0.65
1:A:79:ASP:OD1	1:A:83:LYS:HD2	1.96	0.65
1:A:261:THR:HG23	1:A:268:ARG:NH2	2.11	0.65
1:A:379:TYR:HA	1:A:385:ILE:HG13	1.78	0.65
1:B:54:PHE:HD1	1:B:221:ILE:HD12	1.61	0.65
1:B:261:THR:HG23	1:B:268:ARG:NH2	2.11	0.65
1:B:432:PHE:HA	1:B:435:ILE:CD1	2.27	0.65
1:C:54:PHE:HD1	1:C:221:ILE:HD12	1.61	0.65
1:C:57:GLN:HB2	1:C:265:ARG:NE	2.12	0.65
1:C:57:GLN:O	1:C:223:TRP:CD1	2.50	0.65
1:C:310:ALA:O	1:C:324:PRO:HD2	1.95	0.65
1:C:379:TYR:HA	1:C:385:ILE:HG13	1.79	0.65
1:C:432:PHE:HA	1:C:435:ILE:CD1	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:54:PHE:HD1	1:D:221:ILE:HD12	1.61	0.65
1:D:57:GLN:OE1	1:D:212:LEU:HD21	1.97	0.65
1:A:57:GLN:OE1	1:A:212:LEU:HD21	1.97	0.65
1:B:234:ASN:ND2	1:B:240:ARG:HD3	2.12	0.65
1:B:235:LEU:CD2	1:B:241:LEU:HD22	2.27	0.65
1:B:394:ARG:HD3	1:B:400:LYS:NZ	2.12	0.65
1:B:468:HIS:CA	1:B:473:ARG:HD3	2.24	0.65
1:D:274:ARG:CD	1:D:440:HIS:HD2	2.09	0.65
1:E:274:ARG:CD	1:E:440:HIS:HD2	2.09	0.65
1:E:300:PRO:CB	1:E:302:ARG:HH12	2.09	0.65
1:A:57:GLN:HB2	1:A:265:ARG:NE	2.12	0.65
1:A:57:GLN:OE1	1:A:444:MET:HE1	1.97	0.65
1:A:234:ASN:ND2	1:A:240:ARG:HD3	2.12	0.65
1:B:57:GLN:O	1:B:223:TRP:CD1	2.50	0.65
1:D:132:ALA:N	1:D:133:ASN:CA	2.59	0.65
1:D:379:TYR:CE1	1:D:380:THR:OG1	2.50	0.65
1:E:57:GLN:OE1	1:E:212:LEU:HD21	1.97	0.65
1:E:233:GLU:CB	1:E:243:PRO:HD3	2.27	0.65
1:E:307:ILE:HD13	1:E:327:GLN:HA	1.79	0.65
1:A:432:PHE:HA	1:A:435:ILE:CD1	2.27	0.65
1:B:313:LEU:HD11	1:B:377:VAL:HB	1.78	0.65
1:C:128:ASP:HB3	1:C:134:PRO:O	1.96	0.65
1:C:132:ALA:H	1:C:133:ASN:CA	2.10	0.65
1:C:294:SER:HB3	1:C:341:ASP:HB3	1.78	0.65
1:C:463:PRO:O	1:C:467:THR:HG23	1.95	0.65
1:D:57:GLN:O	1:D:223:TRP:CD1	2.50	0.65
1:D:190:PRO:HB2	1:D:192:PRO:HD2	1.77	0.65
1:D:241:LEU:O	1:D:241:LEU:HG	1.96	0.65
1:D:313:LEU:HD11	1:D:377:VAL:HB	1.79	0.65
1:D:432:PHE:O	1:D:435:ILE:HG12	1.97	0.65
1:E:234:ASN:ND2	1:E:240:ARG:HD3	2.12	0.65
1:E:368:ARG:HH21	1:E:378:LEU:HA	1.58	0.65
1:E:376:ALA:C	1:E:379:TYR:CE2	2.70	0.65
1:E:432:PHE:HA	1:E:435:ILE:CD1	2.27	0.65
1:A:119:GLY:HA2	1:A:127:PHE:HD1	1.62	0.65
1:A:223:TRP:CH2	1:A:225:ALA:HB2	2.32	0.65
1:A:326:ARG:HH11	1:A:335:ASN:CB	2.03	0.65
1:B:220:THR:HB	1:B:445:GLU:HB2	1.79	0.65
1:B:375:TYR:HA	1:B:378:LEU:CD1	2.23	0.65
1:C:220:THR:C	1:C:445:GLU:HB2	2.16	0.65
1:C:252:ASN:HB3	1:C:253:PRO:HD2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:300:PRO:CB	1:C:302:ARG:HH12	2.09	0.65
1:C:468:HIS:CA	1:C:473:ARG:HD3	2.24	0.65
1:D:448:ARG:HB3	1:D:455:MET:HE1	1.77	0.65
1:E:54:PHE:HD1	1:E:221:ILE:HD12	1.61	0.65
1:E:57:GLN:HB2	1:E:265:ARG:NE	2.12	0.65
1:E:223:TRP:CH2	1:E:225:ALA:HB2	2.32	0.65
1:E:241:LEU:O	1:E:241:LEU:HG	1.96	0.65
1:E:320:TYR:H	1:E:456:ARG:HG3	1.62	0.65
1:E:417:VAL:CA	1:E:465:MET:SD	2.78	0.65
1:A:132:ALA:N	1:A:133:ASN:CA	2.59	0.65
1:A:132:ALA:H	1:A:133:ASN:CA	2.10	0.65
1:A:306:ALA:H	1:A:329:ILE:HG22	1.61	0.65
1:B:322:TRP:CE2	1:B:457:ILE:HB	2.32	0.65
1:C:57:GLN:OE1	1:C:212:LEU:HD21	1.97	0.65
1:D:417:VAL:CB	1:D:465:MET:HG3	2.13	0.65
1:E:77:TRP:CZ3	1:E:114:LEU:N	2.65	0.65
1:E:163:GLU:HB2	1:E:208:LEU:CD1	2.23	0.65
1:A:128:ASP:HB3	1:A:134:PRO:O	1.96	0.65
1:A:241:LEU:O	1:A:241:LEU:HG	1.96	0.65
1:A:300:PRO:CB	1:A:302:ARG:HH12	2.09	0.65
1:A:394:ARG:HD3	1:A:400:LYS:NZ	2.12	0.65
1:B:252:ASN:HB3	1:B:253:PRO:HD2	1.78	0.65
1:B:280:LYS:HZ1	1:B:438:LYS:N	1.95	0.65
1:B:439:HIS:CB	1:B:453:LYS:HD3	2.27	0.65
1:C:77:TRP:CZ3	1:C:114:LEU:N	2.65	0.65
1:C:234:ASN:ND2	1:C:240:ARG:HD3	2.12	0.65
1:C:322:TRP:CE2	1:C:457:ILE:HB	2.32	0.65
1:C:394:ARG:HD3	1:C:400:LYS:NZ	2.12	0.65
1:D:77:TRP:CZ3	1:D:113:GLU:CA	2.76	0.65
1:D:368:ARG:HH21	1:D:378:LEU:HA	1.58	0.65
1:E:220:THR:HB	1:E:445:GLU:HB2	1.79	0.65
1:E:294:SER:HB3	1:E:341:ASP:HB3	1.78	0.65
1:E:379:TYR:CE1	1:E:380:THR:OG1	2.50	0.65
1:A:376:ALA:C	1:A:379:TYR:CE2	2.71	0.64
1:B:163:GLU:HB2	1:B:208:LEU:CD1	2.23	0.64
1:B:376:ALA:C	1:B:379:TYR:CE2	2.70	0.64
1:B:432:PHE:O	1:B:435:ILE:HG12	1.97	0.64
1:C:370:LYS:HE2	1:C:399:ASP:CA	2.27	0.64
1:C:439:HIS:HA	1:C:450:ARG:HH12	1.60	0.64
1:C:448:ARG:HB3	1:C:455:MET:HE1	1.78	0.64
1:D:189:LYS:HB2	1:D:190:PRO:HD3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:220:THR:HB	1:D:445:GLU:HB2	1.79	0.64
1:D:234:ASN:ND2	1:D:240:ARG:HD3	2.12	0.64
1:D:235:LEU:CD2	1:D:241:LEU:HD22	2.27	0.64
1:D:300:PRO:CG	1:D:302:ARG:HH22	2.08	0.64
1:D:322:TRP:CE2	1:D:457:ILE:HB	2.32	0.64
1:D:376:ALA:C	1:D:379:TYR:CE2	2.71	0.64
1:E:132:ALA:N	1:E:133:ASN:CA	2.59	0.64
1:E:301:LEU:HD13	1:E:361:LEU:HA	1.80	0.64
1:A:57:GLN:O	1:A:223:TRP:CD1	2.50	0.64
1:B:308:VAL:HG13	1:B:328:ASN:ND2	2.11	0.64
1:B:320:TYR:H	1:B:456:ARG:HG3	1.62	0.64
1:B:368:ARG:HH21	1:B:378:LEU:CA	2.09	0.64
1:C:189:LYS:HB2	1:C:190:PRO:HD3	1.80	0.64
1:C:220:THR:HB	1:C:445:GLU:HB2	1.79	0.64
1:C:235:LEU:CD2	1:C:241:LEU:HD22	2.27	0.64
1:D:52:LYS:CD	1:D:184:PHE:HE2	2.05	0.64
1:D:301:LEU:HD13	1:D:361:LEU:HA	1.79	0.64
1:D:307:ILE:HD13	1:D:327:GLN:HA	1.79	0.64
1:E:241:LEU:HG	1:E:244:MET:HB2	1.80	0.64
1:E:368:ARG:HH21	1:E:378:LEU:CA	2.09	0.64
1:E:412:TRP:CH2	1:E:469:ARG:CB	2.80	0.64
1:A:322:TRP:CE2	1:A:457:ILE:HB	2.32	0.64
1:A:370:LYS:HE2	1:A:399:ASP:CA	2.27	0.64
1:A:379:TYR:CE1	1:A:380:THR:OG1	2.50	0.64
1:B:295:ASP:CA	1:B:339:LYS:HD2	2.27	0.64
1:C:47:ALA:N	1:C:195:ARG:HH22	1.96	0.64
1:C:252:ASN:CB	1:C:253:PRO:HD2	2.28	0.64
1:C:376:ALA:C	1:C:379:TYR:CE2	2.71	0.64
1:D:83:LYS:CE	1:D:193:SER:N	2.60	0.64
1:E:101:ILE:O	1:E:105:ILE:HG13	1.98	0.64
1:E:252:ASN:CB	1:E:253:PRO:HD2	2.28	0.64
1:A:220:THR:HB	1:A:445:GLU:HB2	1.79	0.64
1:A:233:GLU:CB	1:A:243:PRO:HD3	2.27	0.64
1:B:57:GLN:OE1	1:B:212:LEU:HD21	1.97	0.64
1:C:295:ASP:CA	1:C:339:LYS:HD2	2.27	0.64
1:D:468:HIS:CA	1:D:473:ARG:HD3	2.24	0.64
1:E:119:GLY:HA2	1:E:127:PHE:HD1	1.62	0.64
1:E:235:LEU:CD2	1:E:241:LEU:HD22	2.27	0.64
1:E:322:TRP:CE2	1:E:457:ILE:HB	2.32	0.64
1:B:77:TRP:HE1	1:B:105:ILE:CG1	2.05	0.64
1:B:156:ILE:CB	1:B:194:SER:HB3	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:306:ALA:H	1:B:329:ILE:HG22	1.62	0.64
1:B:370:LYS:HE2	1:B:399:ASP:CA	2.27	0.64
1:C:156:ILE:CB	1:C:194:SER:HB3	2.28	0.64
1:C:223:TRP:CH2	1:C:225:ALA:HB2	2.32	0.64
1:C:233:GLU:CB	1:C:243:PRO:HD3	2.27	0.64
1:C:468:HIS:CD2	1:C:473:ARG:NH1	2.66	0.64
1:D:47:ALA:N	1:D:195:ARG:HH22	1.96	0.64
1:D:77:TRP:CZ3	1:D:114:LEU:N	2.65	0.64
1:D:306:ALA:H	1:D:329:ILE:CG2	2.11	0.64
1:D:320:TYR:H	1:D:456:ARG:HG3	1.62	0.64
1:E:72:VAL:HG23	1:E:85:LEU:CD1	2.27	0.64
1:E:300:PRO:CG	1:E:302:ARG:HH22	2.08	0.64
1:E:379:TYR:HA	1:E:385:ILE:HG13	1.79	0.64
1:A:280:LYS:HZ3	1:A:437:LEU:HB3	1.63	0.64
1:A:322:TRP:NE1	1:A:324:PRO:HG3	2.11	0.64
1:A:468:HIS:CD2	1:A:473:ARG:NH1	2.66	0.64
1:B:119:GLY:HA2	1:B:127:PHE:HD1	1.62	0.64
1:B:439:HIS:HA	1:B:450:ARG:HH12	1.60	0.64
1:D:394:ARG:HD3	1:D:400:LYS:NZ	2.12	0.64
1:D:432:PHE:HA	1:D:435:ILE:CD1	2.27	0.64
1:E:45:VAL:HG21	1:E:222:ILE:CD1	2.28	0.64
1:A:36:THR:HG22	1:A:39:GLN:CD	2.18	0.64
1:A:101:ILE:O	1:A:105:ILE:HG13	1.98	0.64
1:B:15:LEU:HD11	1:B:19:PHE:CZ	2.33	0.64
1:B:77:TRP:CZ3	1:B:114:LEU:N	2.65	0.64
1:B:132:ALA:H	1:B:133:ASN:CA	2.10	0.64
1:B:307:ILE:HD13	1:B:327:GLN:HA	1.79	0.64
1:C:300:PRO:CG	1:C:302:ARG:HH22	2.08	0.64
1:C:379:TYR:CE1	1:C:380:THR:OG1	2.50	0.64
1:D:72:VAL:HG23	1:D:85:LEU:CD1	2.27	0.64
1:E:47:ALA:N	1:E:195:ARG:HH22	1.96	0.64
1:E:156:ILE:CB	1:E:194:SER:HB3	2.28	0.64
1:E:189:LYS:HB2	1:E:190:PRO:HD3	1.80	0.64
1:E:394:ARG:HD3	1:E:400:LYS:NZ	2.12	0.64
1:A:274:ARG:HD3	1:A:440:HIS:CD2	2.33	0.64
1:A:412:TRP:CH2	1:A:469:ARG:CB	2.80	0.64
1:B:300:PRO:CB	1:B:302:ARG:HH12	2.10	0.64
1:B:379:TYR:HA	1:B:385:ILE:HG13	1.79	0.64
1:D:156:ILE:CB	1:D:194:SER:HB3	2.28	0.64
1:D:295:ASP:CA	1:D:339:LYS:HD2	2.28	0.64
1:E:148:GLN:HE21	1:E:171:MET:CE	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:280:LYS:HZ1	1:E:438:LYS:N	1.95	0.64
1:E:306:ALA:H	1:E:329:ILE:CG2	2.11	0.64
1:E:376:ALA:CA	1:E:379:TYR:HE2	2.11	0.64
1:A:306:ALA:H	1:A:329:ILE:CG2	2.11	0.64
1:B:223:TRP:CH2	1:B:225:ALA:HB2	2.32	0.64
1:B:412:TRP:CG	1:B:469:ARG:NH1	2.66	0.64
1:C:15:LEU:HD11	1:C:19:PHE:CZ	2.33	0.64
1:C:307:ILE:HD13	1:C:327:GLN:HA	1.78	0.64
1:C:320:TYR:H	1:C:456:ARG:HG3	1.62	0.64
1:D:15:LEU:HD11	1:D:19:PHE:CZ	2.33	0.64
1:D:148:GLN:HE21	1:D:171:MET:CE	2.11	0.64
1:D:241:LEU:HG	1:D:244:MET:HB2	1.80	0.64
1:D:370:LYS:HE2	1:D:399:ASP:CA	2.27	0.64
1:D:468:HIS:CD2	1:D:473:ARG:NH1	2.66	0.64
1:E:132:ALA:H	1:E:133:ASN:CA	2.10	0.64
1:E:308:VAL:HG13	1:E:328:ASN:ND2	2.11	0.64
1:A:87:VAL:HG23	1:A:158:ILE:O	1.98	0.64
1:A:233:GLU:HA	1:A:243:PRO:CD	2.23	0.64
1:B:132:ALA:N	1:B:133:ASN:CA	2.59	0.64
1:B:294:SER:HB3	1:B:341:ASP:HB3	1.78	0.64
1:B:301:LEU:HD13	1:B:361:LEU:HA	1.80	0.64
1:C:45:VAL:HG21	1:C:222:ILE:CD1	2.28	0.64
1:C:83:LYS:CE	1:C:193:SER:N	2.60	0.64
1:C:212:LEU:HD11	1:C:444:MET:HE1	1.80	0.64
1:D:85:LEU:HB3	1:D:136:HIS:ND1	2.13	0.64
1:E:15:LEU:HD11	1:E:19:PHE:CZ	2.33	0.64
1:E:36:THR:HG22	1:E:39:GLN:CD	2.18	0.64
1:E:439:HIS:CB	1:E:453:LYS:HD3	2.27	0.64
1:A:15:LEU:HD11	1:A:19:PHE:CZ	2.33	0.63
1:A:156:ILE:CB	1:A:194:SER:HB3	2.28	0.63
1:A:241:LEU:HG	1:A:244:MET:HB2	1.80	0.63
1:A:375:TYR:HA	1:A:378:LEU:CD1	2.23	0.63
1:B:83:LYS:CE	1:B:193:SER:N	2.60	0.63
1:B:252:ASN:CB	1:B:253:PRO:HD2	2.28	0.63
1:B:412:TRP:CH2	1:B:469:ARG:CB	2.80	0.63
1:C:85:LEU:HB3	1:C:136:HIS:ND1	2.13	0.63
1:E:274:ARG:HD3	1:E:440:HIS:CD2	2.33	0.63
1:E:295:ASP:CA	1:E:339:LYS:HD2	2.28	0.63
1:E:313:LEU:HD11	1:E:377:VAL:HB	1.79	0.63
1:A:252:ASN:CB	1:A:253:PRO:HD2	2.28	0.63
1:A:313:LEU:HD11	1:A:377:VAL:HB	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:47:ALA:N	1:B:195:ARG:HH22	1.96	0.63
1:C:132:ALA:N	1:C:133:ASN:CA	2.59	0.63
1:C:274:ARG:HD3	1:C:440:HIS:CD2	2.33	0.63
1:C:432:PHE:O	1:C:435:ILE:HG12	1.97	0.63
1:D:194:SER:N	1:D:195:ARG:CD	2.62	0.63
1:D:252:ASN:CB	1:D:253:PRO:HD2	2.28	0.63
1:D:412:TRP:CG	1:D:469:ARG:NH1	2.66	0.63
1:E:370:LYS:HE2	1:E:399:ASP:CA	2.27	0.63
1:B:189:LYS:HB2	1:B:190:PRO:HD3	1.80	0.63
1:B:274:ARG:HD3	1:B:440:HIS:CD2	2.33	0.63
1:B:301:LEU:HD22	1:B:361:LEU:HA	1.81	0.63
1:B:368:ARG:NH2	1:B:378:LEU:CA	2.61	0.63
1:C:57:GLN:OE1	1:C:444:MET:HE1	1.98	0.63
1:C:420:GLU:OE2	1:C:465:MET:SD	2.57	0.63
1:E:420:GLU:OE2	1:E:465:MET:SD	2.57	0.63
1:E:468:HIS:CD2	1:E:473:ARG:NH1	2.66	0.63
1:A:72:VAL:HG23	1:A:85:LEU:CD1	2.27	0.63
1:A:274:ARG:NH2	1:A:437:LEU:CG	2.62	0.63
1:A:295:ASP:CA	1:A:339:LYS:HD2	2.27	0.63
1:A:301:LEU:HD13	1:A:361:LEU:HA	1.80	0.63
1:B:233:GLU:HG2	1:B:243:PRO:CG	2.28	0.63
1:B:420:GLU:OE2	1:B:465:MET:SD	2.57	0.63
1:D:119:GLY:HA2	1:D:127:PHE:HD1	1.62	0.63
1:D:433:SER:HA	1:D:457:ILE:HD11	1.76	0.63
1:D:439:HIS:CB	1:D:453:LYS:HD3	2.27	0.63
1:E:274:ARG:NH2	1:E:437:LEU:CG	2.62	0.63
1:A:47:ALA:N	1:A:195:ARG:HH22	1.96	0.63
1:A:414:VAL:CA	1:A:417:VAL:HG12	2.29	0.63
1:B:72:VAL:HG23	1:B:85:LEU:CD1	2.27	0.63
1:B:85:LEU:HA	1:B:156:ILE:HG23	1.80	0.63
1:B:124:VAL:HA	1:B:125:ILE:CG1	2.28	0.63
1:C:58:ALA:O	1:C:265:ARG:HD3	1.99	0.63
1:C:77:TRP:HZ2	1:C:105:ILE:HG23	1.64	0.63
1:C:412:TRP:CG	1:C:469:ARG:NH1	2.66	0.63
1:D:233:GLU:HG2	1:D:243:PRO:CG	2.29	0.63
1:D:274:ARG:HD3	1:D:440:HIS:CD2	2.33	0.63
1:E:85:LEU:HB3	1:E:136:HIS:ND1	2.13	0.63
1:E:145:ILE:HB	1:E:174:ARG:HG3	1.81	0.63
1:E:468:HIS:CA	1:E:473:ARG:HD3	2.24	0.63
1:A:25:VAL:HG11	1:A:31:ASN:ND2	2.14	0.63
1:A:300:PRO:CG	1:A:302:ARG:HH22	2.08	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:301:LEU:HD22	1:A:361:LEU:HA	1.81	0.63
1:A:439:HIS:CB	1:A:453:LYS:HD3	2.27	0.63
1:B:87:VAL:HG23	1:B:158:ILE:O	1.98	0.63
1:C:118:PRO:CG	1:C:129:VAL:N	2.62	0.63
1:C:194:SER:N	1:C:195:ARG:CD	2.62	0.63
1:C:233:GLU:HA	1:C:243:PRO:CD	2.23	0.63
1:C:233:GLU:HG2	1:C:243:PRO:CG	2.29	0.63
1:C:306:ALA:H	1:C:329:ILE:CG2	2.11	0.63
1:C:433:SER:HA	1:C:457:ILE:HD11	1.76	0.63
1:C:439:HIS:CB	1:C:453:LYS:HD3	2.27	0.63
1:D:322:TRP:HD1	1:D:460:THR:CB	2.11	0.63
1:D:368:ARG:NH2	1:D:378:LEU:CA	2.61	0.63
1:E:58:ALA:O	1:E:265:ARG:HD3	1.99	0.63
1:E:118:PRO:CG	1:E:129:VAL:N	2.62	0.63
1:E:203:GLN:CG	1:E:206:MET:HE2	2.28	0.63
1:A:80:PRO:CD	1:A:83:LYS:HZ3	2.10	0.63
1:A:148:GLN:HE21	1:A:171:MET:CE	2.11	0.63
1:A:250:ASP:O	1:A:254:GLU:HG2	1.99	0.63
1:A:319:HIS:HB3	1:A:456:ARG:NE	2.12	0.63
1:A:420:GLU:OE2	1:A:465:MET:SD	2.57	0.63
1:B:36:THR:HG22	1:B:39:GLN:CG	2.29	0.63
1:B:145:ILE:HB	1:B:174:ARG:HG3	1.81	0.63
1:C:124:VAL:HA	1:C:125:ILE:CG1	2.28	0.63
1:D:223:TRP:CH2	1:D:225:ALA:HB2	2.32	0.63
1:E:414:VAL:CA	1:E:417:VAL:HG12	2.29	0.63
1:A:233:GLU:HG2	1:A:243:PRO:CG	2.29	0.63
1:B:148:GLN:HE21	1:B:171:MET:CE	2.11	0.63
1:C:235:LEU:HD21	1:C:241:LEU:CD2	2.29	0.63
1:C:322:TRP:HD1	1:C:460:THR:CB	2.11	0.63
1:D:124:VAL:HA	1:D:125:ILE:CG1	2.28	0.63
1:D:145:ILE:HB	1:D:174:ARG:HG3	1.81	0.63
1:E:233:GLU:HG2	1:E:243:PRO:CD	2.29	0.63
1:E:233:GLU:HG2	1:E:243:PRO:CG	2.29	0.63
1:E:412:TRP:CG	1:E:469:ARG:NH1	2.66	0.63
1:A:80:PRO:HG2	1:A:83:LYS:NZ	2.14	0.63
1:A:145:ILE:HB	1:A:174:ARG:HG3	1.81	0.63
1:B:36:THR:HG22	1:B:39:GLN:CD	2.18	0.63
1:B:80:PRO:HG2	1:B:83:LYS:NZ	2.14	0.63
1:B:101:ILE:O	1:B:105:ILE:HG13	1.98	0.63
1:B:194:SER:N	1:B:195:ARG:CD	2.62	0.63
1:B:241:LEU:HG	1:B:244:MET:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:87:VAL:HG23	1:C:158:ILE:O	1.99	0.63
1:C:227:TYR:CG	1:C:228:PRO:HD3	2.34	0.63
1:D:36:THR:HG22	1:D:39:GLN:CD	2.18	0.63
1:E:322:TRP:HD1	1:E:460:THR:CB	2.12	0.63
1:A:45:VAL:HG21	1:A:222:ILE:CD1	2.28	0.62
1:A:85:LEU:HA	1:A:156:ILE:HG23	1.80	0.62
1:B:250:ASP:O	1:B:254:GLU:HG2	1.99	0.62
1:B:306:ALA:H	1:B:329:ILE:CG2	2.11	0.62
1:C:36:THR:HG22	1:C:39:GLN:CD	2.18	0.62
1:C:72:VAL:HG23	1:C:85:LEU:CD1	2.27	0.62
1:C:145:ILE:HB	1:C:174:ARG:HG3	1.81	0.62
1:C:241:LEU:HG	1:C:244:MET:HB2	1.80	0.62
1:C:301:LEU:HD13	1:C:361:LEU:HA	1.80	0.62
1:C:308:VAL:HG13	1:C:328:ASN:ND2	2.12	0.62
1:D:58:ALA:O	1:D:265:ARG:HD3	1.99	0.62
1:D:414:VAL:CA	1:D:417:VAL:HG12	2.29	0.62
1:A:52:LYS:CD	1:A:184:PHE:HE2	2.05	0.62
1:A:223:TRP:HE1	1:A:265:ARG:CG	2.12	0.62
1:A:285:LEU:HD22	1:A:430:LYS:C	2.20	0.62
1:A:333:LEU:CD1	1:A:473:ARG:HH22	2.12	0.62
1:A:376:ALA:CA	1:A:379:TYR:HE2	2.11	0.62
1:B:85:LEU:HB3	1:B:136:HIS:ND1	2.13	0.62
1:B:233:GLU:HG2	1:B:243:PRO:CD	2.29	0.62
1:B:333:LEU:CD1	1:B:473:ARG:HH22	2.12	0.62
1:B:414:VAL:CA	1:B:417:VAL:HG12	2.29	0.62
1:B:468:HIS:CD2	1:B:473:ARG:NH1	2.66	0.62
1:C:25:VAL:HG11	1:C:31:ASN:ND2	2.14	0.62
1:C:101:ILE:O	1:C:105:ILE:HG13	1.98	0.62
1:C:141:LYS:CG	1:C:171:MET:HG2	2.29	0.62
1:C:144:GLY:C	1:C:171:MET:SD	2.78	0.62
1:C:223:TRP:HE1	1:C:265:ARG:CG	2.12	0.62
1:C:417:VAL:CA	1:C:465:MET:SD	2.78	0.62
1:D:87:VAL:HG23	1:D:158:ILE:O	1.98	0.62
1:E:87:VAL:HG23	1:E:158:ILE:O	1.98	0.62
1:E:187:LEU:C	1:E:190:PRO:HD2	2.19	0.62
1:E:250:ASP:O	1:E:254:GLU:HG2	1.99	0.62
1:E:333:LEU:CD1	1:E:473:ARG:HH22	2.12	0.62
1:A:320:TYR:H	1:A:456:ARG:HG3	1.62	0.62
1:A:322:TRP:HD1	1:A:460:THR:CB	2.11	0.62
1:B:25:VAL:HG11	1:B:31:ASN:ND2	2.14	0.62
1:B:280:LYS:HZ3	1:B:437:LEU:HB3	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:148:GLN:HE21	1:C:171:MET:CE	2.11	0.62
1:D:101:ILE:O	1:D:105:ILE:HG13	1.98	0.62
1:D:235:LEU:HD21	1:D:241:LEU:CD2	2.29	0.62
1:A:311:LEU:HD21	1:A:313:LEU:HD21	1.81	0.62
1:A:319:HIS:CB	1:A:456:ARG:NE	2.61	0.62
1:B:58:ALA:O	1:B:265:ARG:HD3	1.99	0.62
1:B:77:TRP:HZ2	1:B:105:ILE:HG23	1.64	0.62
1:B:223:TRP:HE1	1:B:265:ARG:CG	2.12	0.62
1:C:233:GLU:HG2	1:C:243:PRO:CD	2.29	0.62
1:C:319:HIS:CB	1:C:456:ARG:NE	2.61	0.62
1:C:414:VAL:CA	1:C:417:VAL:HG12	2.29	0.62
1:C:439:HIS:CD2	1:C:453:LYS:HD3	2.35	0.62
1:D:36:THR:HG22	1:D:39:GLN:CG	2.29	0.62
1:D:141:LYS:CG	1:D:171:MET:HG2	2.29	0.62
1:D:187:LEU:C	1:D:190:PRO:HD2	2.19	0.62
1:D:250:ASP:O	1:D:254:GLU:HG2	1.99	0.62
1:D:274:ARG:NH2	1:D:437:LEU:CG	2.62	0.62
1:E:141:LYS:CG	1:E:171:MET:HG2	2.29	0.62
1:E:435:ILE:HG13	1:E:436:LEU:HD12	1.82	0.62
1:A:77:TRP:HZ2	1:A:105:ILE:HG23	1.64	0.62
1:A:305:ASP:O	1:A:362:VAL:HG11	2.00	0.62
1:A:370:LYS:HE2	1:A:399:ASP:CB	2.30	0.62
1:A:412:TRP:CG	1:A:469:ARG:NH1	2.66	0.62
1:B:57:GLN:HG3	1:B:223:TRP:CD1	2.35	0.62
1:B:144:GLY:C	1:B:171:MET:SD	2.78	0.62
1:B:227:TYR:CG	1:B:228:PRO:HD3	2.34	0.62
1:B:274:ARG:NH2	1:B:437:LEU:CG	2.62	0.62
1:C:250:ASP:O	1:C:254:GLU:HG2	1.99	0.62
1:C:272:ARG:HB3	1:C:442:CYS:N	2.14	0.62
1:D:76:LEU:HB2	1:D:136:HIS:NE2	2.15	0.62
1:D:285:LEU:HD13	1:D:431:VAL:CB	2.30	0.62
1:D:305:ASP:O	1:D:362:VAL:HG11	2.00	0.62
1:D:337:GLY:O	1:D:338:LEU:HD12	1.99	0.62
1:D:420:GLU:OE2	1:D:465:MET:SD	2.57	0.62
1:D:435:ILE:HG13	1:D:436:LEU:HD12	1.82	0.62
1:E:57:GLN:HG3	1:E:223:TRP:CD1	2.35	0.62
1:A:9:ALA:CB	1:A:16:LYS:HD3	2.27	0.62
1:A:57:GLN:HG3	1:A:223:TRP:CD1	2.35	0.62
1:A:144:GLY:C	1:A:171:MET:SD	2.78	0.62
1:A:312:ASP:HB3	1:A:460:THR:OG1	2.00	0.62
1:B:141:LYS:CG	1:B:171:MET:HG2	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:285:LEU:HD22	1:B:430:LYS:C	2.20	0.62
1:B:305:ASP:O	1:B:362:VAL:HG11	2.00	0.62
1:B:322:TRP:HD1	1:B:460:THR:CB	2.12	0.62
1:B:337:GLY:O	1:B:338:LEU:HD12	2.00	0.62
1:C:80:PRO:HG2	1:C:83:LYS:NZ	2.14	0.62
1:D:57:GLN:HG3	1:D:223:TRP:CD1	2.35	0.62
1:D:333:LEU:CD1	1:D:473:ARG:HH22	2.12	0.62
1:E:124:VAL:HA	1:E:125:ILE:CG1	2.28	0.62
1:E:285:LEU:HD13	1:E:431:VAL:CB	2.30	0.62
1:A:36:THR:HG22	1:A:39:GLN:CG	2.29	0.62
1:A:76:LEU:HB2	1:A:136:HIS:NE2	2.15	0.62
1:A:85:LEU:HB3	1:A:136:HIS:ND1	2.13	0.62
1:A:235:LEU:CD2	1:A:241:LEU:HD22	2.27	0.62
1:A:433:SER:HA	1:A:457:ILE:HD11	1.76	0.62
1:B:311:LEU:HD21	1:B:313:LEU:HD21	1.82	0.62
1:B:379:TYR:CE1	1:B:380:THR:OG1	2.50	0.62
1:C:57:GLN:HG3	1:C:223:TRP:CD1	2.35	0.62
1:C:187:LEU:C	1:C:190:PRO:HD2	2.19	0.62
1:C:305:ASP:O	1:C:362:VAL:HG11	2.00	0.62
1:C:333:LEU:CD1	1:C:473:ARG:HH22	2.12	0.62
1:D:80:PRO:HG2	1:D:83:LYS:NZ	2.14	0.62
1:D:144:GLY:C	1:D:171:MET:SD	2.78	0.62
1:D:186:ALA:O	1:D:190:PRO:CD	2.48	0.62
1:D:233:GLU:HG2	1:D:243:PRO:CD	2.29	0.62
1:D:301:LEU:HD22	1:D:361:LEU:HA	1.81	0.62
1:E:25:VAL:HG11	1:E:31:ASN:ND2	2.14	0.62
1:E:36:THR:HG22	1:E:39:GLN:CG	2.29	0.62
1:E:57:GLN:HG3	1:E:223:TRP:HB2	1.81	0.62
1:E:194:SER:N	1:E:195:ARG:CD	2.62	0.62
1:E:235:LEU:HD21	1:E:241:LEU:CD2	2.29	0.62
1:E:272:ARG:HB3	1:E:442:CYS:N	2.14	0.62
1:E:285:LEU:HD22	1:E:430:LYS:C	2.20	0.62
1:E:337:GLY:O	1:E:338:LEU:HD12	2.00	0.62
1:A:272:ARG:HB3	1:A:442:CYS:N	2.14	0.62
1:A:435:ILE:HG13	1:A:436:LEU:HD12	1.82	0.62
1:B:187:LEU:C	1:B:190:PRO:HD2	2.19	0.62
1:B:233:GLU:HA	1:B:243:PRO:CD	2.23	0.62
1:C:57:GLN:HG3	1:C:223:TRP:HB2	1.81	0.62
1:C:285:LEU:HD22	1:C:430:LYS:C	2.20	0.62
1:C:442:CYS:HA	1:C:447:ILE:CD1	2.30	0.62
1:D:25:VAL:HG11	1:D:31:ASN:ND2	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:233:GLU:HA	1:D:243:PRO:CD	2.23	0.62
1:E:76:LEU:HB2	1:E:136:HIS:NE2	2.15	0.62
1:E:144:GLY:C	1:E:171:MET:SD	2.78	0.62
1:E:280:LYS:HZ3	1:E:437:LEU:HB3	1.65	0.62
1:A:212:LEU:HD11	1:A:444:MET:HE1	1.82	0.62
1:A:337:GLY:O	1:A:338:LEU:HD12	2.00	0.62
1:B:57:GLN:HG3	1:B:223:TRP:HB2	1.81	0.62
1:B:312:ASP:HB3	1:B:460:THR:OG1	2.00	0.62
1:C:223:TRP:NE1	1:C:265:ARG:HG2	2.15	0.62
1:D:272:ARG:HB3	1:D:442:CYS:N	2.14	0.62
1:D:439:HIS:CD2	1:D:453:LYS:HD3	2.35	0.62
1:E:358:GLN:NE2	1:E:366:SER:HB2	2.15	0.62
1:E:439:HIS:CD2	1:E:453:LYS:HD3	2.35	0.62
1:A:221:ILE:CA	1:A:445:GLU:HG2	2.30	0.62
1:B:194:SER:H	1:B:195:ARG:CD	2.13	0.62
1:C:376:ALA:CA	1:C:379:TYR:HE2	2.11	0.62
1:D:9:ALA:CB	1:D:16:LYS:HD3	2.27	0.62
1:D:187:LEU:HB3	1:D:192:PRO:HB2	1.81	0.62
1:D:223:TRP:HE1	1:D:265:ARG:CG	2.12	0.62
1:D:227:TYR:CG	1:D:228:PRO:HD3	2.34	0.62
1:D:285:LEU:HD22	1:D:430:LYS:C	2.20	0.62
1:E:305:ASP:O	1:E:362:VAL:HG11	1.99	0.62
1:E:375:TYR:HA	1:E:378:LEU:CD1	2.23	0.62
1:B:435:ILE:HG13	1:B:436:LEU:HD12	1.82	0.61
1:C:186:ALA:O	1:C:190:PRO:CD	2.48	0.61
1:C:312:ASP:HB3	1:C:460:THR:OG1	2.00	0.61
1:C:368:ARG:NH2	1:C:378:LEU:CA	2.61	0.61
1:E:187:LEU:HB3	1:E:192:PRO:HB2	1.81	0.61
1:A:77:TRP:CZ3	1:A:113:GLU:CA	2.76	0.61
1:A:439:HIS:CD2	1:A:453:LYS:HD3	2.35	0.61
1:B:221:ILE:CA	1:B:445:GLU:HG2	2.30	0.61
1:B:370:LYS:HE2	1:B:399:ASP:CB	2.30	0.61
1:C:280:LYS:HZ3	1:C:437:LEU:HB3	1.66	0.61
1:C:301:LEU:HD22	1:C:361:LEU:HA	1.81	0.61
1:D:118:PRO:CG	1:D:129:VAL:N	2.62	0.61
1:E:85:LEU:HA	1:E:156:ILE:HG23	1.80	0.61
1:E:221:ILE:CA	1:E:445:GLU:HG2	2.30	0.61
1:E:442:CYS:HA	1:E:447:ILE:CD1	2.30	0.61
1:A:58:ALA:O	1:A:265:ARG:HD3	1.99	0.61
1:A:285:LEU:HD13	1:A:431:VAL:CB	2.30	0.61
1:B:187:LEU:HB3	1:B:192:PRO:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:223:TRP:NE1	1:B:265:ARG:HG2	2.15	0.61
1:B:272:ARG:HB3	1:B:442:CYS:N	2.14	0.61
1:B:285:LEU:HD13	1:B:431:VAL:CB	2.30	0.61
1:C:36:THR:HG22	1:C:39:GLN:CG	2.29	0.61
1:C:280:LYS:HZ1	1:C:438:LYS:N	1.97	0.61
1:D:70:ALA:O	1:D:73:VAL:HG12	2.01	0.61
1:E:186:ALA:O	1:E:190:PRO:CD	2.48	0.61
1:E:194:SER:H	1:E:195:ARG:CD	2.13	0.61
1:E:301:LEU:HD22	1:E:361:LEU:HA	1.81	0.61
1:E:312:ASP:HB3	1:E:460:THR:OG1	2.00	0.61
1:A:223:TRP:NE1	1:A:265:ARG:HG2	2.14	0.61
1:A:233:GLU:HG2	1:A:243:PRO:CD	2.29	0.61
1:B:244:MET:O	1:B:248:GLU:HG3	2.01	0.61
1:C:85:LEU:HA	1:C:156:ILE:HG23	1.80	0.61
1:C:358:GLN:NE2	1:C:366:SER:HB2	2.15	0.61
1:C:370:LYS:HE2	1:C:399:ASP:CB	2.30	0.61
1:D:77:TRP:HZ2	1:D:105:ILE:HG23	1.64	0.61
1:D:223:TRP:NE1	1:D:265:ARG:HG2	2.14	0.61
1:E:80:PRO:HG2	1:E:83:LYS:NZ	2.14	0.61
1:E:83:LYS:CE	1:E:193:SER:N	2.60	0.61
1:A:59:PHE:CE1	1:A:225:ALA:C	2.74	0.61
1:A:358:GLN:NE2	1:A:366:SER:HB2	2.15	0.61
1:B:163:GLU:OE1	1:B:208:LEU:HB3	2.01	0.61
1:C:76:LEU:HB2	1:C:136:HIS:NE2	2.15	0.61
1:D:319:HIS:CB	1:D:456:ARG:NE	2.61	0.61
1:E:202:PRO:CD	1:E:265:ARG:HD2	2.09	0.61
1:A:235:LEU:HD21	1:A:241:LEU:CD2	2.29	0.61
1:C:45:VAL:CG2	1:C:54:PHE:CD1	2.84	0.61
1:C:187:LEU:HB3	1:C:192:PRO:HB2	1.81	0.61
1:C:311:LEU:HD21	1:C:313:LEU:HD21	1.81	0.61
1:C:435:ILE:HG13	1:C:436:LEU:HD12	1.82	0.61
1:D:221:ILE:CA	1:D:445:GLU:HG2	2.30	0.61
1:D:311:LEU:HD21	1:D:313:LEU:HD21	1.81	0.61
1:D:358:GLN:NE2	1:D:366:SER:HB2	2.15	0.61
1:E:163:GLU:OE1	1:E:208:LEU:HB3	2.01	0.61
1:E:223:TRP:NE1	1:E:265:ARG:HG2	2.15	0.61
1:A:376:ALA:O	1:A:379:TYR:CE2	2.54	0.61
1:B:21:ALA:C	1:B:22:PHE:HD1	2.04	0.61
1:B:308:VAL:CG2	1:B:326:ARG:HB2	2.31	0.61
1:B:368:ARG:HE	1:B:378:LEU:HA	1.66	0.61
1:C:221:ILE:CA	1:C:445:GLU:HG2	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:259:THR:O	1:C:263:PRO:HD2	2.01	0.61
1:D:57:GLN:HG3	1:D:223:TRP:HB2	1.81	0.61
1:D:442:CYS:HA	1:D:447:ILE:CD1	2.30	0.61
1:E:227:TYR:CG	1:E:228:PRO:HD3	2.34	0.61
1:A:45:VAL:O	1:A:54:PHE:CE2	2.54	0.61
1:A:163:GLU:OE1	1:A:208:LEU:HB3	2.01	0.61
1:A:259:THR:O	1:A:263:PRO:HD2	2.01	0.61
1:A:368:ARG:CB	1:A:401:THR:HG21	2.31	0.61
1:A:442:CYS:HA	1:A:447:ILE:CD1	2.30	0.61
1:B:70:ALA:O	1:B:73:VAL:HG12	2.01	0.61
1:B:100:PHE:HA	1:B:103:ASN:HD22	1.66	0.61
1:B:118:PRO:CG	1:B:129:VAL:N	2.62	0.61
1:B:223:TRP:CH2	1:B:225:ALA:CB	2.84	0.61
1:B:442:CYS:HA	1:B:447:ILE:CD1	2.30	0.61
1:C:163:GLU:OE1	1:C:208:LEU:HB3	2.01	0.61
1:C:244:MET:O	1:C:248:GLU:HG3	2.01	0.61
1:D:45:VAL:HG21	1:D:222:ILE:CD1	2.28	0.61
1:D:285:LEU:CD2	1:D:434:PRO:HG3	2.28	0.61
1:D:308:VAL:CG2	1:D:326:ARG:HB2	2.31	0.61
1:D:312:ASP:HB3	1:D:460:THR:OG1	2.00	0.61
1:E:45:VAL:O	1:E:54:PHE:CE2	2.54	0.61
1:E:223:TRP:HE1	1:E:265:ARG:CG	2.12	0.61
1:A:223:TRP:CH2	1:A:225:ALA:CB	2.84	0.61
1:A:430:LYS:O	1:A:434:PRO:CD	2.49	0.61
1:B:186:ALA:O	1:B:190:PRO:CD	2.48	0.61
1:B:439:HIS:CD2	1:B:453:LYS:HD3	2.35	0.61
1:C:308:VAL:CG2	1:C:326:ARG:HB2	2.31	0.61
1:C:376:ALA:O	1:C:379:TYR:CE2	2.54	0.61
1:D:85:LEU:HA	1:D:156:ILE:HG23	1.80	0.61
1:D:368:ARG:HE	1:D:378:LEU:HA	1.66	0.61
1:E:120:GLN:HA	1:E:124:VAL:O	2.01	0.61
1:E:223:TRP:CH2	1:E:225:ALA:CB	2.84	0.61
1:E:376:ALA:O	1:E:379:TYR:CE2	2.54	0.61
1:A:227:TYR:CG	1:A:228:PRO:HD3	2.34	0.61
1:A:315:LYS:NZ	1:A:372:GLU:HG2	2.16	0.61
1:B:76:LEU:HB2	1:B:136:HIS:NE2	2.15	0.61
1:B:233:GLU:HG2	1:B:243:PRO:HG3	1.83	0.61
1:B:347:HIS:CE1	1:B:376:ALA:HB1	2.36	0.61
1:B:358:GLN:NE2	1:B:366:SER:HB2	2.15	0.61
1:C:21:ALA:C	1:C:22:PHE:HD1	2.04	0.61
1:C:100:PHE:HA	1:C:103:ASN:HD22	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:368:ARG:HE	1:C:378:LEU:HA	1.66	0.61
1:D:436:LEU:HA	1:D:439:HIS:NE2	2.16	0.61
1:E:21:ALA:C	1:E:22:PHE:HD1	2.03	0.61
1:E:311:LEU:HD21	1:E:313:LEU:HD21	1.81	0.61
1:A:21:ALA:C	1:A:22:PHE:HD1	2.03	0.60
1:A:368:ARG:HE	1:A:378:LEU:HA	1.66	0.60
1:B:436:LEU:HA	1:B:439:HIS:NE2	2.16	0.60
1:C:194:SER:H	1:C:195:ARG:CD	2.14	0.60
1:C:285:LEU:HD13	1:C:431:VAL:CB	2.30	0.60
1:D:59:PHE:CE1	1:D:225:ALA:C	2.74	0.60
1:D:100:PHE:HA	1:D:103:ASN:HD22	1.66	0.60
1:E:233:GLU:HA	1:E:243:PRO:CD	2.23	0.60
1:E:368:ARG:HE	1:E:378:LEU:HA	1.66	0.60
1:A:57:GLN:HG3	1:A:223:TRP:HB2	1.81	0.60
1:A:100:PHE:HA	1:A:103:ASN:HD22	1.66	0.60
1:A:227:TYR:CE2	1:A:228:PRO:HD3	2.36	0.60
1:A:244:MET:O	1:A:248:GLU:HG3	2.01	0.60
1:B:223:TRP:HB3	1:B:444:MET:HG2	1.83	0.60
1:B:368:ARG:CB	1:B:401:THR:HG21	2.31	0.60
1:C:57:GLN:OE1	1:C:212:LEU:HD11	2.01	0.60
1:D:21:ALA:C	1:D:22:PHE:HD1	2.04	0.60
1:D:42:MET:SD	1:D:67:ILE:CD1	2.89	0.60
1:D:120:GLN:HA	1:D:124:VAL:O	2.01	0.60
1:E:100:PHE:HA	1:E:103:ASN:HD22	1.66	0.60
1:E:308:VAL:CG2	1:E:326:ARG:HB2	2.31	0.60
1:E:351:ASN:CG	1:E:380:THR:HB	2.21	0.60
1:E:370:LYS:HE2	1:E:399:ASP:CB	2.30	0.60
1:A:36:THR:CG2	1:A:39:GLN:HG3	2.32	0.60
1:A:70:ALA:O	1:A:73:VAL:HG12	2.01	0.60
1:A:308:VAL:HG13	1:A:328:ASN:ND2	2.12	0.60
1:A:308:VAL:CG2	1:A:326:ARG:HB2	2.31	0.60
1:A:436:LEU:HA	1:A:439:HIS:NE2	2.16	0.60
1:B:57:GLN:OE1	1:B:212:LEU:HD11	2.01	0.60
1:B:202:PRO:CD	1:B:265:ARG:HD2	2.09	0.60
1:B:274:ARG:HD3	1:B:440:HIS:HD2	1.66	0.60
1:C:233:GLU:HG2	1:C:243:PRO:HG3	1.83	0.60
1:D:45:VAL:CG2	1:D:54:PHE:CD1	2.84	0.60
1:D:57:GLN:OE1	1:D:212:LEU:HD11	2.02	0.60
1:D:194:SER:H	1:D:195:ARG:CD	2.13	0.60
1:D:370:LYS:HE2	1:D:399:ASP:CB	2.30	0.60
1:E:315:LYS:NZ	1:E:372:GLU:HG2	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:368:ARG:CB	1:E:401:THR:HG21	2.31	0.60
1:B:42:MET:SD	1:B:67:ILE:CD1	2.89	0.60
1:B:45:VAL:HG21	1:B:222:ILE:CD1	2.28	0.60
1:C:42:MET:SD	1:C:67:ILE:CD1	2.89	0.60
1:C:59:PHE:CE1	1:C:225:ALA:C	2.74	0.60
1:C:70:ALA:O	1:C:73:VAL:HG12	2.01	0.60
1:C:337:GLY:O	1:C:338:LEU:HD12	2.00	0.60
1:C:347:HIS:CE1	1:C:376:ALA:HB1	2.36	0.60
1:C:351:ASN:CG	1:C:380:THR:HB	2.21	0.60
1:D:45:VAL:O	1:D:54:PHE:CE2	2.54	0.60
1:D:308:VAL:HG13	1:D:328:ASN:ND2	2.11	0.60
1:D:375:TYR:HA	1:D:378:LEU:CD1	2.23	0.60
1:D:376:ALA:O	1:D:379:TYR:CE2	2.54	0.60
1:E:227:TYR:CE2	1:E:228:PRO:HD3	2.36	0.60
1:A:42:MET:SD	1:A:67:ILE:CD1	2.89	0.60
1:B:36:THR:CG2	1:B:39:GLN:HG3	2.32	0.60
1:B:59:PHE:CE1	1:B:225:ALA:C	2.74	0.60
1:B:259:THR:O	1:B:263:PRO:HD2	2.01	0.60
1:C:36:THR:CG2	1:C:39:GLN:HG3	2.32	0.60
1:C:274:ARG:NH2	1:C:437:LEU:CG	2.62	0.60
1:E:45:VAL:CG2	1:E:54:PHE:CD1	2.84	0.60
1:E:59:PHE:CE1	1:E:225:ALA:C	2.74	0.60
1:E:259:THR:O	1:E:263:PRO:HD2	2.01	0.60
1:E:319:HIS:CB	1:E:456:ARG:NE	2.61	0.60
1:E:347:HIS:CE1	1:E:376:ALA:HB1	2.36	0.60
1:B:45:VAL:O	1:B:54:PHE:CE2	2.54	0.60
1:B:315:LYS:NZ	1:B:372:GLU:HG2	2.16	0.60
1:B:376:ALA:O	1:B:379:TYR:CE2	2.54	0.60
1:C:120:GLN:HG2	1:C:120:GLN:O	2.02	0.60
1:C:237:TYR:HB3	1:C:239:GLN:OE1	2.02	0.60
1:C:300:PRO:HB2	1:C:302:ARG:HH12	1.67	0.60
1:D:223:TRP:CH2	1:D:225:ALA:CB	2.84	0.60
1:D:351:ASN:CG	1:D:380:THR:HB	2.21	0.60
1:E:42:MET:SD	1:E:67:ILE:CD1	2.89	0.60
1:E:274:ARG:HD3	1:E:440:HIS:HD2	1.66	0.60
1:C:45:VAL:O	1:C:54:PHE:CE2	2.54	0.60
1:E:57:GLN:OE1	1:E:212:LEU:HD11	2.01	0.60
1:E:218:TYR:CD2	1:E:219:THR:HG23	2.37	0.60
1:E:436:LEU:HA	1:E:439:HIS:NE2	2.16	0.60
1:A:120:GLN:O	1:A:120:GLN:HG2	2.02	0.60
1:A:347:HIS:CE1	1:A:376:ALA:HB1	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:77:TRP:HZ2	1:B:105:ILE:CG2	2.15	0.60
1:B:227:TYR:CE2	1:B:228:PRO:HD3	2.36	0.60
1:B:319:HIS:CB	1:B:456:ARG:NE	2.61	0.60
1:B:394:ARG:HD3	1:B:400:LYS:HZ3	1.67	0.60
1:C:223:TRP:CH2	1:C:225:ALA:CB	2.84	0.60
1:D:184:PHE:CZ	1:D:188:LEU:HD11	2.37	0.60
1:E:326:ARG:HH11	1:E:335:ASN:CB	2.03	0.60
1:A:218:TYR:CD2	1:A:219:THR:HG23	2.37	0.60
1:A:351:ASN:CG	1:A:380:THR:HB	2.21	0.60
1:C:227:TYR:CE2	1:C:228:PRO:HD3	2.36	0.60
1:C:280:LYS:HZ3	1:C:437:LEU:CB	2.15	0.60
1:D:205:GLU:OE1	1:D:209:TYR:CG	2.55	0.60
1:D:347:HIS:CE1	1:D:376:ALA:HB1	2.36	0.60
1:E:205:GLU:OE1	1:E:209:TYR:CG	2.55	0.60
1:E:208:LEU:HG	1:E:211:GLU:OE2	2.02	0.60
1:E:262:ASP:HB3	1:E:263:PRO:HD3	1.84	0.60
1:E:285:LEU:CD2	1:E:434:PRO:HG3	2.27	0.60
1:B:89:ALA:HB3	1:B:94:ALA:HB2	1.84	0.60
1:B:120:GLN:HA	1:B:124:VAL:O	2.01	0.60
1:B:280:LYS:HZ3	1:B:437:LEU:CB	2.15	0.60
1:C:315:LYS:NZ	1:C:372:GLU:HG2	2.16	0.60
1:C:322:TRP:CD1	1:C:460:THR:HB	2.36	0.60
1:D:57:GLN:HG3	1:D:223:TRP:HD1	1.67	0.60
1:D:120:GLN:O	1:D:120:GLN:HG2	2.02	0.60
1:D:149:LEU:HD11	1:D:174:ARG:HD2	1.84	0.60
1:D:163:GLU:OE1	1:D:208:LEU:HB3	2.01	0.60
1:D:244:MET:O	1:D:248:GLU:HG3	2.01	0.60
1:D:368:ARG:CB	1:D:401:THR:HG21	2.31	0.60
1:E:36:THR:CG2	1:E:39:GLN:HG3	2.32	0.60
1:A:57:GLN:HE22	1:A:216:ARG:NH2	2.00	0.59
1:A:77:TRP:HZ2	1:A:105:ILE:CG2	2.15	0.59
1:C:57:GLN:HG3	1:C:223:TRP:HD1	1.67	0.59
1:C:57:GLN:HE22	1:C:216:ARG:NH2	2.00	0.59
1:C:72:VAL:HG11	1:C:101:ILE:HG21	1.84	0.59
1:C:218:TYR:CD2	1:C:219:THR:HG23	2.37	0.59
1:C:262:ASP:HB3	1:C:263:PRO:HD3	1.83	0.59
1:C:285:LEU:CD2	1:C:434:PRO:HG3	2.27	0.59
1:C:430:LYS:O	1:C:434:PRO:CD	2.49	0.59
1:C:436:LEU:HA	1:C:439:HIS:NE2	2.16	0.59
1:D:77:TRP:HZ2	1:D:105:ILE:CG2	2.15	0.59
1:D:218:TYR:CD2	1:D:219:THR:HG23	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:57:GLN:HE22	1:E:216:ARG:NH2	2.00	0.59
1:E:233:GLU:HG2	1:E:243:PRO:HG3	1.83	0.59
1:E:300:PRO:HB2	1:E:302:ARG:HH12	1.67	0.59
1:A:205:GLU:OE1	1:A:209:TYR:CG	2.55	0.59
1:A:208:LEU:HG	1:A:211:GLU:OE2	2.02	0.59
1:B:262:ASP:HB3	1:B:263:PRO:HD3	1.84	0.59
1:C:77:TRP:HZ2	1:C:105:ILE:CG2	2.15	0.59
1:C:202:PRO:CD	1:C:265:ARG:HD2	2.09	0.59
1:D:259:THR:O	1:D:263:PRO:HD2	2.01	0.59
1:D:300:PRO:HB2	1:D:302:ARG:HH12	1.67	0.59
1:D:322:TRP:CD1	1:D:460:THR:HB	2.36	0.59
1:E:204:THR:HG22	1:E:205:GLU:N	2.09	0.59
1:E:244:MET:O	1:E:248:GLU:HG3	2.01	0.59
1:A:163:GLU:HB2	1:A:208:LEU:CD1	2.23	0.59
1:A:223:TRP:HB3	1:A:444:MET:HG2	1.83	0.59
1:B:120:GLN:O	1:B:120:GLN:HG2	2.02	0.59
1:B:235:LEU:HD21	1:B:241:LEU:CD2	2.29	0.59
1:B:327:GLN:OE1	1:B:329:ILE:HG23	2.03	0.59
1:C:327:GLN:OE1	1:C:329:ILE:HG23	2.02	0.59
1:D:237:TYR:HB3	1:D:239:GLN:OE1	2.02	0.59
1:E:77:TRP:HZ2	1:E:105:ILE:HG23	1.64	0.59
1:A:110:PHE:HA	1:A:113:GLU:CG	2.32	0.59
1:A:327:GLN:OE1	1:A:329:ILE:HG23	2.03	0.59
1:B:351:ASN:CG	1:B:380:THR:HB	2.21	0.59
1:C:205:GLU:OE1	1:C:209:TYR:CG	2.55	0.59
1:C:368:ARG:CB	1:C:401:THR:HG21	2.31	0.59
1:D:208:LEU:HG	1:D:211:GLU:OE2	2.02	0.59
1:E:70:ALA:O	1:E:73:VAL:HG12	2.01	0.59
1:E:77:TRP:HZ2	1:E:105:ILE:CG2	2.15	0.59
1:E:120:GLN:O	1:E:120:GLN:HG2	2.02	0.59
1:E:186:ALA:O	1:E:190:PRO:HD3	2.03	0.59
1:A:118:PRO:CG	1:A:129:VAL:N	2.62	0.59
1:B:205:GLU:OE1	1:B:209:TYR:CG	2.55	0.59
1:B:237:TYR:HB3	1:B:239:GLN:OE1	2.02	0.59
1:C:120:GLN:HA	1:C:124:VAL:O	2.01	0.59
1:C:149:LEU:HD11	1:C:174:ARG:HD2	1.84	0.59
1:C:184:PHE:CZ	1:C:188:LEU:HD11	2.37	0.59
1:C:190:PRO:HB2	1:C:192:PRO:CG	2.32	0.59
1:C:218:TYR:HD2	1:C:219:THR:HG23	1.68	0.59
1:D:190:PRO:HB2	1:D:192:PRO:CG	2.33	0.59
1:D:315:LYS:NZ	1:D:372:GLU:HG2	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:186:ALA:O	1:C:190:PRO:HD3	2.02	0.59
1:D:89:ALA:HB3	1:D:94:ALA:HB2	1.84	0.59
1:D:186:ALA:O	1:D:190:PRO:HD3	2.02	0.59
1:D:319:HIS:HB3	1:D:456:ARG:NE	2.12	0.59
1:D:327:GLN:OE1	1:D:329:ILE:HG23	2.03	0.59
1:D:436:LEU:HD22	1:D:457:ILE:HG12	1.85	0.59
1:E:430:LYS:O	1:E:434:PRO:CD	2.49	0.59
1:A:57:GLN:OE1	1:A:212:LEU:HD11	2.01	0.59
1:A:300:PRO:HB2	1:A:302:ARG:HH12	1.67	0.59
1:A:368:ARG:H	1:A:401:THR:HG21	1.67	0.59
1:B:110:PHE:HA	1:B:113:GLU:CG	2.32	0.59
1:B:208:LEU:HG	1:B:211:GLU:OE2	2.02	0.59
1:B:218:TYR:CD2	1:B:219:THR:HG23	2.37	0.59
1:C:77:TRP:CH2	1:C:105:ILE:HG23	2.38	0.59
1:C:208:LEU:HG	1:C:211:GLU:OE2	2.02	0.59
1:C:319:HIS:HB3	1:C:456:ARG:NE	2.12	0.59
1:D:218:TYR:HD2	1:D:219:THR:HG23	1.68	0.59
1:D:368:ARG:HB2	1:D:378:LEU:CD2	2.32	0.59
1:E:110:PHE:HA	1:E:113:GLU:CG	2.32	0.59
1:E:327:GLN:OE1	1:E:329:ILE:HG23	2.03	0.59
1:E:368:ARG:HB2	1:E:378:LEU:CD2	2.32	0.59
1:A:237:TYR:HB3	1:A:239:GLN:OE1	2.02	0.59
1:B:57:GLN:HE22	1:B:216:ARG:NH2	2.00	0.59
1:B:300:PRO:HB2	1:B:302:ARG:HH12	1.67	0.59
1:C:223:TRP:HB3	1:C:444:MET:HG2	1.83	0.59
1:D:57:GLN:HE22	1:D:216:ARG:NH2	2.00	0.59
1:D:227:TYR:CE2	1:D:228:PRO:HD3	2.36	0.59
1:E:76:LEU:CG	1:E:134:PRO:HB2	2.30	0.59
1:A:52:LYS:CE	1:A:53:LYS:HZ3	2.15	0.59
1:B:66:PHE:O	1:B:69:CYS:SG	2.61	0.59
1:B:335:ASN:OD1	1:B:338:LEU:HD11	2.03	0.59
1:B:430:LYS:O	1:B:434:PRO:CD	2.49	0.59
1:C:436:LEU:HD22	1:C:457:ILE:HG12	1.85	0.59
1:D:233:GLU:HG2	1:D:243:PRO:HG3	1.83	0.59
1:D:262:ASP:HB3	1:D:263:PRO:HD3	1.84	0.59
1:D:313:LEU:CD1	1:D:374:GLY:HA2	2.24	0.59
1:D:430:LYS:O	1:D:434:PRO:CD	2.49	0.59
1:E:149:LEU:HD11	1:E:174:ARG:HD2	1.84	0.59
1:E:237:TYR:HB3	1:E:239:GLN:OE1	2.02	0.59
1:E:449:ALA:N	1:E:455:MET:HE1	2.16	0.59
1:B:57:GLN:HG3	1:B:223:TRP:HD1	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:285:LEU:CD2	1:B:434:PRO:HG3	2.27	0.59
1:B:376:ALA:CA	1:B:379:TYR:HE2	2.11	0.59
1:D:36:THR:CG2	1:D:39:GLN:HG3	2.32	0.59
1:D:110:PHE:HA	1:D:113:GLU:CG	2.32	0.59
1:E:223:TRP:HB2	1:E:444:MET:HG2	1.85	0.59
1:E:368:ARG:NH2	1:E:378:LEU:CA	2.61	0.59
1:A:262:ASP:HB3	1:A:263:PRO:HD3	1.84	0.58
1:B:9:ALA:CB	1:B:16:LYS:HD3	2.27	0.58
1:B:322:TRP:CD2	1:B:457:ILE:HA	2.38	0.58
1:B:368:ARG:H	1:B:401:THR:HG21	1.67	0.58
1:C:322:TRP:CD2	1:C:457:ILE:HA	2.38	0.58
1:D:76:LEU:CG	1:D:134:PRO:HB2	2.30	0.58
1:D:368:ARG:H	1:D:401:THR:HG21	1.67	0.58
1:E:280:LYS:HZ3	1:E:437:LEU:CB	2.15	0.58
1:A:77:TRP:CH2	1:A:105:ILE:HG23	2.38	0.58
1:A:118:PRO:HG2	1:A:129:VAL:H	1.67	0.58
1:B:52:LYS:CE	1:B:53:LYS:NZ	2.66	0.58
1:B:120:GLN:HG3	1:B:124:VAL:O	2.03	0.58
1:C:368:ARG:H	1:C:401:THR:HG21	1.67	0.58
1:D:223:TRP:HB3	1:D:444:MET:HG2	1.83	0.58
1:E:368:ARG:H	1:E:401:THR:HG21	1.67	0.58
1:A:233:GLU:HG2	1:A:243:PRO:HG3	1.83	0.58
1:A:335:ASN:OD1	1:A:338:LEU:HD11	2.03	0.58
1:B:436:LEU:HD22	1:B:457:ILE:CG1	2.33	0.58
1:D:77:TRP:CH2	1:D:105:ILE:HG23	2.38	0.58
1:D:274:ARG:HD3	1:D:440:HIS:HD2	1.66	0.58
1:E:335:ASN:OD1	1:E:338:LEU:HD11	2.03	0.58
1:A:322:TRP:CD1	1:A:460:THR:HB	2.36	0.58
1:B:15:LEU:CD1	1:B:19:PHE:CZ	2.87	0.58
1:B:118:PRO:HG2	1:B:129:VAL:H	1.67	0.58
1:B:322:TRP:CD1	1:B:460:THR:HB	2.37	0.58
1:C:52:LYS:CE	1:C:53:LYS:HZ3	2.13	0.58
1:C:110:PHE:HA	1:C:113:GLU:CG	2.33	0.58
1:C:120:GLN:HG3	1:C:124:VAL:O	2.03	0.58
1:D:66:PHE:O	1:D:69:CYS:SG	2.61	0.58
1:E:57:GLN:HA	1:E:265:ARG:HE	1.68	0.58
1:E:89:ALA:HB3	1:E:94:ALA:HB2	1.85	0.58
1:E:120:GLN:HG3	1:E:124:VAL:O	2.03	0.58
1:E:436:LEU:HD22	1:E:457:ILE:HG12	1.85	0.58
1:A:368:ARG:HB2	1:A:378:LEU:CD2	2.32	0.58
1:B:77:TRP:CH2	1:B:105:ILE:HG23	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:LEU:HD11	1:B:174:ARG:HD2	1.84	0.58
1:B:218:TYR:HD2	1:B:219:THR:HG23	1.68	0.58
1:D:280:LYS:HZ3	1:D:437:LEU:CB	2.16	0.58
1:D:335:ASN:OD1	1:D:338:LEU:HD11	2.03	0.58
1:E:66:PHE:O	1:E:69:CYS:SG	2.61	0.58
1:E:77:TRP:CH2	1:E:105:ILE:HG23	2.38	0.58
1:E:190:PRO:HB2	1:E:192:PRO:CG	2.32	0.58
1:A:15:LEU:CD1	1:A:19:PHE:CZ	2.87	0.58
1:A:66:PHE:O	1:A:69:CYS:SG	2.61	0.58
1:A:76:LEU:CG	1:A:134:PRO:HB2	2.30	0.58
1:A:274:ARG:HD3	1:A:440:HIS:HD2	1.66	0.58
1:A:322:TRP:CD2	1:A:457:ILE:HA	2.38	0.58
1:B:163:GLU:CG	1:B:203:GLN:HB3	2.25	0.58
1:B:164:ILE:O	1:B:164:ILE:HG22	2.03	0.58
1:B:190:PRO:HB2	1:B:192:PRO:CG	2.32	0.58
1:C:66:PHE:O	1:C:69:CYS:SG	2.61	0.58
1:C:89:ALA:HB3	1:C:94:ALA:HB2	1.84	0.58
1:C:335:ASN:OD1	1:C:338:LEU:HD11	2.03	0.58
1:E:322:TRP:CD2	1:E:457:ILE:HA	2.38	0.58
1:A:57:GLN:HA	1:A:265:ARG:HE	1.68	0.58
1:A:143:VAL:HG13	1:A:144:GLY:H	1.69	0.58
1:A:218:TYR:HD2	1:A:219:THR:HG23	1.68	0.58
1:A:436:LEU:HD22	1:A:457:ILE:CG1	2.33	0.58
1:B:436:LEU:HD22	1:B:457:ILE:HG12	1.85	0.58
1:C:87:VAL:HA	1:C:158:ILE:O	2.04	0.58
1:C:274:ARG:HD3	1:C:440:HIS:HD2	1.66	0.58
1:C:309:ALA:HB2	1:C:364:ASP:OD2	2.04	0.58
1:C:375:TYR:HA	1:C:378:LEU:CD1	2.23	0.58
1:C:436:LEU:HD22	1:C:457:ILE:CG1	2.33	0.58
1:D:376:ALA:CA	1:D:379:TYR:HE2	2.11	0.58
1:D:436:LEU:HD22	1:D:457:ILE:CG1	2.33	0.58
1:E:10:LEU:O	1:E:74:TRP:CZ2	2.57	0.58
1:E:15:LEU:CD1	1:E:19:PHE:CZ	2.87	0.58
1:A:204:THR:CG2	1:A:205:GLU:H	2.03	0.58
1:A:433:SER:N	1:A:434:PRO:HD2	2.19	0.58
1:D:143:VAL:HG13	1:D:144:GLY:H	1.69	0.58
1:D:309:ALA:HB2	1:D:364:ASP:OD2	2.04	0.58
1:E:72:VAL:HG11	1:E:101:ILE:HG21	1.84	0.58
1:E:184:PHE:CZ	1:E:188:LEU:HD11	2.37	0.58
1:E:218:TYR:HD2	1:E:219:THR:HG23	1.68	0.58
1:A:89:ALA:HB3	1:A:94:ALA:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:164:ILE:HG22	1:A:164:ILE:O	2.03	0.58
1:B:45:VAL:CG2	1:B:54:PHE:CD1	2.84	0.58
1:B:87:VAL:HA	1:B:158:ILE:O	2.04	0.58
1:D:120:GLN:HG3	1:D:124:VAL:O	2.03	0.58
1:D:274:ARG:NE	1:D:440:HIS:HD2	2.02	0.58
1:D:394:ARG:NH2	1:D:397:TYR:HE1	2.02	0.58
1:E:102:LYS:NZ	1:E:120:GLN:HB2	2.19	0.58
1:E:143:VAL:HG13	1:E:144:GLY:H	1.69	0.58
1:E:163:GLU:CG	1:E:203:GLN:HB3	2.25	0.58
1:E:309:ALA:HB2	1:E:364:ASP:OD2	2.04	0.58
1:A:102:LYS:NZ	1:A:120:GLN:HB2	2.19	0.58
1:A:436:LEU:HD22	1:A:457:ILE:HG12	1.85	0.58
1:B:52:LYS:CD	1:B:184:PHE:HE2	2.05	0.58
1:B:186:ALA:O	1:B:190:PRO:HD3	2.03	0.58
1:C:143:VAL:HG13	1:C:144:GLY:H	1.69	0.58
1:D:433:SER:N	1:D:434:PRO:HD2	2.19	0.58
1:E:87:VAL:HA	1:E:158:ILE:O	2.04	0.58
1:E:394:ARG:NH2	1:E:397:TYR:HE1	2.02	0.58
1:E:436:LEU:HD22	1:E:457:ILE:CG1	2.33	0.58
1:A:45:VAL:CB	1:A:222:ILE:HD11	2.34	0.57
1:A:149:LEU:HD11	1:A:174:ARG:HD2	1.84	0.57
1:A:272:ARG:HD2	1:A:442:CYS:HB2	1.86	0.57
1:A:280:LYS:HZ3	1:A:437:LEU:CB	2.15	0.57
1:A:368:ARG:NH2	1:A:378:LEU:CA	2.61	0.57
1:B:102:LYS:NZ	1:B:120:GLN:HB2	2.19	0.57
1:B:319:HIS:HB3	1:B:456:ARG:NE	2.12	0.57
1:B:433:SER:N	1:B:434:PRO:HD2	2.19	0.57
1:D:45:VAL:CB	1:D:222:ILE:HD11	2.34	0.57
1:D:102:LYS:HZ2	1:D:120:GLN:HB2	1.69	0.57
1:D:164:ILE:HG22	1:D:164:ILE:O	2.03	0.57
1:D:322:TRP:CD2	1:D:457:ILE:HA	2.38	0.57
1:E:45:VAL:CB	1:E:222:ILE:HD11	2.34	0.57
1:E:57:GLN:OE1	1:E:444:MET:HE1	2.04	0.57
1:E:272:ARG:HD2	1:E:442:CYS:HB2	1.86	0.57
1:A:285:LEU:CD2	1:A:434:PRO:HG3	2.27	0.57
1:B:76:LEU:CG	1:B:134:PRO:HB2	2.30	0.57
1:C:15:LEU:CD1	1:C:19:PHE:CZ	2.87	0.57
1:C:52:LYS:CE	1:C:53:LYS:NZ	2.66	0.57
1:D:102:LYS:NZ	1:D:120:GLN:HB2	2.19	0.57
1:E:9:ALA:CB	1:E:16:LYS:HD3	2.27	0.57
1:E:52:LYS:CE	1:E:53:LYS:HZ3	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:57:GLN:HG3	1:E:223:TRP:HD1	1.67	0.57
1:E:118:PRO:HG2	1:E:129:VAL:H	1.67	0.57
1:A:10:LEU:O	1:A:74:TRP:CZ2	2.57	0.57
1:B:133:ASN:N	1:B:134:PRO:CD	2.67	0.57
1:B:272:ARG:HD2	1:B:442:CYS:HB2	1.86	0.57
1:B:274:ARG:NE	1:B:440:HIS:HD2	2.02	0.57
1:C:9:ALA:CB	1:C:16:LYS:HD3	2.27	0.57
1:C:199:LEU:HD23	1:C:200:GLY:N	2.20	0.57
1:D:22:PHE:CD2	1:D:30:LEU:HG	2.33	0.57
1:D:57:GLN:OE1	1:D:444:MET:HE1	2.04	0.57
1:D:199:LEU:HD23	1:D:200:GLY:N	2.19	0.57
1:D:394:ARG:HH21	1:D:397:TYR:HE1	1.52	0.57
1:E:394:ARG:HH21	1:E:397:TYR:HE1	1.52	0.57
1:B:42:MET:SD	1:B:56:LEU:CD1	2.93	0.57
1:B:46:LEU:HD21	1:B:197:ILE:HG21	1.87	0.57
1:C:223:TRP:HB2	1:C:444:MET:HG2	1.85	0.57
1:D:10:LEU:O	1:D:74:TRP:CZ2	2.57	0.57
1:D:70:ALA:C	1:D:73:VAL:HG12	2.25	0.57
1:D:72:VAL:HG11	1:D:101:ILE:HG21	1.84	0.57
1:E:204:THR:CG2	1:E:205:GLU:H	2.03	0.57
1:A:45:VAL:CG2	1:A:54:PHE:CD1	2.84	0.57
1:A:72:VAL:HG11	1:A:101:ILE:HG21	1.84	0.57
1:B:57:GLN:OE1	1:B:444:MET:HE1	2.04	0.57
1:C:10:LEU:O	1:C:74:TRP:CZ2	2.57	0.57
1:C:22:PHE:CD2	1:C:30:LEU:HG	2.33	0.57
1:C:46:LEU:HD21	1:C:197:ILE:HG21	1.87	0.57
1:C:148:GLN:HG3	1:C:171:MET:HE1	1.85	0.57
1:D:414:VAL:O	1:D:417:VAL:HG12	2.04	0.57
1:E:70:ALA:C	1:E:73:VAL:HG12	2.25	0.57
1:E:322:TRP:CD1	1:E:460:THR:HB	2.36	0.57
1:A:148:GLN:O	1:A:178:TRP:CZ2	2.58	0.57
1:A:274:ARG:NE	1:A:440:HIS:HD2	2.02	0.57
1:B:22:PHE:CE1	1:B:32:LEU:CD2	2.88	0.57
1:B:141:LYS:HG3	1:B:171:MET:HG2	1.86	0.57
1:C:45:VAL:CB	1:C:222:ILE:HD11	2.34	0.57
1:C:70:ALA:C	1:C:73:VAL:HG12	2.25	0.57
1:C:102:LYS:NZ	1:C:120:GLN:HB2	2.19	0.57
1:C:203:GLN:O	1:C:206:MET:HE1	2.05	0.57
1:C:274:ARG:NE	1:C:440:HIS:HD2	2.02	0.57
1:C:394:ARG:NH2	1:C:397:TYR:HE1	2.02	0.57
1:C:433:SER:N	1:C:434:PRO:HD2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:87:VAL:HA	1:D:158:ILE:O	2.04	0.57
1:D:91:LYS:HB2	1:D:93:ARG:H	1.70	0.57
1:E:414:VAL:O	1:E:417:VAL:HG12	2.04	0.57
1:E:449:ALA:HB2	1:E:455:MET:HB3	1.87	0.57
1:A:57:GLN:HG3	1:A:223:TRP:HD1	1.67	0.57
1:A:394:ARG:NH2	1:A:397:TYR:HE1	2.02	0.57
1:A:449:ALA:HB2	1:A:455:MET:HB3	1.87	0.57
1:B:10:LEU:O	1:B:74:TRP:CZ2	2.57	0.57
1:B:45:VAL:CB	1:B:222:ILE:HD11	2.34	0.57
1:B:449:ALA:HB2	1:B:455:MET:HB3	1.87	0.57
1:C:118:PRO:HG2	1:C:129:VAL:H	1.67	0.57
1:C:148:GLN:O	1:C:178:TRP:CZ2	2.58	0.57
1:C:295:ASP:CB	1:C:339:LYS:HZ2	2.16	0.57
1:D:76:LEU:HD13	1:D:136:HIS:CD2	2.40	0.57
1:D:223:TRP:HB2	1:D:444:MET:HG2	1.85	0.57
1:D:413:GLY:HA3	1:D:462:GLU:OE2	2.04	0.57
1:E:199:LEU:HD23	1:E:200:GLY:N	2.20	0.57
1:E:319:HIS:HB2	1:E:456:ARG:HH21	1.70	0.57
1:E:409:ALA:CA	1:E:466:GLN:HE21	2.17	0.57
1:A:12:VAL:HG13	1:A:12:VAL:O	2.05	0.57
1:A:52:LYS:CE	1:A:53:LYS:NZ	2.67	0.57
1:A:76:LEU:HD13	1:A:136:HIS:CD2	2.40	0.57
1:B:70:ALA:C	1:B:73:VAL:HG12	2.25	0.57
1:B:365:PRO:HA	1:B:391:GLY:O	2.05	0.57
1:B:414:VAL:O	1:B:417:VAL:HG12	2.04	0.57
1:C:21:ALA:O	1:C:22:PHE:HD1	1.88	0.57
1:C:42:MET:SD	1:C:56:LEU:CD1	2.93	0.57
1:D:15:LEU:CD1	1:D:19:PHE:CZ	2.87	0.57
1:D:57:GLN:HA	1:D:265:ARG:HE	1.68	0.57
1:D:335:ASN:HD21	1:D:338:LEU:HD21	1.69	0.57
1:E:208:LEU:HG	1:E:211:GLU:CD	2.25	0.57
1:E:223:TRP:HB3	1:E:444:MET:HG2	1.83	0.57
1:E:352:ASN:HD21	1:E:387:LEU:HD21	1.70	0.57
1:A:22:PHE:CE1	1:A:32:LEU:CD2	2.88	0.57
1:A:87:VAL:HA	1:A:158:ILE:O	2.04	0.57
1:A:352:ASN:HD21	1:A:387:LEU:HD21	1.70	0.57
1:A:414:VAL:O	1:A:417:VAL:HG12	2.04	0.57
1:B:51:ASN:HB3	1:B:54:PHE:HZ	1.65	0.57
1:B:226:LEU:HB2	1:B:263:PRO:HB2	1.87	0.57
1:B:254:GLU:HG3	1:B:255:ALA:N	2.20	0.57
1:C:57:GLN:HA	1:C:265:ARG:HE	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:272:ARG:HD2	1:C:442:CYS:HB2	1.86	0.57
1:C:327:GLN:HG3	1:C:329:ILE:HG12	1.87	0.57
1:C:368:ARG:HB2	1:C:378:LEU:CD2	2.32	0.57
1:C:413:GLY:HA3	1:C:462:GLU:OE2	2.04	0.57
1:D:148:GLN:O	1:D:178:TRP:CZ2	2.58	0.57
1:D:272:ARG:HD2	1:D:442:CYS:HB2	1.86	0.57
1:D:319:HIS:HB2	1:D:456:ARG:HH21	1.70	0.57
1:A:21:ALA:O	1:A:22:PHE:HD1	1.88	0.57
1:A:70:ALA:C	1:A:73:VAL:HG12	2.25	0.57
1:A:208:LEU:HG	1:A:211:GLU:CD	2.26	0.57
1:A:319:HIS:HB2	1:A:456:ARG:HH21	1.70	0.57
1:B:72:VAL:HG11	1:B:101:ILE:HG21	1.84	0.57
1:B:143:VAL:HG13	1:B:144:GLY:H	1.69	0.57
1:D:10:LEU:O	1:D:10:LEU:HD23	2.05	0.57
1:D:12:VAL:HG13	1:D:12:VAL:O	2.05	0.57
1:E:21:ALA:O	1:E:22:PHE:HD1	1.88	0.57
1:E:52:LYS:CE	1:E:53:LYS:NZ	2.66	0.57
1:E:413:GLY:HA3	1:E:462:GLU:OE2	2.04	0.57
1:E:439:HIS:CA	1:E:450:ARG:NH1	2.67	0.57
1:A:326:ARG:HH22	1:A:427:MET:N	2.03	0.56
1:A:448:ARG:HB3	1:A:455:MET:HE1	1.87	0.56
1:B:21:ALA:O	1:B:22:PHE:HD1	1.88	0.56
1:B:57:GLN:HA	1:B:265:ARG:HE	1.68	0.56
1:B:118:PRO:HG2	1:B:128:ASP:N	2.20	0.56
1:B:148:GLN:HG3	1:B:171:MET:HE1	1.86	0.56
1:B:184:PHE:CZ	1:B:188:LEU:HD11	2.37	0.56
1:B:309:ALA:HB2	1:B:364:ASP:OD2	2.04	0.56
1:B:409:ALA:CA	1:B:466:GLN:HE21	2.17	0.56
1:C:254:GLU:HG3	1:C:255:ALA:N	2.20	0.56
1:C:449:ALA:HB2	1:C:455:MET:HB3	1.87	0.56
1:E:148:GLN:O	1:E:178:TRP:CZ2	2.58	0.56
1:E:164:ILE:O	1:E:164:ILE:HG22	2.03	0.56
1:E:274:ARG:NE	1:E:440:HIS:HD2	2.02	0.56
1:A:46:LEU:HD21	1:A:197:ILE:HG21	1.87	0.56
1:A:126:SER:OG	1:A:129:VAL:HG22	2.06	0.56
1:A:365:PRO:HA	1:A:391:GLY:O	2.05	0.56
1:A:439:HIS:CA	1:A:450:ARG:NH1	2.67	0.56
1:B:125:ILE:C	1:B:138:PRO:HD2	2.26	0.56
1:B:352:ASN:HD21	1:B:387:LEU:HD21	1.70	0.56
1:C:208:LEU:HG	1:C:211:GLU:CD	2.26	0.56
1:D:118:PRO:HG2	1:D:129:VAL:H	1.67	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:241:LEU:CG	1:D:244:MET:HB2	2.35	0.56
1:D:327:GLN:HG3	1:D:329:ILE:HG12	1.87	0.56
1:E:326:ARG:HH22	1:E:427:MET:N	2.03	0.56
1:E:335:ASN:HD21	1:E:338:LEU:HD21	1.69	0.56
1:A:91:LYS:C	1:A:93:ARG:N	2.59	0.56
1:A:205:GLU:OE1	1:A:209:TYR:CD2	2.59	0.56
1:B:76:LEU:HD13	1:B:136:HIS:CD2	2.40	0.56
1:B:223:TRP:HB2	1:B:444:MET:HG2	1.85	0.56
1:B:335:ASN:HD21	1:B:338:LEU:HD21	1.69	0.56
1:B:379:TYR:HB2	1:B:385:ILE:HG21	1.87	0.56
1:B:394:ARG:HH21	1:B:397:TYR:HE1	1.52	0.56
1:B:394:ARG:NH2	1:B:397:TYR:HE1	2.02	0.56
1:C:10:LEU:O	1:C:10:LEU:HD23	2.05	0.56
1:C:12:VAL:HG13	1:C:12:VAL:O	2.05	0.56
1:C:91:LYS:HB2	1:C:93:ARG:H	1.70	0.56
1:C:126:SER:OG	1:C:129:VAL:HG22	2.05	0.56
1:C:319:HIS:HB2	1:C:456:ARG:HH21	1.70	0.56
1:C:414:VAL:O	1:C:417:VAL:HG12	2.04	0.56
1:D:46:LEU:HD21	1:D:197:ILE:HG21	1.87	0.56
1:D:220:THR:CG2	1:D:411:GLN:NE2	2.69	0.56
1:D:365:PRO:HA	1:D:391:GLY:O	2.05	0.56
1:D:449:ALA:HB2	1:D:455:MET:HB3	1.87	0.56
1:E:12:VAL:HG13	1:E:12:VAL:O	2.05	0.56
1:E:220:THR:CG2	1:E:411:GLN:NE2	2.69	0.56
1:E:241:LEU:CG	1:E:244:MET:HB2	2.35	0.56
1:E:327:GLN:HG3	1:E:329:ILE:HG12	1.87	0.56
1:E:433:SER:N	1:E:434:PRO:HD2	2.19	0.56
1:A:379:TYR:HB2	1:A:385:ILE:HG21	1.87	0.56
1:B:148:GLN:O	1:B:178:TRP:CZ2	2.58	0.56
1:B:199:LEU:HD23	1:B:200:GLY:N	2.20	0.56
1:B:225:ALA:O	1:B:228:PRO:CD	2.54	0.56
1:B:439:HIS:CA	1:B:450:ARG:NH1	2.67	0.56
1:C:335:ASN:HD21	1:C:338:LEU:HD21	1.69	0.56
1:D:125:ILE:C	1:D:138:PRO:HD2	2.26	0.56
1:D:127:PHE:CD2	1:D:128:ASP:OD2	2.59	0.56
1:D:295:ASP:CB	1:D:339:LYS:HZ2	2.16	0.56
1:D:326:ARG:HH22	1:D:427:MET:N	2.03	0.56
1:E:22:PHE:CE1	1:E:32:LEU:CD2	2.88	0.56
1:A:118:PRO:HG2	1:A:128:ASP:N	2.20	0.56
1:A:254:GLU:HG3	1:A:255:ALA:N	2.20	0.56
1:A:413:GLY:HA3	1:A:462:GLU:OE2	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:12:VAL:HG13	1:B:12:VAL:O	2.05	0.56
1:B:84:ILE:HG22	1:B:153:ARG:O	2.06	0.56
1:C:164:ILE:O	1:C:164:ILE:HG22	2.03	0.56
1:C:409:ALA:CA	1:C:466:GLN:HE21	2.17	0.56
1:D:28:LYS:HB2	1:D:31:ASN:ND2	2.11	0.56
1:D:208:LEU:HG	1:D:211:GLU:CD	2.25	0.56
1:E:133:ASN:H	1:E:134:PRO:HD2	1.71	0.56
1:E:431:VAL:O	1:E:434:PRO:HD2	2.06	0.56
1:A:125:ILE:C	1:A:138:PRO:HD2	2.26	0.56
1:A:223:TRP:HB2	1:A:444:MET:HG2	1.85	0.56
1:A:309:ALA:HB2	1:A:364:ASP:OD2	2.04	0.56
1:A:394:ARG:HH21	1:A:397:TYR:HE1	1.52	0.56
1:A:409:ALA:CA	1:A:466:GLN:HE21	2.17	0.56
1:B:208:LEU:HG	1:B:211:GLU:CD	2.25	0.56
1:C:91:LYS:C	1:C:93:ARG:N	2.59	0.56
1:C:439:HIS:CA	1:C:450:ARG:NH1	2.67	0.56
1:D:439:HIS:CA	1:D:450:ARG:NH1	2.67	0.56
1:E:10:LEU:O	1:E:10:LEU:HD23	2.05	0.56
1:E:76:LEU:HD13	1:E:136:HIS:CD2	2.40	0.56
1:E:280:LYS:NZ	1:E:438:LYS:N	2.54	0.56
1:A:199:LEU:HD23	1:A:200:GLY:N	2.20	0.56
1:A:226:LEU:HB2	1:A:263:PRO:HB2	1.87	0.56
1:A:335:ASN:HD21	1:A:338:LEU:HD21	1.69	0.56
1:B:91:LYS:HB2	1:B:93:ARG:H	1.70	0.56
1:B:126:SER:OG	1:B:129:VAL:HG22	2.06	0.56
1:B:133:ASN:H	1:B:134:PRO:HD2	1.71	0.56
1:B:203:GLN:O	1:B:206:MET:HE2	2.06	0.56
1:B:413:GLY:HA3	1:B:462:GLU:OE2	2.04	0.56
1:C:22:PHE:CE1	1:C:32:LEU:CD2	2.88	0.56
1:C:141:LYS:HG3	1:C:171:MET:HG2	1.87	0.56
1:C:205:GLU:OE1	1:C:209:TYR:CD2	2.58	0.56
1:C:220:THR:CG2	1:C:411:GLN:NE2	2.69	0.56
1:C:365:PRO:HA	1:C:391:GLY:O	2.05	0.56
1:D:118:PRO:HG2	1:D:128:ASP:N	2.20	0.56
1:D:254:GLU:HG3	1:D:255:ALA:N	2.20	0.56
1:D:432:PHE:HA	1:D:435:ILE:CG1	2.36	0.56
1:E:91:LYS:HB2	1:E:93:ARG:H	1.70	0.56
1:A:84:ILE:HG22	1:A:153:ARG:O	2.06	0.56
1:B:25:VAL:CG1	1:B:31:ASN:ND2	2.69	0.56
1:B:276:LEU:HG	1:B:278:TYR:H	1.71	0.56
1:B:319:HIS:HB2	1:B:456:ARG:HH21	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:76:LEU:HD13	1:C:136:HIS:CD2	2.40	0.56
1:D:79:ASP:HB3	1:D:82:LEU:O	2.06	0.56
1:E:127:PHE:CD2	1:E:128:ASP:OD2	2.59	0.56
1:E:226:LEU:HB2	1:E:263:PRO:HB2	1.87	0.56
1:A:327:GLN:HG3	1:A:329:ILE:HG12	1.87	0.56
1:B:266:PHE:CZ	1:B:270:ASP:O	2.59	0.56
1:C:25:VAL:CG1	1:C:31:ASN:ND2	2.69	0.56
1:C:394:ARG:HH21	1:C:397:TYR:HE1	1.52	0.56
1:D:126:SER:OG	1:D:129:VAL:HG22	2.06	0.56
1:D:127:PHE:CE2	1:D:128:ASP:OD2	2.59	0.56
1:D:226:LEU:HB2	1:D:263:PRO:HB2	1.87	0.56
1:E:118:PRO:HG2	1:E:128:ASP:N	2.20	0.56
1:E:127:PHE:CE2	1:E:128:ASP:OD2	2.59	0.56
1:E:254:GLU:HG3	1:E:255:ALA:N	2.20	0.56
1:E:365:PRO:HA	1:E:391:GLY:O	2.05	0.56
1:A:25:VAL:CG1	1:A:31:ASN:ND2	2.69	0.56
1:A:91:LYS:HB2	1:A:93:ARG:H	1.70	0.56
1:B:127:PHE:CE2	1:B:128:ASP:OD2	2.59	0.56
1:D:280:LYS:NZ	1:D:438:LYS:N	2.54	0.56
1:E:205:GLU:OE1	1:E:209:TYR:CD2	2.59	0.56
1:E:266:PHE:CZ	1:E:270:ASP:O	2.59	0.56
1:E:319:HIS:HB3	1:E:456:ARG:NE	2.12	0.56
1:A:241:LEU:CG	1:A:244:MET:HB2	2.35	0.55
1:B:241:LEU:CG	1:B:244:MET:HB2	2.35	0.55
1:B:293:LEU:CB	1:B:339:LYS:HZ1	2.19	0.55
1:B:432:PHE:HA	1:B:435:ILE:CG1	2.36	0.55
1:C:125:ILE:C	1:C:138:PRO:HD2	2.26	0.55
1:C:352:ASN:HD21	1:C:387:LEU:HD21	1.70	0.55
1:D:22:PHE:CE1	1:D:32:LEU:CD2	2.88	0.55
1:D:266:PHE:CZ	1:D:270:ASP:O	2.59	0.55
1:D:352:ASN:HD21	1:D:387:LEU:HD21	1.70	0.55
1:E:46:LEU:HD21	1:E:197:ILE:HG21	1.87	0.55
1:E:141:LYS:HG3	1:E:171:MET:HG2	1.87	0.55
1:E:319:HIS:CG	1:E:456:ARG:HE	2.24	0.55
1:E:432:PHE:CA	1:E:435:ILE:HG12	2.36	0.55
1:A:204:THR:HG22	1:A:205:GLU:N	2.09	0.55
1:A:319:HIS:CG	1:A:456:ARG:HE	2.24	0.55
1:A:431:VAL:O	1:A:434:PRO:HD2	2.06	0.55
1:A:432:PHE:HA	1:A:435:ILE:CG1	2.36	0.55
1:A:432:PHE:CA	1:A:435:ILE:HG12	2.36	0.55
1:B:127:PHE:CD2	1:B:128:ASP:OD2	2.59	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:319:HIS:CG	1:B:456:ARG:HE	2.24	0.55
1:B:326:ARG:HH22	1:B:427:MET:N	2.03	0.55
1:B:327:GLN:HG3	1:B:329:ILE:HG12	1.87	0.55
1:D:25:VAL:CG1	1:D:31:ASN:ND2	2.69	0.55
1:D:42:MET:SD	1:D:56:LEU:CD1	2.93	0.55
1:D:379:TYR:HB2	1:D:385:ILE:HG21	1.87	0.55
1:D:439:HIS:CE1	1:D:454:GLU:O	2.57	0.55
1:E:276:LEU:HG	1:E:278:TYR:H	1.71	0.55
1:E:379:TYR:HB2	1:E:385:ILE:HG21	1.87	0.55
1:A:80:PRO:CD	1:A:83:LYS:HZ2	2.11	0.55
1:A:280:LYS:NZ	1:A:438:LYS:N	2.54	0.55
1:A:368:ARG:HE	1:A:378:LEU:CD2	2.15	0.55
1:B:205:GLU:OE1	1:B:209:TYR:CD2	2.59	0.55
1:B:220:THR:CG2	1:B:411:GLN:NE2	2.69	0.55
1:C:84:ILE:HG22	1:C:153:ARG:O	2.06	0.55
1:C:241:LEU:CG	1:C:244:MET:HB2	2.35	0.55
1:C:266:PHE:CZ	1:C:270:ASP:O	2.59	0.55
1:C:432:PHE:CA	1:C:435:ILE:HG12	2.36	0.55
1:D:15:LEU:HD12	1:D:19:PHE:CE1	2.42	0.55
1:D:21:ALA:O	1:D:22:PHE:HD1	1.88	0.55
1:D:280:LYS:HZ3	1:D:437:LEU:HB3	1.72	0.55
1:D:431:VAL:O	1:D:434:PRO:HD2	2.06	0.55
1:A:127:PHE:CD2	1:A:128:ASP:OD2	2.59	0.55
1:B:10:LEU:O	1:B:10:LEU:HD23	2.06	0.55
1:B:36:THR:HG23	1:B:38:CYS:SG	2.47	0.55
1:C:163:GLU:CG	1:C:203:GLN:HB3	2.25	0.55
1:C:319:HIS:CG	1:C:456:ARG:HE	2.24	0.55
1:C:326:ARG:HH22	1:C:427:MET:N	2.03	0.55
1:D:91:LYS:C	1:D:93:ARG:N	2.59	0.55
1:D:145:ILE:CB	1:D:174:ARG:HG3	2.36	0.55
1:E:25:VAL:CG1	1:E:31:ASN:ND2	2.69	0.55
1:E:125:ILE:C	1:E:138:PRO:HD2	2.26	0.55
1:A:220:THR:CG2	1:A:411:GLN:NE2	2.69	0.55
1:A:266:PHE:CZ	1:A:270:ASP:O	2.59	0.55
1:A:295:ASP:CB	1:A:339:LYS:HZ2	2.16	0.55
1:B:79:ASP:HB3	1:B:82:LEU:O	2.06	0.55
1:B:145:ILE:CB	1:B:174:ARG:HG3	2.36	0.55
1:B:163:GLU:CB	1:B:208:LEU:HD13	2.28	0.55
1:B:208:LEU:HD21	1:B:265:ARG:NH2	2.21	0.55
1:B:274:ARG:HG3	1:B:275:GLU:N	2.22	0.55
1:B:432:PHE:CA	1:B:435:ILE:HG12	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:15:LEU:HD12	1:C:19:PHE:CE1	2.42	0.55
1:C:118:PRO:HG2	1:C:128:ASP:N	2.20	0.55
1:C:143:VAL:HG13	1:C:144:GLY:N	2.22	0.55
1:C:226:LEU:HB2	1:C:263:PRO:HB2	1.87	0.55
1:C:431:VAL:O	1:C:434:PRO:HD2	2.06	0.55
1:C:431:VAL:C	1:C:434:PRO:HD2	2.27	0.55
1:D:319:HIS:CG	1:D:456:ARG:HE	2.24	0.55
1:E:15:LEU:HD12	1:E:19:PHE:CE1	2.42	0.55
1:E:79:ASP:HB3	1:E:82:LEU:O	2.06	0.55
1:E:84:ILE:HG22	1:E:153:ARG:O	2.06	0.55
1:E:322:TRP:CZ3	1:E:457:ILE:HG22	2.42	0.55
1:E:432:PHE:HA	1:E:435:ILE:CG1	2.36	0.55
1:B:91:LYS:C	1:B:93:ARG:N	2.59	0.55
1:B:220:THR:HG22	1:B:411:GLN:NE2	2.22	0.55
1:C:78:ARG:HH22	1:C:112:SER:HB3	1.72	0.55
1:C:127:PHE:CD2	1:C:128:ASP:OD2	2.59	0.55
1:C:276:LEU:HG	1:C:278:TYR:H	1.71	0.55
1:C:379:TYR:HB2	1:C:385:ILE:HG21	1.87	0.55
1:C:432:PHE:HA	1:C:435:ILE:CG1	2.36	0.55
1:D:52:LYS:CE	1:D:53:LYS:NZ	2.66	0.55
1:D:205:GLU:OE1	1:D:209:TYR:CD2	2.59	0.55
1:D:409:ALA:CA	1:D:466:GLN:HE21	2.17	0.55
1:D:431:VAL:C	1:D:434:PRO:HD2	2.27	0.55
1:E:85:LEU:HG	1:E:156:ILE:HG23	1.89	0.55
1:E:274:ARG:HG3	1:E:275:GLU:N	2.21	0.55
1:A:10:LEU:O	1:A:10:LEU:HD23	2.06	0.55
1:A:77:TRP:HZ2	1:A:105:ILE:CB	2.20	0.55
1:A:145:ILE:CB	1:A:174:ARG:HG3	2.36	0.55
1:B:77:TRP:HZ2	1:B:105:ILE:CB	2.20	0.55
1:B:436:LEU:HD22	1:B:457:ILE:HD13	1.89	0.55
1:C:79:ASP:HB3	1:C:82:LEU:O	2.06	0.55
1:C:225:ALA:O	1:C:228:PRO:CD	2.53	0.55
1:C:259:THR:O	1:C:263:PRO:HG2	2.07	0.55
1:D:259:THR:O	1:D:263:PRO:HG2	2.07	0.55
1:D:432:PHE:CA	1:D:435:ILE:HG12	2.36	0.55
1:E:42:MET:SD	1:E:56:LEU:CD1	2.93	0.55
1:E:126:SER:OG	1:E:129:VAL:HG22	2.06	0.55
1:E:143:VAL:HG13	1:E:144:GLY:N	2.22	0.55
1:A:127:PHE:CE2	1:A:128:ASP:OD2	2.59	0.55
1:A:313:LEU:CD1	1:A:374:GLY:HA2	2.24	0.55
1:B:431:VAL:O	1:B:434:PRO:HD2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:280:LYS:NZ	1:C:438:LYS:N	2.54	0.55
1:C:322:TRP:CZ3	1:C:457:ILE:HG22	2.42	0.55
1:D:42:MET:SD	1:D:67:ILE:HD11	2.47	0.55
1:D:78:ARG:HH22	1:D:112:SER:HB3	1.72	0.55
1:E:77:TRP:HZ2	1:E:105:ILE:CB	2.20	0.55
1:A:259:THR:O	1:A:263:PRO:HG2	2.07	0.55
1:B:85:LEU:HG	1:B:156:ILE:HG23	1.89	0.55
1:B:259:THR:O	1:B:263:PRO:HG2	2.07	0.55
1:B:326:ARG:NH1	1:B:335:ASN:CB	2.64	0.55
1:C:127:PHE:CE2	1:C:128:ASP:OD2	2.59	0.55
1:C:145:ILE:CB	1:C:174:ARG:HG3	2.36	0.55
1:C:274:ARG:HG3	1:C:275:GLU:N	2.22	0.55
1:E:36:THR:HG23	1:E:38:CYS:SG	2.47	0.55
1:E:78:ARG:HH22	1:E:112:SER:HB3	1.72	0.55
1:E:225:ALA:O	1:E:228:PRO:CD	2.54	0.55
1:A:36:THR:HG23	1:A:38:CYS:SG	2.47	0.55
1:A:42:MET:SD	1:A:67:ILE:HD11	2.47	0.55
1:A:375:TYR:O	1:A:378:LEU:HB2	2.07	0.55
1:A:431:VAL:C	1:A:434:PRO:HD2	2.27	0.55
1:B:110:PHE:CA	1:B:113:GLU:HG2	2.37	0.55
1:D:141:LYS:HG3	1:D:171:MET:HG2	1.87	0.55
1:D:274:ARG:HG3	1:D:275:GLU:N	2.22	0.55
1:E:414:VAL:HA	1:E:417:VAL:CG1	2.37	0.55
1:A:15:LEU:HD12	1:A:19:PHE:CE1	2.42	0.54
1:A:87:VAL:HB	1:A:158:ILE:HG13	1.89	0.54
1:A:450:ARG:NE	1:A:453:LYS:NZ	2.55	0.54
1:B:15:LEU:HD12	1:B:19:PHE:CE1	2.42	0.54
1:B:39:GLN:CB	1:B:67:ILE:HG21	2.37	0.54
1:D:77:TRP:HZ2	1:D:105:ILE:CB	2.20	0.54
1:E:87:VAL:HB	1:E:158:ILE:HG13	1.89	0.54
1:A:85:LEU:HG	1:A:156:ILE:HG23	1.89	0.54
1:A:203:GLN:CG	1:A:206:MET:HE2	2.37	0.54
1:A:293:LEU:CB	1:A:339:LYS:NZ	2.71	0.54
1:A:322:TRP:CZ3	1:A:457:ILE:HG22	2.42	0.54
1:B:78:ARG:HH22	1:B:112:SER:HB3	1.72	0.54
1:B:375:TYR:O	1:B:378:LEU:HB2	2.07	0.54
1:B:431:VAL:C	1:B:434:PRO:HD2	2.27	0.54
1:C:83:LYS:O	1:C:134:PRO:HA	2.08	0.54
1:D:46:LEU:HD21	1:D:197:ILE:CG2	2.37	0.54
1:D:322:TRP:CZ3	1:D:457:ILE:HG22	2.42	0.54
1:E:39:GLN:CB	1:E:67:ILE:HG21	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:46:LEU:HD21	1:E:197:ILE:CG2	2.37	0.54
1:E:145:ILE:CB	1:E:174:ARG:HG3	2.36	0.54
1:E:220:THR:HG22	1:E:411:GLN:NE2	2.22	0.54
1:A:276:LEU:HG	1:A:278:TYR:H	1.71	0.54
1:C:36:THR:HG23	1:C:38:CYS:SG	2.47	0.54
1:C:204:THR:HG22	1:C:205:GLU:N	2.09	0.54
1:D:39:GLN:CB	1:D:67:ILE:HG21	2.37	0.54
1:D:208:LEU:HD21	1:D:265:ARG:NH2	2.21	0.54
1:D:220:THR:CB	1:D:445:GLU:HB2	2.38	0.54
1:E:208:LEU:HD21	1:E:265:ARG:NH2	2.21	0.54
1:A:46:LEU:HD21	1:A:197:ILE:CG2	2.37	0.54
1:A:326:ARG:NH1	1:A:335:ASN:CB	2.64	0.54
1:A:436:LEU:HD22	1:A:457:ILE:HD13	1.89	0.54
1:B:143:VAL:HG13	1:B:144:GLY:N	2.22	0.54
1:B:280:LYS:NZ	1:B:438:LYS:N	2.54	0.54
1:C:77:TRP:HZ2	1:C:105:ILE:CB	2.20	0.54
1:D:83:LYS:O	1:D:134:PRO:HA	2.08	0.54
1:D:414:VAL:HA	1:D:417:VAL:CG1	2.37	0.54
1:E:52:LYS:HG3	1:E:53:LYS:HG3	1.89	0.54
1:E:91:LYS:C	1:E:93:ARG:N	2.59	0.54
1:E:431:VAL:C	1:E:434:PRO:HD2	2.27	0.54
1:A:143:VAL:HG13	1:A:144:GLY:N	2.22	0.54
1:A:220:THR:HG22	1:A:411:GLN:NE2	2.22	0.54
1:A:225:ALA:O	1:A:228:PRO:CD	2.54	0.54
1:A:274:ARG:HG3	1:A:275:GLU:N	2.21	0.54
1:B:83:LYS:O	1:B:134:PRO:HA	2.08	0.54
1:B:293:LEU:CB	1:B:339:LYS:NZ	2.71	0.54
1:B:295:ASP:HB2	1:B:339:LYS:NZ	2.21	0.54
1:D:84:ILE:HG22	1:D:153:ARG:O	2.06	0.54
1:D:293:LEU:CB	1:D:339:LYS:NZ	2.71	0.54
1:E:42:MET:SD	1:E:67:ILE:HD11	2.47	0.54
1:E:259:THR:O	1:E:263:PRO:HG2	2.07	0.54
1:A:42:MET:SD	1:A:56:LEU:CD1	2.93	0.54
1:A:83:LYS:O	1:A:134:PRO:HA	2.08	0.54
1:B:87:VAL:HB	1:B:158:ILE:HG13	1.89	0.54
1:B:338:LEU:HD12	1:B:338:LEU:N	2.22	0.54
1:C:110:PHE:CA	1:C:113:GLU:HG2	2.37	0.54
1:C:208:LEU:HD21	1:C:265:ARG:NH2	2.21	0.54
1:C:220:THR:HG22	1:C:411:GLN:NE2	2.22	0.54
1:C:436:LEU:HD22	1:C:457:ILE:HD13	1.89	0.54
1:D:220:THR:HG22	1:D:411:GLN:NE2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:326:ARG:NH1	1:D:335:ASN:CB	2.64	0.54
1:A:37:LYS:HA	1:A:40:ILE:CD1	2.38	0.54
1:A:208:LEU:HD21	1:A:265:ARG:NH2	2.21	0.54
1:A:235:LEU:HD13	1:A:241:LEU:CB	2.36	0.54
1:A:406:ALA:O	1:A:408:LYS:N	2.41	0.54
1:C:76:LEU:CG	1:C:134:PRO:HB2	2.30	0.54
1:C:280:LYS:HZ3	1:C:437:LEU:C	2.11	0.54
1:C:376:ALA:C	1:C:379:TYR:CD2	2.81	0.54
1:D:163:GLU:CG	1:D:203:GLN:HB3	2.25	0.54
1:D:276:LEU:HG	1:D:278:TYR:H	1.71	0.54
1:E:37:LYS:HA	1:E:40:ILE:CD1	2.38	0.54
1:A:338:LEU:HD12	1:A:338:LEU:N	2.22	0.54
1:B:235:LEU:HD13	1:B:241:LEU:CB	2.36	0.54
1:B:376:ALA:C	1:B:379:TYR:CD2	2.81	0.54
1:C:439:HIS:CE1	1:C:454:GLU:O	2.57	0.54
1:D:36:THR:HG23	1:D:38:CYS:SG	2.47	0.54
1:D:85:LEU:HG	1:D:156:ILE:HG23	1.89	0.54
1:D:368:ARG:HE	1:D:378:LEU:CD2	2.15	0.54
1:D:436:LEU:HD22	1:D:457:ILE:HD13	1.89	0.54
1:D:450:ARG:NE	1:D:453:LYS:NZ	2.55	0.54
1:A:110:PHE:CA	1:A:113:GLU:HG2	2.37	0.54
1:A:235:LEU:HD11	1:A:241:LEU:HB3	1.90	0.54
1:A:280:LYS:HE3	1:A:438:LYS:HG2	1.90	0.54
1:B:450:ARG:NE	1:B:453:LYS:NZ	2.55	0.54
1:C:141:LYS:O	1:C:144:GLY:O	2.26	0.54
1:C:382:ASN:HB3	1:C:385:ILE:HB	1.90	0.54
1:D:141:LYS:O	1:D:144:GLY:O	2.26	0.54
1:D:406:ALA:O	1:D:408:LYS:N	2.41	0.54
1:E:406:ALA:O	1:E:408:LYS:N	2.41	0.54
1:A:39:GLN:CB	1:A:67:ILE:HG21	2.37	0.54
1:A:351:ASN:OD1	1:A:380:THR:HB	2.08	0.54
1:A:414:VAL:HA	1:A:417:VAL:CG1	2.37	0.54
1:B:42:MET:SD	1:B:67:ILE:HD11	2.47	0.54
1:B:52:LYS:HG3	1:B:53:LYS:HG3	1.89	0.54
1:B:368:ARG:HB2	1:B:378:LEU:CD2	2.32	0.54
1:C:52:LYS:HG3	1:C:53:LYS:HG3	1.89	0.54
1:C:235:LEU:HD11	1:C:241:LEU:HD23	1.90	0.54
1:C:293:LEU:CB	1:C:339:LYS:NZ	2.71	0.54
1:E:83:LYS:O	1:E:134:PRO:HA	2.08	0.54
1:E:382:ASN:HB3	1:E:385:ILE:HB	1.90	0.54
1:A:376:ALA:C	1:A:379:TYR:CD2	2.81	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:46:LEU:HD21	1:B:197:ILE:CG2	2.37	0.53
1:B:51:ASN:HB3	1:B:54:PHE:CE2	2.42	0.53
1:B:141:LYS:NZ	1:B:171:MET:HB3	2.23	0.53
1:B:365:PRO:HG3	1:B:476:VAL:CG2	2.36	0.53
1:B:414:VAL:HA	1:B:417:VAL:CG1	2.37	0.53
1:C:85:LEU:HG	1:C:156:ILE:HG23	1.89	0.53
1:C:87:VAL:HB	1:C:158:ILE:HG13	1.89	0.53
1:C:141:LYS:NZ	1:C:171:MET:HB3	2.23	0.53
1:C:191:LEU:N	1:C:192:PRO:HD2	2.24	0.53
1:D:143:VAL:HG13	1:D:144:GLY:N	2.22	0.53
1:D:223:TRP:HB3	1:D:444:MET:CG	2.39	0.53
1:E:376:ALA:C	1:E:379:TYR:CD2	2.81	0.53
1:B:55:ILE:CD1	1:B:198:TYR:HB2	2.37	0.53
1:B:280:LYS:HE3	1:B:438:LYS:HG2	1.90	0.53
1:C:133:ASN:H	1:C:134:PRO:HD2	1.71	0.53
1:C:450:ARG:NE	1:C:453:LYS:NZ	2.55	0.53
1:D:45:VAL:HG22	1:D:54:PHE:CE1	2.44	0.53
1:D:87:VAL:HB	1:D:158:ILE:HG13	1.89	0.53
1:D:235:LEU:HD11	1:D:241:LEU:HD23	1.90	0.53
1:E:42:MET:SD	1:E:67:ILE:HD12	2.48	0.53
1:E:51:ASN:HB3	1:E:54:PHE:CE2	2.42	0.53
1:E:293:LEU:CB	1:E:339:LYS:NZ	2.71	0.53
1:A:444:MET:HE2	1:A:445:GLU:HG3	1.91	0.53
1:B:37:LYS:HA	1:B:40:ILE:CD1	2.38	0.53
1:B:141:LYS:O	1:B:144:GLY:O	2.26	0.53
1:B:191:LEU:N	1:B:192:PRO:HD2	2.24	0.53
1:B:293:LEU:HB3	1:B:339:LYS:HZ1	1.74	0.53
1:B:382:ASN:HB3	1:B:385:ILE:HB	1.90	0.53
1:B:385:ILE:HG22	1:B:386:TYR:CG	2.44	0.53
1:B:406:ALA:O	1:B:408:LYS:N	2.41	0.53
1:D:235:LEU:HD11	1:D:241:LEU:HB3	1.90	0.53
1:D:376:ALA:C	1:D:379:TYR:CD2	2.81	0.53
1:E:141:LYS:O	1:E:144:GLY:O	2.26	0.53
1:A:52:LYS:HG3	1:A:53:LYS:HG3	1.89	0.53
1:A:293:LEU:HB2	1:A:339:LYS:HZ3	1.73	0.53
1:B:59:PHE:HD2	1:B:60:ARG:O	1.92	0.53
1:C:10:LEU:O	1:C:74:TRP:HZ2	1.92	0.53
1:C:42:MET:SD	1:C:67:ILE:HD11	2.47	0.53
1:C:46:LEU:HD21	1:C:197:ILE:CG2	2.37	0.53
1:C:220:THR:CB	1:C:445:GLU:HB2	2.37	0.53
1:C:375:TYR:O	1:C:378:LEU:HB2	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:385:ILE:HG22	1:C:386:TYR:CG	2.44	0.53
1:D:42:MET:C	1:D:45:VAL:HG12	2.29	0.53
1:D:64:LYS:HG3	1:D:65:SER:H	1.74	0.53
1:D:225:ALA:O	1:D:228:PRO:CD	2.53	0.53
1:E:220:THR:CB	1:E:445:GLU:HB2	2.38	0.53
1:A:42:MET:SD	1:A:67:ILE:HD12	2.48	0.53
1:A:133:ASN:N	1:A:134:PRO:CD	2.67	0.53
1:A:235:LEU:HD11	1:A:241:LEU:HD23	1.90	0.53
1:C:45:VAL:HG22	1:C:54:PHE:CE1	2.44	0.53
1:C:368:ARG:N	1:C:401:THR:CG2	2.70	0.53
1:D:88:SER:HB3	1:D:141:LYS:CG	2.39	0.53
1:D:163:GLU:OE1	1:D:163:GLU:HA	2.09	0.53
1:E:110:PHE:CA	1:E:113:GLU:HG2	2.37	0.53
1:E:280:LYS:HE3	1:E:438:LYS:HG2	1.91	0.53
1:E:365:PRO:HG3	1:E:476:VAL:CG2	2.36	0.53
1:E:436:LEU:HD22	1:E:457:ILE:HD13	1.89	0.53
1:B:203:GLN:CG	1:B:206:MET:HE2	2.39	0.53
1:C:28:LYS:HB2	1:C:31:ASN:ND2	2.11	0.53
1:C:55:ILE:CD1	1:C:198:TYR:HB2	2.37	0.53
1:C:184:PHE:HE1	1:C:195:ARG:HA	1.74	0.53
1:C:338:LEU:HD12	1:C:338:LEU:N	2.22	0.53
1:D:37:LYS:HA	1:D:40:ILE:CD1	2.38	0.53
1:D:190:PRO:C	1:D:192:PRO:CD	2.77	0.53
1:D:271:LEU:HG	1:D:272:ARG:N	2.24	0.53
1:D:338:LEU:HD12	1:D:338:LEU:N	2.22	0.53
1:D:385:ILE:HG22	1:D:386:TYR:CG	2.44	0.53
1:E:190:PRO:HB2	1:E:192:PRO:HG2	1.90	0.53
1:E:271:LEU:HG	1:E:272:ARG:N	2.24	0.53
1:A:162:VAL:C	1:A:165:PRO:HD2	2.29	0.53
1:A:220:THR:CB	1:A:445:GLU:HB2	2.37	0.53
1:A:313:LEU:HD13	1:A:373:THR:HG22	1.91	0.53
1:A:385:ILE:HG22	1:A:386:TYR:CG	2.44	0.53
1:B:322:TRP:CZ3	1:B:457:ILE:HG22	2.42	0.53
1:C:306:ALA:HB3	1:C:328:ASN:OD1	2.09	0.53
1:D:338:LEU:HD22	1:D:430:LYS:CB	2.39	0.53
1:E:306:ALA:HB3	1:E:328:ASN:OD1	2.09	0.53
1:E:351:ASN:OD1	1:E:380:THR:HB	2.08	0.53
1:E:385:ILE:HG22	1:E:386:TYR:CG	2.44	0.53
1:A:133:ASN:H	1:A:134:PRO:HD3	1.74	0.53
1:A:203:GLN:O	1:A:206:MET:HE2	2.09	0.53
1:A:379:TYR:CD1	1:A:380:THR:N	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:163:GLU:OE1	1:B:163:GLU:HA	2.09	0.53
1:B:190:PRO:C	1:B:192:PRO:CD	2.77	0.53
1:B:235:LEU:HD11	1:B:241:LEU:HD23	1.90	0.53
1:B:235:LEU:HD11	1:B:241:LEU:HB3	1.90	0.53
1:B:351:ASN:OD1	1:B:380:THR:HB	2.08	0.53
1:C:39:GLN:CB	1:C:67:ILE:HG21	2.37	0.53
1:C:42:MET:SD	1:C:67:ILE:HD12	2.48	0.53
1:C:88:SER:HB3	1:C:141:LYS:CG	2.39	0.53
1:C:190:PRO:C	1:C:192:PRO:CD	2.77	0.53
1:D:52:LYS:HG3	1:D:53:LYS:HG3	1.89	0.53
1:D:59:PHE:HD2	1:D:60:ARG:O	1.92	0.53
1:D:329:ILE:HG13	1:D:330:ILE:HG23	1.91	0.53
1:D:375:TYR:O	1:D:378:LEU:HB2	2.07	0.53
1:E:88:SER:HB3	1:E:141:LYS:CG	2.39	0.53
1:A:78:ARG:HH22	1:A:112:SER:HB3	1.72	0.53
1:A:133:ASN:H	1:A:134:PRO:HD2	1.71	0.53
1:A:329:ILE:HG13	1:A:330:ILE:HG23	1.91	0.53
1:A:370:LYS:CE	1:A:399:ASP:HA	2.38	0.53
1:B:59:PHE:CD2	1:B:60:ARG:O	2.62	0.53
1:B:220:THR:CB	1:B:445:GLU:HB2	2.37	0.53
1:C:190:PRO:HB2	1:C:192:PRO:HG2	1.90	0.53
1:C:313:LEU:CD1	1:C:374:GLY:HA2	2.24	0.53
1:C:379:TYR:CD1	1:C:380:THR:N	2.77	0.53
1:D:42:MET:SD	1:D:67:ILE:HD12	2.48	0.53
1:D:141:LYS:NZ	1:D:171:MET:HB3	2.23	0.53
1:D:162:VAL:C	1:D:165:PRO:HD2	2.29	0.53
1:E:45:VAL:HG22	1:E:54:PHE:CE1	2.44	0.53
1:E:59:PHE:CD2	1:E:60:ARG:O	2.62	0.53
1:E:375:TYR:O	1:E:378:LEU:HB2	2.08	0.53
1:E:450:ARG:NE	1:E:453:LYS:NZ	2.55	0.53
1:A:376:ALA:O	1:A:377:VAL:C	2.47	0.53
1:A:431:VAL:HG23	1:A:432:PHE:CE1	2.44	0.53
1:A:439:HIS:CE1	1:A:454:GLU:O	2.57	0.53
1:B:52:LYS:CD	1:B:184:PHE:CE2	2.86	0.53
1:B:271:LEU:HG	1:B:272:ARG:N	2.24	0.53
1:B:294:SER:HB2	1:B:340:GLY:C	2.30	0.53
1:B:329:ILE:HG13	1:B:330:ILE:HG23	1.91	0.53
1:C:42:MET:C	1:C:45:VAL:HG12	2.29	0.53
1:C:223:TRP:HB3	1:C:444:MET:CG	2.39	0.53
1:C:345:THR:HG23	1:C:346:TYR:CE1	2.44	0.53
1:D:293:LEU:HB2	1:D:339:LYS:NZ	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:22:PHE:CD2	1:E:30:LEU:HG	2.33	0.53
1:E:42:MET:C	1:E:45:VAL:HG12	2.29	0.53
1:E:141:LYS:NZ	1:E:171:MET:HB3	2.23	0.53
1:E:190:PRO:C	1:E:192:PRO:CD	2.77	0.53
1:E:235:LEU:HD11	1:E:241:LEU:HB3	1.90	0.53
1:E:293:LEU:HB2	1:E:339:LYS:NZ	2.24	0.53
1:A:306:ALA:HB3	1:A:328:ASN:OD1	2.09	0.52
1:C:406:ALA:O	1:C:408:LYS:N	2.41	0.52
1:C:414:VAL:HA	1:C:417:VAL:CG1	2.37	0.52
1:D:191:LEU:N	1:D:192:PRO:HD2	2.24	0.52
1:E:163:GLU:OE1	1:E:163:GLU:HA	2.09	0.52
1:E:164:ILE:N	1:E:165:PRO:HD3	2.24	0.52
1:E:293:LEU:HD13	1:E:353:SER:HB2	1.91	0.52
1:E:370:LYS:O	1:E:375:TYR:CE2	2.62	0.52
1:A:42:MET:C	1:A:45:VAL:HG12	2.29	0.52
1:A:59:PHE:HD2	1:A:60:ARG:O	1.92	0.52
1:A:111:LEU:HD23	1:A:111:LEU:O	2.09	0.52
1:B:42:MET:C	1:B:45:VAL:HG12	2.29	0.52
1:B:52:LYS:CE	1:B:53:LYS:HZ3	2.18	0.52
1:B:345:THR:HG23	1:B:346:TYR:CE1	2.44	0.52
1:C:280:LYS:HE3	1:C:438:LYS:HG2	1.90	0.52
1:C:293:LEU:HB2	1:C:339:LYS:NZ	2.24	0.52
1:C:293:LEU:HD13	1:C:353:SER:HB2	1.91	0.52
1:C:294:SER:HB2	1:C:340:GLY:C	2.30	0.52
1:C:368:ARG:HH21	1:C:378:LEU:CB	2.23	0.52
1:D:111:LEU:HD23	1:D:111:LEU:O	2.09	0.52
1:D:133:ASN:H	1:D:134:PRO:HD3	1.74	0.52
1:D:199:LEU:HD23	1:D:199:LEU:C	2.29	0.52
1:D:370:LYS:O	1:D:375:TYR:CE2	2.62	0.52
1:D:394:ARG:HD2	1:D:396:GLY:O	2.09	0.52
1:E:223:TRP:HB3	1:E:444:MET:CG	2.39	0.52
1:E:235:LEU:HD11	1:E:241:LEU:HD23	1.90	0.52
1:A:164:ILE:N	1:A:165:PRO:HD3	2.24	0.52
1:A:271:LEU:HG	1:A:272:ARG:N	2.24	0.52
1:B:64:LYS:HG3	1:B:65:SER:H	1.74	0.52
1:B:370:LYS:HG3	1:B:401:THR:OG1	2.10	0.52
1:B:394:ARG:HD2	1:B:396:GLY:O	2.09	0.52
1:B:431:VAL:HG23	1:B:432:PHE:CE1	2.44	0.52
1:C:111:LEU:O	1:C:111:LEU:HD23	2.09	0.52
1:C:117:ARG:CD	1:C:132:ALA:HB2	2.39	0.52
1:D:202:PRO:CB	1:D:265:ARG:NH1	2.71	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:148:GLN:HG3	1:E:171:MET:HE1	1.90	0.52
1:E:199:LEU:HD23	1:E:199:LEU:C	2.30	0.52
1:A:10:LEU:O	1:A:74:TRP:HZ2	1.92	0.52
1:A:22:PHE:CD2	1:A:30:LEU:HG	2.33	0.52
1:B:88:SER:HB3	1:B:141:LYS:CG	2.39	0.52
1:B:162:VAL:C	1:B:165:PRO:HD2	2.29	0.52
1:B:164:ILE:N	1:B:165:PRO:CD	2.73	0.52
1:C:37:LYS:HA	1:C:40:ILE:CD1	2.38	0.52
1:C:59:PHE:HD2	1:C:60:ARG:O	1.92	0.52
1:C:162:VAL:C	1:C:165:PRO:HD2	2.29	0.52
1:C:394:ARG:HD2	1:C:396:GLY:O	2.09	0.52
1:D:110:PHE:CA	1:D:113:GLU:HG2	2.37	0.52
1:D:382:ASN:HB3	1:D:385:ILE:HB	1.90	0.52
1:E:36:THR:HG22	1:E:39:GLN:HG3	1.91	0.52
1:E:313:LEU:CD1	1:E:374:GLY:HA2	2.24	0.52
1:A:55:ILE:CD1	1:A:198:TYR:CD2	2.93	0.52
1:A:294:SER:HB2	1:A:340:GLY:C	2.30	0.52
1:B:46:LEU:HD23	1:B:197:ILE:HG12	1.91	0.52
1:B:184:PHE:HE1	1:B:195:ARG:HA	1.73	0.52
1:C:59:PHE:CD2	1:C:60:ARG:O	2.62	0.52
1:C:164:ILE:N	1:C:165:PRO:HD3	2.24	0.52
1:C:326:ARG:NH1	1:C:335:ASN:CB	2.64	0.52
1:D:10:LEU:O	1:D:74:TRP:HZ2	1.92	0.52
1:D:306:ALA:HB3	1:D:328:ASN:OD1	2.09	0.52
1:D:345:THR:HG23	1:D:346:TYR:CE1	2.44	0.52
1:E:46:LEU:HD23	1:E:197:ILE:HG12	1.91	0.52
1:E:64:LYS:HG3	1:E:65:SER:H	1.74	0.52
1:E:164:ILE:N	1:E:165:PRO:CD	2.73	0.52
1:E:338:LEU:HD12	1:E:338:LEU:N	2.22	0.52
1:E:368:ARG:HH21	1:E:378:LEU:CB	2.23	0.52
1:E:379:TYR:CD1	1:E:380:THR:N	2.77	0.52
1:A:163:GLU:OE1	1:A:163:GLU:HA	2.09	0.52
1:A:250:ASP:O	1:A:254:GLU:CG	2.58	0.52
1:A:338:LEU:HD22	1:A:430:LYS:CB	2.39	0.52
1:A:370:LYS:O	1:A:375:TYR:CE2	2.63	0.52
1:A:394:ARG:HD2	1:A:396:GLY:O	2.09	0.52
1:B:190:PRO:HB2	1:B:192:PRO:HG2	1.90	0.52
1:B:295:ASP:CB	1:B:339:LYS:HZ2	2.17	0.52
1:B:306:ALA:HB3	1:B:328:ASN:OD1	2.09	0.52
1:C:163:GLU:OE1	1:C:163:GLU:HA	2.09	0.52
1:C:235:LEU:HD11	1:C:241:LEU:HB3	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:36:THR:HG22	1:D:39:GLN:HG3	1.91	0.52
1:D:143:VAL:HG22	1:D:146:THR:OG1	2.10	0.52
1:E:21:ALA:O	1:E:22:PHE:CD1	2.63	0.52
1:E:133:ASN:N	1:E:134:PRO:CD	2.67	0.52
1:A:59:PHE:CD2	1:A:60:ARG:O	2.62	0.52
1:A:234:ASN:HD21	1:A:240:ARG:NE	2.08	0.52
1:A:234:ASN:ND2	1:A:240:ARG:CD	2.72	0.52
1:A:428:PHE:CE2	1:A:461:LEU:CD1	2.90	0.52
1:B:42:MET:SD	1:B:67:ILE:HD12	2.48	0.52
1:B:55:ILE:CD1	1:B:198:TYR:CD2	2.93	0.52
1:B:223:TRP:HB3	1:B:444:MET:CG	2.39	0.52
1:B:293:LEU:HD13	1:B:353:SER:HB2	1.91	0.52
1:B:368:ARG:HH21	1:B:378:LEU:CB	2.23	0.52
1:B:379:TYR:CD1	1:B:380:THR:N	2.77	0.52
1:C:36:THR:HG22	1:C:39:GLN:HG3	1.91	0.52
1:C:46:LEU:HD23	1:C:197:ILE:HG12	1.91	0.52
1:C:164:ILE:N	1:C:165:PRO:CD	2.73	0.52
1:C:250:ASP:O	1:C:254:GLU:CG	2.58	0.52
1:C:459:ASP:O	1:C:463:PRO:CD	2.55	0.52
1:D:184:PHE:HE1	1:D:195:ARG:HA	1.74	0.52
1:D:313:LEU:HD13	1:D:373:THR:HG22	1.91	0.52
1:D:316:ALA:O	1:D:318:MET:HB2	2.10	0.52
1:E:162:VAL:C	1:E:165:PRO:HD2	2.29	0.52
1:E:341:ASP:OD2	1:E:344:HIS:CE1	2.63	0.52
1:A:223:TRP:HB3	1:A:444:MET:CG	2.39	0.52
1:A:259:THR:C	1:A:263:PRO:HD2	2.31	0.52
1:A:316:ALA:O	1:A:318:MET:HB2	2.10	0.52
1:A:368:ARG:HH21	1:A:378:LEU:CB	2.23	0.52
1:B:45:VAL:HG22	1:B:54:PHE:CE1	2.43	0.52
1:B:234:ASN:HD21	1:B:240:ARG:NE	2.08	0.52
1:B:414:VAL:C	1:B:417:VAL:HG12	2.30	0.52
1:C:322:TRP:HE1	1:C:324:PRO:HG3	1.74	0.52
1:C:370:LYS:HG3	1:C:401:THR:OG1	2.10	0.52
1:D:21:ALA:O	1:D:22:PHE:CD1	2.63	0.52
1:D:259:THR:C	1:D:263:PRO:HD2	2.30	0.52
1:D:368:ARG:HH21	1:D:378:LEU:CB	2.23	0.52
1:E:28:LYS:HB2	1:E:31:ASN:ND2	2.11	0.52
1:E:133:ASN:H	1:E:134:PRO:HD3	1.74	0.52
1:E:234:ASN:HD21	1:E:240:ARG:NE	2.08	0.52
1:E:370:LYS:HG3	1:E:401:THR:OG1	2.10	0.52
1:A:46:LEU:HD23	1:A:197:ILE:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:293:LEU:HD13	1:A:353:SER:HB2	1.91	0.52
1:A:363:ILE:O	1:A:363:ILE:HG13	2.10	0.52
1:B:199:LEU:HD23	1:B:199:LEU:C	2.30	0.52
1:B:293:LEU:HB2	1:B:339:LYS:NZ	2.24	0.52
1:B:370:LYS:O	1:B:375:TYR:CE2	2.63	0.52
1:B:428:PHE:CE2	1:B:461:LEU:CD1	2.90	0.52
1:C:184:PHE:O	1:C:188:LEU:HG	2.10	0.52
1:C:313:LEU:HD13	1:C:373:THR:HG22	1.91	0.52
1:C:341:ASP:OD2	1:C:344:HIS:CE1	2.63	0.52
1:C:351:ASN:OD1	1:C:380:THR:HB	2.08	0.52
1:D:59:PHE:CD2	1:D:60:ARG:O	2.62	0.52
1:D:164:ILE:N	1:D:165:PRO:HD3	2.24	0.52
1:D:190:PRO:HB2	1:D:192:PRO:HG2	1.90	0.52
1:D:280:LYS:HE3	1:D:438:LYS:HG2	1.90	0.52
1:D:285:LEU:CB	1:D:431:VAL:HG12	2.40	0.52
1:D:351:ASN:HD21	1:D:377:VAL:HG13	1.75	0.52
1:D:379:TYR:CD1	1:D:380:THR:N	2.77	0.52
1:E:191:LEU:N	1:E:192:PRO:HD2	2.24	0.52
1:E:394:ARG:HD2	1:E:396:GLY:O	2.09	0.52
1:A:21:ALA:O	1:A:22:PHE:CD1	2.63	0.52
1:A:184:PHE:HE1	1:A:195:ARG:HA	1.74	0.52
1:A:293:LEU:HB2	1:A:339:LYS:NZ	2.24	0.52
1:A:341:ASP:OD2	1:A:344:HIS:CE1	2.63	0.52
1:A:370:LYS:HG3	1:A:401:THR:OG1	2.10	0.52
1:B:10:LEU:O	1:B:74:TRP:HZ2	1.92	0.52
1:B:73:VAL:O	1:B:77:TRP:HD1	1.94	0.52
1:C:203:GLN:CG	1:C:206:MET:HE1	2.40	0.52
1:C:285:LEU:CB	1:C:431:VAL:HG12	2.40	0.52
1:D:164:ILE:N	1:D:165:PRO:CD	2.73	0.52
1:D:181:VAL:N	1:D:182:GLN:CB	2.73	0.52
1:D:234:ASN:HD21	1:D:240:ARG:NE	2.08	0.52
1:D:326:ARG:NH1	1:D:335:ASN:N	2.58	0.52
1:E:117:ARG:CD	1:E:132:ALA:HB2	2.39	0.52
1:E:143:VAL:HG22	1:E:146:THR:OG1	2.10	0.52
1:E:259:THR:C	1:E:263:PRO:HD2	2.30	0.52
1:E:329:ILE:HG13	1:E:330:ILE:HG23	1.91	0.52
1:E:414:VAL:C	1:E:417:VAL:HG12	2.31	0.52
1:E:431:VAL:HG23	1:E:432:PHE:CE1	2.44	0.52
1:A:73:VAL:O	1:A:77:TRP:HD1	1.94	0.51
1:A:164:ILE:N	1:A:165:PRO:CD	2.73	0.51
1:A:326:ARG:NH1	1:A:335:ASN:N	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:111:LEU:O	1:B:111:LEU:HD23	2.09	0.51
1:B:259:THR:C	1:B:263:PRO:HD2	2.30	0.51
1:B:313:LEU:HD13	1:B:373:THR:HG22	1.91	0.51
1:B:326:ARG:NH1	1:B:335:ASN:N	2.58	0.51
1:B:370:LYS:CE	1:B:399:ASP:HA	2.38	0.51
1:C:233:GLU:HG2	1:C:243:PRO:HD3	1.92	0.51
1:C:316:ALA:O	1:C:318:MET:HB2	2.10	0.51
1:C:414:VAL:C	1:C:417:VAL:HG12	2.31	0.51
1:D:51:ASN:HB3	1:D:54:PHE:HZ	1.65	0.51
1:D:55:ILE:CD1	1:D:198:TYR:CD2	2.93	0.51
1:D:117:ARG:CD	1:D:132:ALA:HB2	2.39	0.51
1:D:293:LEU:HD13	1:D:353:SER:HB2	1.91	0.51
1:D:394:ARG:HH11	1:D:400:LYS:HZ1	1.58	0.51
1:D:428:PHE:CE2	1:D:461:LEU:CD1	2.90	0.51
1:A:143:VAL:HG22	1:A:146:THR:OG1	2.10	0.51
1:B:21:ALA:O	1:B:22:PHE:CD1	2.63	0.51
1:B:439:HIS:CB	1:B:450:ARG:NH1	2.74	0.51
1:C:55:ILE:CD1	1:C:198:TYR:CD2	2.93	0.51
1:C:59:PHE:CE2	1:C:62:ILE:HB	2.45	0.51
1:C:133:ASN:H	1:C:134:PRO:HD3	1.74	0.51
1:C:338:LEU:HD22	1:C:430:LYS:CB	2.39	0.51
1:C:370:LYS:O	1:C:375:TYR:CE2	2.63	0.51
1:D:184:PHE:O	1:D:188:LEU:HG	2.10	0.51
1:D:233:GLU:HG2	1:D:243:PRO:HD3	1.92	0.51
1:D:295:ASP:HB2	1:D:339:LYS:NZ	2.21	0.51
1:D:376:ALA:CA	1:D:379:TYR:CD2	2.85	0.51
1:D:436:LEU:HD22	1:D:457:ILE:CD1	2.40	0.51
1:D:459:ASP:O	1:D:463:PRO:CD	2.55	0.51
1:E:111:LEU:O	1:E:111:LEU:HD23	2.09	0.51
1:E:181:VAL:N	1:E:182:GLN:CB	2.72	0.51
1:E:234:ASN:ND2	1:E:240:ARG:CD	2.72	0.51
1:E:280:LYS:HZ3	1:E:437:LEU:C	2.14	0.51
1:E:285:LEU:CB	1:E:431:VAL:HG12	2.40	0.51
1:E:295:ASP:CB	1:E:339:LYS:HZ2	2.16	0.51
1:E:322:TRP:CE2	1:E:457:ILE:HA	2.45	0.51
1:E:326:ARG:NH1	1:E:335:ASN:N	2.58	0.51
1:E:345:THR:HG23	1:E:346:TYR:CE1	2.44	0.51
1:E:370:LYS:CE	1:E:399:ASP:HA	2.38	0.51
1:E:439:HIS:CB	1:E:450:ARG:NH1	2.74	0.51
1:A:45:VAL:HG22	1:A:54:PHE:CE1	2.44	0.51
1:B:184:PHE:O	1:B:188:LEU:HG	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:250:ASP:O	1:B:254:GLU:CG	2.58	0.51
1:C:73:VAL:O	1:C:77:TRP:HD1	1.93	0.51
1:C:143:VAL:HG22	1:C:146:THR:OG1	2.10	0.51
1:C:220:THR:HG22	1:C:411:GLN:HE22	1.76	0.51
1:C:363:ILE:O	1:C:363:ILE:HG13	2.10	0.51
1:C:439:HIS:CB	1:C:450:ARG:NH1	2.73	0.51
1:D:322:TRP:HE1	1:D:324:PRO:HG3	1.74	0.51
1:E:220:THR:HG22	1:E:411:GLN:HE22	1.76	0.51
1:E:250:ASP:O	1:E:254:GLU:CG	2.58	0.51
1:E:294:SER:HB2	1:E:340:GLY:C	2.30	0.51
1:B:76:LEU:CB	1:B:136:HIS:HE2	2.24	0.51
1:B:143:VAL:HG22	1:B:146:THR:OG1	2.10	0.51
1:B:341:ASP:OD2	1:B:344:HIS:CE1	2.63	0.51
1:B:351:ASN:HD21	1:B:377:VAL:HG13	1.75	0.51
1:C:21:ALA:O	1:C:22:PHE:CD1	2.63	0.51
1:C:199:LEU:HD23	1:C:199:LEU:C	2.30	0.51
1:C:234:ASN:HD21	1:C:240:ARG:NE	2.08	0.51
1:C:271:LEU:HG	1:C:272:ARG:N	2.24	0.51
1:C:431:VAL:HG23	1:C:432:PHE:CE1	2.44	0.51
1:C:436:LEU:HD22	1:C:457:ILE:CD1	2.40	0.51
1:C:444:MET:SD	1:C:445:GLU:CA	2.97	0.51
1:D:59:PHE:CE2	1:D:62:ILE:HB	2.45	0.51
1:D:76:LEU:CB	1:D:136:HIS:HE2	2.24	0.51
1:D:250:ASP:O	1:D:254:GLU:CD	2.49	0.51
1:D:365:PRO:HG3	1:D:476:VAL:CG2	2.36	0.51
1:E:59:PHE:CE2	1:E:62:ILE:HB	2.45	0.51
1:E:184:PHE:O	1:E:188:LEU:HG	2.10	0.51
1:E:313:LEU:HD13	1:E:373:THR:HG22	1.91	0.51
1:E:316:ALA:O	1:E:318:MET:HB2	2.10	0.51
1:A:76:LEU:CB	1:A:136:HIS:HE2	2.24	0.51
1:A:181:VAL:N	1:A:182:GLN:CB	2.73	0.51
1:A:220:THR:HG22	1:A:411:GLN:HE22	1.76	0.51
1:A:317:PRO:O	1:A:319:HIS:N	2.44	0.51
1:A:414:VAL:C	1:A:417:VAL:HG12	2.31	0.51
1:A:439:HIS:CB	1:A:450:ARG:NH1	2.74	0.51
1:B:59:PHE:CE2	1:B:62:ILE:HB	2.45	0.51
1:B:144:GLY:HA2	1:B:147:GLY:N	2.23	0.51
1:B:164:ILE:N	1:B:165:PRO:HD3	2.24	0.51
1:B:285:LEU:CB	1:B:431:VAL:HG12	2.40	0.51
1:B:322:TRP:HE1	1:B:324:PRO:HG3	1.74	0.51
1:C:329:ILE:HG13	1:C:330:ILE:HG23	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:46:LEU:HD23	1:D:197:ILE:HG12	1.91	0.51
1:D:133:ASN:H	1:D:134:PRO:HD2	1.71	0.51
1:D:220:THR:HG22	1:D:411:GLN:HE22	1.76	0.51
1:D:294:SER:HB2	1:D:340:GLY:C	2.30	0.51
1:D:322:TRP:CE2	1:D:457:ILE:HA	2.45	0.51
1:D:341:ASP:OD2	1:D:344:HIS:CE1	2.63	0.51
1:E:10:LEU:O	1:E:74:TRP:HZ2	1.92	0.51
1:E:59:PHE:HD2	1:E:60:ARG:O	1.92	0.51
1:E:76:LEU:CB	1:E:136:HIS:HE2	2.24	0.51
1:E:317:PRO:O	1:E:319:HIS:N	2.43	0.51
1:E:351:ASN:HD21	1:E:377:VAL:HG13	1.75	0.51
1:A:199:LEU:HD23	1:A:199:LEU:C	2.30	0.51
1:A:250:ASP:O	1:A:254:GLU:CD	2.49	0.51
1:B:73:VAL:HG11	1:B:104:ILE:CG2	2.40	0.51
1:B:220:THR:HG22	1:B:411:GLN:HE22	1.76	0.51
1:B:439:HIS:CE1	1:B:454:GLU:O	2.57	0.51
1:C:76:LEU:CB	1:C:136:HIS:HE2	2.24	0.51
1:C:332:ASP:O	1:C:334:PRO:HD3	2.11	0.51
1:D:73:VAL:O	1:D:77:TRP:HD1	1.93	0.51
1:A:59:PHE:CE2	1:A:62:ILE:HB	2.45	0.51
1:A:285:LEU:CB	1:A:431:VAL:HG12	2.40	0.51
1:C:317:PRO:O	1:C:319:HIS:N	2.44	0.51
1:C:365:PRO:HG3	1:C:476:VAL:CG2	2.36	0.51
1:D:40:ILE:HG13	1:D:41:ASP:N	2.26	0.51
1:D:439:HIS:CA	1:D:450:ARG:HH12	2.24	0.51
1:E:250:ASP:O	1:E:254:GLU:CD	2.49	0.51
1:E:459:ASP:O	1:E:463:PRO:CD	2.55	0.51
1:A:170:THR:O	1:A:174:ARG:HG2	2.11	0.51
1:A:332:ASP:O	1:A:334:PRO:HD3	2.11	0.51
1:B:181:VAL:N	1:B:182:GLN:CB	2.73	0.51
1:B:250:ASP:O	1:B:254:GLU:CD	2.49	0.51
1:C:294:SER:N	1:C:339:LYS:HZ1	2.08	0.51
1:D:250:ASP:O	1:D:254:GLU:CG	2.58	0.51
1:D:370:LYS:HG3	1:D:401:THR:OG1	2.10	0.51
1:D:439:HIS:CB	1:D:450:ARG:NH1	2.74	0.51
1:E:40:ILE:HG13	1:E:41:ASP:N	2.26	0.51
1:E:55:ILE:CD1	1:E:198:TYR:CD2	2.93	0.51
1:E:202:PRO:CB	1:E:265:ARG:NH1	2.71	0.51
1:E:259:THR:O	1:E:263:PRO:CD	2.59	0.51
1:E:368:ARG:N	1:E:401:THR:CG2	2.70	0.51
1:A:40:ILE:HG13	1:A:41:ASP:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:233:GLU:HG2	1:B:243:PRO:HD3	1.92	0.51
1:B:280:LYS:HZ3	1:B:437:LEU:C	2.14	0.51
1:B:322:TRP:CE2	1:B:457:ILE:HA	2.45	0.51
1:B:376:ALA:O	1:B:377:VAL:C	2.47	0.51
1:B:436:LEU:HD22	1:B:457:ILE:CD1	2.40	0.51
1:C:326:ARG:NH1	1:C:335:ASN:N	2.58	0.51
1:C:439:HIS:CA	1:C:450:ARG:HH12	2.24	0.51
1:D:317:PRO:O	1:D:319:HIS:N	2.44	0.51
1:E:73:VAL:O	1:E:77:TRP:HD1	1.93	0.51
1:A:202:PRO:CB	1:A:265:ARG:NH1	2.71	0.51
1:A:294:SER:N	1:A:339:LYS:HZ1	2.07	0.51
1:A:376:ALA:HA	1:A:379:TYR:HD2	1.69	0.51
1:B:204:THR:HG22	1:B:205:GLU:N	2.09	0.51
1:B:316:ALA:O	1:B:318:MET:HB2	2.10	0.51
1:B:363:ILE:HG13	1:B:363:ILE:O	2.10	0.51
1:C:234:ASN:ND2	1:C:240:ARG:CD	2.72	0.51
1:C:250:ASP:O	1:C:254:GLU:CD	2.49	0.51
1:C:259:THR:C	1:C:263:PRO:HD2	2.30	0.51
1:C:322:TRP:CE2	1:C:457:ILE:HA	2.45	0.51
1:C:416:THR:O	1:C:420:GLU:HG3	2.11	0.51
1:D:295:ASP:HB2	1:D:339:LYS:CD	2.41	0.51
1:D:332:ASP:O	1:D:334:PRO:HD3	2.11	0.51
1:E:184:PHE:HE1	1:E:195:ARG:HA	1.74	0.51
1:E:376:ALA:O	1:E:377:VAL:C	2.47	0.51
1:E:416:THR:O	1:E:420:GLU:HG3	2.11	0.51
1:A:436:LEU:HD22	1:A:457:ILE:CD1	2.40	0.50
1:B:148:GLN:HG3	1:B:171:MET:CE	2.41	0.50
1:B:234:ASN:ND2	1:B:240:ARG:CD	2.72	0.50
1:B:332:ASP:O	1:B:334:PRO:HD3	2.11	0.50
1:C:124:VAL:CA	1:C:125:ILE:HB	2.41	0.50
1:C:148:GLN:HG3	1:C:171:MET:CE	2.42	0.50
1:C:293:LEU:HB2	1:C:339:LYS:HZ3	1.76	0.50
1:C:444:MET:HE2	1:C:445:GLU:HG3	1.93	0.50
1:D:170:THR:O	1:D:174:ARG:HG2	2.11	0.50
1:D:259:THR:O	1:D:263:PRO:CD	2.59	0.50
1:D:414:VAL:C	1:D:417:VAL:HG12	2.31	0.50
1:D:431:VAL:HG23	1:D:432:PHE:CE1	2.44	0.50
1:E:182:GLN:HG3	1:E:185:ALA:H	1.76	0.50
1:E:436:LEU:HD22	1:E:457:ILE:CD1	2.40	0.50
1:A:102:LYS:HZ1	1:A:120:GLN:HB2	1.76	0.50
1:A:259:THR:O	1:A:263:PRO:CD	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:124:VAL:CA	1:B:125:ILE:HB	2.41	0.50
1:B:295:ASP:HB2	1:B:339:LYS:CD	2.42	0.50
1:B:416:THR:O	1:B:420:GLU:HG3	2.11	0.50
1:C:181:VAL:N	1:C:182:GLN:CB	2.73	0.50
1:C:410:LYS:O	1:C:414:VAL:HG23	2.11	0.50
1:D:294:SER:N	1:D:339:LYS:HZ1	2.09	0.50
1:D:351:ASN:OD1	1:D:380:THR:HB	2.09	0.50
1:D:368:ARG:N	1:D:401:THR:CG2	2.70	0.50
1:D:452:MET:O	1:D:452:MET:HG3	2.12	0.50
1:E:144:GLY:HA2	1:E:147:GLY:N	2.23	0.50
1:E:313:LEU:HD23	1:E:321:GLN:HE21	1.75	0.50
1:E:439:HIS:CA	1:E:450:ARG:HH12	2.24	0.50
1:A:163:GLU:CG	1:A:203:GLN:HB3	2.25	0.50
1:B:170:THR:O	1:B:174:ARG:HG2	2.11	0.50
1:B:315:LYS:NZ	1:B:372:GLU:CG	2.75	0.50
1:B:317:PRO:O	1:B:319:HIS:N	2.44	0.50
1:B:376:ALA:CA	1:B:379:TYR:CD2	2.85	0.50
1:D:148:GLN:HG3	1:D:171:MET:CE	2.41	0.50
1:D:191:LEU:N	1:D:192:PRO:CD	2.74	0.50
1:D:410:LYS:O	1:D:414:VAL:HG23	2.11	0.50
1:E:191:LEU:N	1:E:192:PRO:CD	2.74	0.50
1:E:313:LEU:HD11	1:E:377:VAL:CB	2.42	0.50
1:E:450:ARG:NE	1:E:453:LYS:HZ3	2.10	0.50
1:A:273:GLU:OE2	1:A:277:GLU:HB2	2.12	0.50
1:A:315:LYS:NZ	1:A:372:GLU:CG	2.75	0.50
1:A:471:VAL:O	1:A:474:ASP:CG	2.50	0.50
1:B:202:PRO:CB	1:B:265:ARG:NH1	2.71	0.50
1:B:294:SER:CB	1:B:341:ASP:HB3	2.41	0.50
1:B:410:LYS:O	1:B:414:VAL:HG23	2.11	0.50
1:B:471:VAL:O	1:B:474:ASP:CG	2.50	0.50
1:C:40:ILE:HG13	1:C:41:ASP:N	2.26	0.50
1:C:368:ARG:HE	1:C:378:LEU:CD2	2.15	0.50
1:D:363:ILE:HG13	1:D:363:ILE:O	2.10	0.50
1:E:233:GLU:HG2	1:E:243:PRO:HD3	1.92	0.50
1:E:274:ARG:HE	1:E:440:HIS:HD2	1.60	0.50
1:E:319:HIS:HB2	1:E:456:ARG:NH2	2.27	0.50
1:E:322:TRP:HE1	1:E:324:PRO:HG3	1.74	0.50
1:A:117:ARG:CD	1:A:132:ALA:HB2	2.39	0.50
1:A:322:TRP:CE2	1:A:457:ILE:HA	2.45	0.50
1:A:410:LYS:O	1:A:414:VAL:HG23	2.11	0.50
1:B:182:GLN:HG3	1:B:185:ALA:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:191:LEU:N	1:B:192:PRO:CD	2.74	0.50
1:B:259:THR:O	1:B:263:PRO:CD	2.59	0.50
1:B:439:HIS:CA	1:B:450:ARG:HH12	2.24	0.50
1:C:259:THR:O	1:C:263:PRO:CD	2.59	0.50
1:C:289:LEU:HD23	1:C:290:ASN:O	2.12	0.50
1:C:295:ASP:HB2	1:C:339:LYS:CD	2.42	0.50
1:D:144:GLY:HA2	1:D:147:GLY:N	2.23	0.50
1:E:47:ALA:C	1:E:195:ARG:HH12	2.15	0.50
1:E:82:LEU:HG	1:E:83:LYS:N	2.27	0.50
1:E:338:LEU:HD22	1:E:430:LYS:CB	2.39	0.50
1:E:363:ILE:HG13	1:E:363:ILE:O	2.10	0.50
1:E:448:ARG:CB	1:E:455:MET:HE1	2.40	0.50
1:A:36:THR:HG22	1:A:39:GLN:HG3	1.91	0.50
1:A:313:LEU:HD11	1:A:377:VAL:CB	2.42	0.50
1:A:319:HIS:HB2	1:A:456:ARG:NH2	2.27	0.50
1:B:83:LYS:HE2	1:B:192:PRO:C	2.32	0.50
1:B:148:GLN:OE1	1:B:175:GLU:HB2	2.11	0.50
1:D:274:ARG:HE	1:D:440:HIS:HD2	1.60	0.50
1:D:436:LEU:HB2	1:D:457:ILE:CD1	2.39	0.50
1:E:439:HIS:CE1	1:E:454:GLU:O	2.57	0.50
1:A:280:LYS:HA	1:A:283:PHE:CD2	2.47	0.50
1:A:314:GLU:O	1:A:314:GLU:HG3	2.12	0.50
1:B:125:ILE:O	1:B:125:ILE:HG22	2.12	0.50
1:B:436:LEU:HB2	1:B:457:ILE:CD1	2.39	0.50
1:B:459:ASP:O	1:B:463:PRO:CD	2.54	0.50
1:C:351:ASN:HD21	1:C:377:VAL:HG13	1.75	0.50
1:D:252:ASN:HB3	1:D:253:PRO:CD	2.41	0.50
1:D:314:GLU:O	1:D:314:GLU:HG3	2.12	0.50
1:D:416:THR:O	1:D:420:GLU:HG3	2.11	0.50
1:D:471:VAL:O	1:D:474:ASP:CG	2.50	0.50
1:E:235:LEU:HD13	1:E:241:LEU:CB	2.36	0.50
1:E:295:ASP:HB2	1:E:339:LYS:CD	2.42	0.50
1:E:315:LYS:NZ	1:E:372:GLU:CG	2.75	0.50
1:A:148:GLN:HG3	1:A:171:MET:CE	2.42	0.50
1:A:180:LEU:HD23	1:A:180:LEU:O	2.12	0.50
1:B:36:THR:HG22	1:B:39:GLN:OE1	2.12	0.50
1:B:40:ILE:HG13	1:B:41:ASP:N	2.26	0.50
1:B:190:PRO:C	1:B:192:PRO:HD2	2.33	0.50
1:B:379:TYR:O	1:B:385:ILE:CB	2.55	0.50
1:C:394:ARG:HH11	1:C:400:LYS:HZ2	1.59	0.50
1:D:293:LEU:CB	1:D:339:LYS:HZ1	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:376:ALA:O	1:D:377:VAL:C	2.47	0.50
1:E:170:THR:O	1:E:174:ARG:HG2	2.11	0.50
1:A:368:ARG:NH1	1:A:381:LEU:HD22	2.27	0.50
1:A:416:THR:O	1:A:420:GLU:HG3	2.11	0.50
1:B:22:PHE:CD2	1:B:30:LEU:HG	2.33	0.50
1:B:143:VAL:CG1	1:B:144:GLY:H	2.25	0.50
1:B:271:LEU:HG	1:B:272:ARG:H	1.77	0.50
1:B:319:HIS:HB2	1:B:456:ARG:NH2	2.27	0.50
1:C:148:GLN:OE1	1:C:175:GLU:HB2	2.11	0.50
1:C:191:LEU:N	1:C:192:PRO:CD	2.74	0.50
1:C:428:PHE:CE2	1:C:461:LEU:CD1	2.90	0.50
1:C:452:MET:HG3	1:C:452:MET:O	2.12	0.50
1:E:252:ASN:HB3	1:E:253:PRO:CD	2.41	0.50
1:E:271:LEU:HG	1:E:272:ARG:H	1.77	0.50
1:E:273:GLU:OE2	1:E:277:GLU:HB2	2.12	0.50
1:E:332:ASP:O	1:E:334:PRO:HD3	2.11	0.50
1:E:420:GLU:CD	1:E:465:MET:SD	2.90	0.50
1:A:294:SER:CB	1:A:341:ASP:HB3	2.42	0.49
1:A:313:LEU:HD23	1:A:321:GLN:HE21	1.75	0.49
1:A:322:TRP:HE1	1:A:324:PRO:HG3	1.74	0.49
1:A:328:ASN:HA	1:A:333:LEU:HD23	1.93	0.49
1:A:365:PRO:HG3	1:A:476:VAL:CG2	2.36	0.49
1:A:412:TRP:CZ2	1:A:416:THR:OG1	2.65	0.49
1:B:273:GLU:OE2	1:B:277:GLU:HB2	2.12	0.49
1:C:370:LYS:CE	1:C:399:ASP:HA	2.38	0.49
1:C:389:GLU:CD	1:C:391:GLY:H	2.16	0.49
1:D:124:VAL:CA	1:D:125:ILE:HB	2.41	0.49
1:D:289:LEU:HD23	1:D:290:ASN:O	2.12	0.49
1:D:315:LYS:NZ	1:D:372:GLU:CG	2.75	0.49
1:D:428:PHE:CZ	1:D:461:LEU:HD13	2.46	0.49
1:E:258:GLY:C	1:E:260:PRO:HD2	2.33	0.49
1:E:376:ALA:HA	1:E:379:TYR:HD2	1.69	0.49
1:E:389:GLU:CD	1:E:391:GLY:H	2.15	0.49
1:E:412:TRP:CZ2	1:E:416:THR:OG1	2.65	0.49
1:A:47:ALA:C	1:A:195:ARG:HH12	2.15	0.49
1:A:143:VAL:CG1	1:A:144:GLY:H	2.25	0.49
1:A:182:GLN:HG3	1:A:185:ALA:H	1.76	0.49
1:A:266:PHE:CE2	1:A:267:ASP:O	2.66	0.49
1:A:289:LEU:HD23	1:A:290:ASN:O	2.12	0.49
1:A:432:PHE:C	1:A:435:ILE:HG12	2.33	0.49
1:B:261:THR:HG23	1:B:268:ARG:HH21	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:289:LEU:HD23	1:B:290:ASN:O	2.12	0.49
1:B:420:GLU:CD	1:B:465:MET:SD	2.90	0.49
1:C:83:LYS:HE2	1:C:192:PRO:C	2.32	0.49
1:C:133:ASN:N	1:C:134:PRO:CD	2.67	0.49
1:C:368:ARG:NH1	1:C:381:LEU:HD22	2.27	0.49
1:C:376:ALA:O	1:C:377:VAL:C	2.47	0.49
1:C:420:GLU:CD	1:C:465:MET:SD	2.90	0.49
1:C:432:PHE:C	1:C:435:ILE:HG12	2.33	0.49
1:D:148:GLN:OE1	1:D:175:GLU:HB2	2.11	0.49
1:D:155:ASP:C	1:D:194:SER:HB2	2.33	0.49
1:D:182:GLN:HG3	1:D:185:ALA:H	1.76	0.49
1:D:266:PHE:CE2	1:D:267:ASP:O	2.66	0.49
1:D:370:LYS:CE	1:D:399:ASP:HA	2.38	0.49
1:D:370:LYS:CG	1:D:401:THR:OG1	2.60	0.49
1:E:69:CYS:O	1:E:72:VAL:HG12	2.12	0.49
1:E:80:PRO:HD2	1:E:83:LYS:HZ3	1.62	0.49
1:E:148:GLN:OE1	1:E:175:GLU:HB2	2.11	0.49
1:E:444:MET:SD	1:E:445:GLU:CA	2.97	0.49
1:E:452:MET:HG3	1:E:452:MET:O	2.12	0.49
1:A:420:GLU:CD	1:A:465:MET:SD	2.90	0.49
1:B:280:LYS:HA	1:B:283:PHE:CD2	2.47	0.49
1:C:73:VAL:HG11	1:C:104:ILE:CG2	2.40	0.49
1:C:280:LYS:HA	1:C:283:PHE:CD2	2.47	0.49
1:C:294:SER:CB	1:C:341:ASP:HB3	2.41	0.49
1:C:315:LYS:NZ	1:C:372:GLU:CG	2.75	0.49
1:C:410:LYS:HA	1:C:462:GLU:OE2	2.13	0.49
1:C:428:PHE:CZ	1:C:461:LEU:HD13	2.46	0.49
1:D:90:SER:CA	1:D:140:VAL:HG23	2.37	0.49
1:D:190:PRO:C	1:D:192:PRO:HD2	2.33	0.49
1:D:280:LYS:HA	1:D:283:PHE:CD2	2.47	0.49
1:D:368:ARG:NH1	1:D:381:LEU:HD22	2.27	0.49
1:D:389:GLU:CD	1:D:391:GLY:H	2.16	0.49
1:D:410:LYS:HA	1:D:462:GLU:OE2	2.12	0.49
1:E:80:PRO:C	1:E:81:GLN:HG2	2.33	0.49
1:E:124:VAL:CA	1:E:125:ILE:HB	2.41	0.49
1:E:262:ASP:HB3	1:E:263:PRO:CD	2.42	0.49
1:A:233:GLU:HG2	1:A:243:PRO:HD3	1.92	0.49
1:A:280:LYS:NZ	1:A:437:LEU:C	2.65	0.49
1:B:28:LYS:HB2	1:B:31:ASN:ND2	2.11	0.49
1:B:155:ASP:C	1:B:194:SER:HB2	2.33	0.49
1:B:180:LEU:HD23	1:B:180:LEU:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:368:ARG:NH1	1:B:381:LEU:HD22	2.27	0.49
1:B:370:LYS:CG	1:B:401:THR:OG1	2.60	0.49
1:C:47:ALA:C	1:C:195:ARG:HH12	2.15	0.49
1:C:64:LYS:HG3	1:C:65:SER:H	1.74	0.49
1:C:125:ILE:O	1:C:125:ILE:HG22	2.12	0.49
1:C:471:VAL:O	1:C:474:ASP:CG	2.50	0.49
1:D:77:TRP:HZ3	1:D:113:GLU:CA	2.25	0.49
1:D:225:ALA:C	1:D:228:PRO:HD2	2.32	0.49
1:E:180:LEU:HD23	1:E:180:LEU:O	2.12	0.49
1:E:326:ARG:HH22	1:E:427:MET:H	1.60	0.49
1:E:394:ARG:HH11	1:E:400:LYS:HZ1	1.58	0.49
1:E:432:PHE:C	1:E:435:ILE:HG12	2.32	0.49
1:A:87:VAL:HG23	1:A:158:ILE:HG13	1.95	0.49
1:A:155:ASP:C	1:A:194:SER:HB2	2.33	0.49
1:A:271:LEU:HG	1:A:272:ARG:H	1.77	0.49
1:B:52:LYS:HE3	1:B:53:LYS:HZ1	1.75	0.49
1:B:80:PRO:C	1:B:81:GLN:HG2	2.33	0.49
1:B:82:LEU:HG	1:B:83:LYS:N	2.27	0.49
1:B:210:LYS:HA	1:B:213:GLU:CD	2.33	0.49
1:B:266:PHE:CE2	1:B:267:ASP:O	2.66	0.49
1:C:124:VAL:HG12	1:C:125:ILE:HD12	1.95	0.49
1:C:170:THR:O	1:C:174:ARG:HG2	2.11	0.49
1:C:235:LEU:HD13	1:C:241:LEU:CB	2.36	0.49
1:C:280:LYS:NZ	1:C:437:LEU:C	2.65	0.49
1:C:394:ARG:HD3	1:C:400:LYS:HZ3	1.77	0.49
1:D:57:GLN:NE2	1:D:223:TRP:CD1	2.77	0.49
1:D:273:GLU:OE2	1:D:277:GLU:HB2	2.12	0.49
1:D:319:HIS:HB2	1:D:456:ARG:NH2	2.27	0.49
1:D:412:TRP:CZ2	1:D:416:THR:OG1	2.65	0.49
1:E:36:THR:HG22	1:E:39:GLN:OE1	2.12	0.49
1:E:125:ILE:O	1:E:125:ILE:HG22	2.12	0.49
1:E:190:PRO:C	1:E:192:PRO:HD2	2.33	0.49
1:E:280:LYS:NZ	1:E:437:LEU:C	2.65	0.49
1:E:370:LYS:CG	1:E:401:THR:OG1	2.60	0.49
1:E:471:VAL:O	1:E:474:ASP:CG	2.50	0.49
1:A:73:VAL:HG11	1:A:104:ILE:CG2	2.40	0.49
1:A:144:GLY:HA2	1:A:147:GLY:N	2.23	0.49
1:A:261:THR:HG23	1:A:268:ARG:HH21	1.77	0.49
1:A:452:MET:O	1:A:452:MET:HG3	2.11	0.49
1:B:258:GLY:C	1:B:260:PRO:HD2	2.33	0.49
1:B:313:LEU:CD1	1:B:374:GLY:HA2	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:448:ARG:CB	1:B:455:MET:HE1	2.42	0.49
1:B:452:MET:HG3	1:B:452:MET:O	2.11	0.49
1:C:210:LYS:HA	1:C:213:GLU:CD	2.33	0.49
1:C:258:GLY:C	1:C:260:PRO:HD2	2.33	0.49
1:D:87:VAL:HG23	1:D:158:ILE:HG13	1.94	0.49
1:D:180:LEU:HD23	1:D:180:LEU:O	2.12	0.49
1:D:420:GLU:CD	1:D:465:MET:SD	2.90	0.49
1:D:432:PHE:C	1:D:435:ILE:HG12	2.33	0.49
1:E:87:VAL:HG23	1:E:158:ILE:HG13	1.95	0.49
1:E:148:GLN:HG3	1:E:171:MET:CE	2.42	0.49
1:A:125:ILE:O	1:A:125:ILE:HG22	2.12	0.49
1:A:227:TYR:CG	1:A:228:PRO:CD	2.95	0.49
1:A:295:ASP:HB2	1:A:339:LYS:CD	2.42	0.49
1:A:389:GLU:CD	1:A:391:GLY:H	2.16	0.49
1:B:133:ASN:H	1:B:134:PRO:HD3	1.74	0.49
1:C:155:ASP:C	1:C:194:SER:HB2	2.33	0.49
1:C:180:LEU:HD23	1:C:180:LEU:O	2.12	0.49
1:C:182:GLN:HG3	1:C:185:ALA:H	1.76	0.49
1:C:273:GLU:OE2	1:C:277:GLU:HB2	2.12	0.49
1:C:308:VAL:HG23	1:C:326:ARG:HB2	1.95	0.49
1:C:314:GLU:HG3	1:C:314:GLU:O	2.12	0.49
1:C:319:HIS:HB2	1:C:456:ARG:NH2	2.27	0.49
1:D:69:CYS:O	1:D:72:VAL:HG12	2.13	0.49
1:D:227:TYR:CG	1:D:228:PRO:CD	2.95	0.49
1:D:258:GLY:C	1:D:260:PRO:HD2	2.33	0.49
1:D:262:ASP:HB3	1:D:263:PRO:CD	2.42	0.49
1:E:155:ASP:C	1:E:194:SER:HB2	2.33	0.49
1:E:280:LYS:HA	1:E:283:PHE:CD2	2.47	0.49
1:E:410:LYS:O	1:E:414:VAL:HG23	2.11	0.49
1:A:37:LYS:C	1:A:40:ILE:HG12	2.33	0.49
1:A:98:SER:C	1:A:101:ILE:HG12	2.33	0.49
1:A:210:LYS:HA	1:A:213:GLU:CD	2.33	0.49
1:A:320:TYR:CZ	1:A:342:ASP:OD2	2.66	0.49
1:A:370:LYS:CG	1:A:401:THR:OG1	2.60	0.49
1:A:459:ASP:O	1:A:463:PRO:CD	2.55	0.49
1:B:280:LYS:NZ	1:B:437:LEU:C	2.66	0.49
1:B:326:ARG:HH22	1:B:427:MET:H	1.60	0.49
1:B:432:PHE:C	1:B:435:ILE:HG12	2.33	0.49
1:C:271:LEU:HG	1:C:272:ARG:H	1.77	0.49
1:C:370:LYS:CG	1:C:401:THR:OG1	2.60	0.49
1:D:47:ALA:C	1:D:195:ARG:HH12	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:125:ILE:O	1:D:125:ILE:HG22	2.12	0.49
1:D:313:LEU:HD23	1:D:321:GLN:HE21	1.75	0.49
1:E:83:LYS:HE2	1:E:192:PRO:C	2.32	0.49
1:E:223:TRP:NE1	1:E:265:ARG:CG	2.75	0.49
1:E:225:ALA:C	1:E:228:PRO:HD2	2.32	0.49
1:E:293:LEU:CB	1:E:339:LYS:HZ1	2.26	0.49
1:E:294:SER:N	1:E:339:LYS:HZ1	2.09	0.49
1:E:368:ARG:NH1	1:E:381:LEU:HD22	2.27	0.49
1:A:11:VAL:HG22	1:A:11:VAL:O	2.13	0.49
1:A:69:CYS:O	1:A:72:VAL:HG12	2.13	0.49
1:A:148:GLN:OE1	1:A:175:GLU:HB2	2.11	0.49
1:B:124:VAL:HG12	1:B:125:ILE:HD12	1.95	0.49
1:B:227:TYR:CG	1:B:228:PRO:CD	2.95	0.49
1:B:308:VAL:HG23	1:B:326:ARG:HB2	1.95	0.49
1:B:428:PHE:CZ	1:B:461:LEU:HD13	2.46	0.49
1:C:190:PRO:C	1:C:192:PRO:HD2	2.33	0.49
1:C:235:LEU:HG	1:C:245:LEU:CB	2.39	0.49
1:C:273:GLU:HA	1:C:441:ASN:HA	1.95	0.49
1:C:450:ARG:HE	1:C:453:LYS:NZ	2.11	0.49
1:D:143:VAL:CG1	1:D:144:GLY:H	2.25	0.49
1:D:235:LEU:HD13	1:D:241:LEU:CB	2.36	0.49
1:D:313:LEU:HD11	1:D:377:VAL:CB	2.42	0.49
1:D:326:ARG:HH22	1:D:427:MET:H	1.60	0.49
1:E:266:PHE:CE2	1:E:267:ASP:O	2.66	0.49
1:A:80:PRO:C	1:A:81:GLN:HG2	2.33	0.49
1:A:163:GLU:CB	1:A:208:LEU:HD13	2.28	0.49
1:A:428:PHE:CZ	1:A:461:LEU:HD13	2.46	0.49
1:A:439:HIS:CA	1:A:450:ARG:HH12	2.24	0.49
1:B:322:TRP:CD2	1:B:457:ILE:HG22	2.48	0.49
1:C:45:VAL:CG2	1:C:54:PHE:CE1	2.96	0.49
1:C:82:LEU:HG	1:C:83:LYS:N	2.27	0.49
1:C:261:THR:HG23	1:C:268:ARG:HH21	1.77	0.49
1:D:45:VAL:CG2	1:D:54:PHE:CE1	2.96	0.49
1:A:20:VAL:HG12	1:A:108:LEU:CD2	2.42	0.48
1:A:87:VAL:CG1	1:A:94:ALA:HB1	2.43	0.48
1:A:262:ASP:HB3	1:A:263:PRO:CD	2.42	0.48
1:B:410:LYS:HA	1:B:462:GLU:OE2	2.12	0.48
1:C:227:TYR:CG	1:C:228:PRO:CD	2.95	0.48
1:D:82:LEU:HG	1:D:83:LYS:N	2.27	0.48
1:D:98:SER:C	1:D:101:ILE:HG12	2.33	0.48
1:D:163:GLU:OE1	1:D:208:LEU:CB	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:98:SER:C	1:E:101:ILE:HG12	2.33	0.48
1:E:210:LYS:HA	1:E:213:GLU:CD	2.33	0.48
1:E:289:LEU:HD23	1:E:290:ASN:O	2.12	0.48
1:E:328:ASN:HA	1:E:333:LEU:HD23	1.93	0.48
1:E:410:LYS:HA	1:E:462:GLU:OE2	2.12	0.48
1:A:368:ARG:N	1:A:401:THR:CG2	2.70	0.48
1:B:47:ALA:C	1:B:195:ARG:HH12	2.15	0.48
1:B:155:ASP:O	1:B:194:SER:C	2.52	0.48
1:B:262:ASP:HB3	1:B:263:PRO:CD	2.42	0.48
1:B:313:LEU:HD11	1:B:377:VAL:CB	2.42	0.48
1:B:320:TYR:CZ	1:B:342:ASP:OD2	2.66	0.48
1:C:36:THR:HG22	1:C:39:GLN:OE1	2.12	0.48
1:C:266:PHE:CE2	1:C:267:ASP:O	2.66	0.48
1:D:80:PRO:C	1:D:81:GLN:HG2	2.33	0.48
1:D:210:LYS:HA	1:D:213:GLU:CD	2.33	0.48
1:E:59:PHE:HB2	1:E:263:PRO:HA	1.95	0.48
1:E:227:TYR:CG	1:E:228:PRO:CD	2.95	0.48
1:E:368:ARG:HE	1:E:378:LEU:CD2	2.15	0.48
1:E:428:PHE:CZ	1:E:461:LEU:HD13	2.46	0.48
1:A:258:GLY:C	1:A:260:PRO:HD2	2.33	0.48
1:A:410:LYS:HA	1:A:462:GLU:OE2	2.12	0.48
1:B:11:VAL:O	1:B:11:VAL:HG22	2.13	0.48
1:B:338:LEU:HD22	1:B:430:LYS:CB	2.39	0.48
1:B:389:GLU:CD	1:B:391:GLY:H	2.16	0.48
1:B:444:MET:HA	1:B:445:GLU:HA	1.56	0.48
1:B:455:MET:HG3	1:B:459:ASP:OD2	2.14	0.48
1:C:91:LYS:CA	1:C:93:ARG:H	2.27	0.48
1:C:180:LEU:CD2	1:C:181:VAL:HG12	2.34	0.48
1:D:37:LYS:C	1:D:40:ILE:HG12	2.33	0.48
1:D:82:LEU:HG	1:D:83:LYS:CG	2.44	0.48
1:D:83:LYS:HE2	1:D:192:PRO:C	2.32	0.48
1:D:294:SER:CB	1:D:341:ASP:HB3	2.41	0.48
1:E:82:LEU:HG	1:E:83:LYS:CG	2.44	0.48
1:E:87:VAL:CG1	1:E:94:ALA:HB1	2.43	0.48
1:E:163:GLU:OE1	1:E:208:LEU:CB	2.61	0.48
1:E:314:GLU:HG3	1:E:314:GLU:O	2.12	0.48
1:E:450:ARG:HE	1:E:453:LYS:NZ	2.11	0.48
1:E:455:MET:HG3	1:E:459:ASP:OD2	2.14	0.48
1:A:91:LYS:CB	1:A:92:GLU:HG2	2.43	0.48
1:A:370:LYS:NZ	1:A:375:TYR:CD1	2.82	0.48
1:A:450:ARG:HE	1:A:453:LYS:NZ	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:117:ARG:CD	1:B:132:ALA:HB2	2.39	0.48
1:B:273:GLU:HA	1:B:441:ASN:HA	1.95	0.48
1:C:144:GLY:HA2	1:C:147:GLY:N	2.23	0.48
1:C:225:ALA:C	1:C:228:PRO:HD2	2.32	0.48
1:C:436:LEU:HB2	1:C:457:ILE:CD1	2.39	0.48
1:D:184:PHE:HE1	1:D:195:ARG:N	2.11	0.48
1:D:455:MET:HG3	1:D:459:ASP:OD2	2.13	0.48
1:E:11:VAL:O	1:E:11:VAL:HG22	2.13	0.48
1:E:261:THR:HG23	1:E:268:ARG:HH21	1.77	0.48
1:E:301:LEU:HD22	1:E:361:LEU:CA	2.43	0.48
1:A:36:THR:HG22	1:A:39:GLN:OE1	2.12	0.48
1:A:76:LEU:HB2	1:A:136:HIS:HE2	1.79	0.48
1:A:163:GLU:OE1	1:A:208:LEU:CB	2.61	0.48
1:A:235:LEU:HG	1:A:245:LEU:CB	2.39	0.48
1:A:273:GLU:HA	1:A:441:ASN:HA	1.95	0.48
1:B:87:VAL:HG23	1:B:158:ILE:HG13	1.94	0.48
1:B:87:VAL:HB	1:B:158:ILE:CG1	2.44	0.48
1:B:98:SER:C	1:B:101:ILE:HG12	2.33	0.48
1:B:309:ALA:HB3	1:B:358:GLN:HE22	1.79	0.48
1:B:314:GLU:HG3	1:B:314:GLU:O	2.12	0.48
1:B:455:MET:O	1:B:458:CYS:SG	2.66	0.48
1:C:57:GLN:NE2	1:C:223:TRP:CD1	2.77	0.48
1:C:87:VAL:HB	1:C:158:ILE:CG1	2.44	0.48
1:C:163:GLU:CB	1:C:208:LEU:HD13	2.28	0.48
1:D:55:ILE:CD1	1:D:198:TYR:HB2	2.37	0.48
1:D:309:ALA:HB3	1:D:358:GLN:HE22	1.79	0.48
1:E:143:VAL:CG1	1:E:144:GLY:H	2.25	0.48
1:E:197:ILE:N	1:E:197:ILE:HD12	2.29	0.48
1:E:293:LEU:HB2	1:E:339:LYS:HZ3	1.78	0.48
1:E:307:ILE:C	1:E:364:ASP:OD1	2.52	0.48
1:E:376:ALA:CA	1:E:379:TYR:CD2	2.85	0.48
1:A:16:LYS:HZ3	1:A:108:LEU:HD22	1.77	0.48
1:A:55:ILE:HD12	1:A:198:TYR:CD2	2.49	0.48
1:A:274:ARG:HE	1:A:440:HIS:HD2	1.60	0.48
1:A:326:ARG:HH22	1:A:427:MET:H	1.60	0.48
1:B:55:ILE:HD12	1:B:198:TYR:CD2	2.49	0.48
1:B:69:CYS:O	1:B:72:VAL:HG12	2.13	0.48
1:B:76:LEU:HG	1:B:134:PRO:HB3	1.94	0.48
1:B:91:LYS:CA	1:B:93:ARG:H	2.27	0.48
1:B:394:ARG:HH11	1:B:400:LYS:HZ2	1.61	0.48
1:C:91:LYS:CB	1:C:93:ARG:N	2.74	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:274:ARG:HE	1:C:440:HIS:HD2	1.60	0.48
1:C:286:GLN:O	1:C:298:LYS:HE3	2.14	0.48
1:C:295:ASP:HB2	1:C:339:LYS:NZ	2.21	0.48
1:C:307:ILE:C	1:C:364:ASP:OD1	2.52	0.48
1:C:313:LEU:HD11	1:C:377:VAL:CB	2.41	0.48
1:C:320:TYR:CZ	1:C:342:ASP:OD2	2.66	0.48
1:C:385:ILE:O	1:C:386:TYR:CD1	2.67	0.48
1:C:448:ARG:CB	1:C:455:MET:HE1	2.43	0.48
1:D:155:ASP:O	1:D:194:SER:C	2.52	0.48
1:D:271:LEU:HG	1:D:272:ARG:H	1.77	0.48
1:E:37:LYS:C	1:E:40:ILE:HG12	2.33	0.48
1:E:45:VAL:CG2	1:E:54:PHE:CE1	2.96	0.48
1:A:64:LYS:HG3	1:A:65:SER:H	1.74	0.48
1:A:100:PHE:O	1:A:104:ILE:HG12	2.14	0.48
1:A:225:ALA:C	1:A:228:PRO:HD2	2.33	0.48
1:B:16:LYS:HZ3	1:B:108:LEU:HD22	1.78	0.48
1:B:20:VAL:HG12	1:B:108:LEU:CD2	2.42	0.48
1:B:45:VAL:CG2	1:B:54:PHE:CE1	2.96	0.48
1:B:59:PHE:HB2	1:B:263:PRO:HA	1.95	0.48
1:B:77:TRP:HZ3	1:B:113:GLU:HA	1.70	0.48
1:C:82:LEU:HG	1:C:83:LYS:CG	2.44	0.48
1:C:87:VAL:CG1	1:C:94:ALA:HB1	2.43	0.48
1:C:143:VAL:CG1	1:C:144:GLY:H	2.25	0.48
1:C:313:LEU:HD23	1:C:321:GLN:HE21	1.75	0.48
1:C:322:TRP:CD2	1:C:457:ILE:HG22	2.48	0.48
1:D:320:TYR:CZ	1:D:342:ASP:OD2	2.66	0.48
1:E:52:LYS:CD	1:E:184:PHE:CE2	2.86	0.48
1:E:326:ARG:NH1	1:E:335:ASN:CB	2.65	0.48
1:A:91:LYS:CA	1:A:93:ARG:H	2.27	0.48
1:A:436:LEU:HA	1:A:439:HIS:CD2	2.49	0.48
1:A:444:MET:SD	1:A:445:GLU:CA	2.97	0.48
1:A:450:ARG:NE	1:A:453:LYS:HZ3	2.11	0.48
1:B:324:PRO:HD3	1:B:460:THR:HG21	1.96	0.48
1:B:385:ILE:O	1:B:386:TYR:CD1	2.67	0.48
1:B:439:HIS:ND1	1:B:453:LYS:HB3	2.29	0.48
1:C:37:LYS:C	1:C:40:ILE:HG12	2.33	0.48
1:C:69:CYS:O	1:C:72:VAL:HG12	2.13	0.48
1:C:155:ASP:O	1:C:194:SER:C	2.52	0.48
1:C:262:ASP:HB3	1:C:263:PRO:CD	2.42	0.48
1:C:324:PRO:HD3	1:C:460:THR:HG21	1.96	0.48
1:D:36:THR:HG22	1:D:39:GLN:OE1	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:42:MET:HA	1:D:45:VAL:HG12	1.96	0.48
1:D:307:ILE:C	1:D:364:ASP:OD1	2.52	0.48
1:E:91:LYS:CB	1:E:92:GLU:HG2	2.43	0.48
1:E:294:SER:CB	1:E:341:ASP:HB3	2.42	0.48
1:E:322:TRP:CD2	1:E:457:ILE:HG22	2.48	0.48
1:B:2:SER:HB3	1:B:111:LEU:CD1	2.35	0.48
1:B:37:LYS:C	1:B:40:ILE:HG12	2.33	0.48
1:B:76:LEU:HB2	1:B:136:HIS:HE2	1.79	0.48
1:B:94:ALA:HA	1:B:97:ASN:HD22	1.79	0.48
1:C:2:SER:HB3	1:C:111:LEU:CD1	2.35	0.48
1:C:80:PRO:C	1:C:81:GLN:HG2	2.33	0.48
1:C:87:VAL:HG23	1:C:158:ILE:HG13	1.94	0.48
1:C:379:TYR:O	1:C:385:ILE:CB	2.55	0.48
1:C:444:MET:HA	1:C:445:GLU:HA	1.56	0.48
1:C:455:MET:HG3	1:C:459:ASP:OD2	2.14	0.48
1:D:91:LYS:CA	1:D:93:ARG:H	2.27	0.48
1:D:100:PHE:O	1:D:104:ILE:HG12	2.14	0.48
1:D:124:VAL:HG12	1:D:125:ILE:HD12	1.95	0.48
1:D:149:LEU:CD1	1:D:174:ARG:HD2	2.44	0.48
1:D:301:LEU:HD22	1:D:361:LEU:CA	2.43	0.48
1:D:322:TRP:CD2	1:D:457:ILE:HG22	2.48	0.48
1:E:52:LYS:HE3	1:E:53:LYS:HZ1	1.78	0.48
1:E:76:LEU:HB2	1:E:136:HIS:HE2	1.79	0.48
1:E:77:TRP:HZ3	1:E:113:GLU:CA	2.25	0.48
1:A:59:PHE:HB2	1:A:263:PRO:HA	1.95	0.48
1:A:84:ILE:CA	1:A:135:ASP:OD1	2.60	0.48
1:B:100:PHE:O	1:B:104:ILE:HG12	2.14	0.48
1:B:146:THR:O	1:B:150:THR:HG23	2.14	0.48
1:B:286:GLN:O	1:B:298:LYS:HE3	2.14	0.48
1:B:301:LEU:HD22	1:B:361:LEU:CA	2.43	0.48
1:B:313:LEU:HD23	1:B:321:GLN:HE21	1.75	0.48
1:C:252:ASN:HB3	1:C:253:PRO:CD	2.41	0.48
1:D:87:VAL:CG1	1:D:94:ALA:HB1	2.43	0.48
1:D:197:ILE:HD12	1:D:197:ILE:N	2.29	0.48
1:D:273:GLU:HA	1:D:441:ASN:HA	1.95	0.48
1:D:280:LYS:NZ	1:D:437:LEU:C	2.65	0.48
1:D:385:ILE:O	1:D:386:TYR:CD1	2.67	0.48
1:E:203:GLN:NE2	1:E:206:MET:SD	2.87	0.48
1:A:295:ASP:OD2	1:A:357:GLN:CD	2.53	0.47
1:A:385:ILE:O	1:A:386:TYR:CD1	2.67	0.47
1:B:82:LEU:HG	1:B:83:LYS:CG	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:LEU:CD1	1:B:174:ARG:HD2	2.44	0.47
1:B:184:PHE:HE1	1:B:195:ARG:N	2.11	0.47
1:B:368:ARG:HE	1:B:378:LEU:CD2	2.15	0.47
1:C:146:THR:O	1:C:150:THR:HG23	2.14	0.47
1:C:163:GLU:OE1	1:C:208:LEU:CB	2.62	0.47
1:D:156:ILE:CB	1:D:194:SER:CB	2.83	0.47
1:D:204:THR:HG22	1:D:205:GLU:N	2.09	0.47
1:D:450:ARG:HE	1:D:453:LYS:NZ	2.11	0.47
1:E:76:LEU:HG	1:E:134:PRO:HB3	1.94	0.47
1:E:146:THR:O	1:E:150:THR:HG23	2.14	0.47
1:E:235:LEU:HG	1:E:245:LEU:CB	2.39	0.47
1:E:385:ILE:O	1:E:386:TYR:CD1	2.67	0.47
1:E:439:HIS:ND1	1:E:453:LYS:HB3	2.29	0.47
1:A:52:LYS:CD	1:A:184:PHE:CE2	2.86	0.47
1:A:87:VAL:HB	1:A:158:ILE:CG1	2.44	0.47
1:A:436:LEU:HB2	1:A:457:ILE:CD1	2.39	0.47
1:B:57:GLN:NE2	1:B:223:TRP:CD1	2.77	0.47
1:B:225:ALA:C	1:B:228:PRO:HD2	2.32	0.47
1:B:235:LEU:HG	1:B:245:LEU:CB	2.39	0.47
1:C:42:MET:HA	1:C:45:VAL:HG12	1.96	0.47
1:C:326:ARG:HH22	1:C:427:MET:H	1.60	0.47
1:D:11:VAL:HG22	1:D:11:VAL:O	2.13	0.47
1:D:87:VAL:HB	1:D:158:ILE:CG1	2.44	0.47
1:D:133:ASN:N	1:D:134:PRO:CD	2.67	0.47
1:D:146:THR:O	1:D:150:THR:HG23	2.14	0.47
1:E:39:GLN:HG2	1:E:67:ILE:CG2	2.41	0.47
1:E:55:ILE:HD12	1:E:198:TYR:CD2	2.49	0.47
1:E:94:ALA:HA	1:E:97:ASN:HD22	1.79	0.47
1:E:149:LEU:CD1	1:E:174:ARG:HD2	2.44	0.47
1:E:273:GLU:HA	1:E:441:ASN:HA	1.95	0.47
1:E:295:ASP:OD2	1:E:357:GLN:CD	2.53	0.47
1:E:320:TYR:CZ	1:E:342:ASP:OD2	2.66	0.47
1:A:45:VAL:CG2	1:A:54:PHE:CE1	2.96	0.47
1:A:309:ALA:HB3	1:A:358:GLN:HE22	1.79	0.47
1:B:42:MET:HA	1:B:45:VAL:HG12	1.96	0.47
1:B:91:LYS:CB	1:B:92:GLU:HG2	2.43	0.47
1:B:163:GLU:OE1	1:B:208:LEU:CB	2.62	0.47
1:B:197:ILE:N	1:B:197:ILE:HD12	2.29	0.47
1:B:261:THR:HA	1:B:268:ARG:HH22	1.79	0.47
1:B:307:ILE:C	1:B:364:ASP:OD1	2.52	0.47
1:B:335:ASN:HD21	1:B:338:LEU:CD1	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:59:PHE:HB2	1:C:263:PRO:HA	1.95	0.47
1:C:73:VAL:HG21	1:C:104:ILE:HG22	1.96	0.47
1:C:179:THR:HG21	1:C:196:VAL:CG2	2.42	0.47
1:C:328:ASN:HA	1:C:333:LEU:HD23	1.93	0.47
1:D:276:LEU:HD23	1:D:278:TYR:HB3	1.97	0.47
1:D:286:GLN:O	1:D:298:LYS:HE3	2.14	0.47
1:D:308:VAL:HG23	1:D:326:ARG:HB2	1.95	0.47
1:E:285:LEU:HD13	1:E:431:VAL:HG12	1.97	0.47
1:A:55:ILE:CD1	1:A:198:TYR:HB2	2.37	0.47
1:A:276:LEU:HD23	1:A:278:TYR:HB3	1.97	0.47
1:A:307:ILE:C	1:A:364:ASP:OD1	2.52	0.47
1:A:376:ALA:CA	1:A:379:TYR:CD2	2.85	0.47
1:B:87:VAL:CG1	1:B:94:ALA:HB1	2.43	0.47
1:C:91:LYS:CB	1:C:92:GLU:HG2	2.43	0.47
1:C:184:PHE:HE1	1:C:195:ARG:N	2.11	0.47
1:C:197:ILE:HD12	1:C:197:ILE:N	2.29	0.47
1:C:216:ARG:O	1:C:411:GLN:NE2	2.47	0.47
1:C:370:LYS:NZ	1:C:375:TYR:CD1	2.82	0.47
1:C:412:TRP:CZ2	1:C:416:THR:OG1	2.65	0.47
1:D:76:LEU:HG	1:D:134:PRO:HB3	1.94	0.47
1:D:203:GLN:NE2	1:D:206:MET:SD	2.87	0.47
1:D:450:ARG:NE	1:D:453:LYS:HZ3	2.13	0.47
1:E:42:MET:HA	1:E:45:VAL:HG12	1.96	0.47
1:E:124:VAL:HG12	1:E:125:ILE:HD12	1.95	0.47
1:E:128:ASP:HB2	1:E:135:ASP:HA	1.97	0.47
1:E:155:ASP:O	1:E:194:SER:C	2.52	0.47
1:E:261:THR:HA	1:E:268:ARG:HH22	1.80	0.47
1:E:280:LYS:NZ	1:E:437:LEU:CB	2.77	0.47
1:A:42:MET:HA	1:A:45:VAL:HG12	1.96	0.47
1:A:128:ASP:HB2	1:A:135:ASP:HA	1.97	0.47
1:A:301:LEU:HD22	1:A:361:LEU:CA	2.44	0.47
1:A:439:HIS:ND1	1:A:453:LYS:HB3	2.29	0.47
1:B:274:ARG:HE	1:B:440:HIS:HD2	1.59	0.47
1:B:450:ARG:HE	1:B:453:LYS:NZ	2.11	0.47
1:C:305:ASP:HA	1:C:329:ILE:HG21	1.97	0.47
1:C:309:ALA:HB3	1:C:358:GLN:HE22	1.79	0.47
1:C:436:LEU:HA	1:C:439:HIS:CD2	2.49	0.47
1:D:280:LYS:CE	1:D:438:LYS:HG2	2.45	0.47
1:D:285:LEU:HD11	1:D:434:PRO:HG3	1.97	0.47
1:E:148:GLN:NE2	1:E:171:MET:HG3	2.30	0.47
1:E:203:GLN:HG2	1:E:206:MET:HE2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:LEU:HG	1:A:134:PRO:HB3	1.94	0.47
1:A:149:LEU:CD1	1:A:174:ARG:HD2	2.44	0.47
1:A:181:VAL:CA	1:A:182:GLN:CG	2.90	0.47
1:A:252:ASN:HB3	1:A:253:PRO:CD	2.41	0.47
1:A:257:ALA:O	1:A:260:PRO:HD2	2.15	0.47
1:A:308:VAL:HG23	1:A:326:ARG:HB2	1.95	0.47
1:A:322:TRP:CD2	1:A:457:ILE:HG22	2.48	0.47
1:A:324:PRO:HD3	1:A:460:THR:HG21	1.96	0.47
1:B:285:LEU:HD11	1:B:434:PRO:HG3	1.97	0.47
1:B:295:ASP:OD2	1:B:357:GLN:CD	2.53	0.47
1:C:34:VAL:O	1:C:34:VAL:HG13	2.15	0.47
1:C:51:ASN:HB3	1:C:54:PHE:CE2	2.42	0.47
1:C:55:ILE:HD12	1:C:198:TYR:CD2	2.49	0.47
1:C:128:ASP:HB2	1:C:135:ASP:HA	1.97	0.47
1:D:91:LYS:CB	1:D:93:ARG:N	2.74	0.47
1:D:148:GLN:NE2	1:D:171:MET:HG3	2.30	0.47
1:D:261:THR:HG23	1:D:268:ARG:HH21	1.77	0.47
1:D:293:LEU:HB2	1:D:339:LYS:HZ3	1.79	0.47
1:D:295:ASP:OD2	1:D:357:GLN:CD	2.53	0.47
1:E:100:PHE:O	1:E:104:ILE:HG12	2.14	0.47
1:E:370:LYS:NZ	1:E:375:TYR:CD1	2.82	0.47
1:A:118:PRO:O	1:A:127:PHE:CD1	2.68	0.47
1:A:124:VAL:HG12	1:A:125:ILE:HD12	1.95	0.47
1:A:184:PHE:HE1	1:A:195:ARG:N	2.11	0.47
1:A:216:ARG:O	1:A:411:GLN:NE2	2.47	0.47
1:A:280:LYS:NZ	1:A:437:LEU:CB	2.77	0.47
1:A:286:GLN:O	1:A:298:LYS:HE3	2.14	0.47
1:A:370:LYS:C	1:A:375:TYR:CE2	2.88	0.47
1:B:91:LYS:CB	1:B:93:ARG:N	2.74	0.47
1:B:118:PRO:O	1:B:127:PHE:CD1	2.68	0.47
1:B:257:ALA:O	1:B:260:PRO:HD2	2.15	0.47
1:B:280:LYS:CE	1:B:438:LYS:HG2	2.45	0.47
1:B:294:SER:N	1:B:339:LYS:HZ1	2.12	0.47
1:B:370:LYS:NZ	1:B:375:TYR:CD1	2.82	0.47
1:B:436:LEU:HA	1:B:439:HIS:CD2	2.49	0.47
1:C:16:LYS:HZ3	1:C:108:LEU:HD22	1.79	0.47
1:C:20:VAL:HG12	1:C:108:LEU:CD2	2.42	0.47
1:C:59:PHE:CE1	1:C:225:ALA:CA	2.98	0.47
1:C:100:PHE:O	1:C:104:ILE:HG12	2.14	0.47
1:C:149:LEU:CD1	1:C:174:ARG:HD2	2.44	0.47
1:C:202:PRO:CB	1:C:265:ARG:NH1	2.71	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:203:GLN:NE2	1:C:206:MET:SD	2.87	0.47
1:C:285:LEU:HD13	1:C:431:VAL:HG12	1.97	0.47
1:C:439:HIS:ND1	1:C:453:LYS:HB3	2.29	0.47
1:D:55:ILE:HD12	1:D:198:TYR:CD2	2.49	0.47
1:D:59:PHE:CE1	1:D:225:ALA:CA	2.98	0.47
1:D:59:PHE:HB2	1:D:263:PRO:HA	1.95	0.47
1:D:83:LYS:HE2	1:D:192:PRO:CA	2.37	0.47
1:D:128:ASP:HB2	1:D:135:ASP:HA	1.97	0.47
1:D:148:GLN:HG3	1:D:171:MET:HE1	1.95	0.47
1:D:261:THR:HA	1:D:268:ARG:HH22	1.80	0.47
1:D:280:LYS:NZ	1:D:437:LEU:CB	2.77	0.47
1:D:280:LYS:HZ1	1:D:438:LYS:N	2.11	0.47
1:D:324:PRO:HD3	1:D:460:THR:HG21	1.96	0.47
1:D:370:LYS:C	1:D:375:TYR:CE2	2.88	0.47
1:D:379:TYR:O	1:D:385:ILE:CB	2.55	0.47
1:D:436:LEU:HA	1:D:439:HIS:CD2	2.49	0.47
1:E:12:VAL:CG1	1:E:15:LEU:HB3	2.41	0.47
1:E:59:PHE:CE1	1:E:225:ALA:CA	2.98	0.47
1:E:87:VAL:HB	1:E:158:ILE:CG1	2.44	0.47
1:E:180:LEU:CD2	1:E:181:VAL:HG12	2.34	0.47
1:E:216:ARG:O	1:E:411:GLN:NE2	2.47	0.47
1:E:428:PHE:CE2	1:E:461:LEU:CD1	2.90	0.47
1:A:47:ALA:N	1:A:195:ARG:NH2	2.63	0.47
1:A:163:GLU:CG	1:A:203:GLN:N	2.78	0.47
1:A:180:LEU:CD2	1:A:181:VAL:HG12	2.34	0.47
1:A:197:ILE:HD12	1:A:197:ILE:N	2.29	0.47
1:A:455:MET:HG3	1:A:459:ASP:OD2	2.14	0.47
1:C:57:GLN:CG	1:C:223:TRP:HB2	2.45	0.47
1:C:98:SER:C	1:C:101:ILE:HG12	2.33	0.47
1:D:42:MET:O	1:D:45:VAL:CG1	2.62	0.47
1:D:448:ARG:CB	1:D:455:MET:HE1	2.42	0.47
1:E:2:SER:HB3	1:E:111:LEU:CD1	2.35	0.47
1:E:88:SER:HB3	1:E:141:LYS:HD2	1.97	0.47
1:E:119:GLY:HA2	1:E:127:PHE:CD1	2.48	0.47
1:A:57:GLN:NE2	1:A:223:TRP:CD1	2.77	0.47
1:A:57:GLN:CG	1:A:223:TRP:HB2	2.45	0.47
1:B:8:ASN:OD1	1:B:12:VAL:HG11	2.15	0.47
1:B:128:ASP:HB2	1:B:135:ASP:HA	1.97	0.47
1:C:11:VAL:O	1:C:11:VAL:HG22	2.13	0.47
1:C:26:LEU:O	1:C:26:LEU:HD23	2.15	0.47
1:C:148:GLN:NE2	1:C:171:MET:HG3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:370:LYS:C	1:C:375:TYR:CE2	2.88	0.47
1:D:34:VAL:O	1:D:34:VAL:HG13	2.15	0.47
1:D:73:VAL:HG21	1:D:104:ILE:HG22	1.97	0.47
1:D:87:VAL:HG13	1:D:94:ALA:HB1	1.97	0.47
1:D:118:PRO:O	1:D:127:PHE:CD1	2.68	0.47
1:D:216:ARG:O	1:D:411:GLN:NE2	2.47	0.47
1:D:285:LEU:HD13	1:D:431:VAL:HG12	1.97	0.47
1:D:305:ASP:HA	1:D:329:ILE:HG21	1.97	0.47
1:E:73:VAL:HG11	1:E:104:ILE:CG2	2.40	0.47
1:E:73:VAL:HG21	1:E:104:ILE:HG22	1.97	0.47
1:E:91:LYS:CB	1:E:93:ARG:N	2.74	0.47
1:E:91:LYS:CA	1:E:93:ARG:H	2.27	0.47
1:E:184:PHE:HE1	1:E:195:ARG:N	2.11	0.47
1:E:274:ARG:HG3	1:E:275:GLU:H	1.80	0.47
1:E:308:VAL:HG23	1:E:326:ARG:HB2	1.94	0.47
1:E:444:MET:SD	1:E:445:GLU:HG3	2.55	0.47
1:A:87:VAL:HG13	1:A:94:ALA:HB1	1.97	0.47
1:A:146:THR:O	1:A:150:THR:HG23	2.14	0.47
1:A:203:GLN:NE2	1:A:206:MET:SD	2.87	0.47
1:B:26:LEU:O	1:B:26:LEU:HD23	2.15	0.47
1:B:252:ASN:HB3	1:B:253:PRO:CD	2.41	0.47
1:B:449:ALA:N	1:B:455:MET:CE	2.75	0.47
1:B:450:ARG:HE	1:B:453:LYS:HZ1	1.63	0.47
1:C:8:ASN:OD1	1:C:12:VAL:HG11	2.15	0.47
1:C:118:PRO:O	1:C:127:PHE:CD1	2.68	0.47
1:C:256:LEU:O	1:C:260:PRO:CD	2.49	0.47
1:C:276:LEU:HD23	1:C:278:TYR:HB3	1.97	0.47
1:D:318:MET:HB3	1:D:319:HIS:ND1	2.30	0.47
1:D:370:LYS:HZ2	1:D:375:TYR:HD1	1.57	0.47
1:E:346:TYR:HB3	1:E:348:ASP:HB2	1.97	0.47
1:A:95:ASP:OD1	1:A:138:PRO:HB2	2.16	0.46
1:A:148:GLN:NE2	1:A:171:MET:HG3	2.30	0.46
1:A:280:LYS:CE	1:A:438:LYS:HG2	2.45	0.46
1:A:318:MET:HB3	1:A:319:HIS:ND1	2.30	0.46
1:A:444:MET:SD	1:A:445:GLU:HG3	2.55	0.46
1:B:47:ALA:N	1:B:195:ARG:NH2	2.63	0.46
1:B:156:ILE:CB	1:B:194:SER:CB	2.83	0.46
1:B:202:PRO:HB3	1:B:265:ARG:HH12	1.78	0.46
1:B:305:ASP:HA	1:B:329:ILE:HG21	1.97	0.46
1:B:444:MET:SD	1:B:445:GLU:HG3	2.55	0.46
1:C:301:LEU:HD22	1:C:361:LEU:CA	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:444:MET:CG	1:C:445:GLU:HA	2.45	0.46
1:D:8:ASN:OD1	1:D:12:VAL:HG11	2.15	0.46
1:D:16:LYS:HZ3	1:D:108:LEU:HD22	1.79	0.46
1:D:20:VAL:HG12	1:D:108:LEU:CD2	2.42	0.46
1:D:26:LEU:HD23	1:D:26:LEU:O	2.15	0.46
1:D:94:ALA:HA	1:D:97:ASN:HD22	1.79	0.46
1:D:223:TRP:NE1	1:D:265:ARG:CG	2.75	0.46
1:E:257:ALA:O	1:E:260:PRO:HD2	2.15	0.46
1:E:318:MET:HB3	1:E:319:HIS:ND1	2.31	0.46
1:E:324:PRO:HD3	1:E:460:THR:HG21	1.96	0.46
1:E:436:LEU:HA	1:E:439:HIS:CD2	2.49	0.46
1:A:216:ARG:HG3	1:A:445:GLU:O	2.16	0.46
1:A:441:ASN:C	1:A:447:ILE:HG23	2.36	0.46
1:B:88:SER:HB3	1:B:141:LYS:HD2	1.97	0.46
1:B:90:SER:CA	1:B:140:VAL:HG23	2.37	0.46
1:B:102:LYS:HZ1	1:B:120:GLN:HB2	1.79	0.46
1:B:148:GLN:NE2	1:B:171:MET:HG3	2.30	0.46
1:B:216:ARG:O	1:B:411:GLN:NE2	2.47	0.46
1:B:280:LYS:NZ	1:B:437:LEU:CB	2.77	0.46
1:B:370:LYS:C	1:B:375:TYR:CE2	2.88	0.46
1:B:405:LEU:HD23	1:B:406:ALA:HB2	1.98	0.46
1:C:87:VAL:HG13	1:C:94:ALA:HB1	1.97	0.46
1:C:94:ALA:HA	1:C:97:ASN:HD22	1.79	0.46
1:C:216:ARG:HG3	1:C:445:GLU:O	2.16	0.46
1:C:318:MET:HB3	1:C:319:HIS:ND1	2.31	0.46
1:D:216:ARG:HG3	1:D:445:GLU:O	2.16	0.46
1:D:319:HIS:CG	1:D:456:ARG:HH21	2.34	0.46
1:D:327:GLN:O	1:D:334:PRO:HD2	2.15	0.46
1:D:444:MET:SD	1:D:445:GLU:HG3	2.55	0.46
1:E:95:ASP:OD1	1:E:138:PRO:HB2	2.16	0.46
1:E:118:PRO:O	1:E:127:PHE:CD1	2.68	0.46
1:E:216:ARG:HG3	1:E:445:GLU:O	2.16	0.46
1:E:309:ALA:HB3	1:E:358:GLN:HE22	1.79	0.46
1:E:368:ARG:HH21	1:E:378:LEU:HB3	1.81	0.46
1:E:370:LYS:C	1:E:375:TYR:CE2	2.88	0.46
1:E:441:ASN:C	1:E:447:ILE:HG23	2.36	0.46
1:A:67:ILE:HG13	1:A:68:THR:N	2.31	0.46
1:A:319:HIS:CG	1:A:456:ARG:HH21	2.34	0.46
1:A:327:GLN:O	1:A:334:PRO:HD2	2.15	0.46
1:B:117:ARG:CB	1:B:118:PRO:CD	2.94	0.46
1:B:203:GLN:NE2	1:B:206:MET:SD	2.87	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:318:MET:HB3	1:B:319:HIS:ND1	2.31	0.46
1:B:319:HIS:CG	1:B:456:ARG:HH21	2.34	0.46
1:B:376:ALA:HA	1:B:379:TYR:HD2	1.69	0.46
1:C:117:ARG:CB	1:C:118:PRO:CD	2.93	0.46
1:C:194:SER:CA	1:C:195:ARG:CG	2.92	0.46
1:C:280:LYS:CE	1:C:438:LYS:HG2	2.45	0.46
1:C:295:ASP:OD2	1:C:357:GLN:CD	2.53	0.46
1:C:444:MET:SD	1:C:445:GLU:HG3	2.55	0.46
1:D:88:SER:HB3	1:D:141:LYS:HD2	1.97	0.46
1:D:257:ALA:O	1:D:260:PRO:HD2	2.15	0.46
1:D:439:HIS:ND1	1:D:453:LYS:HB3	2.29	0.46
1:E:55:ILE:CD1	1:E:198:TYR:HB2	2.37	0.46
1:E:319:HIS:CG	1:E:456:ARG:HH21	2.34	0.46
1:E:327:GLN:O	1:E:334:PRO:HD2	2.16	0.46
1:E:444:MET:HA	1:E:445:GLU:HA	1.56	0.46
1:A:59:PHE:CE1	1:A:225:ALA:CA	2.98	0.46
1:A:163:GLU:HG2	1:A:203:GLN:H	1.80	0.46
1:B:346:TYR:HB3	1:B:348:ASP:HB2	1.97	0.46
1:B:441:ASN:C	1:B:447:ILE:HG23	2.36	0.46
1:C:82:LEU:C	1:C:83:LYS:HG3	2.36	0.46
1:C:376:ALA:CA	1:C:379:TYR:CD2	2.85	0.46
1:D:82:LEU:C	1:D:83:LYS:HG3	2.36	0.46
1:D:140:VAL:O	1:D:143:VAL:HG12	2.16	0.46
1:D:202:PRO:HB3	1:D:265:ARG:HH12	1.78	0.46
1:D:259:THR:N	1:D:260:PRO:CD	2.79	0.46
1:D:274:ARG:HG3	1:D:275:GLU:H	1.80	0.46
1:D:444:MET:SD	1:D:445:GLU:CA	2.97	0.46
1:E:82:LEU:C	1:E:83:LYS:HG3	2.36	0.46
1:E:233:GLU:CG	1:E:243:PRO:HD3	2.46	0.46
1:E:286:GLN:O	1:E:298:LYS:HE3	2.14	0.46
1:E:436:LEU:HB2	1:E:457:ILE:CD1	2.39	0.46
1:A:26:LEU:HD23	1:A:26:LEU:O	2.15	0.46
1:A:223:TRP:NE1	1:A:265:ARG:CG	2.75	0.46
1:A:285:LEU:HD11	1:A:434:PRO:HG3	1.97	0.46
1:A:351:ASN:HD21	1:A:377:VAL:HG13	1.75	0.46
1:B:34:VAL:HG13	1:B:34:VAL:O	2.15	0.46
1:B:59:PHE:CE1	1:B:225:ALA:CA	2.98	0.46
1:B:87:VAL:HG13	1:B:94:ALA:HB1	1.97	0.46
1:B:216:ARG:HG3	1:B:445:GLU:O	2.16	0.46
1:B:257:ALA:C	1:B:260:PRO:HD2	2.36	0.46
1:B:276:LEU:HD23	1:B:278:TYR:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:368:ARG:N	1:B:401:THR:HG21	2.31	0.46
1:B:444:MET:CG	1:B:445:GLU:HA	2.45	0.46
1:C:319:HIS:CG	1:C:456:ARG:HH21	2.34	0.46
1:D:194:SER:CA	1:D:195:ARG:CG	2.92	0.46
1:D:368:ARG:HH21	1:D:378:LEU:HB3	1.81	0.46
1:D:370:LYS:NZ	1:D:375:TYR:CD1	2.82	0.46
1:E:285:LEU:HD11	1:E:434:PRO:HG3	1.97	0.46
1:A:274:ARG:HG3	1:A:275:GLU:H	1.80	0.46
1:B:163:GLU:CG	1:B:203:GLN:N	2.78	0.46
1:B:274:ARG:HE	1:B:440:HIS:CD2	2.33	0.46
1:B:327:GLN:O	1:B:334:PRO:HD2	2.16	0.46
1:C:280:LYS:NZ	1:C:437:LEU:CB	2.77	0.46
1:C:293:LEU:HB3	1:C:339:LYS:NZ	2.31	0.46
1:C:434:PRO:O	1:C:438:LYS:HG3	2.16	0.46
1:D:51:ASN:HB3	1:D:54:PHE:CE2	2.42	0.46
1:D:119:GLY:HA2	1:D:127:PHE:CD1	2.48	0.46
1:D:280:LYS:HE2	1:D:438:LYS:CA	2.21	0.46
1:D:346:TYR:HB3	1:D:348:ASP:HB2	1.97	0.46
1:E:84:ILE:CA	1:E:135:ASP:OD1	2.60	0.46
1:E:163:GLU:CG	1:E:203:GLN:N	2.78	0.46
1:E:163:GLU:CB	1:E:208:LEU:HD13	2.28	0.46
1:E:280:LYS:CE	1:E:438:LYS:HG2	2.45	0.46
1:E:293:LEU:HB3	1:E:339:LYS:NZ	2.31	0.46
1:E:305:ASP:HA	1:E:329:ILE:HG21	1.97	0.46
1:A:2:SER:HB3	1:A:111:LEU:CD1	2.35	0.46
1:A:73:VAL:HG21	1:A:104:ILE:HG22	1.97	0.46
1:A:94:ALA:HA	1:A:97:ASN:HD22	1.79	0.46
1:A:285:LEU:HD13	1:A:431:VAL:HG12	1.97	0.46
1:A:379:TYR:O	1:A:385:ILE:CB	2.55	0.46
1:B:82:LEU:HG	1:B:83:LYS:HG3	1.98	0.46
1:B:98:SER:HA	1:B:101:ILE:HG12	1.98	0.46
1:C:98:SER:HA	1:C:101:ILE:HG12	1.98	0.46
1:D:67:ILE:HG13	1:D:68:THR:N	2.31	0.46
1:D:233:GLU:CG	1:D:243:PRO:HD3	2.46	0.46
1:D:444:MET:CG	1:D:445:GLU:HA	2.45	0.46
1:E:8:ASN:OD1	1:E:12:VAL:HG11	2.15	0.46
1:E:46:LEU:CD2	1:E:197:ILE:HG12	2.46	0.46
1:E:140:VAL:O	1:E:143:VAL:HG12	2.16	0.46
1:E:148:GLN:NE2	1:E:171:MET:O	2.48	0.46
1:A:8:ASN:OD1	1:A:12:VAL:HG11	2.15	0.46
1:A:98:SER:HA	1:A:101:ILE:HG12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:259:THR:N	1:A:260:PRO:CD	2.79	0.46
1:A:293:LEU:HB3	1:A:339:LYS:NZ	2.31	0.46
1:A:444:MET:CG	1:A:445:GLU:HA	2.45	0.46
1:B:87:VAL:CG2	1:B:158:ILE:HG13	2.46	0.46
1:B:95:ASP:OD1	1:B:138:PRO:HB2	2.16	0.46
1:B:179:THR:HG21	1:B:196:VAL:CG2	2.42	0.46
1:B:184:PHE:CE1	1:B:195:ARG:HA	2.51	0.46
1:B:285:LEU:HD13	1:B:431:VAL:HG12	1.97	0.46
1:C:83:LYS:HE2	1:C:192:PRO:CA	2.37	0.46
1:C:84:ILE:CA	1:C:135:ASP:OD1	2.60	0.46
1:C:88:SER:HB3	1:C:141:LYS:HD2	1.97	0.46
1:C:261:THR:HA	1:C:268:ARG:HH22	1.80	0.46
1:D:47:ALA:N	1:D:195:ARG:NH2	2.63	0.46
1:D:293:LEU:HB3	1:D:339:LYS:HZ1	1.80	0.46
1:E:257:ALA:C	1:E:260:PRO:HD2	2.36	0.46
1:E:323:LEU:O	1:E:338:LEU:HA	2.16	0.46
1:A:54:PHE:CD1	1:A:221:ILE:HD12	2.48	0.46
1:A:77:TRP:HZ3	1:A:113:GLU:CA	2.25	0.46
1:A:233:GLU:CG	1:A:243:PRO:HD3	2.46	0.46
1:A:434:PRO:O	1:A:438:LYS:HG3	2.16	0.46
1:B:46:LEU:CD2	1:B:197:ILE:HG12	2.46	0.46
1:B:117:ARG:CB	1:B:118:PRO:HD3	2.43	0.46
1:B:181:VAL:CA	1:B:182:GLN:CG	2.90	0.46
1:B:259:THR:N	1:B:260:PRO:CD	2.79	0.46
1:B:412:TRP:CZ3	1:B:466:GLN:HA	2.51	0.46
1:C:51:ASN:HB3	1:C:54:PHE:HZ	1.65	0.46
1:D:91:LYS:CB	1:D:92:GLU:HG2	2.43	0.46
1:D:223:TRP:CG	1:D:444:MET:HG2	2.51	0.46
1:D:274:ARG:HE	1:D:440:HIS:CD2	2.34	0.46
1:E:117:ARG:HE	1:E:132:ALA:CB	2.29	0.46
1:E:194:SER:CA	1:E:195:ARG:CG	2.92	0.46
1:E:203:GLN:CB	1:E:206:MET:HE2	2.46	0.46
1:E:223:TRP:CG	1:E:444:MET:HG2	2.51	0.46
1:E:259:THR:N	1:E:260:PRO:CD	2.79	0.46
1:E:276:LEU:HD23	1:E:278:TYR:HB3	1.96	0.46
1:E:449:ALA:N	1:E:455:MET:CE	2.75	0.46
1:A:34:VAL:O	1:A:34:VAL:HG13	2.15	0.46
1:A:91:LYS:CB	1:A:93:ARG:N	2.74	0.46
1:A:140:VAL:O	1:A:143:VAL:HG12	2.16	0.46
1:A:261:THR:HA	1:A:268:ARG:HH22	1.79	0.46
1:A:305:ASP:HA	1:A:329:ILE:HG21	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:36:THR:HG22	1:B:39:GLN:HG3	1.91	0.46
1:B:67:ILE:HG13	1:B:68:THR:N	2.31	0.46
1:B:140:VAL:O	1:B:143:VAL:HG12	2.16	0.46
1:C:47:ALA:N	1:C:195:ARG:NH2	2.63	0.46
1:C:257:ALA:C	1:C:260:PRO:HD2	2.36	0.46
1:C:257:ALA:O	1:C:260:PRO:HD2	2.15	0.46
1:D:163:GLU:HG2	1:D:203:GLN:H	1.80	0.46
1:D:257:ALA:C	1:D:260:PRO:HD2	2.36	0.46
1:D:293:LEU:HB3	1:D:339:LYS:NZ	2.31	0.46
1:A:119:GLY:HA2	1:A:127:PHE:CD1	2.48	0.45
1:A:140:VAL:HG13	1:A:143:VAL:CG1	2.43	0.45
1:A:204:THR:CG2	1:A:205:GLU:N	2.77	0.45
1:A:307:ILE:HG22	1:A:364:ASP:OD1	2.17	0.45
1:A:412:TRP:CZ3	1:A:466:GLN:HA	2.51	0.45
1:B:233:GLU:CG	1:B:243:PRO:HD3	2.46	0.45
1:B:235:LEU:N	1:B:235:LEU:HD12	2.32	0.45
1:C:57:GLN:HE22	1:C:216:ARG:HH22	1.64	0.45
1:C:87:VAL:CG2	1:C:158:ILE:HG13	2.46	0.45
1:D:57:GLN:HE22	1:D:216:ARG:HH22	1.64	0.45
1:D:117:ARG:HE	1:D:132:ALA:CB	2.29	0.45
1:D:405:LEU:HD23	1:D:406:ALA:HB2	1.98	0.45
1:E:26:LEU:O	1:E:26:LEU:HD23	2.15	0.45
1:E:59:PHE:CZ	1:E:225:ALA:O	2.69	0.45
1:E:87:VAL:HG13	1:E:94:ALA:HB1	1.97	0.45
1:E:148:GLN:HE21	1:E:171:MET:CG	2.28	0.45
1:E:273:GLU:OE1	1:E:280:LYS:CD	2.61	0.45
1:E:307:ILE:HG22	1:E:364:ASP:OD1	2.17	0.45
1:E:412:TRP:CZ3	1:E:466:GLN:HA	2.51	0.45
1:E:444:MET:CG	1:E:445:GLU:HA	2.45	0.45
1:A:39:GLN:CG	1:A:67:ILE:CG2	2.94	0.45
1:A:87:VAL:CG2	1:A:158:ILE:HG13	2.46	0.45
1:A:90:SER:CA	1:A:140:VAL:HG23	2.37	0.45
1:A:257:ALA:C	1:A:260:PRO:HD2	2.36	0.45
1:A:260:PRO:HA	1:A:264:VAL:HB	1.98	0.45
1:A:307:ILE:HD11	1:A:327:GLN:NE2	2.32	0.45
1:A:368:ARG:HH21	1:A:378:LEU:HB3	1.81	0.45
1:A:394:ARG:HH11	1:A:400:LYS:HZ2	1.65	0.45
1:A:441:ASN:O	1:A:447:ILE:HG23	2.17	0.45
1:C:82:LEU:HG	1:C:83:LYS:HG3	1.98	0.45
1:C:405:LEU:HD23	1:C:406:ALA:HB2	1.98	0.45
1:C:448:ARG:CA	1:C:455:MET:HE1	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:46:LEU:CD2	1:D:197:ILE:HG12	2.46	0.45
1:D:193:SER:O	1:D:194:SER:HB2	2.17	0.45
1:D:444:MET:HA	1:D:445:GLU:HA	1.56	0.45
1:E:20:VAL:HG12	1:E:108:LEU:CD2	2.42	0.45
1:E:34:VAL:HG13	1:E:34:VAL:O	2.15	0.45
1:E:90:SER:CA	1:E:140:VAL:HG23	2.37	0.45
1:E:260:PRO:HA	1:E:264:VAL:HB	1.98	0.45
1:E:351:ASN:HD21	1:E:377:VAL:CG1	2.30	0.45
1:E:370:LYS:HG2	1:E:378:LEU:HD11	1.98	0.45
1:E:434:PRO:O	1:E:438:LYS:HG3	2.16	0.45
1:A:59:PHE:CZ	1:A:225:ALA:O	2.69	0.45
1:A:148:GLN:HE21	1:A:171:MET:CG	2.28	0.45
1:A:184:PHE:CE1	1:A:195:ARG:HA	2.51	0.45
1:A:208:LEU:HD21	1:A:265:ARG:HH22	1.82	0.45
1:A:274:ARG:HE	1:A:440:HIS:CD2	2.34	0.45
1:B:307:ILE:HD11	1:B:327:GLN:NE2	2.32	0.45
1:B:441:ASN:O	1:B:447:ILE:HG23	2.17	0.45
1:C:233:GLU:CG	1:C:243:PRO:HD3	2.46	0.45
1:C:274:ARG:HG3	1:C:275:GLU:H	1.80	0.45
1:C:346:TYR:HB3	1:C:348:ASP:HB2	1.97	0.45
1:C:441:ASN:C	1:C:447:ILE:HG23	2.36	0.45
1:C:450:ARG:HE	1:C:453:LYS:HZ1	1.64	0.45
1:D:2:SER:HB3	1:D:111:LEU:CD1	2.35	0.45
1:D:87:VAL:CG2	1:D:158:ILE:HG13	2.46	0.45
1:D:95:ASP:OD1	1:D:138:PRO:HB2	2.16	0.45
1:D:368:ARG:N	1:D:401:THR:HG21	2.31	0.45
1:E:82:LEU:HG	1:E:83:LYS:HG3	1.98	0.45
1:E:274:ARG:HE	1:E:440:HIS:CD2	2.34	0.45
1:A:323:LEU:O	1:A:338:LEU:HA	2.16	0.45
1:A:431:VAL:O	1:A:434:PRO:HG2	2.17	0.45
1:B:39:GLN:HG2	1:B:67:ILE:CG2	2.41	0.45
1:B:117:ARG:HE	1:B:132:ALA:CB	2.29	0.45
1:B:204:THR:CG2	1:B:205:GLU:N	2.77	0.45
1:B:239:GLN:OE1	1:B:239:GLN:N	2.50	0.45
1:B:368:ARG:HH21	1:B:378:LEU:HB3	1.81	0.45
1:B:412:TRP:CZ2	1:B:416:THR:OG1	2.65	0.45
1:C:76:LEU:HG	1:C:134:PRO:HB3	1.94	0.45
1:C:76:LEU:HB2	1:C:136:HIS:HE2	1.79	0.45
1:C:87:VAL:CB	1:C:158:ILE:HG13	2.47	0.45
1:C:193:SER:O	1:C:194:SER:CB	2.64	0.45
1:C:208:LEU:HD21	1:C:265:ARG:HH22	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:223:TRP:CG	1:C:444:MET:HG2	2.51	0.45
1:C:235:LEU:HD12	1:C:235:LEU:N	2.32	0.45
1:C:259:THR:N	1:C:260:PRO:CD	2.79	0.45
1:C:285:LEU:HD11	1:C:434:PRO:HG3	1.97	0.45
1:C:293:LEU:CB	1:C:339:LYS:HZ1	2.30	0.45
1:C:370:LYS:HZ2	1:C:375:TYR:HD1	1.59	0.45
1:C:431:VAL:O	1:C:434:PRO:HG2	2.17	0.45
1:D:162:VAL:HG13	1:D:208:LEU:CD1	2.36	0.45
1:D:235:LEU:HG	1:D:245:LEU:CB	2.39	0.45
1:D:239:GLN:OE1	1:D:239:GLN:N	2.50	0.45
1:D:405:LEU:HD23	1:D:405:LEU:C	2.37	0.45
1:E:193:SER:O	1:E:194:SER:HB2	2.17	0.45
1:E:239:GLN:OE1	1:E:239:GLN:N	2.50	0.45
1:E:295:ASP:HB2	1:E:339:LYS:NZ	2.21	0.45
1:B:25:VAL:HG11	1:B:31:ASN:HD21	1.82	0.45
1:B:59:PHE:CZ	1:B:225:ALA:O	2.69	0.45
1:B:73:VAL:HG21	1:B:104:ILE:HG22	1.97	0.45
1:B:82:LEU:C	1:B:83:LYS:HG3	2.36	0.45
1:B:193:SER:O	1:B:194:SER:CB	2.64	0.45
1:B:194:SER:CA	1:B:195:ARG:CG	2.92	0.45
1:B:370:LYS:HG2	1:B:378:LEU:HD11	1.98	0.45
1:B:434:PRO:O	1:B:438:LYS:HG3	2.16	0.45
1:C:25:VAL:HG11	1:C:31:ASN:HD21	1.82	0.45
1:C:117:ARG:HE	1:C:132:ALA:CB	2.29	0.45
1:C:140:VAL:O	1:C:143:VAL:HG12	2.16	0.45
1:C:239:GLN:OE1	1:C:239:GLN:N	2.50	0.45
1:C:405:LEU:HD23	1:C:405:LEU:C	2.37	0.45
1:D:328:ASN:HA	1:D:333:LEU:HD23	1.93	0.45
1:E:57:GLN:CG	1:E:223:TRP:HD1	2.30	0.45
1:E:117:ARG:CB	1:E:118:PRO:HD3	2.43	0.45
1:A:117:ARG:HE	1:A:132:ALA:CB	2.29	0.45
1:A:251:GLU:OE2	1:A:256:LEU:HD12	2.17	0.45
1:A:322:TRP:CZ2	1:A:338:LEU:CD2	2.94	0.45
1:A:351:ASN:HD21	1:A:377:VAL:CG1	2.30	0.45
1:A:448:ARG:CA	1:A:455:MET:HE1	2.46	0.45
1:B:77:TRP:HZ3	1:B:113:GLU:CA	2.25	0.45
1:B:119:GLY:HA2	1:B:127:PHE:CD1	2.48	0.45
1:B:307:ILE:HG22	1:B:364:ASP:OD1	2.16	0.45
1:B:368:ARG:N	1:B:401:THR:CG2	2.70	0.45
1:B:405:LEU:HD23	1:B:405:LEU:C	2.37	0.45
1:C:67:ILE:HG13	1:C:68:THR:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:79:ASP:CB	1:C:82:LEU:O	2.65	0.45
1:C:102:LYS:HZ1	1:C:120:GLN:HB2	1.82	0.45
1:C:274:ARG:HE	1:C:440:HIS:CD2	2.34	0.45
1:C:327:GLN:O	1:C:334:PRO:HD2	2.16	0.45
1:C:368:ARG:HH21	1:C:378:LEU:HB3	1.81	0.45
1:C:412:TRP:CZ3	1:C:466:GLN:HA	2.51	0.45
1:D:10:LEU:HD23	1:D:10:LEU:C	2.37	0.45
1:D:98:SER:HA	1:D:101:ILE:HG12	1.98	0.45
1:D:394:ARG:HD3	1:D:400:LYS:HZ2	1.81	0.45
1:D:434:PRO:O	1:D:438:LYS:HG3	2.16	0.45
1:D:441:ASN:C	1:D:447:ILE:HG23	2.36	0.45
1:E:307:ILE:HD11	1:E:327:GLN:NE2	2.32	0.45
1:E:441:ASN:O	1:E:447:ILE:HG23	2.17	0.45
1:A:28:LYS:HB2	1:A:31:ASN:ND2	2.11	0.45
1:A:57:GLN:CG	1:A:223:TRP:HD1	2.30	0.45
1:A:235:LEU:HD12	1:A:235:LEU:N	2.32	0.45
1:A:370:LYS:HG2	1:A:378:LEU:HD11	1.98	0.45
1:B:251:GLU:OE2	1:B:256:LEU:HD12	2.17	0.45
1:B:448:ARG:CA	1:B:455:MET:HE1	2.47	0.45
1:D:301:LEU:HD13	1:D:361:LEU:CA	2.46	0.45
1:E:39:GLN:CG	1:E:67:ILE:CG2	2.94	0.45
1:E:47:ALA:N	1:E:195:ARG:NH2	2.63	0.45
1:E:57:GLN:CG	1:E:223:TRP:HB2	2.45	0.45
1:E:67:ILE:HG13	1:E:68:THR:N	2.31	0.45
1:E:79:ASP:CB	1:E:82:LEU:O	2.65	0.45
1:E:87:VAL:CG2	1:E:158:ILE:HG13	2.46	0.45
1:E:293:LEU:HB3	1:E:339:LYS:HZ1	1.81	0.45
1:E:405:LEU:HD23	1:E:405:LEU:C	2.37	0.45
1:A:87:VAL:CB	1:A:158:ILE:HG13	2.47	0.45
1:A:368:ARG:N	1:A:401:THR:HG21	2.31	0.45
1:A:402:LEU:HD23	1:A:402:LEU:C	2.38	0.45
1:B:36:THR:CG2	1:B:38:CYS:SG	3.05	0.45
1:B:260:PRO:HA	1:B:264:VAL:HB	1.98	0.45
1:C:46:LEU:CD2	1:C:197:ILE:HG12	2.46	0.45
1:D:39:GLN:HG2	1:D:67:ILE:CG2	2.41	0.45
1:D:59:PHE:CZ	1:D:225:ALA:O	2.69	0.45
1:D:84:ILE:CA	1:D:135:ASP:OD1	2.60	0.45
1:D:196:VAL:C	1:D:197:ILE:HD12	2.37	0.45
1:D:260:PRO:HA	1:D:264:VAL:HB	1.98	0.45
1:D:307:ILE:HG22	1:D:364:ASP:OD1	2.17	0.45
1:D:323:LEU:O	1:D:338:LEU:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:376:ALA:HA	1:D:379:TYR:HD2	1.68	0.45
1:D:448:ARG:CA	1:D:455:MET:HE1	2.47	0.45
1:E:83:LYS:HE2	1:E:192:PRO:CA	2.37	0.45
1:E:149:LEU:HD11	1:E:174:ARG:CD	2.46	0.45
1:E:301:LEU:HD13	1:E:361:LEU:CA	2.46	0.45
1:A:12:VAL:CG1	1:A:15:LEU:HB3	2.41	0.45
1:A:39:GLN:HG2	1:A:67:ILE:CG2	2.41	0.45
1:A:118:PRO:HD2	1:A:128:ASP:CA	2.37	0.45
1:B:10:LEU:HD23	1:B:10:LEU:C	2.37	0.45
1:B:57:GLN:CG	1:B:223:TRP:HB2	2.45	0.45
1:B:446:GLU:O	1:B:447:ILE:HD13	2.17	0.45
1:C:70:ALA:HA	1:C:73:VAL:HG12	1.99	0.45
1:C:148:GLN:NE2	1:C:171:MET:O	2.48	0.45
1:C:184:PHE:CE1	1:C:195:ARG:N	2.85	0.45
1:C:193:SER:O	1:C:194:SER:HB2	2.17	0.45
1:C:323:LEU:O	1:C:338:LEU:HA	2.16	0.45
1:C:351:ASN:HD21	1:C:377:VAL:CG1	2.30	0.45
1:D:25:VAL:HG11	1:D:31:ASN:HD21	1.82	0.45
1:D:52:LYS:CB	1:D:184:PHE:CZ	2.79	0.45
1:D:57:GLN:CG	1:D:223:TRP:HB2	2.45	0.45
1:D:117:ARG:CB	1:D:118:PRO:HD3	2.43	0.45
1:D:118:PRO:HD2	1:D:128:ASP:CA	2.37	0.45
1:D:148:GLN:NE2	1:D:171:MET:O	2.48	0.45
1:D:184:PHE:CE1	1:D:195:ARG:N	2.85	0.45
1:D:307:ILE:HD11	1:D:327:GLN:NE2	2.31	0.45
1:D:412:TRP:CZ3	1:D:466:GLN:HA	2.51	0.45
1:D:431:VAL:O	1:D:434:PRO:HG2	2.17	0.45
1:D:455:MET:O	1:D:458:CYS:SG	2.66	0.45
1:E:57:GLN:OE1	1:E:216:ARG:NH2	2.50	0.45
1:E:322:TRP:CE2	1:E:457:ILE:CB	3.00	0.45
1:E:368:ARG:HE	1:E:378:LEU:CA	2.30	0.45
1:A:46:LEU:CD2	1:A:197:ILE:HG12	2.46	0.45
1:A:196:VAL:C	1:A:197:ILE:HD12	2.37	0.45
1:A:223:TRP:CG	1:A:444:MET:HG2	2.51	0.45
1:B:184:PHE:CE1	1:B:195:ARG:N	2.85	0.45
1:B:196:VAL:C	1:B:197:ILE:HD12	2.37	0.45
1:B:223:TRP:CG	1:B:444:MET:HG2	2.51	0.45
1:C:59:PHE:CZ	1:C:225:ALA:O	2.69	0.45
1:C:307:ILE:HD11	1:C:327:GLN:NE2	2.32	0.45
1:C:446:GLU:O	1:C:447:ILE:HD13	2.17	0.45
1:D:57:GLN:CG	1:D:223:TRP:HD1	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:79:ASP:CB	1:D:82:LEU:O	2.65	0.45
1:D:203:GLN:CG	1:D:206:MET:HE1	2.46	0.45
1:D:335:ASN:HD21	1:D:338:LEU:CD1	2.20	0.45
1:E:118:PRO:HA	1:E:121:ARG:NE	2.29	0.45
1:E:184:PHE:CE1	1:E:195:ARG:HA	2.51	0.45
1:E:184:PHE:CE1	1:E:195:ARG:N	2.85	0.45
1:E:370:LYS:HZ2	1:E:375:TYR:HD1	1.59	0.45
1:E:402:LEU:HD23	1:E:402:LEU:C	2.38	0.45
1:E:405:LEU:HD23	1:E:406:ALA:HB2	1.98	0.45
1:A:10:LEU:HD23	1:A:10:LEU:C	2.37	0.44
1:B:87:VAL:CB	1:B:158:ILE:HG13	2.47	0.44
1:B:208:LEU:HD21	1:B:265:ARG:HH22	1.82	0.44
1:B:274:ARG:HG3	1:B:275:GLU:H	1.80	0.44
1:B:323:LEU:O	1:B:338:LEU:HA	2.16	0.44
1:D:149:LEU:HD11	1:D:174:ARG:CD	2.46	0.44
1:E:10:LEU:HD23	1:E:10:LEU:C	2.37	0.44
1:E:87:VAL:CB	1:E:158:ILE:HG13	2.47	0.44
1:E:196:VAL:C	1:E:197:ILE:HD12	2.37	0.44
1:E:368:ARG:HH12	1:E:381:LEU:HD22	1.83	0.44
1:E:379:TYR:O	1:E:385:ILE:CB	2.55	0.44
1:A:117:ARG:CB	1:A:118:PRO:HD3	2.43	0.44
1:A:149:LEU:HD11	1:A:174:ARG:CD	2.46	0.44
1:A:184:PHE:CE1	1:A:195:ARG:N	2.85	0.44
1:A:239:GLN:OE1	1:A:239:GLN:N	2.50	0.44
1:A:256:LEU:O	1:A:260:PRO:CD	2.49	0.44
1:A:324:PRO:CD	1:A:460:THR:HG21	2.47	0.44
1:B:12:VAL:CG1	1:B:15:LEU:HB3	2.41	0.44
1:B:301:LEU:HG	1:B:302:ARG:N	2.32	0.44
1:B:402:LEU:HD23	1:B:402:LEU:C	2.38	0.44
1:C:10:LEU:HD23	1:C:10:LEU:C	2.37	0.44
1:C:260:PRO:HA	1:C:264:VAL:HB	1.98	0.44
1:D:70:ALA:HA	1:D:73:VAL:HG12	1.99	0.44
1:D:210:LYS:HA	1:D:213:GLU:HG2	2.00	0.44
1:D:402:LEU:HD23	1:D:402:LEU:C	2.38	0.44
1:E:102:LYS:HZ1	1:E:120:GLN:HB2	1.79	0.44
1:E:208:LEU:HD21	1:E:265:ARG:HH22	1.82	0.44
1:E:251:GLU:OE2	1:E:256:LEU:HD12	2.17	0.44
1:A:25:VAL:HG11	1:A:31:ASN:HD21	1.82	0.44
1:A:52:LYS:HE3	1:A:53:LYS:HZ1	1.81	0.44
1:A:206:MET:HB2	1:A:206:MET:HE3	1.52	0.44
1:A:280:LYS:HZ3	1:A:437:LEU:C	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:313:LEU:HD23	1:A:321:GLN:HG3	1.99	0.44
1:B:79:ASP:CB	1:B:82:LEU:O	2.65	0.44
1:B:84:ILE:CA	1:B:135:ASP:OD1	2.60	0.44
1:B:273:GLU:OE1	1:B:280:LYS:CD	2.61	0.44
1:B:280:LYS:HE2	1:B:438:LYS:CA	2.21	0.44
1:B:324:PRO:CD	1:B:460:THR:HG21	2.47	0.44
1:B:444:MET:SD	1:B:445:GLU:CA	2.97	0.44
1:C:39:GLN:HG2	1:C:67:ILE:CG2	2.41	0.44
1:C:95:ASP:OD1	1:C:138:PRO:HB2	2.16	0.44
1:C:368:ARG:HH12	1:C:381:LEU:HD22	1.83	0.44
1:D:73:VAL:HG11	1:D:104:ILE:CG2	2.40	0.44
1:D:149:LEU:CG	1:D:174:ARG:HD2	2.48	0.44
1:E:88:SER:HB3	1:E:141:LYS:HB2	2.00	0.44
1:E:140:VAL:HG22	1:E:142:SER:H	1.83	0.44
1:A:149:LEU:CG	1:A:174:ARG:HD2	2.48	0.44
1:B:54:PHE:CD1	1:B:221:ILE:HD12	2.48	0.44
1:B:140:VAL:HG13	1:B:143:VAL:CG1	2.44	0.44
1:B:149:LEU:HD11	1:B:174:ARG:CD	2.46	0.44
1:B:208:LEU:HD23	1:B:208:LEU:C	2.38	0.44
1:B:262:ASP:CB	1:B:263:PRO:HD3	2.48	0.44
1:B:351:ASN:HD21	1:B:377:VAL:CG1	2.30	0.44
1:B:431:VAL:O	1:B:434:PRO:HG2	2.17	0.44
1:C:163:GLU:CG	1:C:203:GLN:N	2.78	0.44
1:C:181:VAL:CA	1:C:182:GLN:CG	2.90	0.44
1:C:441:ASN:O	1:C:447:ILE:HG23	2.17	0.44
1:D:208:LEU:HD21	1:D:265:ARG:HH22	1.82	0.44
1:D:351:ASN:HD21	1:D:377:VAL:CG1	2.30	0.44
1:D:441:ASN:O	1:D:447:ILE:HG23	2.17	0.44
1:E:156:ILE:CB	1:E:194:SER:CB	2.83	0.44
1:E:226:LEU:HG	1:E:232:GLU:OE1	2.18	0.44
1:E:301:LEU:HG	1:E:302:ARG:N	2.32	0.44
1:E:322:TRP:CZ2	1:E:338:LEU:CD2	2.94	0.44
1:E:432:PHE:HD1	1:E:432:PHE:N	2.16	0.44
1:E:446:GLU:O	1:E:447:ILE:HD13	2.17	0.44
1:A:127:PHE:CE2	1:A:128:ASP:CG	2.91	0.44
1:A:293:LEU:CB	1:A:339:LYS:HZ3	2.29	0.44
1:A:322:TRP:CE2	1:A:457:ILE:CB	3.00	0.44
1:B:149:LEU:CG	1:B:174:ARG:HD2	2.48	0.44
1:B:193:SER:O	1:B:194:SER:HB2	2.17	0.44
1:B:295:ASP:N	1:B:339:LYS:HZ2	2.15	0.44
1:B:432:PHE:HD1	1:B:432:PHE:N	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:140:VAL:HG22	1:C:142:SER:H	1.83	0.44
1:C:301:LEU:CD1	1:C:361:LEU:HA	2.46	0.44
1:C:370:LYS:HG2	1:C:378:LEU:HD11	1.98	0.44
1:D:21:ALA:C	1:D:33:PRO:HG2	2.38	0.44
1:D:57:GLN:OE1	1:D:216:ARG:NH2	2.50	0.44
1:D:413:GLY:O	1:D:465:MET:CB	2.66	0.44
1:E:52:LYS:CB	1:E:184:PHE:CZ	2.79	0.44
1:E:85:LEU:CG	1:E:156:ILE:HG23	2.48	0.44
1:E:85:LEU:CB	1:E:156:ILE:HG23	2.48	0.44
1:E:98:SER:HA	1:E:101:ILE:HG12	1.98	0.44
1:E:140:VAL:HG13	1:E:143:VAL:CG1	2.43	0.44
1:E:210:LYS:HA	1:E:213:GLU:HG2	2.00	0.44
1:A:220:THR:CG2	1:A:411:GLN:CD	2.86	0.44
1:B:70:ALA:HA	1:B:73:VAL:HG12	1.99	0.44
1:B:85:LEU:CG	1:B:156:ILE:HG23	2.48	0.44
1:B:148:GLN:NE2	1:B:171:MET:CG	2.81	0.44
1:B:221:ILE:C	1:B:445:GLU:HG2	2.38	0.44
1:B:322:TRP:CZ2	1:B:338:LEU:CD2	2.94	0.44
1:C:149:LEU:HD11	1:C:174:ARG:CD	2.46	0.44
1:C:149:LEU:CG	1:C:174:ARG:HD2	2.48	0.44
1:C:196:VAL:C	1:C:197:ILE:HD12	2.37	0.44
1:C:206:MET:HE2	1:C:206:MET:HB2	1.52	0.44
1:C:307:ILE:HG22	1:C:364:ASP:OD1	2.16	0.44
1:C:324:PRO:CD	1:C:460:THR:HG21	2.47	0.44
1:D:52:LYS:CD	1:D:184:PHE:CE2	2.86	0.44
1:D:82:LEU:HG	1:D:83:LYS:HG3	1.98	0.44
1:D:235:LEU:N	1:D:235:LEU:HD12	2.32	0.44
1:D:370:LYS:HG2	1:D:378:LEU:HD11	1.98	0.44
1:D:462:GLU:N	1:D:463:PRO:CD	2.81	0.44
1:A:36:THR:CG2	1:A:38:CYS:SG	3.05	0.44
1:B:85:LEU:CB	1:B:156:ILE:HG23	2.48	0.44
1:B:293:LEU:HB3	1:B:339:LYS:NZ	2.31	0.44
1:B:351:ASN:ND2	1:B:377:VAL:CG1	2.79	0.44
1:C:21:ALA:C	1:C:33:PRO:HG2	2.38	0.44
1:C:117:ARG:CB	1:C:118:PRO:HD3	2.43	0.44
1:C:208:LEU:HD23	1:C:208:LEU:C	2.38	0.44
1:C:220:THR:CG2	1:C:411:GLN:CD	2.86	0.44
1:D:301:LEU:CD2	1:D:361:LEU:HA	2.47	0.44
1:D:432:PHE:HD1	1:D:432:PHE:N	2.16	0.44
1:E:83:LYS:CE	1:E:192:PRO:C	2.86	0.44
1:E:235:LEU:HD12	1:E:235:LEU:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:301:LEU:CD1	1:E:361:LEU:HA	2.46	0.44
1:E:372:GLU:HG3	1:E:373:THR:N	2.33	0.44
1:A:70:ALA:HA	1:A:73:VAL:HG12	1.99	0.44
1:A:208:LEU:HA	1:A:211:GLU:HG2	2.00	0.44
1:A:301:LEU:HD13	1:A:361:LEU:CA	2.46	0.44
1:A:301:LEU:HG	1:A:302:ARG:N	2.32	0.44
1:A:462:GLU:N	1:A:463:PRO:CD	2.81	0.44
1:B:39:GLN:CG	1:B:67:ILE:CG2	2.94	0.44
1:B:42:MET:O	1:B:45:VAL:CG1	2.62	0.44
1:B:88:SER:HB3	1:B:141:LYS:HB2	2.00	0.44
1:B:301:LEU:CD1	1:B:361:LEU:HA	2.46	0.44
1:C:301:LEU:HG	1:C:302:ARG:N	2.32	0.44
1:C:313:LEU:HD23	1:C:321:GLN:HG3	1.99	0.44
1:C:368:ARG:N	1:C:401:THR:HG21	2.31	0.44
1:C:413:GLY:O	1:C:465:MET:CB	2.66	0.44
1:D:85:LEU:HD13	1:D:136:HIS:ND1	2.32	0.44
1:D:148:GLN:NE2	1:D:171:MET:CG	2.81	0.44
1:D:152:SER:C	1:D:153:ARG:HG2	2.39	0.44
1:D:251:GLU:OE2	1:D:256:LEU:HD12	2.17	0.44
1:D:259:THR:N	1:D:260:PRO:HD2	2.33	0.44
1:E:25:VAL:HG11	1:E:31:ASN:HD21	1.82	0.44
1:E:37:LYS:HA	1:E:40:ILE:HG12	2.00	0.44
1:E:221:ILE:C	1:E:445:GLU:HG2	2.38	0.44
1:E:455:MET:O	1:E:458:CYS:SG	2.66	0.44
1:E:462:GLU:N	1:E:463:PRO:CD	2.81	0.44
1:A:85:LEU:HD13	1:A:136:HIS:ND1	2.33	0.44
1:A:368:ARG:HE	1:A:378:LEU:CA	2.30	0.44
1:B:21:ALA:C	1:B:33:PRO:HG2	2.38	0.44
1:B:57:GLN:HE22	1:B:216:ARG:HH22	1.64	0.44
1:B:127:PHE:CE2	1:B:128:ASP:CG	2.91	0.44
1:B:462:GLU:N	1:B:463:PRO:CD	2.81	0.44
1:C:36:THR:CG2	1:C:38:CYS:SG	3.05	0.44
1:C:260:PRO:CD	1:C:261:THR:H	2.31	0.44
1:C:450:ARG:NE	1:C:453:LYS:HZ3	2.15	0.44
1:D:140:VAL:HG22	1:D:142:SER:H	1.83	0.44
1:D:180:LEU:CD2	1:D:181:VAL:HG12	2.34	0.44
1:D:226:LEU:HG	1:D:232:GLU:OE1	2.18	0.44
1:E:127:PHE:CE2	1:E:128:ASP:CG	2.91	0.44
1:E:193:SER:O	1:E:194:SER:CB	2.64	0.44
1:E:208:LEU:HD23	1:E:208:LEU:C	2.38	0.44
1:E:313:LEU:HD23	1:E:321:GLN:HG3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:21:ALA:C	1:A:33:PRO:HG2	2.38	0.43
1:A:413:GLY:O	1:A:465:MET:CB	2.66	0.43
1:A:444:MET:HG3	1:A:445:GLU:HG3	2.00	0.43
1:A:446:GLU:O	1:A:447:ILE:HD13	2.17	0.43
1:B:372:GLU:HG3	1:B:373:THR:N	2.33	0.43
1:B:444:MET:HE3	1:B:445:GLU:CG	2.48	0.43
1:C:12:VAL:CG1	1:C:15:LEU:HB3	2.41	0.43
1:C:46:LEU:O	1:C:71:PHE:CE1	2.71	0.43
1:C:100:PHE:N	1:C:100:PHE:CD1	2.86	0.43
1:C:127:PHE:CE2	1:C:128:ASP:CG	2.91	0.43
1:C:221:ILE:HB	1:C:222:ILE:HG12	1.98	0.43
1:C:346:TYR:HD1	1:C:346:TYR:N	2.16	0.43
1:C:462:GLU:N	1:C:463:PRO:CD	2.81	0.43
1:D:30:LEU:HD11	1:D:107:LEU:HG	2.00	0.43
1:D:85:LEU:CG	1:D:156:ILE:HG23	2.48	0.43
1:D:87:VAL:CB	1:D:158:ILE:HG13	2.47	0.43
1:D:148:GLN:HE21	1:D:171:MET:CG	2.28	0.43
1:D:260:PRO:CD	1:D:261:THR:H	2.31	0.43
1:E:141:LYS:HZ1	1:E:171:MET:CB	2.28	0.43
1:E:144:GLY:HA2	1:E:146:THR:H	1.79	0.43
1:E:149:LEU:CG	1:E:174:ARG:HD2	2.48	0.43
1:E:221:ILE:HB	1:E:222:ILE:HG12	1.98	0.43
1:E:301:LEU:CD2	1:E:361:LEU:HA	2.47	0.43
1:E:431:VAL:O	1:E:434:PRO:HG2	2.17	0.43
1:A:208:LEU:HD23	1:A:208:LEU:C	2.38	0.43
1:A:221:ILE:C	1:A:445:GLU:HG2	2.38	0.43
1:A:335:ASN:HD21	1:A:338:LEU:CD1	2.20	0.43
1:C:77:TRP:HZ3	1:C:113:GLU:CA	2.25	0.43
1:C:119:GLY:HA2	1:C:127:PHE:CD1	2.48	0.43
1:C:148:GLN:NE2	1:C:171:MET:CG	2.81	0.43
1:C:235:LEU:CD1	1:C:235:LEU:N	2.82	0.43
1:D:208:LEU:HA	1:D:211:GLU:HG2	2.00	0.43
1:D:220:THR:CG2	1:D:411:GLN:CD	2.86	0.43
1:D:259:THR:O	1:D:263:PRO:CG	2.67	0.43
1:D:372:GLU:HG3	1:D:373:THR:N	2.33	0.43
1:D:376:ALA:CB	1:D:379:TYR:HE2	2.31	0.43
1:E:57:GLN:NE2	1:E:223:TRP:CD1	2.77	0.43
1:E:100:PHE:N	1:E:100:PHE:HD1	2.16	0.43
1:E:152:SER:C	1:E:153:ARG:HG2	2.39	0.43
1:A:85:LEU:CB	1:A:156:ILE:HG23	2.48	0.43
1:A:179:THR:HG21	1:A:196:VAL:CG2	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:226:LEU:HG	1:A:232:GLU:OE1	2.18	0.43
1:A:295:ASP:HB2	1:A:339:LYS:NZ	2.21	0.43
1:B:37:LYS:HA	1:B:40:ILE:HG12	2.00	0.43
1:B:83:LYS:CE	1:B:192:PRO:C	2.86	0.43
1:B:85:LEU:HD13	1:B:136:HIS:ND1	2.33	0.43
1:B:148:GLN:HE21	1:B:171:MET:CG	2.28	0.43
1:B:235:LEU:CD1	1:B:235:LEU:N	2.82	0.43
1:B:322:TRP:CE2	1:B:457:ILE:CB	3.00	0.43
1:B:362:VAL:HG13	1:B:362:VAL:O	2.19	0.43
1:B:444:MET:HG3	1:B:445:GLU:HG3	2.00	0.43
1:C:30:LEU:HD11	1:C:107:LEU:HG	2.00	0.43
1:C:37:LYS:HA	1:C:40:ILE:HG12	2.00	0.43
1:C:85:LEU:CG	1:C:156:ILE:HG23	2.48	0.43
1:C:140:VAL:HG13	1:C:143:VAL:CG1	2.43	0.43
1:C:141:LYS:HZ1	1:C:171:MET:CB	2.26	0.43
1:C:402:LEU:C	1:C:402:LEU:HD23	2.38	0.43
1:D:37:LYS:HA	1:D:40:ILE:HG12	2.00	0.43
1:D:83:LYS:CE	1:D:192:PRO:C	2.86	0.43
1:D:100:PHE:N	1:D:100:PHE:CD1	2.86	0.43
1:D:221:ILE:C	1:D:445:GLU:HG2	2.38	0.43
1:D:324:PRO:CD	1:D:460:THR:HG21	2.47	0.43
1:D:444:MET:HE3	1:D:445:GLU:CG	2.48	0.43
1:D:446:GLU:O	1:D:447:ILE:HD13	2.17	0.43
1:E:21:ALA:O	1:E:33:PRO:CD	2.54	0.43
1:E:36:THR:CG2	1:E:38:CYS:SG	3.05	0.43
1:E:259:THR:N	1:E:260:PRO:HD2	2.33	0.43
1:E:260:PRO:CD	1:E:261:THR:H	2.31	0.43
1:E:314:GLU:HB3	1:E:320:TYR:C	2.39	0.43
1:E:324:PRO:CD	1:E:460:THR:HG21	2.47	0.43
1:E:364:ASP:HA	1:E:365:PRO:HD2	1.83	0.43
1:A:100:PHE:N	1:A:100:PHE:HD1	2.16	0.43
1:A:148:GLN:NE2	1:A:171:MET:O	2.48	0.43
1:A:235:LEU:CD1	1:A:235:LEU:N	2.82	0.43
1:A:322:TRP:CZ3	1:A:457:ILE:CG2	3.02	0.43
1:A:362:VAL:O	1:A:362:VAL:HG13	2.19	0.43
1:B:57:GLN:OE1	1:B:216:ARG:NH2	2.50	0.43
1:B:368:ARG:HH12	1:B:381:LEU:HD22	1.83	0.43
1:B:413:GLY:O	1:B:465:MET:CB	2.66	0.43
1:C:47:ALA:O	1:C:50:ASP:O	2.37	0.43
1:C:251:GLU:OE2	1:C:256:LEU:HD12	2.17	0.43
1:C:259:THR:N	1:C:260:PRO:HD2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:266:PHE:HZ	1:C:271:LEU:HA	1.84	0.43
1:D:184:PHE:CE1	1:D:195:ARG:HA	2.51	0.43
1:D:301:LEU:HG	1:D:302:ARG:N	2.32	0.43
1:D:465:MET:O	1:D:468:HIS:HB3	2.18	0.43
1:E:30:LEU:HD11	1:E:107:LEU:HG	2.00	0.43
1:E:70:ALA:HA	1:E:73:VAL:HG12	1.99	0.43
1:E:72:VAL:HG11	1:E:101:ILE:HG22	2.00	0.43
1:E:362:VAL:HG13	1:E:362:VAL:O	2.19	0.43
1:E:368:ARG:N	1:E:401:THR:HG21	2.31	0.43
1:E:444:MET:CE	1:E:445:GLU:CG	2.95	0.43
1:A:73:VAL:CG2	1:A:77:TRP:CD1	3.02	0.43
1:A:314:GLU:HB3	1:A:320:TYR:C	2.39	0.43
1:B:208:LEU:HA	1:B:211:GLU:HG2	2.00	0.43
1:B:210:LYS:HA	1:B:213:GLU:HG2	2.00	0.43
1:B:260:PRO:CD	1:B:261:THR:H	2.31	0.43
1:B:313:LEU:HD23	1:B:321:GLN:HG3	1.99	0.43
1:B:376:ALA:CB	1:B:379:TYR:HE2	2.31	0.43
1:C:57:GLN:CG	1:C:223:TRP:HD1	2.30	0.43
1:C:65:SER:HA	1:C:68:THR:OG1	2.19	0.43
1:C:85:LEU:C	1:C:85:LEU:HD23	2.39	0.43
1:C:100:PHE:N	1:C:100:PHE:HD1	2.16	0.43
1:C:152:SER:C	1:C:153:ARG:HG2	2.39	0.43
1:C:203:GLN:NE2	1:C:206:MET:CE	2.82	0.43
1:C:376:ALA:CB	1:C:379:TYR:HE2	2.31	0.43
1:C:465:MET:O	1:C:468:HIS:HB3	2.18	0.43
1:D:47:ALA:O	1:D:50:ASP:O	2.37	0.43
1:D:85:LEU:CA	1:D:156:ILE:HG23	2.48	0.43
1:D:85:LEU:CB	1:D:156:ILE:HG23	2.48	0.43
1:D:362:VAL:HG13	1:D:362:VAL:O	2.19	0.43
1:E:21:ALA:C	1:E:33:PRO:HG2	2.38	0.43
1:E:48:ASN:OD1	1:E:49:GLY:N	2.52	0.43
1:E:148:GLN:NE2	1:E:171:MET:CG	2.81	0.43
1:E:148:GLN:OE1	1:E:175:GLU:CA	2.67	0.43
1:E:413:GLY:O	1:E:465:MET:CB	2.66	0.43
1:E:444:MET:HG3	1:E:445:GLU:HG3	2.00	0.43
1:E:465:MET:O	1:E:468:HIS:HB3	2.18	0.43
1:A:76:LEU:CB	1:A:136:HIS:NE2	2.81	0.43
1:A:259:THR:N	1:A:260:PRO:HD2	2.33	0.43
1:A:372:GLU:HG3	1:A:373:THR:N	2.33	0.43
1:B:47:ALA:O	1:B:50:ASP:O	2.37	0.43
1:B:100:PHE:N	1:B:100:PHE:CD1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:148:GLN:NE2	1:B:171:MET:O	2.48	0.43
1:B:180:LEU:CD2	1:B:181:VAL:HG12	2.34	0.43
1:B:203:GLN:NE2	1:B:206:MET:CE	2.82	0.43
1:B:220:THR:CG2	1:B:411:GLN:CD	2.86	0.43
1:B:293:LEU:HB2	1:B:339:LYS:HZ3	1.84	0.43
1:C:83:LYS:CE	1:C:192:PRO:C	2.86	0.43
1:C:85:LEU:CB	1:C:156:ILE:HG23	2.48	0.43
1:C:362:VAL:O	1:C:362:VAL:HG13	2.19	0.43
1:D:36:THR:CG2	1:D:38:CYS:SG	3.05	0.43
1:D:70:ALA:CA	1:D:73:VAL:HG12	2.49	0.43
1:D:163:GLU:CB	1:D:208:LEU:HD13	2.28	0.43
1:D:193:SER:O	1:D:194:SER:CB	2.64	0.43
1:D:208:LEU:C	1:D:208:LEU:HD23	2.38	0.43
1:D:346:TYR:HD1	1:D:346:TYR:N	2.17	0.43
1:D:444:MET:CE	1:D:445:GLU:CG	2.95	0.43
1:E:73:VAL:CG2	1:E:77:TRP:CD1	3.02	0.43
1:E:256:LEU:O	1:E:260:PRO:CD	2.49	0.43
1:A:42:MET:O	1:A:45:VAL:CG1	2.62	0.43
1:A:57:GLN:OE1	1:A:216:ARG:NH2	2.50	0.43
1:A:85:LEU:O	1:A:86:ILE:HD13	2.19	0.43
1:A:203:GLN:HG2	1:A:206:MET:HE2	2.00	0.43
1:A:210:LYS:HA	1:A:213:GLU:HG2	1.99	0.43
1:A:225:ALA:HB3	1:A:227:TYR:CE1	2.54	0.43
1:A:301:LEU:CD1	1:A:361:LEU:HA	2.46	0.43
1:B:21:ALA:O	1:B:33:PRO:CD	2.54	0.43
1:B:46:LEU:O	1:B:71:PHE:CE1	2.71	0.43
1:B:72:VAL:HG13	1:B:73:VAL:N	2.34	0.43
1:B:85:LEU:HD23	1:B:85:LEU:C	2.39	0.43
1:B:148:GLN:OE1	1:B:175:GLU:CA	2.67	0.43
1:B:289:LEU:HD23	1:B:289:LEU:C	2.39	0.43
1:B:301:LEU:HD13	1:B:361:LEU:CA	2.46	0.43
1:B:328:ASN:HA	1:B:333:LEU:HD23	1.93	0.43
1:B:410:LYS:NZ	1:B:448:ARG:HD3	2.34	0.43
1:C:85:LEU:HD13	1:C:136:HIS:ND1	2.33	0.43
1:C:85:LEU:O	1:C:86:ILE:HD13	2.19	0.43
1:C:202:PRO:HB3	1:C:265:ARG:HH12	1.78	0.43
1:C:208:LEU:HA	1:C:211:GLU:HG2	2.00	0.43
1:C:225:ALA:HB3	1:C:227:TYR:CE1	2.54	0.43
1:C:301:LEU:HD13	1:C:361:LEU:CA	2.46	0.43
1:C:314:GLU:HB3	1:C:320:TYR:C	2.39	0.43
1:C:372:GLU:HG3	1:C:373:THR:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:48:ASN:OD1	1:D:49:GLY:N	2.52	0.43
1:D:55:ILE:HD12	1:D:198:TYR:CB	2.42	0.43
1:D:85:LEU:HD23	1:D:85:LEU:C	2.39	0.43
1:D:225:ALA:HB3	1:D:227:TYR:CE1	2.54	0.43
1:D:313:LEU:HD23	1:D:321:GLN:HG3	1.99	0.43
1:D:322:TRP:CE2	1:D:457:ILE:CB	3.00	0.43
1:E:85:LEU:HD23	1:E:85:LEU:C	2.39	0.43
1:E:203:GLN:NE2	1:E:206:MET:CE	2.82	0.43
1:E:259:THR:O	1:E:263:PRO:CG	2.67	0.43
1:E:266:PHE:HZ	1:E:271:LEU:HA	1.84	0.43
1:E:430:LYS:HZ2	1:E:432:PHE:H	1.67	0.43
1:A:37:LYS:HA	1:A:40:ILE:HG12	2.00	0.43
1:A:237:TYR:CD2	1:A:237:TYR:O	2.72	0.43
1:A:351:ASN:HD21	1:A:377:VAL:CA	2.32	0.43
1:A:370:LYS:HE3	1:A:375:TYR:CD1	2.52	0.43
1:B:70:ALA:CA	1:B:73:VAL:HG12	2.49	0.43
1:B:72:VAL:HG11	1:B:101:ILE:HG22	2.00	0.43
1:B:221:ILE:HB	1:B:222:ILE:HG12	1.98	0.43
1:B:252:ASN:CB	1:B:253:PRO:CD	2.97	0.43
1:B:314:GLU:HB3	1:B:320:TYR:C	2.39	0.43
1:C:70:ALA:CA	1:C:73:VAL:HG12	2.49	0.43
1:C:88:SER:HB3	1:C:141:LYS:HB2	2.00	0.43
1:C:223:TRP:CH2	1:C:225:ALA:HB3	2.54	0.43
1:D:65:SER:HA	1:D:68:THR:OG1	2.19	0.43
1:D:88:SER:HB3	1:D:141:LYS:HB2	2.00	0.43
1:D:127:PHE:CE2	1:D:128:ASP:CG	2.91	0.43
1:D:148:GLN:OE1	1:D:175:GLU:CA	2.67	0.43
1:D:235:LEU:CD1	1:D:235:LEU:N	2.82	0.43
1:D:314:GLU:HB3	1:D:320:TYR:C	2.39	0.43
1:D:439:HIS:CB	1:D:453:LYS:CD	2.96	0.43
1:E:47:ALA:O	1:E:50:ASP:O	2.37	0.43
1:E:51:ASN:HB3	1:E:54:PHE:HZ	1.65	0.43
1:E:51:ASN:ND2	1:E:53:LYS:O	2.52	0.43
1:E:59:PHE:HD1	1:E:224:PRO:O	2.02	0.43
1:E:72:VAL:HG13	1:E:73:VAL:N	2.34	0.43
1:E:84:ILE:CG2	1:E:153:ARG:O	2.67	0.43
1:E:118:PRO:HG3	1:E:129:VAL:HB	2.01	0.43
1:E:220:THR:CG2	1:E:411:GLN:CD	2.86	0.43
1:E:237:TYR:CD2	1:E:237:TYR:O	2.72	0.43
1:E:289:LEU:HD23	1:E:289:LEU:C	2.39	0.43
1:E:322:TRP:CZ3	1:E:457:ILE:CG2	3.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:401:THR:HB	1:E:402:LEU:H	1.66	0.43
1:E:457:ILE:CG1	1:E:458:CYS:N	2.82	0.43
1:A:77:TRP:HZ3	1:A:113:GLU:C	2.22	0.43
1:A:152:SER:C	1:A:153:ARG:HG2	2.38	0.43
1:A:203:GLN:NE2	1:A:206:MET:CE	2.82	0.43
1:A:432:PHE:HD1	1:A:432:PHE:N	2.16	0.43
1:B:45:VAL:HA	1:B:50:ASP:OD2	2.19	0.43
1:B:73:VAL:CG2	1:B:77:TRP:CD1	3.02	0.43
1:B:73:VAL:C	1:B:77:TRP:HD1	2.22	0.43
1:B:140:VAL:HG22	1:B:142:SER:H	1.83	0.43
1:B:266:PHE:HZ	1:B:271:LEU:HA	1.84	0.43
1:B:285:LEU:HD11	1:B:434:PRO:CG	2.49	0.43
1:B:346:TYR:HD1	1:B:346:TYR:N	2.16	0.43
1:B:430:LYS:HZ2	1:B:432:PHE:H	1.67	0.43
1:C:59:PHE:HD1	1:C:224:PRO:O	2.02	0.43
1:C:90:SER:CA	1:C:140:VAL:HG23	2.37	0.43
1:C:148:GLN:OE1	1:C:175:GLU:CA	2.67	0.43
1:C:432:PHE:HD1	1:C:432:PHE:N	2.16	0.43
1:D:45:VAL:HA	1:D:50:ASP:OD2	2.19	0.43
1:D:59:PHE:HD1	1:D:224:PRO:O	2.02	0.43
1:D:76:LEU:CB	1:D:136:HIS:NE2	2.81	0.43
1:D:77:TRP:HZ3	1:D:113:GLU:C	2.22	0.43
1:D:84:ILE:CG2	1:D:153:ARG:O	2.67	0.43
1:D:256:LEU:O	1:D:260:PRO:CD	2.49	0.43
1:D:289:LEU:HD23	1:D:289:LEU:C	2.39	0.43
1:D:301:LEU:CD1	1:D:361:LEU:HA	2.46	0.43
1:E:77:TRP:HZ3	1:E:113:GLU:C	2.22	0.43
1:E:210:LYS:O	1:E:213:GLU:HG2	2.19	0.43
1:A:85:LEU:HD23	1:A:85:LEU:C	2.39	0.43
1:A:410:LYS:NZ	1:A:448:ARG:HD3	2.34	0.43
1:A:465:MET:O	1:A:468:HIS:HB3	2.18	0.43
1:B:59:PHE:HD1	1:B:224:PRO:O	2.02	0.43
1:B:155:ASP:C	1:B:194:SER:CB	2.88	0.43
1:B:223:TRP:CH2	1:B:225:ALA:HB3	2.54	0.43
1:C:39:GLN:CG	1:C:67:ILE:CG2	2.94	0.43
1:C:51:ASN:ND2	1:C:53:LYS:O	2.52	0.43
1:C:410:LYS:NZ	1:C:448:ARG:HD3	2.34	0.43
1:C:412:TRP:HZ3	1:C:466:GLN:HA	1.84	0.43
1:D:57:GLN:CA	1:D:265:ARG:HE	2.32	0.43
1:D:444:MET:HG3	1:D:445:GLU:HG3	2.00	0.43
1:E:16:LYS:HZ3	1:E:108:LEU:HD22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:57:GLN:CA	1:E:265:ARG:HE	2.32	0.43
1:E:73:VAL:C	1:E:77:TRP:HD1	2.22	0.43
1:E:85:LEU:HD13	1:E:136:HIS:ND1	2.33	0.43
1:E:85:LEU:O	1:E:86:ILE:HD13	2.19	0.43
1:E:100:PHE:N	1:E:100:PHE:CD1	2.86	0.43
1:E:190:PRO:O	1:E:191:LEU:HB2	2.19	0.43
1:E:295:ASP:HB2	1:E:339:LYS:HD3	2.01	0.43
1:E:346:TYR:HD1	1:E:346:TYR:N	2.17	0.43
1:E:448:ARG:CA	1:E:455:MET:HE1	2.48	0.43
1:A:57:GLN:HE22	1:A:216:ARG:HH22	1.64	0.42
1:A:57:GLN:CA	1:A:265:ARG:HE	2.32	0.42
1:A:262:ASP:CB	1:A:263:PRO:HD3	2.48	0.42
1:A:376:ALA:CB	1:A:379:TYR:HE2	2.31	0.42
1:B:85:LEU:O	1:B:86:ILE:HD13	2.19	0.42
1:B:113:GLU:HG3	1:B:113:GLU:O	2.19	0.42
1:B:152:SER:C	1:B:153:ARG:HG2	2.38	0.42
1:B:237:TYR:CD2	1:B:237:TYR:O	2.72	0.42
1:B:322:TRP:CZ3	1:B:457:ILE:CG2	3.02	0.42
1:B:368:ARG:HE	1:B:378:LEU:CA	2.30	0.42
1:C:73:VAL:C	1:C:77:TRP:HD1	2.22	0.42
1:C:226:LEU:HG	1:C:232:GLU:OE1	2.18	0.42
1:C:237:TYR:O	1:C:237:TYR:CD2	2.72	0.42
1:C:254:GLU:HG3	1:C:255:ALA:H	1.84	0.42
1:C:285:LEU:HD11	1:C:434:PRO:CG	2.49	0.42
1:C:322:TRP:CZ2	1:C:338:LEU:CD2	2.94	0.42
1:C:444:MET:HG3	1:C:445:GLU:HG3	2.00	0.42
1:D:51:ASN:ND2	1:D:53:LYS:O	2.52	0.42
1:D:73:VAL:C	1:D:77:TRP:HD1	2.22	0.42
1:D:76:LEU:HB2	1:D:136:HIS:HE2	1.79	0.42
1:D:379:TYR:C	1:D:385:ILE:HG21	2.40	0.42
1:D:410:LYS:NZ	1:D:448:ARG:HD3	2.34	0.42
1:D:450:ARG:HE	1:D:453:LYS:HZ1	1.67	0.42
1:E:64:LYS:CD	1:E:199:LEU:HD22	2.49	0.42
1:E:208:LEU:HA	1:E:211:GLU:HG2	2.00	0.42
1:E:379:TYR:C	1:E:385:ILE:HG21	2.40	0.42
1:E:394:ARG:HD3	1:E:400:LYS:HZ2	1.80	0.42
1:E:410:LYS:NZ	1:E:448:ARG:HD3	2.34	0.42
1:E:423:PHE:N	1:E:423:PHE:HD1	2.17	0.42
1:A:46:LEU:O	1:A:71:PHE:CE1	2.71	0.42
1:A:59:PHE:HD1	1:A:224:PRO:O	2.02	0.42
1:A:266:PHE:HZ	1:A:271:LEU:HA	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:285:LEU:HD11	1:A:434:PRO:CG	2.49	0.42
1:A:379:TYR:C	1:A:385:ILE:HG21	2.40	0.42
1:A:444:MET:CE	1:A:445:GLU:CG	2.95	0.42
1:B:30:LEU:HD11	1:B:107:LEU:HG	2.00	0.42
1:B:51:ASN:ND2	1:B:53:LYS:O	2.52	0.42
1:B:65:SER:HA	1:B:68:THR:OG1	2.19	0.42
1:B:203:GLN:HG2	1:B:206:MET:HE2	2.01	0.42
1:B:226:LEU:HG	1:B:232:GLU:OE1	2.18	0.42
1:B:465:MET:O	1:B:468:HIS:HB3	2.18	0.42
1:C:57:GLN:OE1	1:C:216:ARG:NH2	2.50	0.42
1:C:184:PHE:CE1	1:C:195:ARG:HA	2.51	0.42
1:C:436:LEU:HD13	1:C:457:ILE:HD13	2.02	0.42
1:D:57:GLN:HG2	1:D:444:MET:CE	2.50	0.42
1:D:223:TRP:CH2	1:D:225:ALA:HB3	2.54	0.42
1:D:368:ARG:HH12	1:D:381:LEU:HD22	1.83	0.42
1:D:436:LEU:HD13	1:D:457:ILE:HD13	2.02	0.42
1:E:55:ILE:HD11	1:E:198:TYR:CD2	2.55	0.42
1:E:70:ALA:CA	1:E:73:VAL:HG12	2.49	0.42
1:E:225:ALA:HB3	1:E:227:TYR:CE1	2.54	0.42
1:E:254:GLU:HG3	1:E:255:ALA:H	1.84	0.42
1:E:285:LEU:HD11	1:E:434:PRO:CG	2.49	0.42
1:E:351:ASN:ND2	1:E:377:VAL:CG1	2.79	0.42
1:E:376:ALA:CB	1:E:379:TYR:HE2	2.31	0.42
1:E:444:MET:HE3	1:E:445:GLU:CG	2.48	0.42
1:A:73:VAL:C	1:A:77:TRP:HD1	2.22	0.42
1:A:84:ILE:CG2	1:A:153:ARG:O	2.67	0.42
1:A:155:ASP:C	1:A:194:SER:CB	2.88	0.42
1:A:259:THR:O	1:A:263:PRO:CG	2.67	0.42
1:B:64:LYS:CD	1:B:199:LEU:HD22	2.49	0.42
1:B:118:PRO:HD2	1:B:128:ASP:CA	2.37	0.42
1:B:206:MET:HB2	1:B:206:MET:HE3	1.52	0.42
1:B:210:LYS:O	1:B:213:GLU:HG2	2.19	0.42
1:C:55:ILE:HD12	1:C:198:TYR:CB	2.42	0.42
1:C:72:VAL:HG13	1:C:73:VAL:N	2.34	0.42
1:C:77:TRP:HZ3	1:C:113:GLU:C	2.22	0.42
1:C:190:PRO:O	1:C:191:LEU:HB2	2.19	0.42
1:C:322:TRP:CZ3	1:C:457:ILE:CG2	3.02	0.42
1:C:439:HIS:CB	1:C:453:LYS:CD	2.96	0.42
1:D:64:LYS:CD	1:D:199:LEU:HD22	2.49	0.42
1:D:100:PHE:N	1:D:100:PHE:HD1	2.16	0.42
1:D:262:ASP:CB	1:D:263:PRO:HD3	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:22:PHE:CZ	1:E:32:LEU:CD2	3.03	0.42
1:E:46:LEU:O	1:E:71:PHE:CE1	2.71	0.42
1:E:163:GLU:HG2	1:E:203:GLN:H	1.80	0.42
1:E:262:ASP:CB	1:E:263:PRO:HD3	2.48	0.42
1:E:439:HIS:CB	1:E:453:LYS:CD	2.96	0.42
1:A:57:GLN:CB	1:A:265:ARG:NE	2.82	0.42
1:A:72:VAL:HG13	1:A:73:VAL:N	2.34	0.42
1:A:85:LEU:CG	1:A:156:ILE:HG23	2.48	0.42
1:A:100:PHE:N	1:A:100:PHE:CD1	2.86	0.42
1:A:128:ASP:CB	1:A:134:PRO:O	2.66	0.42
1:A:148:GLN:NE2	1:A:171:MET:CG	2.81	0.42
1:A:210:LYS:O	1:A:213:GLU:HG2	2.19	0.42
1:A:260:PRO:CD	1:A:261:THR:H	2.31	0.42
1:B:25:VAL:CG1	1:B:28:LYS:HB2	2.47	0.42
1:B:48:ASN:OD1	1:B:49:GLY:N	2.52	0.42
1:B:57:GLN:CA	1:B:265:ARG:HE	2.32	0.42
1:B:77:TRP:HZ3	1:B:113:GLU:C	2.22	0.42
1:B:100:PHE:N	1:B:100:PHE:HD1	2.16	0.42
1:B:190:PRO:O	1:B:191:LEU:HB2	2.19	0.42
1:B:370:LYS:HZ2	1:B:375:TYR:HD1	1.64	0.42
1:B:432:PHE:CD1	1:B:432:PHE:N	2.87	0.42
1:B:433:SER:N	1:B:434:PRO:CD	2.82	0.42
1:C:72:VAL:HG11	1:C:101:ILE:HG22	2.00	0.42
1:C:73:VAL:CG2	1:C:77:TRP:CD1	3.02	0.42
1:C:155:ASP:C	1:C:194:SER:CB	2.88	0.42
1:C:210:LYS:HA	1:C:213:GLU:HG2	2.00	0.42
1:C:210:LYS:O	1:C:213:GLU:HG2	2.19	0.42
1:C:221:ILE:C	1:C:445:GLU:HG2	2.38	0.42
1:C:262:ASP:CB	1:C:263:PRO:HD3	2.48	0.42
1:C:379:TYR:C	1:C:385:ILE:HG21	2.40	0.42
1:C:410:LYS:HZ2	1:C:448:ARG:HD3	1.84	0.42
1:D:118:PRO:HG3	1:D:129:VAL:HB	2.01	0.42
1:D:128:ASP:CB	1:D:134:PRO:O	2.66	0.42
1:D:163:GLU:CG	1:D:203:GLN:N	2.78	0.42
1:D:221:ILE:HB	1:D:222:ILE:HG12	1.98	0.42
1:D:322:TRP:CZ2	1:D:338:LEU:CD2	2.94	0.42
1:D:394:ARG:HD3	1:D:400:LYS:HZ1	1.84	0.42
1:D:436:LEU:HD22	1:D:457:ILE:HG23	2.02	0.42
1:A:241:LEU:HG	1:A:244:MET:CB	2.49	0.42
1:A:289:LEU:HD23	1:A:289:LEU:C	2.39	0.42
1:A:301:LEU:CD2	1:A:361:LEU:HA	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:432:PHE:CD1	1:A:432:PHE:N	2.87	0.42
1:B:57:GLN:HG2	1:B:444:MET:CE	2.50	0.42
1:B:259:THR:N	1:B:260:PRO:HD2	2.33	0.42
1:B:370:LYS:HE3	1:B:375:TYR:CD1	2.52	0.42
1:B:412:TRP:HZ3	1:B:466:GLN:HA	1.84	0.42
1:C:48:ASN:OD1	1:C:49:GLY:N	2.52	0.42
1:C:54:PHE:CD1	1:C:221:ILE:HD12	2.48	0.42
1:C:57:GLN:OE1	1:C:212:LEU:CD2	2.67	0.42
1:C:64:LYS:CD	1:C:199:LEU:HD22	2.50	0.42
1:C:289:LEU:HD23	1:C:289:LEU:C	2.39	0.42
1:C:376:ALA:HA	1:C:379:TYR:HD2	1.68	0.42
1:C:457:ILE:CG1	1:C:458:CYS:N	2.82	0.42
1:D:46:LEU:O	1:D:71:PHE:CE1	2.71	0.42
1:D:72:VAL:HG11	1:D:101:ILE:HG22	2.00	0.42
1:E:155:ASP:C	1:E:194:SER:CB	2.88	0.42
1:E:223:TRP:CH2	1:E:225:ALA:HB3	2.54	0.42
1:E:423:PHE:N	1:E:423:PHE:CD1	2.88	0.42
1:E:433:SER:N	1:E:434:PRO:CD	2.82	0.42
1:A:30:LEU:HD11	1:A:107:LEU:HG	2.00	0.42
1:A:295:ASP:HB2	1:A:339:LYS:HD3	2.01	0.42
1:A:394:ARG:NE	1:A:397:TYR:CE1	2.88	0.42
1:A:433:SER:N	1:A:434:PRO:CD	2.82	0.42
1:B:14:GLN:HE21	1:B:18:ASP:CG	2.23	0.42
1:B:47:ALA:C	1:B:195:ARG:NH1	2.73	0.42
1:B:83:LYS:HE2	1:B:192:PRO:CA	2.37	0.42
1:B:118:PRO:HG3	1:B:129:VAL:HB	2.01	0.42
1:B:208:LEU:C	1:B:211:GLU:HG2	2.40	0.42
1:B:351:ASN:HD21	1:B:377:VAL:CA	2.32	0.42
1:C:45:VAL:HA	1:C:50:ASP:OD2	2.19	0.42
1:C:57:GLN:HG2	1:C:444:MET:CE	2.50	0.42
1:C:118:PRO:HG3	1:C:129:VAL:HB	2.01	0.42
1:C:432:PHE:CD1	1:C:432:PHE:N	2.87	0.42
1:D:55:ILE:HD11	1:D:198:TYR:CD2	2.55	0.42
1:D:85:LEU:O	1:D:86:ILE:HD13	2.19	0.42
1:D:322:TRP:CZ3	1:D:457:ILE:CG2	3.02	0.42
1:E:16:LYS:NZ	1:E:108:LEU:HD22	2.35	0.42
1:E:45:VAL:HA	1:E:50:ASP:OD2	2.19	0.42
1:E:54:PHE:CD1	1:E:221:ILE:HD12	2.48	0.42
1:E:190:PRO:O	1:E:192:PRO:HD3	2.20	0.42
1:E:335:ASN:HD21	1:E:338:LEU:CD1	2.20	0.42
1:A:22:PHE:CZ	1:A:32:LEU:CD2	3.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:GLN:OE1	1:A:212:LEU:CD2	2.67	0.42
1:A:368:ARG:HH12	1:A:381:LEU:HD22	1.83	0.42
1:A:423:PHE:N	1:A:423:PHE:HD1	2.17	0.42
1:A:436:LEU:HD13	1:A:457:ILE:HD13	2.01	0.42
1:B:33:PRO:O	1:B:35:PRO:HD3	2.20	0.42
1:B:259:THR:O	1:B:263:PRO:CG	2.67	0.42
1:B:261:THR:HA	1:B:268:ARG:NH2	2.35	0.42
1:B:301:LEU:CD2	1:B:361:LEU:HA	2.47	0.42
1:B:423:PHE:N	1:B:423:PHE:CD1	2.88	0.42
1:C:20:VAL:O	1:C:22:PHE:CD1	2.73	0.42
1:C:163:GLU:HG2	1:C:203:GLN:H	1.80	0.42
1:C:259:THR:O	1:C:263:PRO:CG	2.67	0.42
1:C:351:ASN:HD21	1:C:377:VAL:CA	2.32	0.42
1:C:444:MET:CE	1:C:445:GLU:CG	2.95	0.42
1:D:73:VAL:CG2	1:D:77:TRP:CD1	3.02	0.42
1:D:190:PRO:O	1:D:191:LEU:HB2	2.19	0.42
1:D:210:LYS:O	1:D:213:GLU:HG2	2.19	0.42
1:D:412:TRP:HZ3	1:D:466:GLN:HA	1.84	0.42
1:E:235:LEU:CD1	1:E:235:LEU:N	2.82	0.42
1:E:393:PHE:O	1:E:401:THR:HA	2.20	0.42
1:A:65:SER:HA	1:A:68:THR:OG1	2.19	0.42
1:A:70:ALA:O	1:A:73:VAL:CG1	2.68	0.42
1:A:118:PRO:HG3	1:A:129:VAL:HB	2.00	0.42
1:A:321:GLN:OE1	1:A:344:HIS:CE1	2.73	0.42
1:A:423:PHE:N	1:A:423:PHE:CD1	2.88	0.42
1:B:20:VAL:O	1:B:22:PHE:CD1	2.73	0.42
1:B:22:PHE:CZ	1:B:32:LEU:CD2	3.03	0.42
1:B:76:LEU:CB	1:B:136:HIS:NE2	2.81	0.42
1:B:84:ILE:CG2	1:B:153:ARG:O	2.67	0.42
1:B:225:ALA:HB3	1:B:227:TYR:CE1	2.54	0.42
1:B:252:ASN:C	1:B:254:GLU:N	2.73	0.42
1:B:274:ARG:CD	1:B:440:HIS:CD2	2.94	0.42
1:B:295:ASP:HB2	1:B:339:LYS:HD3	2.01	0.42
1:B:379:TYR:C	1:B:385:ILE:HG21	2.40	0.42
1:B:436:LEU:HD13	1:B:457:ILE:HD13	2.02	0.42
1:B:457:ILE:CG1	1:B:458:CYS:N	2.82	0.42
1:C:22:PHE:CZ	1:C:32:LEU:CD2	3.03	0.42
1:C:252:ASN:C	1:C:254:GLU:N	2.73	0.42
1:C:261:THR:HA	1:C:268:ARG:NH2	2.35	0.42
1:C:436:LEU:HD22	1:C:457:ILE:HG23	2.02	0.42
1:D:22:PHE:CZ	1:D:32:LEU:CD2	3.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:57:GLN:CB	1:D:265:ARG:NE	2.82	0.42
1:D:143:VAL:CG1	1:D:144:GLY:N	2.83	0.42
1:D:190:PRO:C	1:D:192:PRO:HD3	2.40	0.42
1:D:393:PHE:O	1:D:401:THR:HA	2.20	0.42
1:D:423:PHE:N	1:D:423:PHE:HD1	2.18	0.42
1:D:430:LYS:HZ2	1:D:432:PHE:H	1.67	0.42
1:E:65:SER:HA	1:E:68:THR:OG1	2.19	0.42
1:E:149:LEU:HA	1:E:178:TRP:HZ2	1.85	0.42
1:E:179:THR:HG21	1:E:196:VAL:CG2	2.43	0.42
1:E:220:THR:C	1:E:445:GLU:CB	2.87	0.42
1:E:321:GLN:OE1	1:E:344:HIS:CE1	2.73	0.42
1:E:351:ASN:HD21	1:E:377:VAL:CA	2.32	0.42
1:E:394:ARG:NE	1:E:397:TYR:CE1	2.88	0.42
1:E:436:LEU:HD13	1:E:457:ILE:HD13	2.02	0.42
1:A:21:ALA:O	1:A:33:PRO:CD	2.54	0.42
1:A:64:LYS:CD	1:A:199:LEU:HD22	2.50	0.42
1:A:76:LEU:HB2	1:A:136:HIS:CE1	2.55	0.42
1:A:252:ASN:C	1:A:254:GLU:N	2.73	0.42
1:B:57:GLN:O	1:B:57:GLN:HG3	2.20	0.42
1:B:436:LEU:HD22	1:B:457:ILE:HG23	2.02	0.42
1:C:14:GLN:HE21	1:C:18:ASP:CG	2.23	0.42
1:C:39:GLN:HB3	1:C:67:ILE:HG21	2.02	0.42
1:C:70:ALA:O	1:C:73:VAL:CG1	2.68	0.42
1:C:113:GLU:HG3	1:C:113:GLU:O	2.19	0.42
1:C:118:PRO:HA	1:C:121:ARG:NE	2.29	0.42
1:D:39:GLN:CG	1:D:67:ILE:CG2	2.94	0.42
1:D:155:ASP:C	1:D:194:SER:CB	2.88	0.42
1:D:155:ASP:O	1:D:194:SER:CB	2.68	0.42
1:D:285:LEU:HD11	1:D:434:PRO:CG	2.49	0.42
1:D:295:ASP:HB2	1:D:339:LYS:HD3	2.01	0.42
1:D:351:ASN:HD21	1:D:377:VAL:CA	2.32	0.42
1:D:433:SER:N	1:D:434:PRO:CD	2.82	0.42
1:E:155:ASP:O	1:E:194:SER:CB	2.68	0.42
1:E:412:TRP:HZ3	1:E:466:GLN:HA	1.84	0.42
1:A:20:VAL:O	1:A:22:PHE:CD1	2.73	0.42
1:A:22:PHE:CB	1:A:30:LEU:HD11	2.50	0.42
1:A:57:GLN:O	1:A:57:GLN:HG3	2.20	0.42
1:A:70:ALA:CA	1:A:73:VAL:HG12	2.49	0.42
1:A:72:VAL:HG11	1:A:101:ILE:HG22	2.00	0.42
1:A:148:GLN:OE1	1:A:175:GLU:CA	2.67	0.42
1:A:220:THR:C	1:A:445:GLU:CB	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:457:ILE:CG1	1:A:458:CYS:N	2.82	0.42
1:B:76:LEU:HB2	1:B:136:HIS:CE1	2.55	0.42
1:B:76:LEU:HD23	1:B:76:LEU:C	2.41	0.42
1:B:448:ARG:NH1	1:B:455:MET:SD	2.93	0.42
1:C:42:MET:O	1:C:45:VAL:CG1	2.62	0.42
1:C:52:LYS:CD	1:C:184:PHE:CE2	2.86	0.42
1:C:153:ARG:O	1:C:153:ARG:HG3	2.20	0.42
1:C:190:PRO:O	1:C:192:PRO:HD3	2.20	0.42
1:C:293:LEU:CB	1:C:339:LYS:HZ3	2.32	0.42
1:C:321:GLN:OE1	1:C:344:HIS:CE1	2.73	0.42
1:C:423:PHE:N	1:C:423:PHE:HD1	2.17	0.42
1:D:140:VAL:HG13	1:D:143:VAL:CG1	2.43	0.42
1:D:237:TYR:CD2	1:D:237:TYR:O	2.72	0.42
1:E:57:GLN:HE22	1:E:216:ARG:HH22	1.64	0.42
1:E:57:GLN:HG2	1:E:444:MET:CE	2.49	0.42
1:E:85:LEU:CA	1:E:156:ILE:HG23	2.48	0.42
1:E:242:ALA:HA	1:E:243:PRO:HD2	1.82	0.42
1:A:22:PHE:CZ	1:A:32:LEU:HD23	2.55	0.41
1:A:113:GLU:O	1:A:113:GLU:HG3	2.19	0.41
1:A:448:ARG:NH1	1:A:455:MET:SD	2.93	0.41
1:B:45:VAL:HG11	1:B:222:ILE:HD11	1.99	0.41
1:B:57:GLN:OE1	1:B:212:LEU:CD2	2.67	0.41
1:B:57:GLN:CG	1:B:223:TRP:HD1	2.30	0.41
1:B:162:VAL:HA	1:B:165:PRO:HG2	2.02	0.41
1:D:149:LEU:HA	1:D:178:TRP:HZ2	1.85	0.41
1:D:261:THR:HA	1:D:268:ARG:NH2	2.35	0.41
1:D:266:PHE:HZ	1:D:271:LEU:HA	1.84	0.41
1:D:280:LYS:CE	1:D:438:LYS:CA	2.93	0.41
1:E:20:VAL:O	1:E:22:PHE:CD1	2.73	0.41
1:E:33:PRO:O	1:E:35:PRO:HD3	2.20	0.41
1:A:33:PRO:O	1:A:35:PRO:HD3	2.20	0.41
1:A:39:GLN:HB3	1:A:67:ILE:HG21	2.02	0.41
1:A:55:ILE:HD11	1:A:198:TYR:CD2	2.55	0.41
1:A:155:ASP:O	1:A:194:SER:CB	2.68	0.41
1:A:301:LEU:CD2	1:A:360:ILE:O	2.65	0.41
1:A:308:VAL:HG12	1:A:476:VAL:HG13	2.02	0.41
1:A:333:LEU:O	1:A:426:GLY:HA2	2.21	0.41
1:A:393:PHE:O	1:A:401:THR:HA	2.20	0.41
1:A:412:TRP:HZ3	1:A:466:GLN:HA	1.84	0.41
1:A:436:LEU:HD22	1:A:457:ILE:HG23	2.02	0.41
1:B:66:PHE:N	1:B:66:PHE:CD1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:412:TRP:CD2	1:B:469:ARG:NH1	2.88	0.41
1:C:21:ALA:O	1:C:33:PRO:CD	2.55	0.41
1:C:33:PRO:O	1:C:35:PRO:HD3	2.20	0.41
1:C:57:GLN:O	1:C:57:GLN:HG3	2.20	0.41
1:C:155:ASP:O	1:C:194:SER:CB	2.68	0.41
1:C:368:ARG:HE	1:C:378:LEU:CA	2.30	0.41
1:C:370:LYS:HE3	1:C:375:TYR:CD1	2.51	0.41
1:C:393:PHE:O	1:C:401:THR:HA	2.20	0.41
1:D:162:VAL:HA	1:D:165:PRO:HG2	2.01	0.41
1:D:257:ALA:O	1:D:260:PRO:HG2	2.20	0.41
1:D:416:THR:HB	1:D:465:MET:HB3	2.02	0.41
1:D:457:ILE:CG1	1:D:458:CYS:N	2.82	0.41
1:E:22:PHE:CZ	1:E:32:LEU:HD23	2.55	0.41
1:E:57:GLN:O	1:E:57:GLN:HG3	2.20	0.41
1:E:203:GLN:HB3	1:E:206:MET:HE2	2.02	0.41
1:E:205:GLU:OE1	1:E:209:TYR:CD1	2.73	0.41
1:E:448:ARG:NH1	1:E:455:MET:SD	2.93	0.41
1:A:26:LEU:HD23	1:A:27:TRP:HD1	1.85	0.41
1:A:47:ALA:C	1:A:195:ARG:NH1	2.73	0.41
1:A:76:LEU:C	1:A:76:LEU:HD23	2.41	0.41
1:A:98:SER:CA	1:A:101:ILE:HG12	2.51	0.41
1:A:440:HIS:CE1	1:A:447:ILE:HG22	2.56	0.41
1:B:55:ILE:HD11	1:B:198:TYR:CD2	2.55	0.41
1:B:85:LEU:CA	1:B:156:ILE:HG23	2.48	0.41
1:B:321:GLN:OE1	1:B:344:HIS:CE1	2.73	0.41
1:C:57:GLN:CA	1:C:265:ARG:HE	2.32	0.41
1:C:208:LEU:C	1:C:211:GLU:HG2	2.40	0.41
1:C:346:TYR:CD1	1:C:346:TYR:N	2.89	0.41
1:C:430:LYS:HZ2	1:C:432:PHE:H	1.67	0.41
1:D:76:LEU:HD23	1:D:76:LEU:C	2.41	0.41
1:D:181:VAL:CA	1:D:182:GLN:CG	2.90	0.41
1:D:205:GLU:OE1	1:D:209:TYR:CD1	2.73	0.41
1:D:321:GLN:OE1	1:D:344:HIS:CE1	2.73	0.41
1:E:66:PHE:N	1:E:66:PHE:CD1	2.89	0.41
1:E:128:ASP:CB	1:E:134:PRO:O	2.66	0.41
1:A:57:GLN:HG2	1:A:444:MET:HE1	2.01	0.41
1:A:85:LEU:CA	1:A:156:ILE:HG23	2.48	0.41
1:A:125:ILE:O	1:A:125:ILE:CG2	2.69	0.41
1:A:205:GLU:OE1	1:A:209:TYR:CD1	2.73	0.41
1:A:208:LEU:C	1:A:211:GLU:HG2	2.40	0.41
1:B:16:LYS:NZ	1:B:108:LEU:HD22	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:22:PHE:CB	1:B:30:LEU:HD11	2.50	0.41
1:B:118:PRO:HA	1:B:121:ARG:NE	2.29	0.41
1:B:155:ASP:O	1:B:194:SER:CB	2.68	0.41
1:B:190:PRO:CB	1:B:192:PRO:HD2	2.49	0.41
1:B:241:LEU:HG	1:B:244:MET:CB	2.49	0.41
1:B:305:ASP:HA	1:B:329:ILE:CG2	2.51	0.41
1:B:440:HIS:CE1	1:B:447:ILE:HG22	2.56	0.41
1:C:16:LYS:NZ	1:C:108:LEU:HD22	2.35	0.41
1:C:333:LEU:O	1:C:426:GLY:HA2	2.21	0.41
1:C:341:ASP:OD1	1:C:341:ASP:O	2.39	0.41
1:C:416:THR:HB	1:C:465:MET:HB3	2.02	0.41
1:C:448:ARG:NH1	1:C:455:MET:SD	2.93	0.41
1:D:45:VAL:HG11	1:D:222:ILE:HD11	1.99	0.41
1:D:85:LEU:CB	1:D:136:HIS:ND1	2.83	0.41
1:D:208:LEU:C	1:D:211:GLU:HG2	2.40	0.41
1:D:449:ALA:N	1:D:455:MET:CE	2.75	0.41
1:E:26:LEU:HD23	1:E:27:TRP:HD1	1.85	0.41
1:E:76:LEU:HB2	1:E:136:HIS:CE1	2.55	0.41
1:E:153:ARG:O	1:E:153:ARG:HG3	2.20	0.41
1:E:280:LYS:HE2	1:E:438:LYS:CA	2.21	0.41
1:E:436:LEU:HD22	1:E:457:ILE:HG23	2.02	0.41
1:A:16:LYS:NZ	1:A:108:LEU:HD22	2.35	0.41
1:A:37:LYS:O	1:A:40:ILE:CG1	2.66	0.41
1:A:257:ALA:O	1:A:260:PRO:HG2	2.21	0.41
1:B:118:PRO:HG3	1:B:129:VAL:CB	2.51	0.41
1:B:125:ILE:O	1:B:125:ILE:CG2	2.68	0.41
1:B:190:PRO:O	1:B:192:PRO:HD3	2.20	0.41
1:B:333:LEU:O	1:B:426:GLY:HA2	2.20	0.41
1:B:393:PHE:O	1:B:401:THR:HA	2.20	0.41
1:C:22:PHE:CB	1:C:30:LEU:HD11	2.50	0.41
1:C:143:VAL:CG1	1:C:144:GLY:N	2.83	0.41
1:C:148:GLN:HE21	1:C:171:MET:CG	2.28	0.41
1:C:162:VAL:HA	1:C:165:PRO:HG2	2.02	0.41
1:C:257:ALA:O	1:C:260:PRO:HG2	2.21	0.41
1:C:305:ASP:HA	1:C:329:ILE:CG2	2.51	0.41
1:C:322:TRP:CE2	1:C:457:ILE:CB	3.00	0.41
1:C:423:PHE:N	1:C:423:PHE:CD1	2.88	0.41
1:D:22:PHE:CZ	1:D:32:LEU:HD23	2.55	0.41
1:D:76:LEU:HB2	1:D:136:HIS:CE1	2.55	0.41
1:D:113:GLU:O	1:D:113:GLU:HG3	2.19	0.41
1:D:125:ILE:O	1:D:125:ILE:CG2	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:423:PHE:N	1:D:423:PHE:CD1	2.88	0.41
1:E:85:LEU:CB	1:E:136:HIS:ND1	2.83	0.41
1:E:143:VAL:CG1	1:E:144:GLY:N	2.83	0.41
1:E:162:VAL:C	1:E:165:PRO:CD	2.89	0.41
1:E:187:LEU:O	1:E:192:PRO:CD	2.65	0.41
1:E:202:PRO:HB3	1:E:265:ARG:HH12	1.78	0.41
1:E:252:ASN:C	1:E:254:GLU:N	2.73	0.41
1:E:261:THR:HA	1:E:268:ARG:NH2	2.35	0.41
1:E:341:ASP:OD1	1:E:341:ASP:O	2.39	0.41
1:A:143:VAL:CG1	1:A:144:GLY:N	2.83	0.41
1:A:149:LEU:HA	1:A:178:TRP:HZ2	1.85	0.41
1:A:203:GLN:CB	1:A:206:MET:HE2	2.51	0.41
1:A:261:THR:HA	1:A:268:ARG:NH2	2.35	0.41
1:A:280:LYS:HE3	1:A:280:LYS:HB3	1.85	0.41
1:B:21:ALA:C	1:B:33:PRO:HD2	2.39	0.41
1:B:128:ASP:CB	1:B:134:PRO:O	2.66	0.41
1:B:205:GLU:OE1	1:B:209:TYR:CD1	2.73	0.41
1:B:257:ALA:O	1:B:260:PRO:HG2	2.20	0.41
1:C:76:LEU:HB2	1:C:136:HIS:CE1	2.55	0.41
1:C:312:ASP:CB	1:C:460:THR:OG1	2.68	0.41
1:C:412:TRP:CD2	1:C:469:ARG:NH1	2.88	0.41
1:D:12:VAL:CG1	1:D:15:LEU:HB3	2.41	0.41
1:D:57:GLN:O	1:D:57:GLN:HG3	2.20	0.41
1:D:203:GLN:NE2	1:D:206:MET:CE	2.82	0.41
1:D:237:TYR:CB	1:D:239:GLN:OE1	2.69	0.41
1:D:252:ASN:C	1:D:254:GLU:N	2.73	0.41
1:D:333:LEU:O	1:D:426:GLY:HA2	2.21	0.41
1:E:47:ALA:C	1:E:195:ARG:NH1	2.73	0.41
1:E:113:GLU:HG3	1:E:113:GLU:O	2.19	0.41
1:E:316:ALA:O	1:E:317:PRO:O	2.39	0.41
1:E:412:TRP:CD2	1:E:469:ARG:NH1	2.88	0.41
1:A:118:PRO:HA	1:A:121:ARG:NE	2.29	0.41
1:A:180:LEU:HD23	1:A:180:LEU:C	2.41	0.41
1:A:223:TRP:CH2	1:A:225:ALA:HB3	2.54	0.41
1:A:254:GLU:HG3	1:A:255:ALA:H	1.84	0.41
1:A:266:PHE:CD2	1:A:267:ASP:O	2.74	0.41
1:A:416:THR:HG22	1:A:420:GLU:OE2	2.21	0.41
1:A:439:HIS:CB	1:A:453:LYS:CD	2.96	0.41
1:A:444:MET:HA	1:A:445:GLU:HA	1.56	0.41
1:B:423:PHE:N	1:B:423:PHE:HD1	2.17	0.41
1:C:118:PRO:HG3	1:C:129:VAL:CB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:190:PRO:C	1:C:192:PRO:HD3	2.40	0.41
1:C:203:GLN:HG2	1:C:206:MET:HE1	2.02	0.41
1:C:205:GLU:OE1	1:C:209:TYR:CD1	2.73	0.41
1:D:26:LEU:HD23	1:D:27:TRP:HD1	1.85	0.41
1:D:70:ALA:O	1:D:73:VAL:CG1	2.68	0.41
1:D:153:ARG:O	1:D:153:ARG:HG3	2.20	0.41
1:D:266:PHE:CD2	1:D:267:ASP:O	2.74	0.41
1:D:346:TYR:CD1	1:D:346:TYR:N	2.89	0.41
1:D:448:ARG:NH1	1:D:455:MET:SD	2.93	0.41
1:E:21:ALA:C	1:E:33:PRO:HD2	2.39	0.41
1:E:22:PHE:CB	1:E:30:LEU:HD11	2.50	0.41
1:E:76:LEU:HD23	1:E:76:LEU:C	2.41	0.41
1:E:98:SER:CA	1:E:101:ILE:HG12	2.51	0.41
1:E:280:LYS:HE3	1:E:280:LYS:HB3	1.85	0.41
1:E:305:ASP:HA	1:E:329:ILE:CG2	2.51	0.41
1:E:308:VAL:HG12	1:E:476:VAL:HG13	2.02	0.41
1:E:370:LYS:CE	1:E:375:TYR:CE1	2.88	0.41
1:E:382:ASN:ND2	1:E:385:ILE:HG12	2.36	0.41
1:A:118:PRO:HG3	1:A:129:VAL:CB	2.51	0.41
1:A:153:ARG:O	1:A:153:ARG:HG3	2.20	0.41
1:A:162:VAL:C	1:A:165:PRO:CD	2.89	0.41
1:A:316:ALA:O	1:A:317:PRO:O	2.39	0.41
1:A:361:LEU:O	1:A:362:VAL:HG12	2.21	0.41
1:A:370:LYS:HZ2	1:A:375:TYR:HD1	1.65	0.41
1:B:57:GLN:HG2	1:B:444:MET:HE2	2.03	0.41
1:C:26:LEU:HD23	1:C:27:TRP:HD1	1.85	0.41
1:C:47:ALA:C	1:C:195:ARG:NH1	2.73	0.41
1:C:125:ILE:O	1:C:125:ILE:CG2	2.68	0.41
1:C:149:LEU:HA	1:C:178:TRP:HZ2	1.85	0.41
1:D:14:GLN:HE21	1:D:18:ASP:CG	2.23	0.41
1:D:20:VAL:O	1:D:22:PHE:CD1	2.73	0.41
1:D:33:PRO:O	1:D:35:PRO:HD3	2.20	0.41
1:D:118:PRO:HA	1:D:121:ARG:NE	2.29	0.41
1:D:124:VAL:CA	1:D:125:ILE:CB	2.99	0.41
1:D:190:PRO:O	1:D:192:PRO:HD3	2.20	0.41
1:D:316:ALA:O	1:D:317:PRO:O	2.39	0.41
1:D:341:ASP:OD1	1:D:341:ASP:O	2.39	0.41
1:D:351:ASN:ND2	1:D:377:VAL:O	2.54	0.41
1:D:450:ARG:CZ	1:D:453:LYS:HE2	2.51	0.41
1:E:14:GLN:HE21	1:E:18:ASP:CG	2.23	0.41
1:E:20:VAL:C	1:E:22:PHE:CE1	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:86:ILE:O	1:E:157:ILE:HA	2.21	0.41
1:E:266:PHE:CD2	1:E:267:ASP:O	2.74	0.41
1:E:346:TYR:CD1	1:E:346:TYR:N	2.89	0.41
1:E:351:ASN:ND2	1:E:377:VAL:O	2.54	0.41
1:E:432:PHE:CD1	1:E:432:PHE:N	2.87	0.41
1:A:14:GLN:HE21	1:A:18:ASP:CG	2.23	0.41
1:A:73:VAL:HG13	1:A:74:TRP:N	2.36	0.41
1:A:162:VAL:HA	1:A:165:PRO:HG2	2.01	0.41
1:A:202:PRO:HB3	1:A:265:ARG:HH12	1.78	0.41
1:A:222:ILE:HG21	1:A:222:ILE:HD13	1.80	0.41
1:A:341:ASP:OD1	1:A:341:ASP:O	2.39	0.41
1:A:364:ASP:HA	1:A:365:PRO:HD2	1.84	0.41
1:A:412:TRP:CD2	1:A:469:ARG:NH1	2.88	0.41
1:B:57:GLN:CB	1:B:265:ARG:NE	2.82	0.41
1:B:162:VAL:C	1:B:165:PRO:CD	2.89	0.41
1:B:180:LEU:HD23	1:B:180:LEU:C	2.41	0.41
1:B:190:PRO:C	1:B:192:PRO:HD3	2.41	0.41
1:B:266:PHE:CD2	1:B:267:ASP:O	2.74	0.41
1:B:316:ALA:O	1:B:317:PRO:O	2.39	0.41
1:B:341:ASP:OD1	1:B:341:ASP:O	2.39	0.41
1:B:346:TYR:CD1	1:B:346:TYR:N	2.89	0.41
1:B:416:THR:HB	1:B:465:MET:HB3	2.02	0.41
1:B:439:HIS:CB	1:B:453:LYS:CD	2.96	0.41
1:B:450:ARG:NE	1:B:453:LYS:HZ3	2.17	0.41
1:C:57:GLN:HG2	1:C:444:MET:HE1	2.03	0.41
1:C:57:GLN:CB	1:C:265:ARG:NE	2.82	0.41
1:C:84:ILE:CG2	1:C:153:ARG:O	2.67	0.41
1:C:86:ILE:O	1:C:157:ILE:HA	2.21	0.41
1:C:202:PRO:HG3	1:C:265:ARG:HH11	1.86	0.41
1:C:252:ASN:CB	1:C:253:PRO:CD	2.97	0.41
1:D:16:LYS:NZ	1:D:108:LEU:HD22	2.35	0.41
1:D:42:MET:CA	1:D:45:VAL:HG12	2.51	0.41
1:D:57:GLN:HG2	1:D:444:MET:HE2	2.03	0.41
1:D:72:VAL:HG13	1:D:73:VAL:N	2.34	0.41
1:D:234:ASN:ND2	1:D:240:ARG:CD	2.72	0.41
1:D:266:PHE:CE2	1:D:270:ASP:O	2.74	0.41
1:D:301:LEU:CD2	1:D:360:ILE:O	2.65	0.41
1:D:382:ASN:ND2	1:D:385:ILE:HG12	2.36	0.41
1:D:412:TRP:CD2	1:D:469:ARG:NH1	2.88	0.41
1:D:440:HIS:CE1	1:D:447:ILE:HG22	2.56	0.41
1:E:57:GLN:HG2	1:E:444:MET:HE2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:125:ILE:O	1:E:125:ILE:CG2	2.69	0.41
1:E:180:LEU:HD23	1:E:180:LEU:C	2.41	0.41
1:E:208:LEU:C	1:E:211:GLU:HG2	2.40	0.41
1:E:368:ARG:CA	1:E:401:THR:HG21	2.51	0.41
1:E:440:HIS:CE1	1:E:447:ILE:HG22	2.56	0.41
1:A:57:GLN:OE1	1:A:212:LEU:CD1	2.69	0.41
1:A:57:GLN:HG2	1:A:444:MET:CE	2.50	0.41
1:A:64:LYS:HD3	1:A:199:LEU:CD2	2.51	0.41
1:A:117:ARG:NE	1:A:132:ALA:CB	2.84	0.41
1:A:163:GLU:CD	1:A:208:LEU:HB3	2.42	0.41
1:A:305:ASP:HA	1:A:329:ILE:CG2	2.51	0.41
1:B:20:VAL:C	1:B:22:PHE:CE1	2.94	0.41
1:B:66:PHE:N	1:B:66:PHE:HD1	2.19	0.41
1:B:308:VAL:HG12	1:B:476:VAL:HG13	2.02	0.41
1:C:117:ARG:NE	1:C:132:ALA:CB	2.84	0.41
1:C:286:GLN:HB3	1:C:298:LYS:HD2	2.03	0.41
1:C:291:PRO:HG2	1:C:295:ASP:CB	2.23	0.41
1:C:301:LEU:CD2	1:C:360:ILE:O	2.65	0.41
1:D:57:GLN:OE1	1:D:212:LEU:CD2	2.67	0.41
1:D:66:PHE:N	1:D:66:PHE:CD1	2.89	0.41
1:D:98:SER:CA	1:D:101:ILE:HG12	2.51	0.41
1:D:180:LEU:HD23	1:D:180:LEU:C	2.41	0.41
1:D:252:ASN:CB	1:D:253:PRO:CD	2.97	0.41
1:D:305:ASP:HA	1:D:329:ILE:CG2	2.51	0.41
1:D:308:VAL:HG22	1:D:326:ARG:HB2	2.03	0.41
1:E:55:ILE:HD12	1:E:198:TYR:CB	2.42	0.41
1:E:57:GLN:OE1	1:E:212:LEU:CD2	2.67	0.41
1:E:66:PHE:N	1:E:66:PHE:HD1	2.19	0.41
1:E:70:ALA:O	1:E:73:VAL:CG1	2.68	0.41
1:E:162:VAL:HA	1:E:165:PRO:HG2	2.02	0.41
1:E:416:THR:HG22	1:E:420:GLU:OE2	2.21	0.41
1:A:66:PHE:N	1:A:66:PHE:CD1	2.89	0.40
1:B:39:GLN:HB3	1:B:67:ILE:HG21	2.02	0.40
1:B:44:LYS:O	1:B:50:ASP:OD2	2.39	0.40
1:B:141:LYS:HG2	1:B:171:MET:HG2	2.04	0.40
1:B:194:SER:CA	1:B:195:ARG:HD3	2.51	0.40
1:B:382:ASN:ND2	1:B:385:ILE:HG12	2.36	0.40
1:C:20:VAL:C	1:C:22:PHE:CE1	2.95	0.40
1:C:55:ILE:HD11	1:C:198:TYR:CD2	2.55	0.40
1:C:266:PHE:CD2	1:C:267:ASP:O	2.74	0.40
1:C:295:ASP:CB	1:C:339:LYS:HD2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:301:LEU:CD2	1:C:361:LEU:HA	2.48	0.40
1:D:47:ALA:C	1:D:195:ARG:NH1	2.73	0.40
1:D:117:ARG:NE	1:D:132:ALA:CB	2.84	0.40
1:D:416:THR:HG22	1:D:420:GLU:OE2	2.21	0.40
1:D:432:PHE:CD1	1:D:432:PHE:N	2.87	0.40
1:E:124:VAL:CA	1:E:125:ILE:CB	2.99	0.40
1:E:190:PRO:CB	1:E:192:PRO:HD2	2.49	0.40
1:E:285:LEU:HD13	1:E:431:VAL:CG1	2.51	0.40
1:E:333:LEU:O	1:E:426:GLY:HA2	2.21	0.40
1:A:66:PHE:N	1:A:66:PHE:HD1	2.19	0.40
1:A:156:ILE:CB	1:A:194:SER:CB	2.83	0.40
1:A:160:ASP:OD1	1:A:161:ASP:N	2.55	0.40
1:A:266:PHE:CE2	1:A:270:ASP:O	2.74	0.40
1:A:351:ASN:ND2	1:A:377:VAL:CG1	2.79	0.40
1:A:416:THR:HB	1:A:465:MET:HB3	2.02	0.40
1:B:98:SER:CA	1:B:101:ILE:HG12	2.51	0.40
1:B:301:LEU:CD2	1:B:360:ILE:O	2.65	0.40
1:B:351:ASN:ND2	1:B:377:VAL:O	2.54	0.40
1:B:361:LEU:O	1:B:362:VAL:HG12	2.21	0.40
1:C:160:ASP:OD1	1:C:161:ASP:N	2.55	0.40
1:C:187:LEU:O	1:C:192:PRO:CD	2.65	0.40
1:C:220:THR:HG23	1:C:411:GLN:NE2	2.37	0.40
1:C:237:TYR:CB	1:C:239:GLN:OE1	2.69	0.40
1:C:316:ALA:O	1:C:317:PRO:O	2.39	0.40
1:C:416:THR:HG22	1:C:420:GLU:OE2	2.21	0.40
1:D:163:GLU:CD	1:D:208:LEU:HB3	2.42	0.40
1:D:194:SER:CA	1:D:195:ARG:HD3	2.51	0.40
1:D:285:LEU:HD13	1:D:431:VAL:CG1	2.51	0.40
1:D:368:ARG:CA	1:D:401:THR:HG21	2.52	0.40
1:E:117:ARG:NE	1:E:132:ALA:CB	2.84	0.40
1:E:416:THR:HB	1:E:465:MET:HB3	2.02	0.40
1:E:450:ARG:CZ	1:E:453:LYS:HE2	2.51	0.40
1:A:86:ILE:O	1:A:157:ILE:HA	2.21	0.40
1:A:368:ARG:CA	1:A:401:THR:HG21	2.52	0.40
1:A:450:ARG:HE	1:A:453:LYS:HZ1	1.68	0.40
1:B:26:LEU:HD23	1:B:27:TRP:HD1	1.85	0.40
1:B:70:ALA:O	1:B:73:VAL:CG1	2.67	0.40
1:B:117:ARG:NE	1:B:132:ALA:CB	2.84	0.40
1:B:143:VAL:CG1	1:B:144:GLY:N	2.83	0.40
1:B:149:LEU:HA	1:B:178:TRP:HZ2	1.85	0.40
1:B:266:PHE:CE2	1:B:270:ASP:O	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:275:GLU:HG3	1:B:437:LEU:HD23	2.04	0.40
1:B:285:LEU:HD13	1:B:431:VAL:CG1	2.51	0.40
1:B:394:ARG:NE	1:B:397:TYR:CE1	2.88	0.40
1:B:416:THR:HG22	1:B:420:GLU:OE2	2.21	0.40
1:C:76:LEU:HD23	1:C:76:LEU:C	2.41	0.40
1:C:180:LEU:HD23	1:C:180:LEU:C	2.41	0.40
1:C:308:VAL:HG22	1:C:326:ARG:HB2	2.04	0.40
1:C:382:ASN:ND2	1:C:385:ILE:HG12	2.36	0.40
1:C:449:ALA:N	1:C:455:MET:CE	2.75	0.40
1:D:57:GLN:NE2	1:D:216:ARG:NH2	2.69	0.40
1:D:58:ALA:N	1:D:265:ARG:HD3	2.37	0.40
1:D:64:LYS:HD3	1:D:199:LEU:CD2	2.51	0.40
1:D:308:VAL:HG12	1:D:476:VAL:HG13	2.02	0.40
1:D:329:ILE:CG1	1:D:330:ILE:N	2.79	0.40
1:D:368:ARG:HE	1:D:378:LEU:CA	2.30	0.40
1:E:76:LEU:CB	1:E:136:HIS:NE2	2.81	0.40
1:E:159:ALA:CB	1:E:198:TYR:CD1	3.02	0.40
1:E:295:ASP:CB	1:E:339:LYS:HD2	2.52	0.40
1:A:20:VAL:HA	1:A:22:PHE:HE1	1.86	0.40
1:A:220:THR:HG23	1:A:411:GLN:NE2	2.36	0.40
1:A:237:TYR:C	1:A:239:GLN:OE1	2.60	0.40
1:A:351:ASN:ND2	1:A:377:VAL:O	2.54	0.40
1:B:64:LYS:HD3	1:B:199:LEU:CD2	2.51	0.40
1:B:153:ARG:O	1:B:153:ARG:HG3	2.20	0.40
1:B:401:THR:HB	1:B:402:LEU:H	1.66	0.40
1:C:37:LYS:O	1:C:40:ILE:CG1	2.66	0.40
1:C:85:LEU:CB	1:C:136:HIS:ND1	2.83	0.40
1:C:102:LYS:HZ2	1:C:120:GLN:HB2	1.85	0.40
1:C:237:TYR:C	1:C:239:GLN:OE1	2.60	0.40
1:C:295:ASP:HB2	1:C:339:LYS:HD3	2.01	0.40
1:C:361:LEU:O	1:C:362:VAL:HG12	2.21	0.40
1:D:20:VAL:C	1:D:22:PHE:CE1	2.94	0.40
1:D:37:LYS:O	1:D:40:ILE:CG1	2.66	0.40
1:D:252:ASN:C	1:D:254:GLU:H	2.25	0.40
1:D:254:GLU:HG3	1:D:255:ALA:H	1.84	0.40
1:E:194:SER:CA	1:E:195:ARG:HD3	2.52	0.40
1:E:370:LYS:HE3	1:E:375:TYR:CD1	2.52	0.40
1:A:20:VAL:C	1:A:22:PHE:CE1	2.94	0.40
1:A:293:LEU:CB	1:A:339:LYS:HZ1	2.33	0.40
1:A:295:ASP:CB	1:A:339:LYS:CD	3.00	0.40
1:A:430:LYS:HZ2	1:A:432:PHE:H	1.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:223:TRP:NE1	1:B:265:ARG:CG	2.75	0.40
1:B:237:TYR:CB	1:B:239:GLN:OE1	2.69	0.40
1:C:76:LEU:CB	1:C:136:HIS:NE2	2.81	0.40
1:C:241:LEU:HG	1:C:244:MET:CB	2.49	0.40
1:C:252:ASN:C	1:C:254:GLU:H	2.25	0.40
1:C:335:ASN:HD21	1:C:338:LEU:CD1	2.20	0.40
1:C:351:ASN:ND2	1:C:377:VAL:O	2.54	0.40
1:C:368:ARG:CA	1:C:401:THR:HG21	2.52	0.40
1:C:440:HIS:CE1	1:C:447:ILE:HG22	2.56	0.40
1:D:22:PHE:CB	1:D:30:LEU:HD11	2.50	0.40
1:D:160:ASP:OD1	1:D:161:ASP:N	2.55	0.40
1:D:275:GLU:HG3	1:D:437:LEU:HD23	2.04	0.40
1:D:394:ARG:NE	1:D:397:TYR:CE1	2.88	0.40
1:E:190:PRO:C	1:E:192:PRO:HD3	2.40	0.40
1:E:241:LEU:HG	1:E:244:MET:CB	2.49	0.40
1:E:257:ALA:O	1:E:260:PRO:HG2	2.21	0.40
1:E:400:LYS:O	1:E:401:THR:CG2	2.68	0.40
1:E:444:MET:SD	1:E:445:GLU:CB	3.10	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	474/476 (100%)	396 (84%)	47 (10%)	31 (6%)	1	16
1	B	474/476 (100%)	396 (84%)	47 (10%)	31 (6%)	1	16
1	C	474/476 (100%)	396 (84%)	47 (10%)	31 (6%)	1	16
1	D	474/476 (100%)	396 (84%)	47 (10%)	31 (6%)	1	16
1	E	474/476 (100%)	396 (84%)	47 (10%)	31 (6%)	1	16
All	All	2370/2380 (100%)	1980 (84%)	235 (10%)	155 (6%)	2	16

All (155) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	83	LYS
1	A	92	GLU
1	A	125	ILE
1	A	132	ALA
1	A	182	GLN
1	A	191	LEU
1	A	194	SER
1	A	195	ARG
1	A	243	PRO
1	A	252	ASN
1	A	253	PRO
1	A	317	PRO
1	A	376	ALA
1	A	401	THR
1	A	407	LYS
1	A	475	GLU
1	B	83	LYS
1	B	92	GLU
1	B	125	ILE
1	B	132	ALA
1	B	182	GLN
1	B	191	LEU
1	B	194	SER
1	B	195	ARG
1	B	243	PRO
1	B	252	ASN
1	B	253	PRO
1	B	317	PRO
1	B	376	ALA
1	B	401	THR
1	B	407	LYS
1	B	475	GLU
1	C	83	LYS
1	C	92	GLU
1	C	125	ILE
1	C	132	ALA
1	C	182	GLN
1	C	191	LEU
1	C	194	SER
1	C	195	ARG
1	C	243	PRO
1	C	252	ASN

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Mol	Chain	Res	Type
1	C	253	PRO
1	C	317	PRO
1	C	376	ALA
1	C	401	THR
1	C	407	LYS
1	C	475	GLU
1	D	83	LYS
1	D	92	GLU
1	D	125	ILE
1	D	132	ALA
1	D	182	GLN
1	D	191	LEU
1	D	194	SER
1	D	195	ARG
1	D	243	PRO
1	D	252	ASN
1	D	253	PRO
1	D	317	PRO
1	D	376	ALA
1	D	401	THR
1	D	407	LYS
1	D	475	GLU
1	E	83	LYS
1	E	92	GLU
1	E	125	ILE
1	E	132	ALA
1	E	182	GLN
1	E	191	LEU
1	E	194	SER
1	E	195	ARG
1	E	243	PRO
1	E	252	ASN
1	E	253	PRO
1	E	317	PRO
1	E	376	ALA
1	E	401	THR
1	E	407	LYS
1	E	475	GLU
1	A	52	LYS
1	A	318	MET
1	A	474	ASP
1	B	52	LYS

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Mol	Chain	Res	Type
1	B	318	MET
1	B	474	ASP
1	C	52	LYS
1	C	318	MET
1	C	474	ASP
1	D	52	LYS
1	D	318	MET
1	D	474	ASP
1	E	52	LYS
1	E	318	MET
1	E	474	ASP
1	A	192	PRO
1	B	192	PRO
1	C	192	PRO
1	D	192	PRO
1	E	192	PRO
1	A	133	ASN
1	A	206	MET
1	A	224	PRO
1	A	254	GLU
1	B	133	ASN
1	B	206	MET
1	B	224	PRO
1	B	254	GLU
1	C	133	ASN
1	C	206	MET
1	C	224	PRO
1	C	254	GLU
1	D	133	ASN
1	D	206	MET
1	D	224	PRO
1	D	254	GLU
1	E	133	ASN
1	E	206	MET
1	E	224	PRO
1	E	254	GLU
1	A	164	ILE
1	A	385	ILE
1	A	406	ALA
1	B	164	ILE
1	B	385	ILE
1	B	406	ALA

Continued on next page...

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Mol	Chain	Res	Type
1	C	164	ILE
1	C	385	ILE
1	C	406	ALA
1	D	164	ILE
1	D	385	ILE
1	D	406	ALA
1	E	164	ILE
1	E	385	ILE
1	E	406	ALA
1	A	334	PRO
1	B	334	PRO
1	C	334	PRO
1	D	334	PRO
1	E	334	PRO
1	A	118	PRO
1	A	329	ILE
1	B	118	PRO
1	B	329	ILE
1	C	118	PRO
1	C	329	ILE
1	D	118	PRO
1	D	329	ILE
1	E	118	PRO
1	E	329	ILE
1	A	263	PRO
1	B	263	PRO
1	C	263	PRO
1	D	263	PRO
1	E	263	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	411/411 (100%)	408 (99%)	3 (1%)	84 90
1	B	411/411 (100%)	407 (99%)	4 (1%)	76 86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	C	411/411 (100%)	408 (99%)	3 (1%)	84 90
1	D	411/411 (100%)	407 (99%)	4 (1%)	76 86
1	E	411/411 (100%)	408 (99%)	3 (1%)	84 90
All	All	2055/2055 (100%)	2038 (99%)	17 (1%)	82 89

All (17) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	192	PRO
1	A	317	PRO
1	A	395	ASP
1	B	192	PRO
1	B	228	PRO
1	B	317	PRO
1	B	395	ASP
1	C	192	PRO
1	C	317	PRO
1	C	395	ASP
1	D	192	PRO
1	D	228	PRO
1	D	317	PRO
1	D	395	ASP
1	E	192	PRO
1	E	317	PRO
1	E	395	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (67) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	31	ASN
1	A	97	ASN
1	A	103	ASN
1	A	234	ASN
1	A	321	GLN
1	A	335	ASN
1	A	344	HIS
1	A	347	HIS
1	A	351	ASN
1	A	352	ASN
1	A	355	GLN

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Mol	Chain	Res	Type
1	A	411	GLN
1	A	439	HIS
1	A	440	HIS
1	B	31	ASN
1	B	97	ASN
1	B	103	ASN
1	B	234	ASN
1	B	321	GLN
1	B	344	HIS
1	B	347	HIS
1	B	351	ASN
1	B	352	ASN
1	B	355	GLN
1	B	411	GLN
1	B	439	HIS
1	B	440	HIS
1	C	31	ASN
1	C	97	ASN
1	C	103	ASN
1	C	234	ASN
1	C	321	GLN
1	C	335	ASN
1	C	344	HIS
1	C	347	HIS
1	C	351	ASN
1	C	352	ASN
1	C	355	GLN
1	C	411	GLN
1	C	439	HIS
1	C	440	HIS
1	D	31	ASN
1	D	97	ASN
1	D	103	ASN
1	D	234	ASN
1	D	321	GLN
1	D	344	HIS
1	D	347	HIS
1	D	351	ASN
1	D	352	ASN
1	D	355	GLN
1	D	411	GLN
1	D	439	HIS

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Mol	Chain	Res	Type
1	D	440	HIS
1	E	31	ASN
1	E	97	ASN
1	E	103	ASN
1	E	234	ASN
1	E	321	GLN
1	E	344	HIS
1	E	347	HIS
1	E	351	ASN
1	E	352	ASN
1	E	355	GLN
1	E	411	GLN
1	E	439	HIS
1	E	440	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Map visualisation

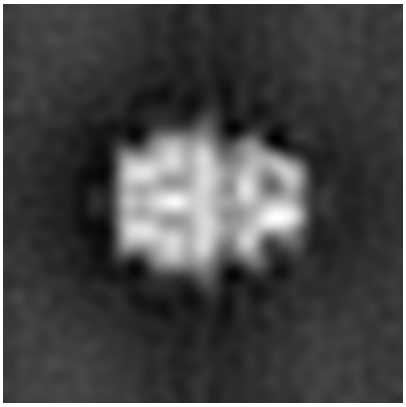
This section contains visualisations of the EMDB entry EMD-2356. These allow visual inspection of the internal detail of the map and identification of artifacts.

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



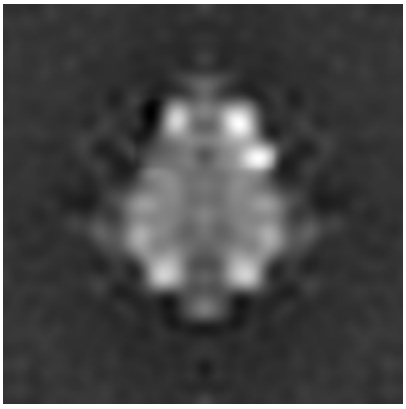
Y

Z

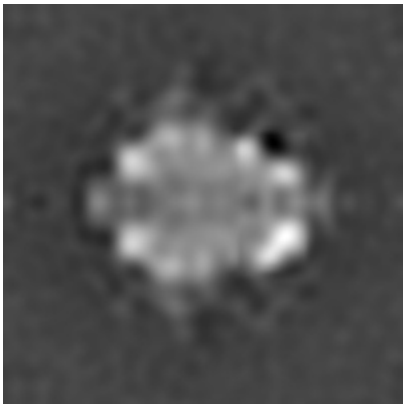
The images above show the map projected in three orthogonal directions.

6.2 Central slices

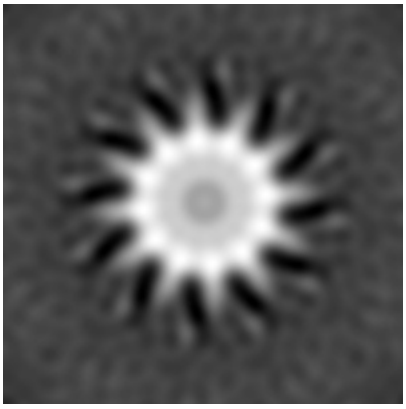
6.2.1 Primary map



X Index: 56



Y Index: 56

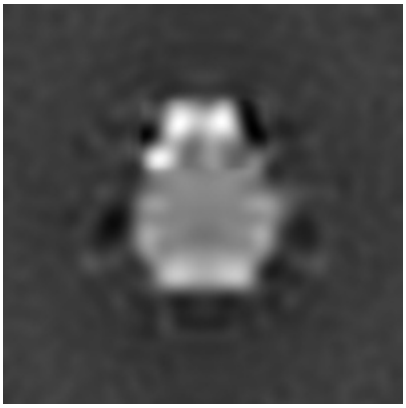


Z Index: 56

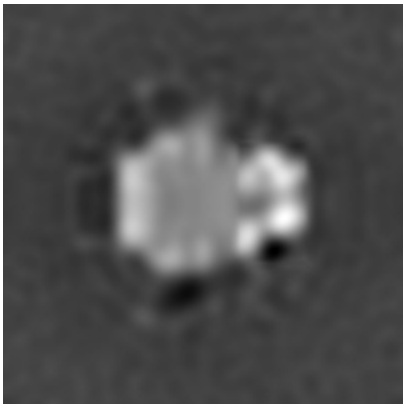
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

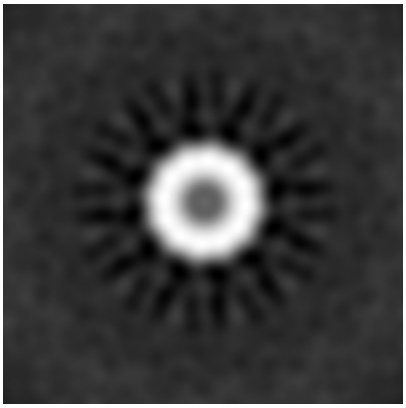
6.3.1 Primary map



X Index: 64



Y Index: 47



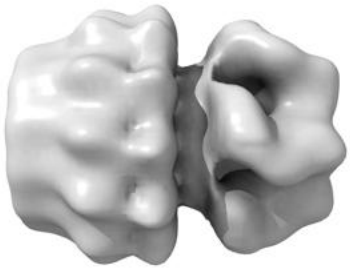
Z Index: 36

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

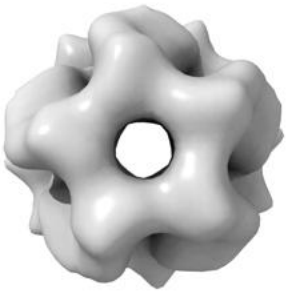
6.4 Orthogonal surface views (i)

6.4.1 Primary map

X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0248. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

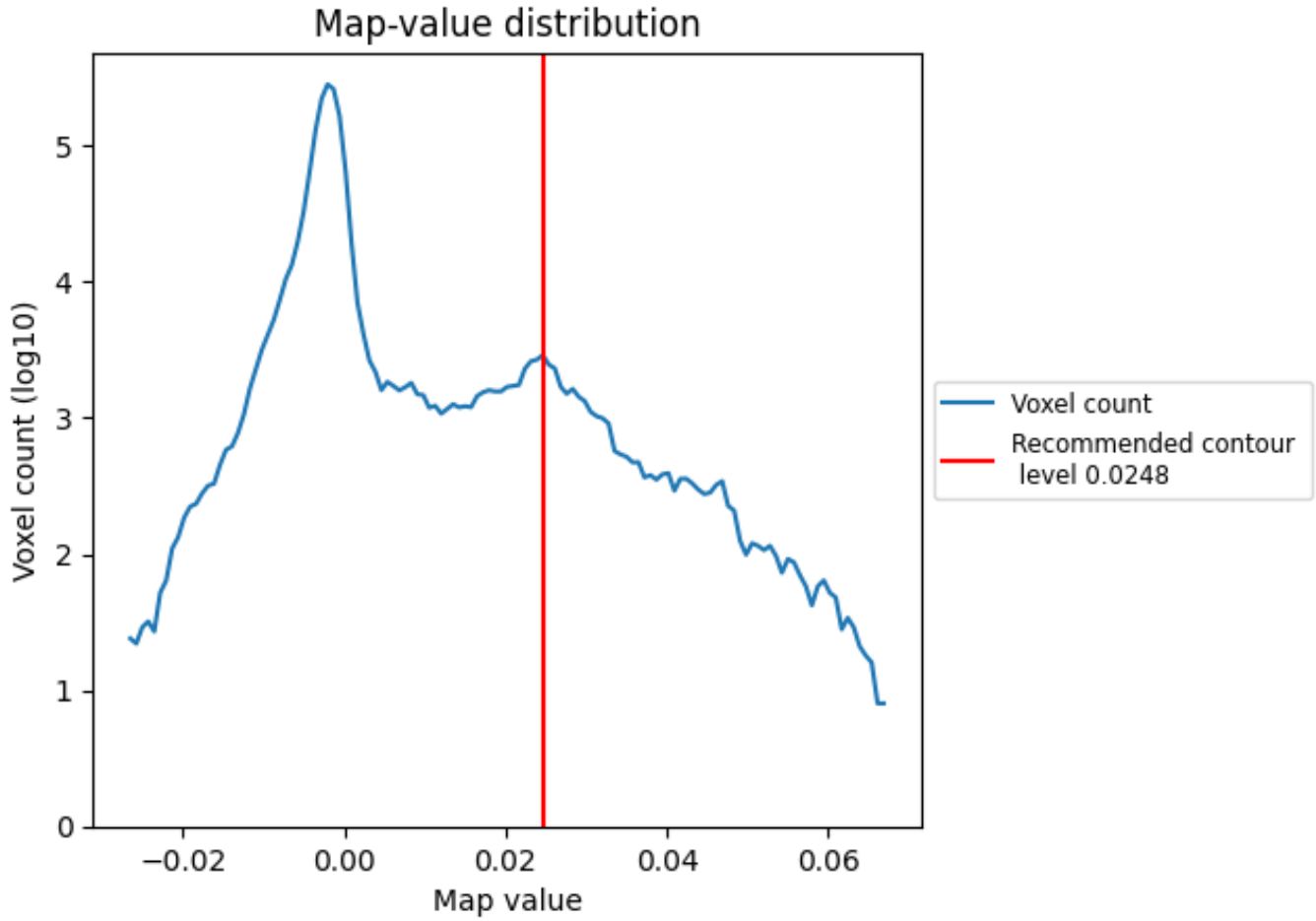
6.5 Mask visualisation (i)

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

7 Map analysis

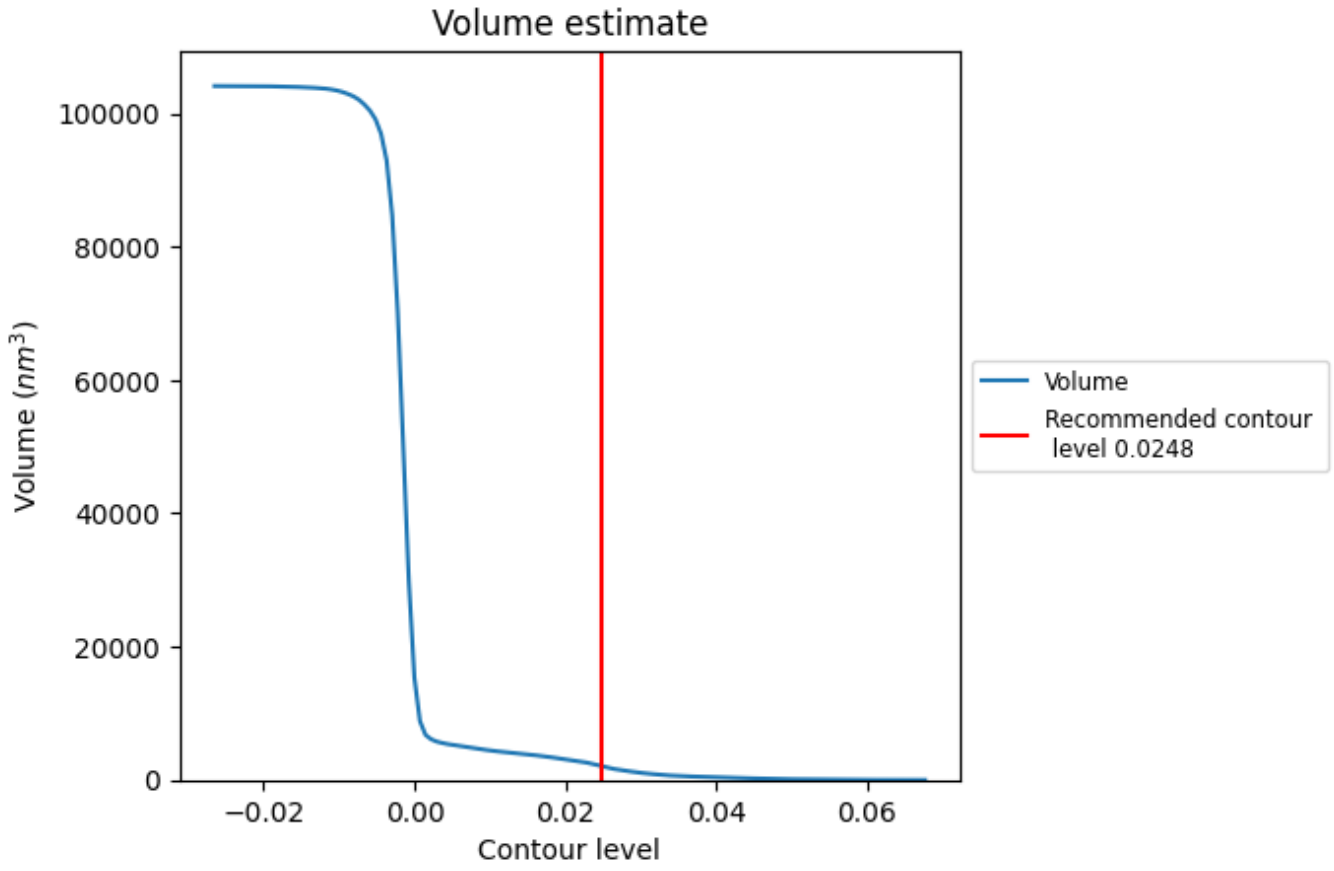
This section contains the results of statistical analysis of the map.

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.

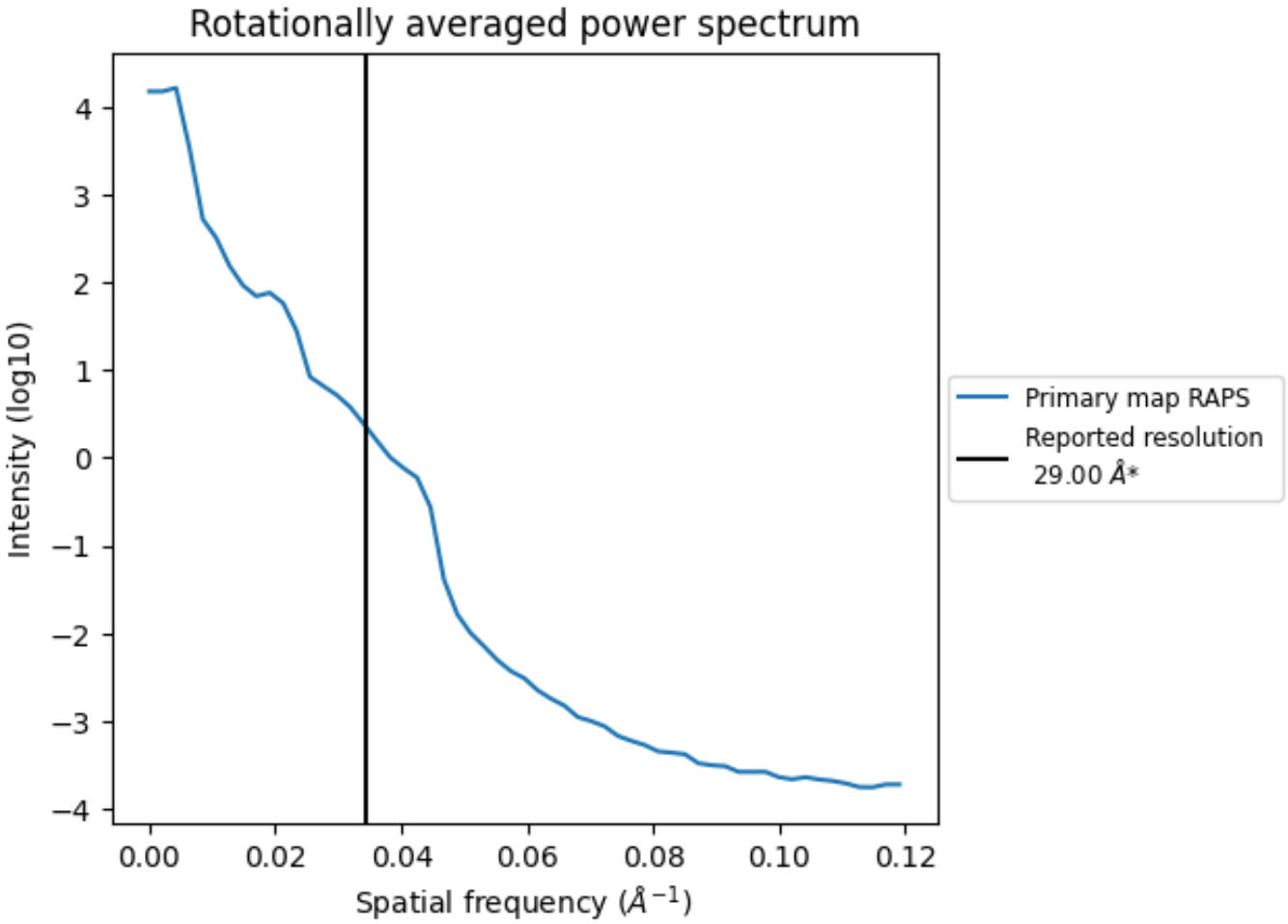
7.2 Volume estimate



The volume at the recommended contour level is 2076 nm^3; this corresponds to an approximate mass of 1875 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.034 Å^{-1}

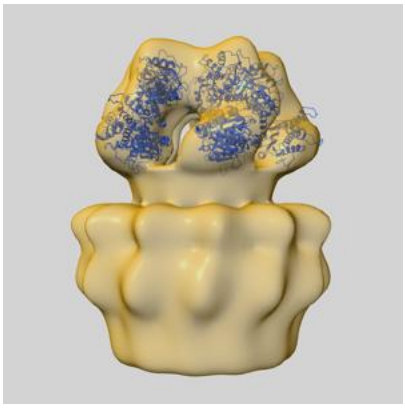
8 Fourier-Shell correlation

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

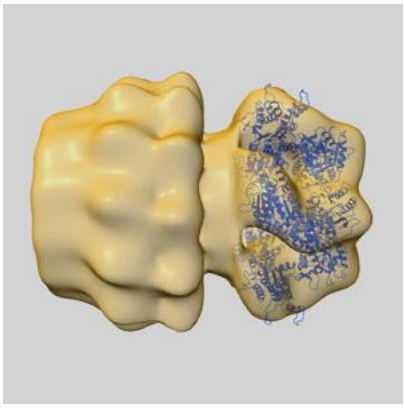
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-2356 and PDB model 4BIL. Per-residue inclusion information can be found in section 3 on page 4.

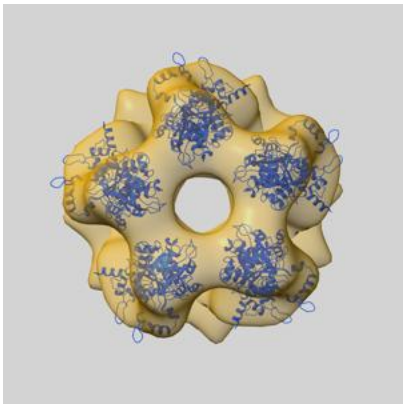
9.1 Map-model overlay



X



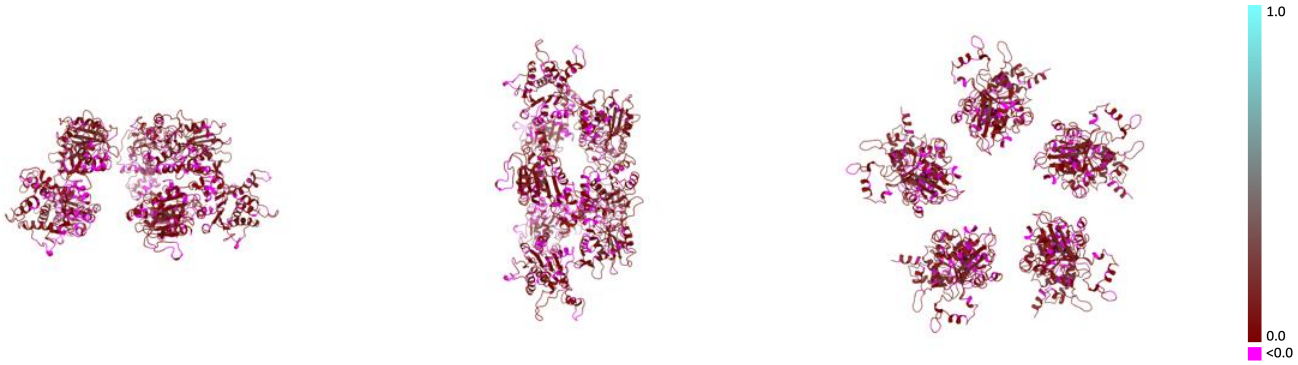
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0248 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

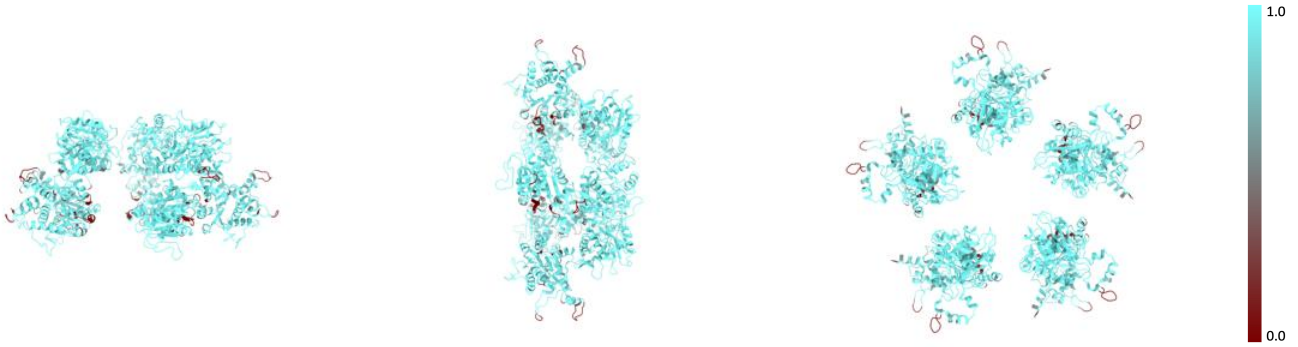
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

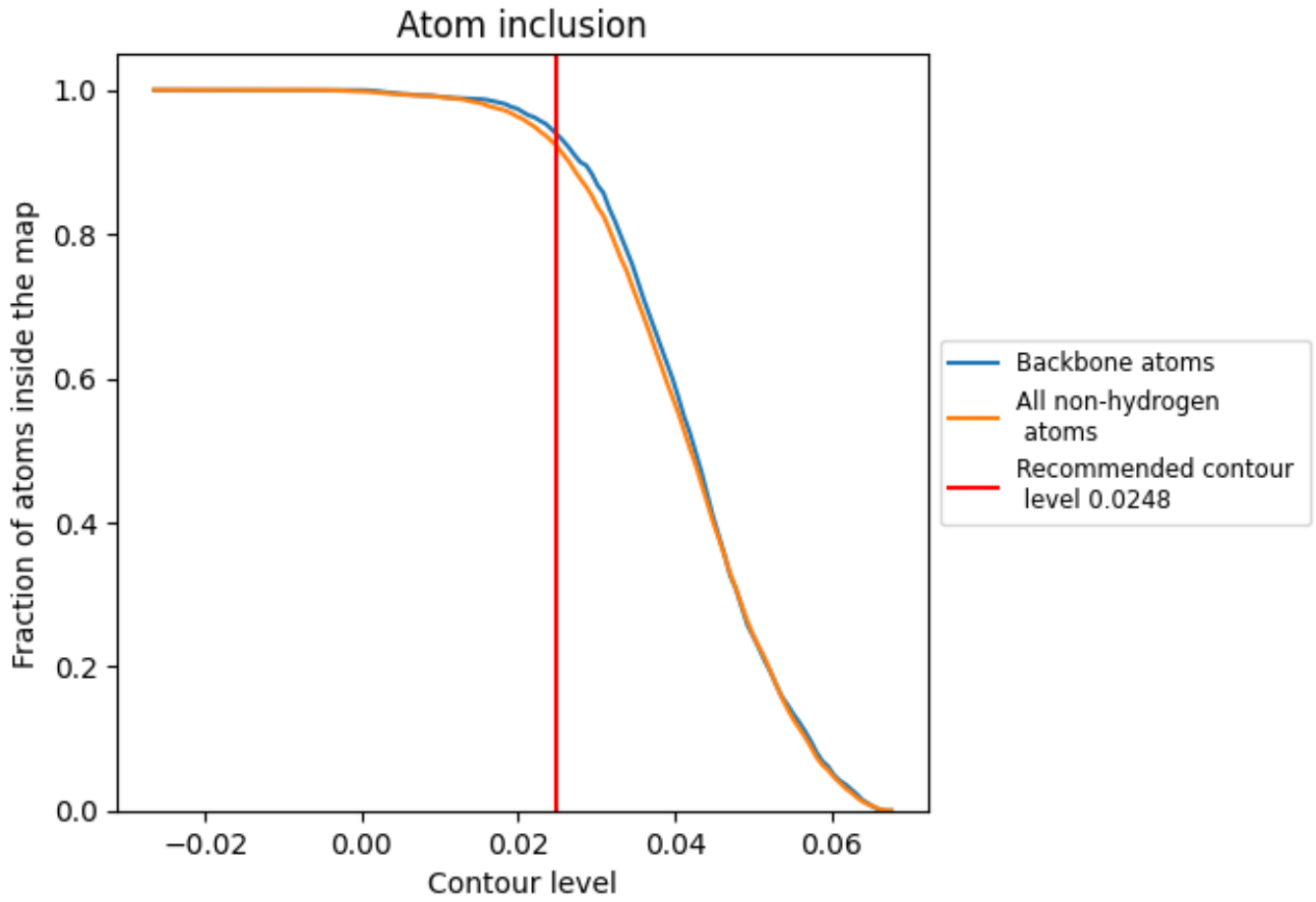
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0248).

9.4 Atom inclusion (i)



At the recommended contour level, 94% of all backbone atoms, 92% 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 (0.0248) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9236	0.0510
A	0.9239	0.0500
B	0.9236	0.0520
C	0.9236	0.0520
D	0.9239	0.0520
E	0.9233	0.0490