



Full wwPDB/EMDataBank EM Map/Model Validation Report ⓘ

Oct 23, 2017 – 11:51 PM EDT

PDB ID : 5WK6
EMDB ID: : EMD-8856
Title : Cryo-EM structure of *P. aeruginosa* flagellar filaments G420A
Authors : Wang, F.; Postel, S.; Sundberg, E.J.; Egelman, E.H.
Deposited on : unknown
Resolution : 4.30 Å(reported)

This is a Full wwPDB/EMDataBank EM Map/Model Validation Report
for a publicly released PDB/EMDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<http://wwpdb.org/validation/2016/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

MolProbity : 4.02b-467
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20030345

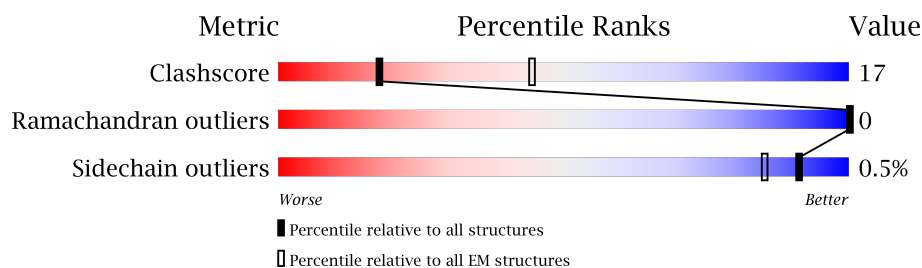
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.30 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.






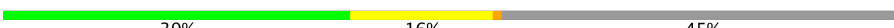
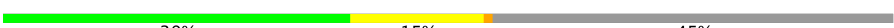
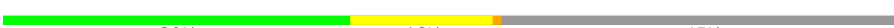







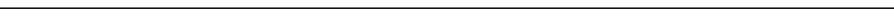

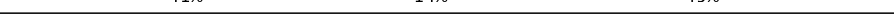
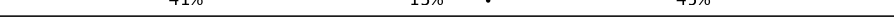
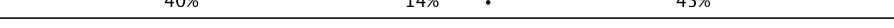







Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	A	488	39% 15% . 45%
1	B	488	39% 15% . 45%
1	C	488	39% 15% . 45%
1	D	488	39% 15% . 45%
1	E	488	39% 15% . 45%
1	F	488	39% 15% . 45%
1	G	488	39% 15% . 45%
1	H	488	39% 15% . 45%
1	I	488	39% 15% . 45%

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Mol	Chain	Length	Quality of chain
1	J	488	
1	K	488	
1	L	488	
1	M	488	
1	N	488	
1	O	488	
1	P	488	
1	Q	488	
1	R	488	
1	S	488	
1	T	488	
1	U	488	
1	V	488	
1	W	488	
1	X	488	
1	Y	488	
1	Z	488	
1	a	488	
1	b	488	
1	c	488	
1	d	488	
1	e	488	
1	f	488	
1	g	488	
1	h	488	

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Mol	Chain	Length	Quality of chain
1	i	488	<div><div></div><div>53%</div><div></div><div>•</div><div></div><div>45%</div></div>
1	j	488	<div><div></div><div>53%</div><div></div><div>•</div><div></div><div>45%</div></div>
1	k	488	<div><div></div><div>53%</div><div></div><div>•</div><div></div><div>45%</div></div>
1	l	488	<div><div></div><div>53%</div><div></div><div>•</div><div></div><div>45%</div></div>
1	m	488	<div><div></div><div>53%</div><div></div><div>•</div><div></div><div>45%</div></div>
1	n	488	<div><div></div><div>53%</div><div></div><div>•</div><div></div><div>45%</div></div>
1	o	488	<div><div></div><div>53%</div><div></div><div>•</div><div></div><div>45%</div></div>

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 161663 atoms, of which 80524 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 B-type flagellin.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	B	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	C	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	D	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	E	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	F	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	G	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	H	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	I	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	J	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	K	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	L	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	M	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	N	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	O	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	P	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	Q	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	R	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	S	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	T	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	U	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	V	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	W	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	X	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	Y	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	Z	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	a	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	b	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	c	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	d	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	e	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	f	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	g	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	h	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	i	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	j	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	k	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0
1	l	269	Total 3943	C 1187	H 1964	N 371	O 421	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	m	269	Total	C	H	N	O	0	0
			3943	1187	1964	371	421		
1	n	269	Total	C	H	N	O	0	0
			3943	1187	1964	371	421		
1	o	269	Total	C	H	N	O	0	0
			3943	1187	1964	371	421		

There are 41 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	420	ALA	GLY	engineered mutation	UNP P72151
B	420	ALA	GLY	engineered mutation	UNP P72151
C	420	ALA	GLY	engineered mutation	UNP P72151
D	420	ALA	GLY	engineered mutation	UNP P72151
E	420	ALA	GLY	engineered mutation	UNP P72151
F	420	ALA	GLY	engineered mutation	UNP P72151
G	420	ALA	GLY	engineered mutation	UNP P72151
H	420	ALA	GLY	engineered mutation	UNP P72151
I	420	ALA	GLY	engineered mutation	UNP P72151
J	420	ALA	GLY	engineered mutation	UNP P72151
K	420	ALA	GLY	engineered mutation	UNP P72151
L	420	ALA	GLY	engineered mutation	UNP P72151
M	420	ALA	GLY	engineered mutation	UNP P72151
N	420	ALA	GLY	engineered mutation	UNP P72151
O	420	ALA	GLY	engineered mutation	UNP P72151
P	420	ALA	GLY	engineered mutation	UNP P72151
Q	420	ALA	GLY	engineered mutation	UNP P72151
R	420	ALA	GLY	engineered mutation	UNP P72151
S	420	ALA	GLY	engineered mutation	UNP P72151
T	420	ALA	GLY	engineered mutation	UNP P72151
U	420	ALA	GLY	engineered mutation	UNP P72151
V	420	ALA	GLY	engineered mutation	UNP P72151
W	420	ALA	GLY	engineered mutation	UNP P72151
X	420	ALA	GLY	engineered mutation	UNP P72151
Y	420	ALA	GLY	engineered mutation	UNP P72151
Z	420	ALA	GLY	engineered mutation	UNP P72151
a	420	ALA	GLY	engineered mutation	UNP P72151
b	420	ALA	GLY	engineered mutation	UNP P72151
c	420	ALA	GLY	engineered mutation	UNP P72151
d	420	ALA	GLY	engineered mutation	UNP P72151
e	420	ALA	GLY	engineered mutation	UNP P72151
f	420	ALA	GLY	engineered mutation	UNP P72151

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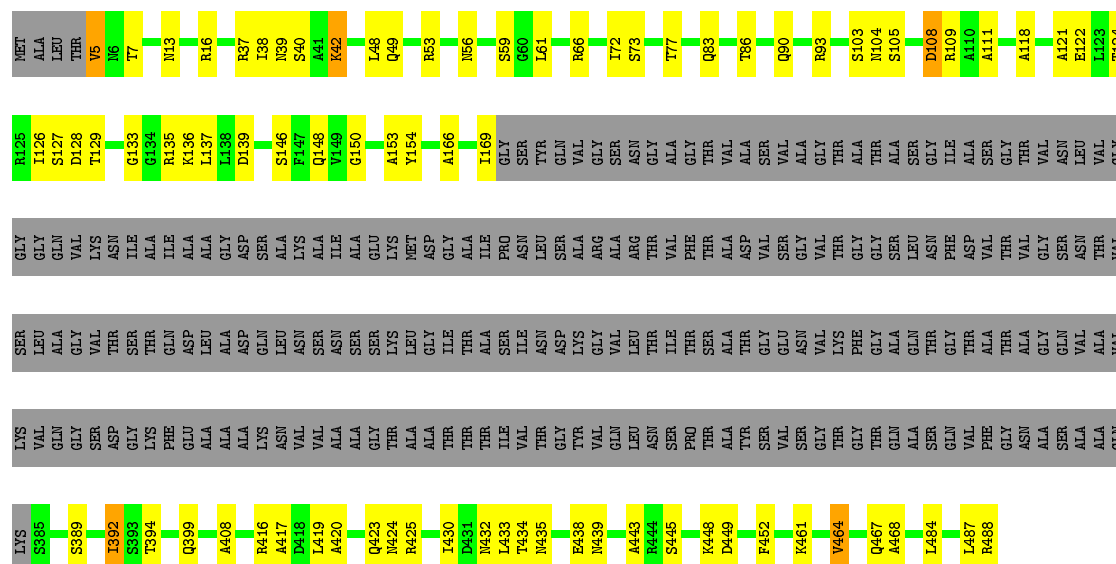
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Chain	Residue	Modelled	Actual	Comment	Reference
g	420	ALA	GLY	engineered mutation	UNP P72151
h	420	ALA	GLY	engineered mutation	UNP P72151
i	420	ALA	GLY	engineered mutation	UNP P72151
j	420	ALA	GLY	engineered mutation	UNP P72151
k	420	ALA	GLY	engineered mutation	UNP P72151
l	420	ALA	GLY	engineered mutation	UNP P72151
m	420	ALA	GLY	engineered mutation	UNP P72151
n	420	ALA	GLY	engineered mutation	UNP P72151
o	420	ALA	GLY	engineered mutation	UNP P72151



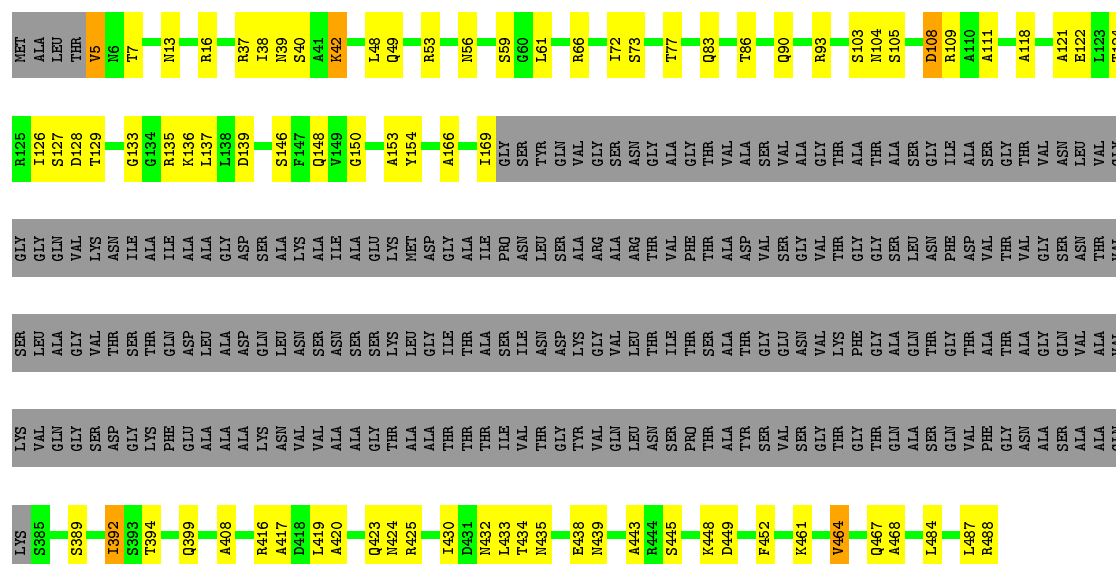
• Molecule 1: B-type flagellin

Chain C: 39% 15% 45%



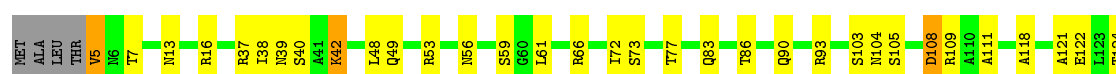
• Molecule 1: B-type flagellin

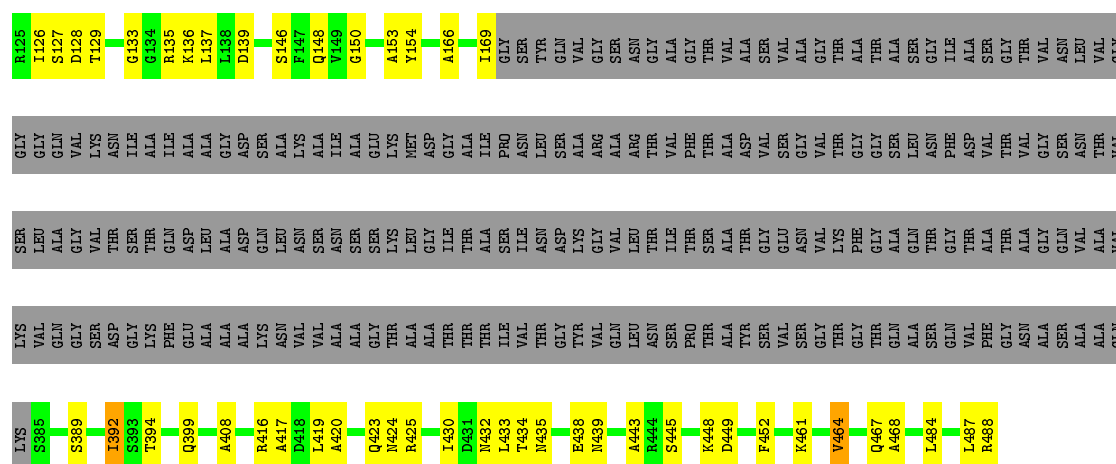
Chain D: 39% 15% 45%



• Molecule 1: B-type flagellin

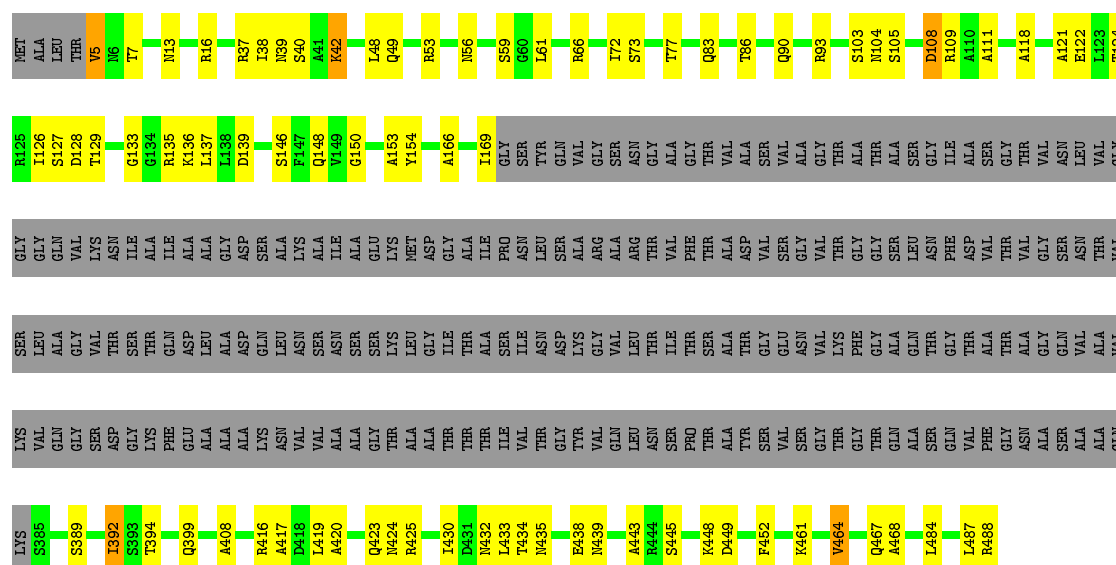
Chain E: 39% 15% 45%





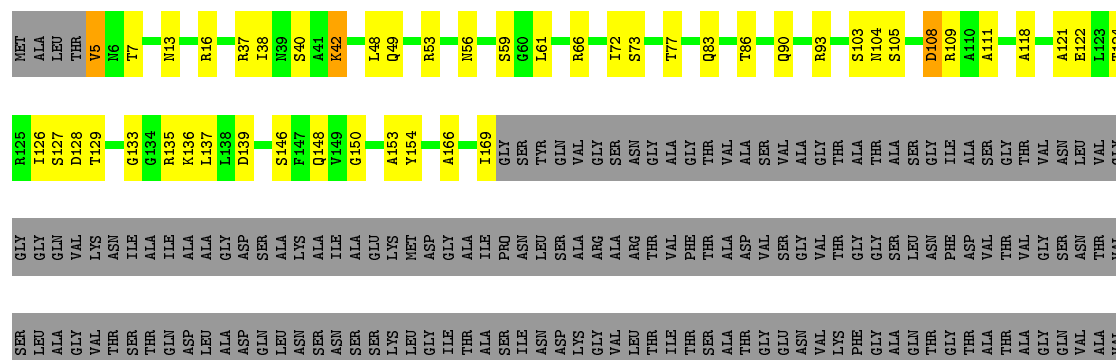
• Molecule 1: B-type flagellin

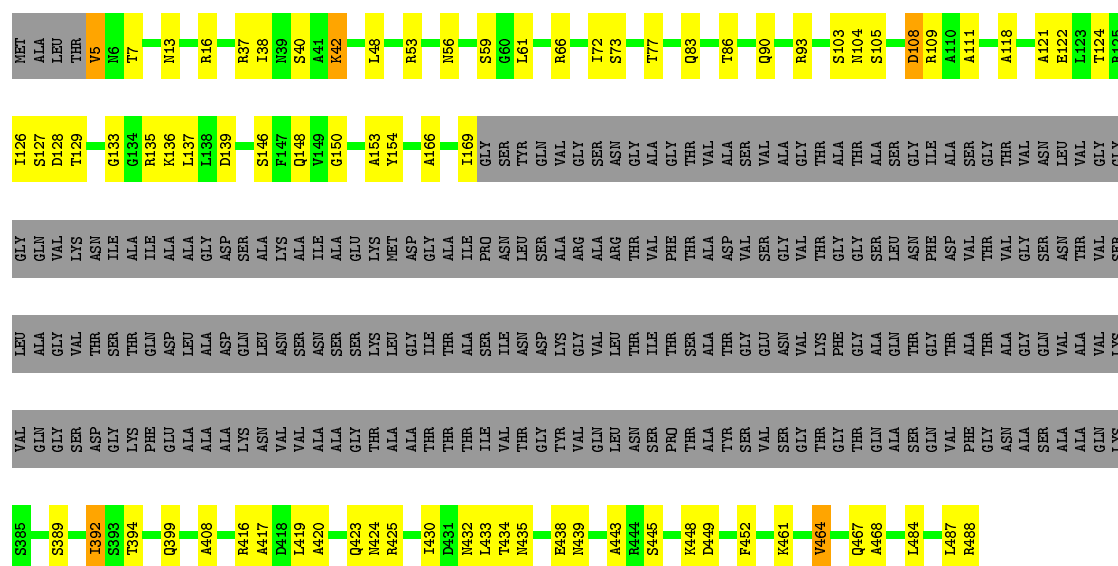
Chain F: 39% 15% 45%



• Molecule 1: B-type flagellin

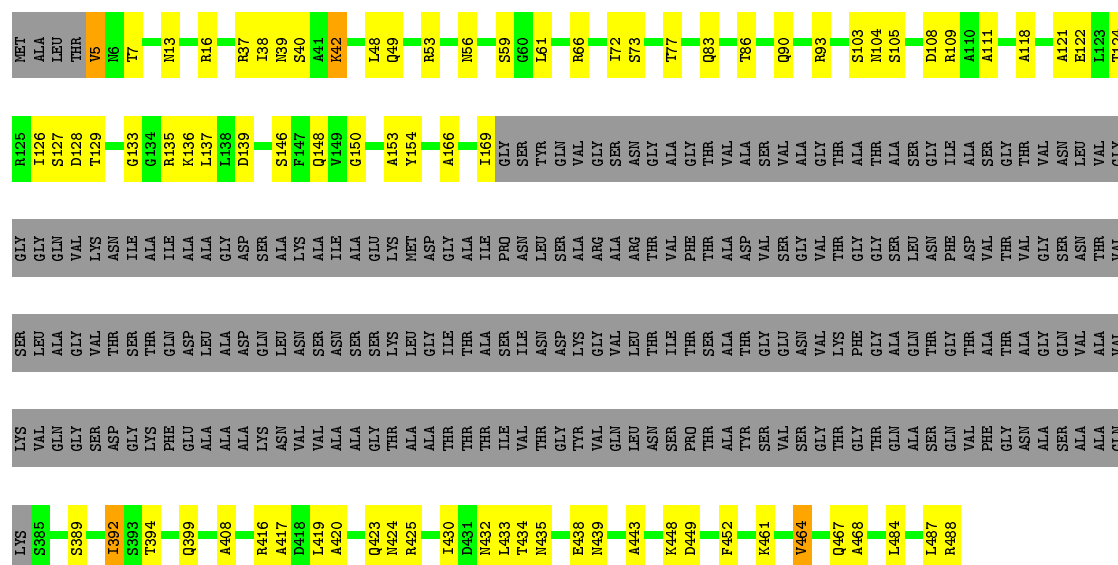
Chain G: 39% 15% 45%





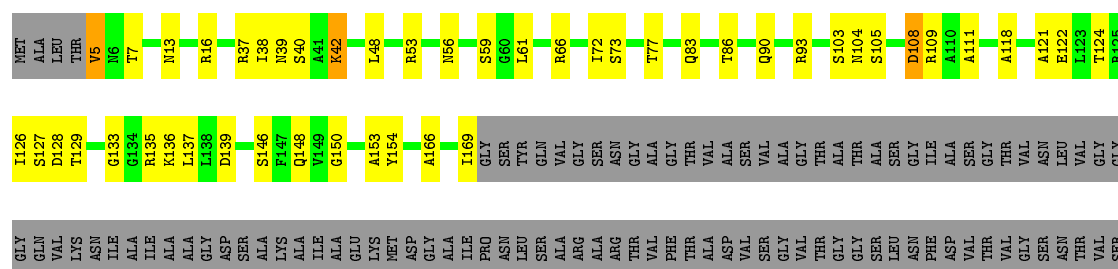
• Molecule 1: B-type flagellin

Chain K: 39% 15% 45%

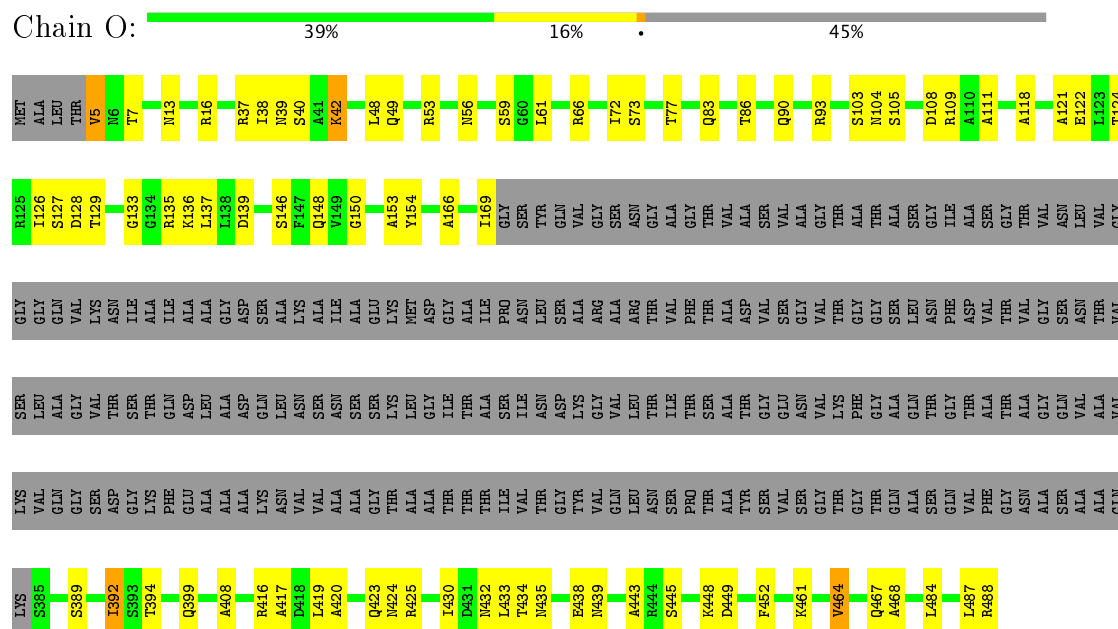


• Molecule 1: B-type flagellin

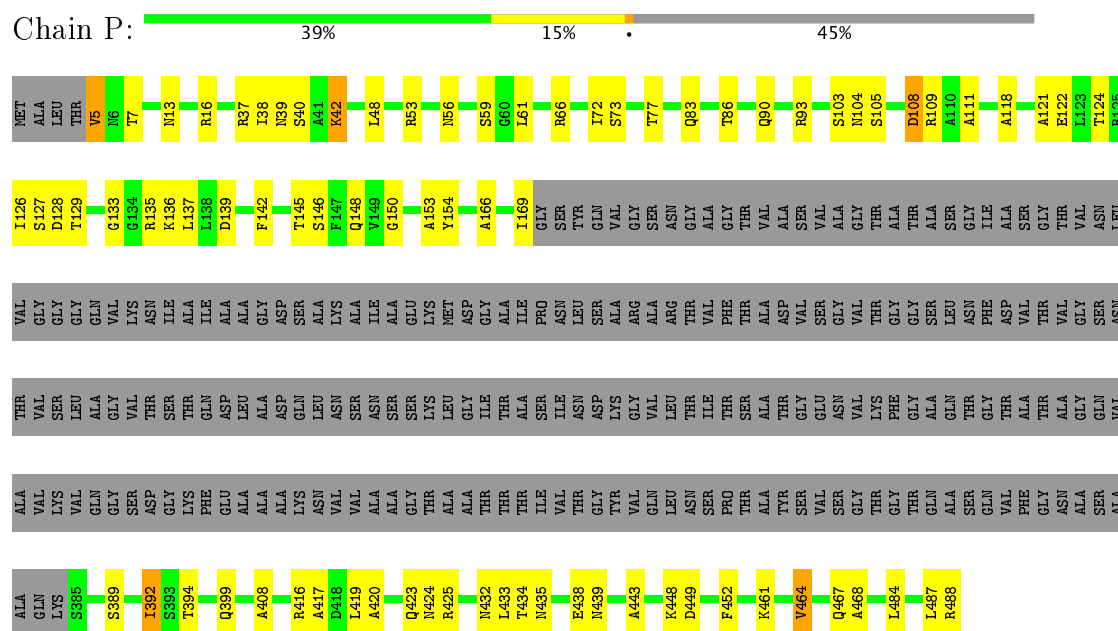
Chain L: 39% 15% 45%



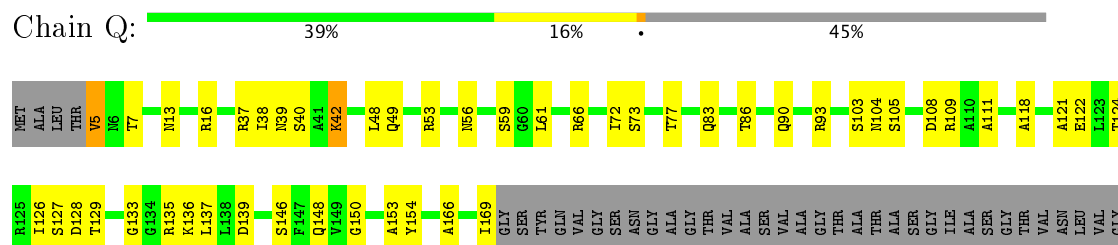
- Molecule 1: B-type flagellin

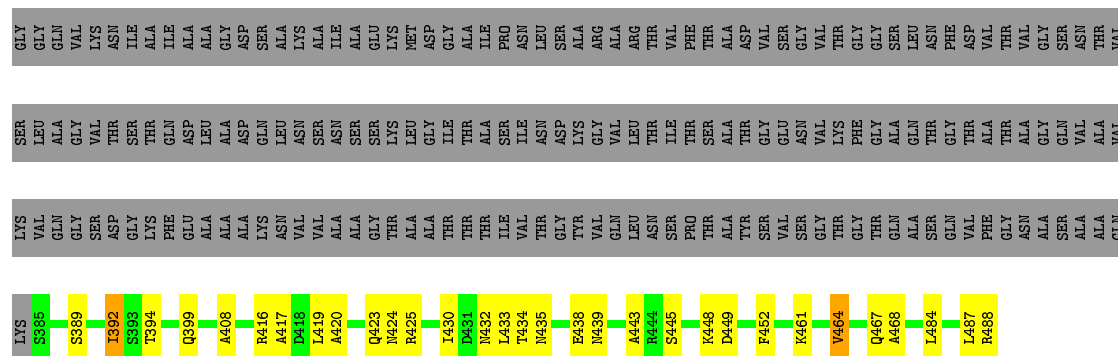


- Molecule 1: B-type flagellin

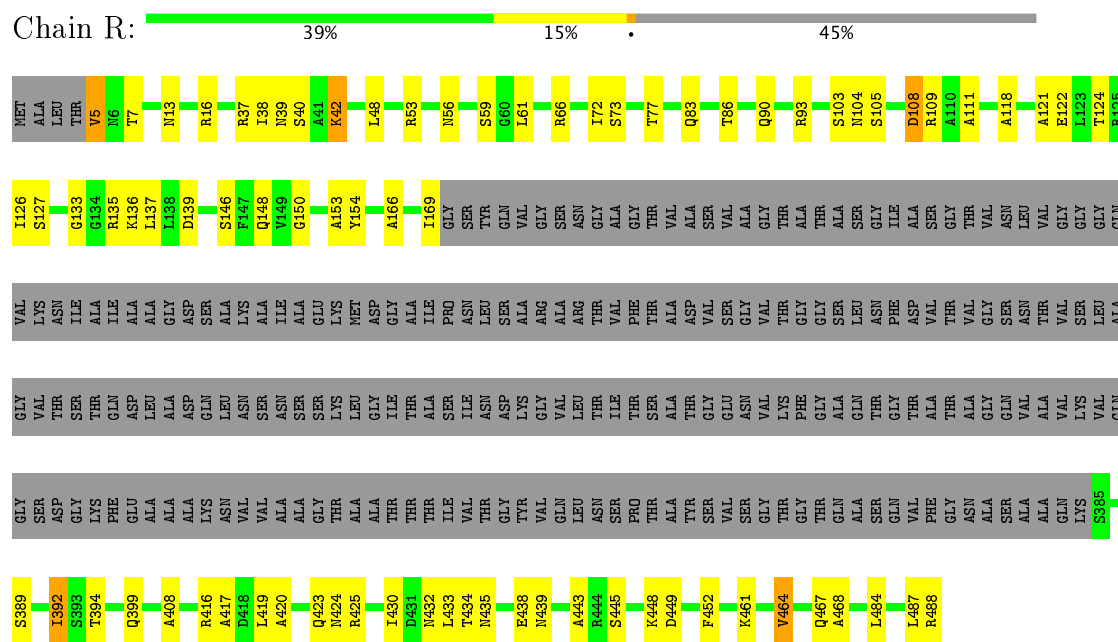


- Molecule 1: B-type flagellin

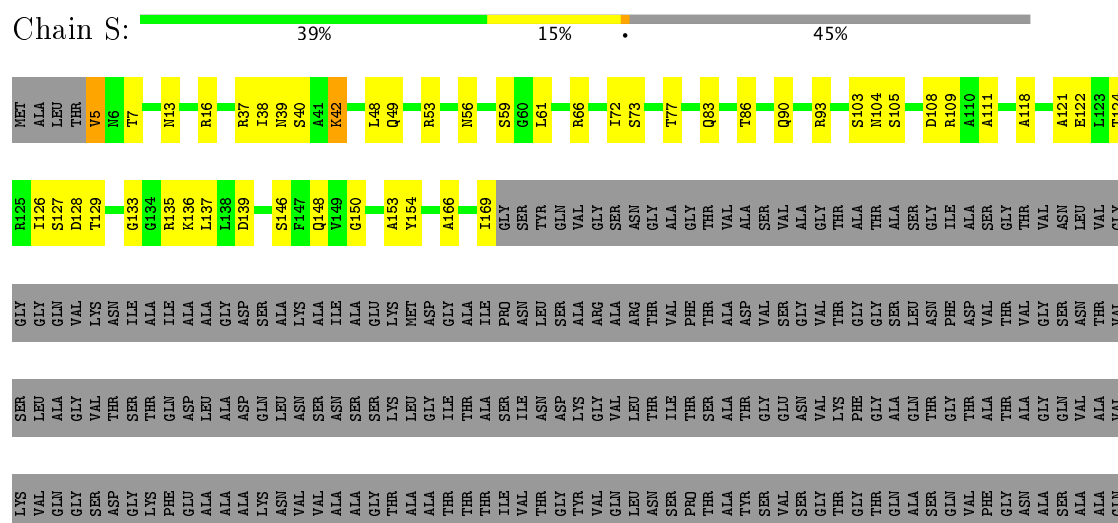




• Molecule 1: B-type flagellin

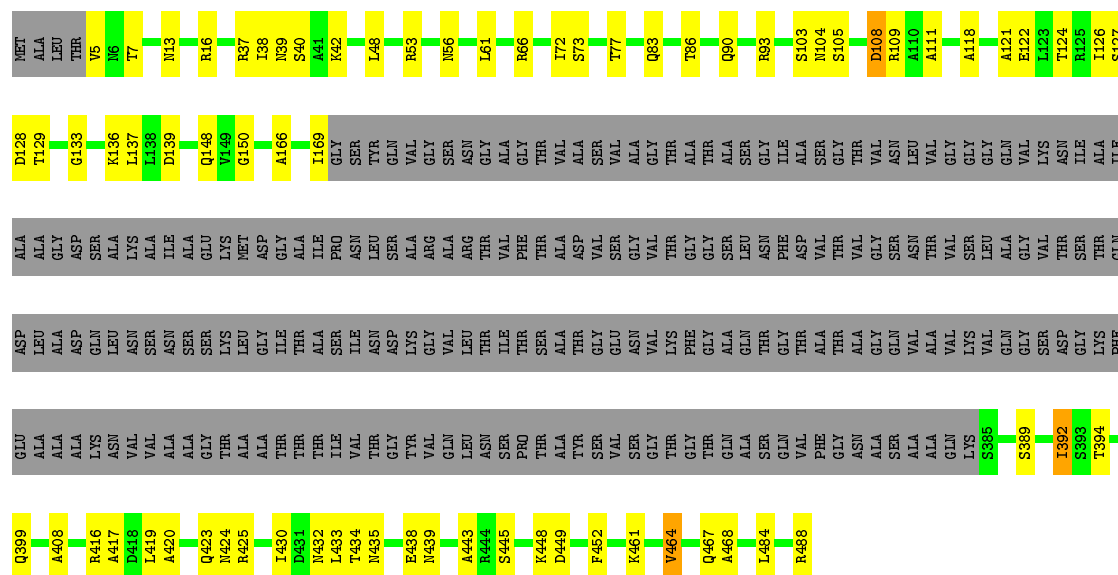


• Molecule 1: B-type flagellin

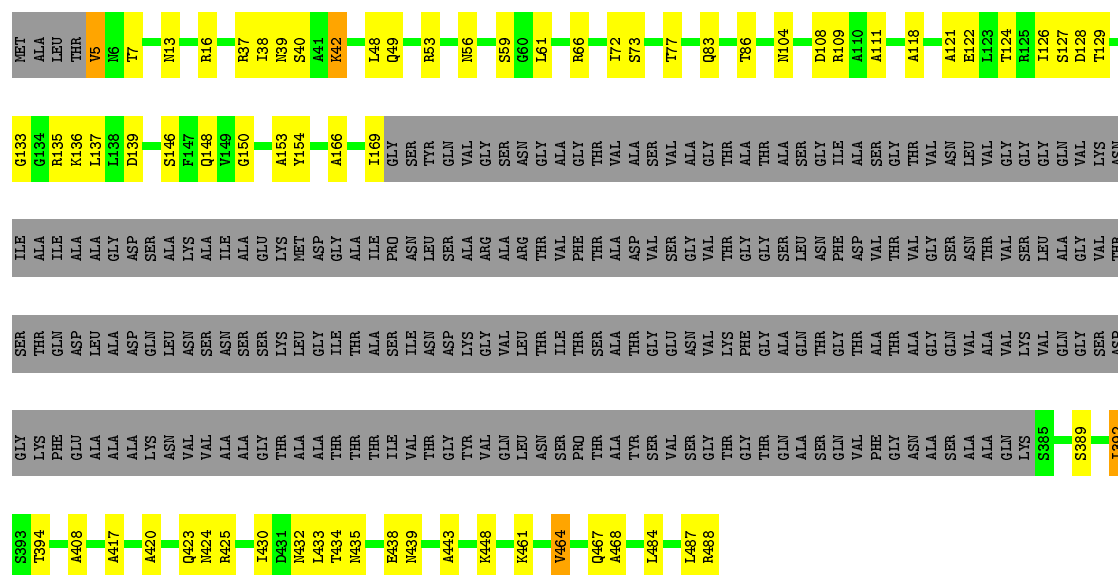




• Molecule 1: B-type flagellin



• Molecule 1: B-type flagellin



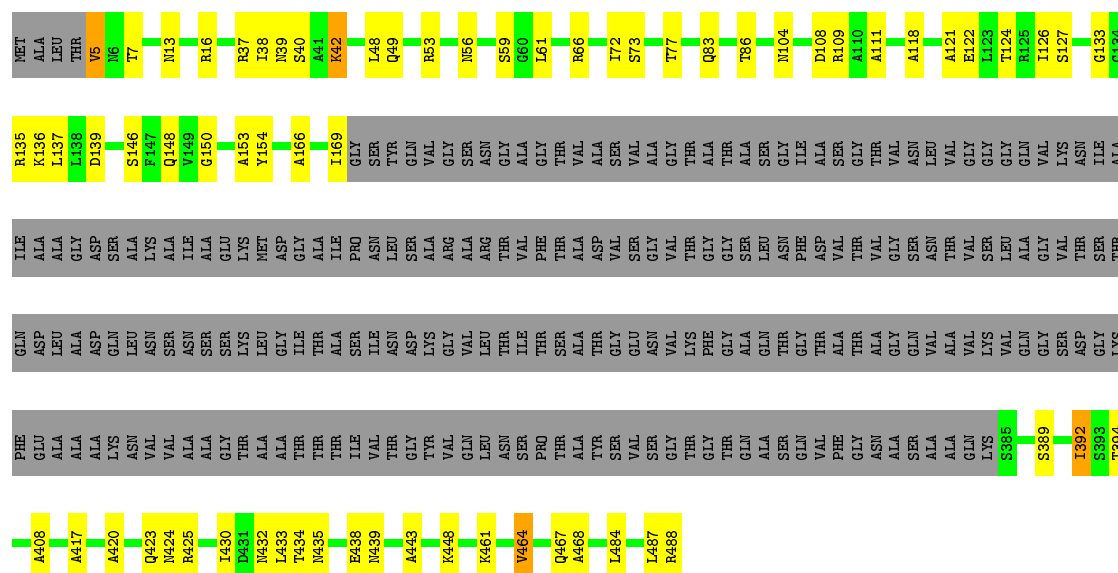
• Molecule 1: B-type flagellin



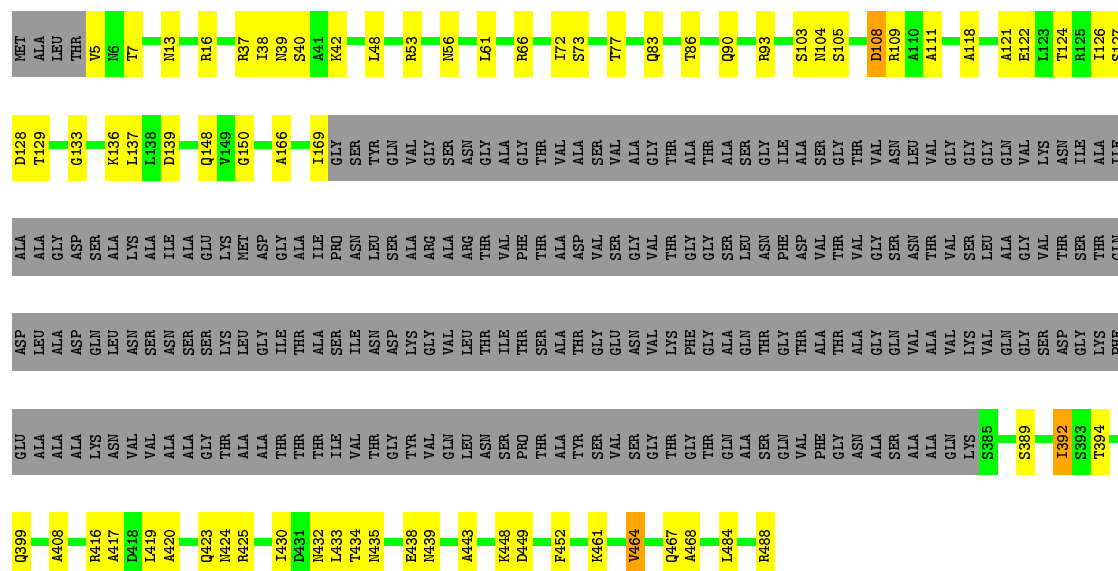




Chain Y:  41% 13% 45%

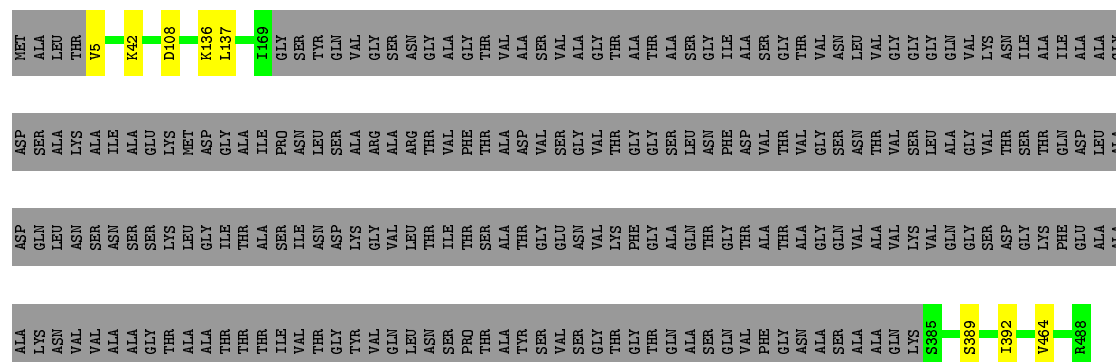


Chain Z:  40% 14% 45%



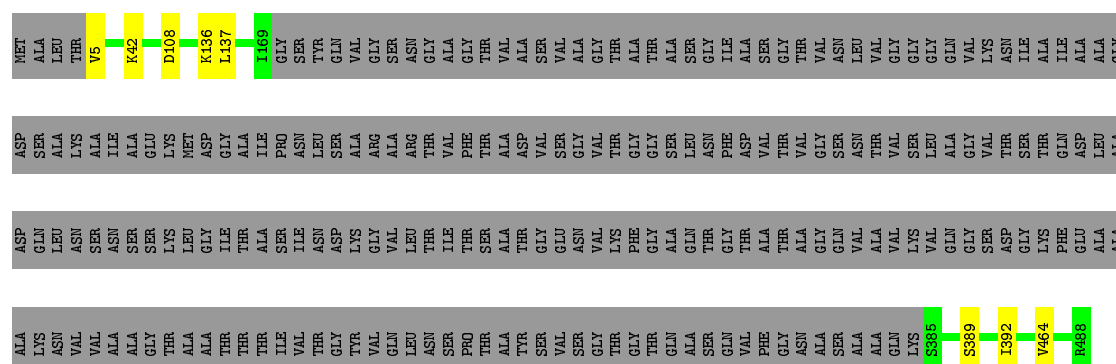
- Molecule 1: B-type flagellin

Chain a:  53% . 45%



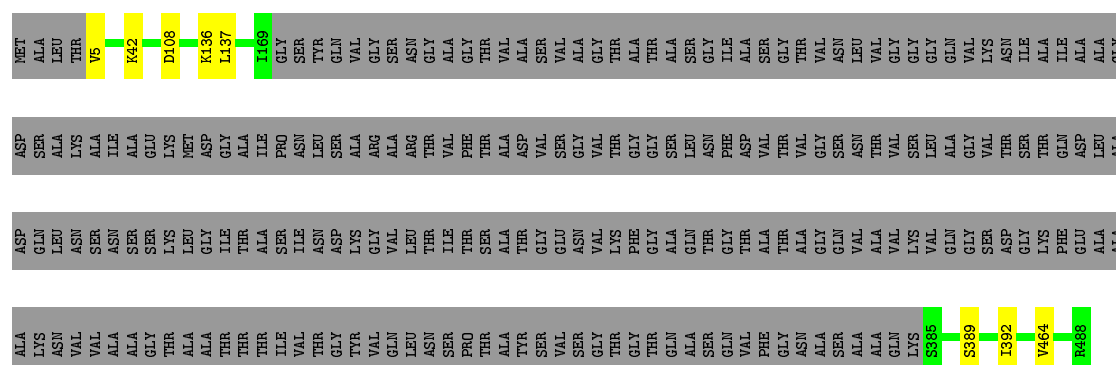
- Molecule 1: B-type flagellin

Chain b:  53% . 45%



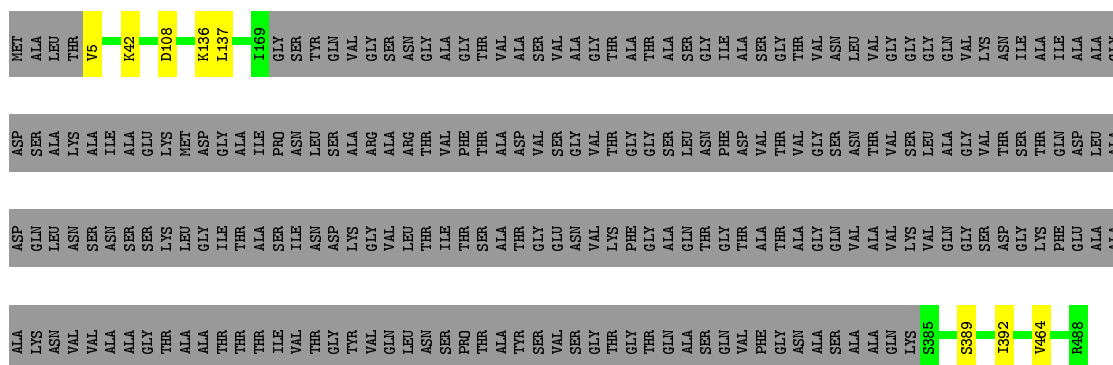
- Molecule 1: B-type flagellin

Chain c: 53% . 45%



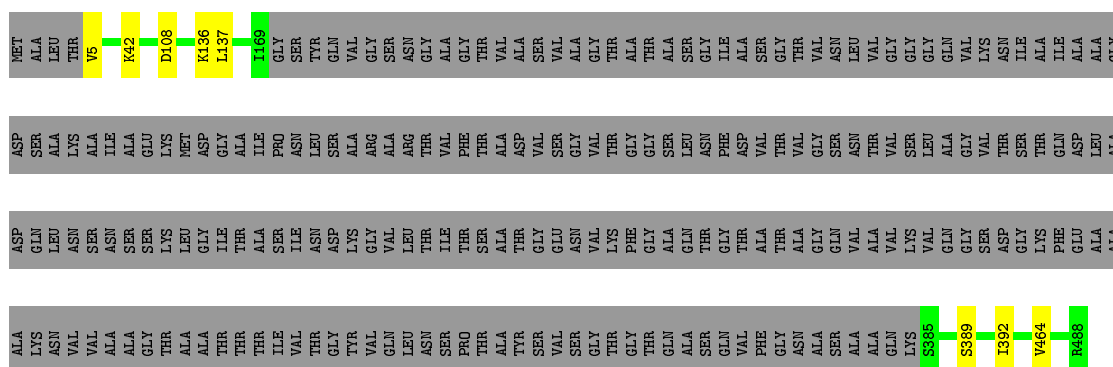
- Molecule 1: B-type flagellin

Chain d:  53% . 45%



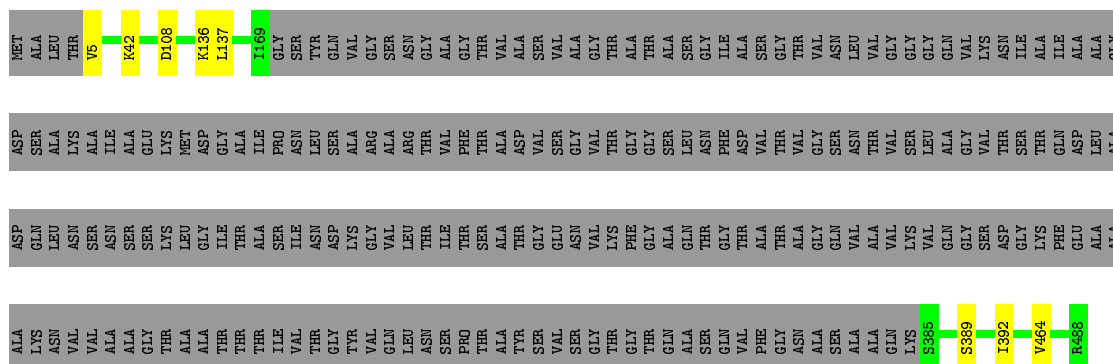
- Molecule 1: B-type flagellin

Chain e: 53% . 45%



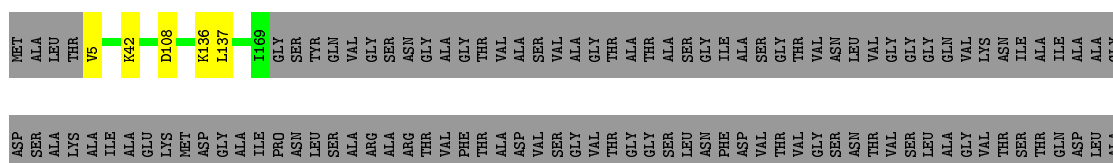
- Molecule 1: B-type flagellin

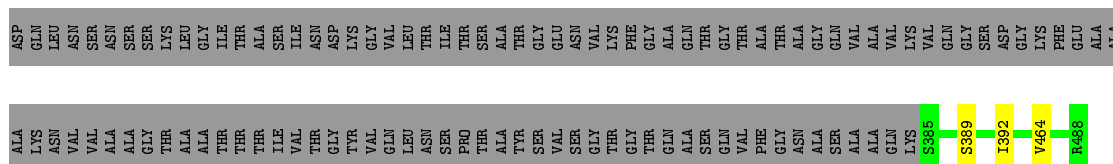
Chain f:  53% . 45%



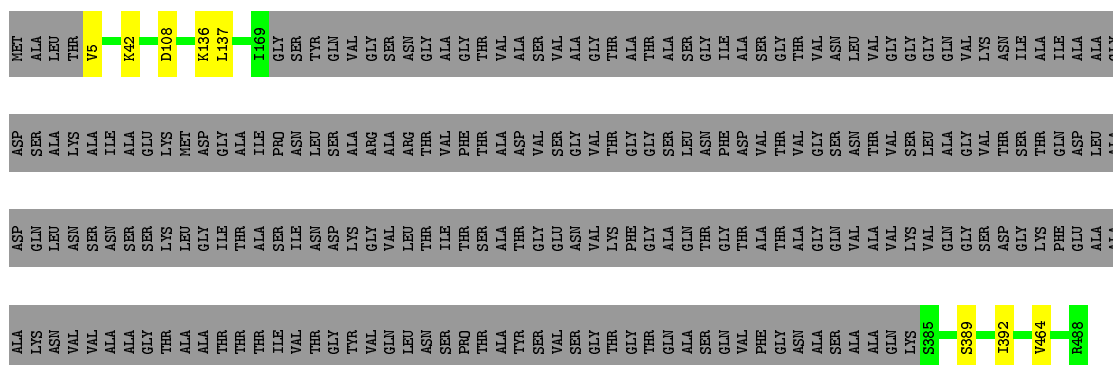
- Molecule 1: B-type flagellin

Chain g: 53% . 45%

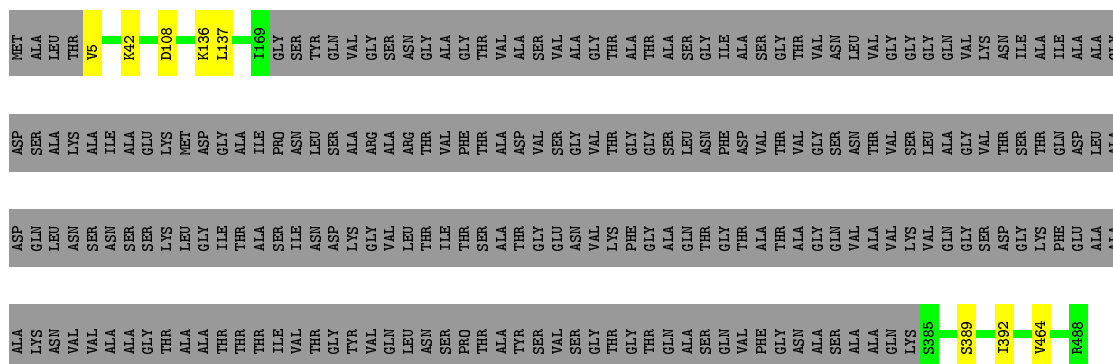




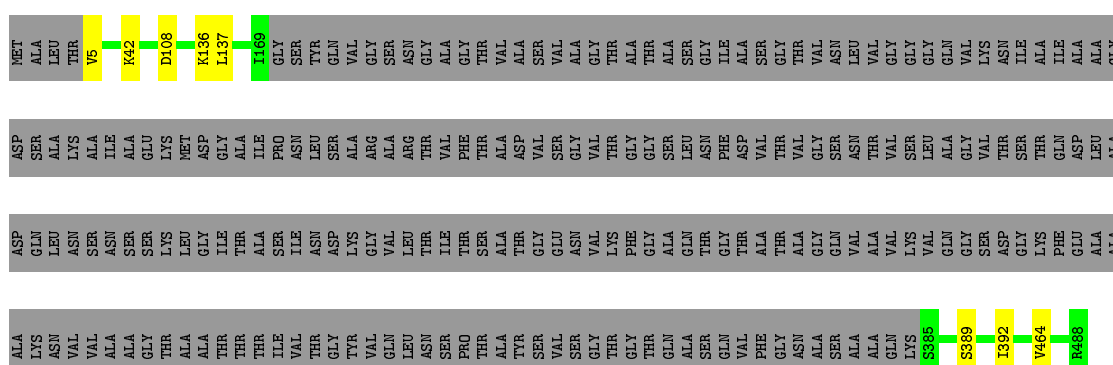
- Molecule 1: B-type flagellin



- Molecule 1: B-type flagellin

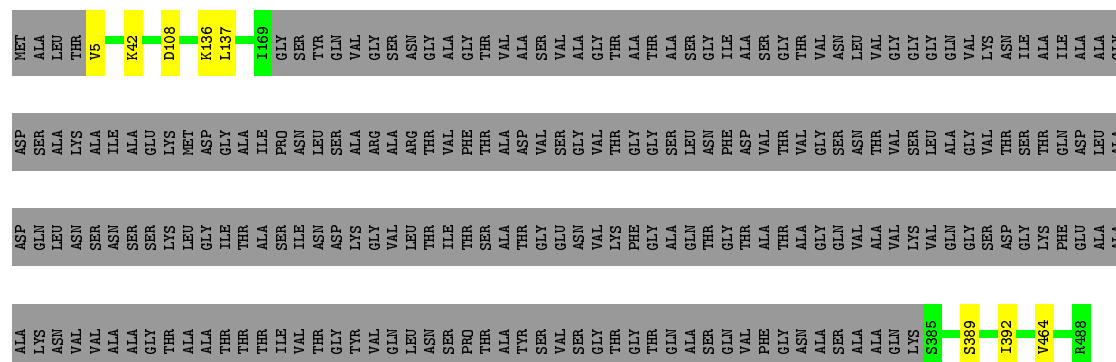


- Molecule 1: B-type flagellin



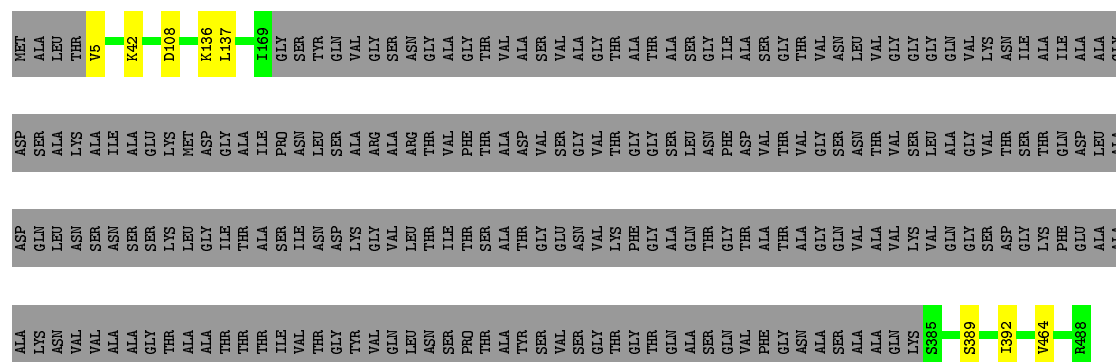
- Molecule 1: B-type flagellin

Chain k:  53% . 45%



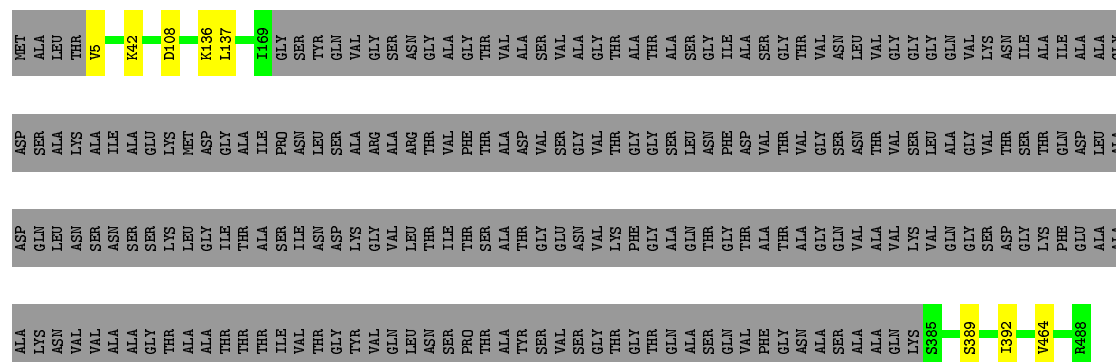
- Molecule 1: B-type flagellin

Chain 1: 53% 45%



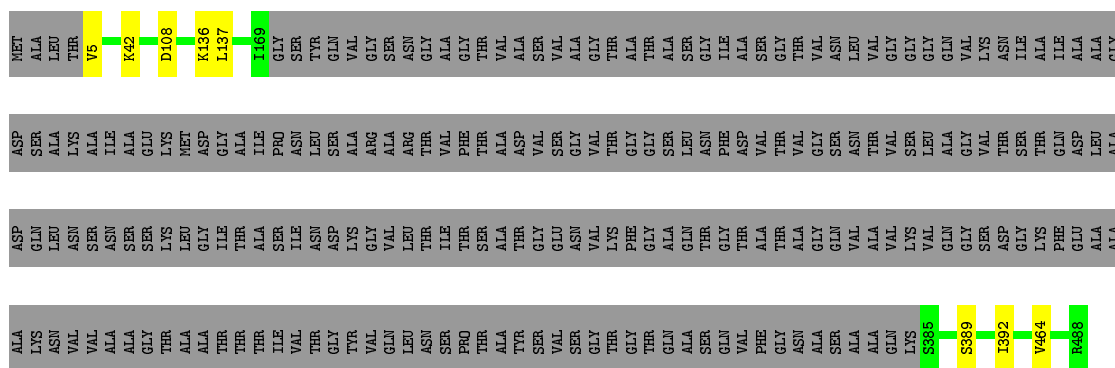
- Molecule 1: B-type flagellin

Chain m:  53% 45%

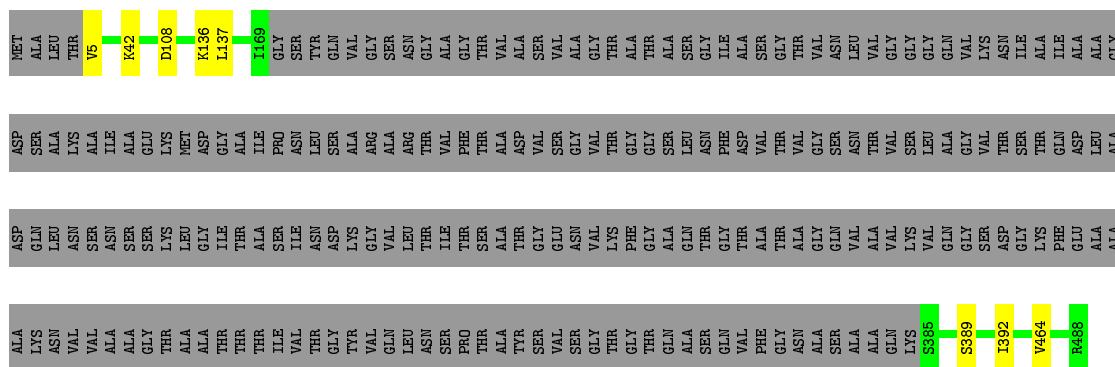


- Molecule 1: B-type flagellin

Chain n: 53% . 45%



- Molecule 1: B-type flagellin



4 Experimental information

Property	Value	Source
Reconstruction method	HELICAL	Depositor
Imposed symmetry	HELICAL, twist=65.27°, rise=4.73 Å, axial sym=C1	Depositor
Number of segments used	17450	Depositor
Resolution determination method	OTHER	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	Not provided	Depositor
Image detector	FEI FALCON II (4k x 4k)	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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	$\# Z > 2$	RMSZ	$\# Z > 2$
1	A	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	B	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	C	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	D	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	E	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	F	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	G	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	H	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	I	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	J	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	K	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	L	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	M	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	N	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	O	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	P	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	Q	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	R	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	S	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	T	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	U	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	V	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	W	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	X	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	Y	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	Z	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	a	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	b	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	c	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	d	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	e	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	f	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	g	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	h	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
1	i	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	j	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	k	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	l	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	m	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	n	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
1	o	0.57	2/1985 (0.1%)	0.73	1/2692 (0.0%)
All	All	0.57	82/81385 (0.1%)	0.73	41/110372 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	4
1	B	0	4
1	C	0	4
1	D	0	4
1	E	0	4
1	F	0	4
1	G	0	4
1	H	0	4
1	I	0	4
1	J	0	4
1	K	0	4
1	L	0	4
1	M	0	4
1	N	0	4
1	O	0	4
1	P	0	4
1	Q	0	4
1	R	0	4
1	S	0	4
1	T	0	4
1	U	0	4
1	V	0	4
1	W	0	4
1	X	0	4
1	Y	0	4
1	Z	0	4
1	a	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	b	0	4
1	c	0	4
1	d	0	4
1	e	0	4
1	f	0	4
1	g	0	4
1	h	0	4
1	i	0	4
1	j	0	4
1	k	0	4
1	l	0	4
1	m	0	4
1	n	0	4
1	o	0	4
All	All	0	164

All (82) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	T	464	VAL	CB-CG1	-6.67	1.38	1.52
1	U	464	VAL	CB-CG1	-6.67	1.38	1.52
1	h	464	VAL	CB-CG1	-6.67	1.38	1.52
1	m	464	VAL	CB-CG1	-6.67	1.38	1.52
1	L	464	VAL	CB-CG1	-6.67	1.38	1.52
1	j	464	VAL	CB-CG1	-6.67	1.38	1.52
1	Y	464	VAL	CB-CG1	-6.66	1.38	1.52
1	K	464	VAL	CB-CG1	-6.66	1.38	1.52
1	Z	464	VAL	CB-CG1	-6.66	1.38	1.52
1	a	464	VAL	CB-CG1	-6.66	1.38	1.52
1	n	464	VAL	CB-CG1	-6.66	1.38	1.52
1	D	464	VAL	CB-CG1	-6.66	1.38	1.52
1	c	464	VAL	CB-CG1	-6.66	1.38	1.52
1	k	464	VAL	CB-CG1	-6.66	1.38	1.52
1	E	464	VAL	CB-CG1	-6.65	1.38	1.52
1	O	464	VAL	CB-CG1	-6.65	1.38	1.52
1	d	464	VAL	CB-CG1	-6.65	1.38	1.52
1	l	464	VAL	CB-CG1	-6.65	1.38	1.52
1	H	464	VAL	CB-CG1	-6.65	1.38	1.52
1	S	464	VAL	CB-CG1	-6.65	1.38	1.52
1	V	464	VAL	CB-CG1	-6.65	1.38	1.52
1	A	464	VAL	CB-CG1	-6.64	1.38	1.52
1	Q	464	VAL	CB-CG1	-6.64	1.38	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	R	464	VAL	CB-CG1	-6.64	1.38	1.52
1	G	464	VAL	CB-CG1	-6.64	1.39	1.52
1	N	464	VAL	CB-CG1	-6.64	1.38	1.52
1	W	464	VAL	CB-CG1	-6.64	1.38	1.52
1	e	464	VAL	CB-CG1	-6.64	1.39	1.52
1	F	464	VAL	CB-CG1	-6.64	1.39	1.52
1	M	464	VAL	CB-CG1	-6.64	1.39	1.52
1	X	464	VAL	CB-CG1	-6.64	1.39	1.52
1	J	464	VAL	CB-CG1	-6.63	1.39	1.52
1	f	464	VAL	CB-CG1	-6.63	1.39	1.52
1	P	464	VAL	CB-CG1	-6.63	1.39	1.52
1	g	464	VAL	CB-CG1	-6.63	1.39	1.52
1	b	464	VAL	CB-CG1	-6.62	1.39	1.52
1	B	464	VAL	CB-CG1	-6.62	1.39	1.52
1	I	464	VAL	CB-CG1	-6.62	1.39	1.52
1	o	464	VAL	CB-CG1	-6.62	1.39	1.52
1	i	464	VAL	CB-CG1	-6.62	1.39	1.52
1	C	464	VAL	CB-CG1	-6.62	1.39	1.52
1	K	5	VAL	CB-CG1	-5.13	1.42	1.52
1	a	5	VAL	CB-CG1	-5.13	1.42	1.52
1	i	5	VAL	CB-CG1	-5.13	1.42	1.52
1	m	5	VAL	CB-CG1	-5.12	1.42	1.52
1	T	5	VAL	CB-CG1	-5.12	1.42	1.52
1	c	5	VAL	CB-CG1	-5.12	1.42	1.52
1	E	5	VAL	CB-CG1	-5.12	1.42	1.52
1	Z	5	VAL	CB-CG1	-5.12	1.42	1.52
1	Q	5	VAL	CB-CG1	-5.11	1.42	1.52
1	X	5	VAL	CB-CG1	-5.11	1.42	1.52
1	h	5	VAL	CB-CG1	-5.11	1.42	1.52
1	L	5	VAL	CB-CG1	-5.11	1.42	1.52
1	n	5	VAL	CB-CG1	-5.11	1.42	1.52
1	A	5	VAL	CB-CG1	-5.11	1.42	1.52
1	V	5	VAL	CB-CG1	-5.11	1.42	1.52
1	G	5	VAL	CB-CG1	-5.10	1.42	1.52
1	H	5	VAL	CB-CG1	-5.10	1.42	1.52
1	U	5	VAL	CB-CG1	-5.10	1.42	1.52
1	l	5	VAL	CB-CG1	-5.10	1.42	1.52
1	B	5	VAL	CB-CG1	-5.10	1.42	1.52
1	R	5	VAL	CB-CG1	-5.10	1.42	1.52
1	I	5	VAL	CB-CG1	-5.10	1.42	1.52
1	e	5	VAL	CB-CG1	-5.10	1.42	1.52
1	g	5	VAL	CB-CG1	-5.10	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	o	5	VAL	CB-CG1	-5.10	1.42	1.52
1	C	5	VAL	CB-CG1	-5.10	1.42	1.52
1	N	5	VAL	CB-CG1	-5.09	1.42	1.52
1	P	5	VAL	CB-CG1	-5.09	1.42	1.52
1	D	5	VAL	CB-CG1	-5.09	1.42	1.52
1	F	5	VAL	CB-CG1	-5.09	1.42	1.52
1	J	5	VAL	CB-CG1	-5.09	1.42	1.52
1	S	5	VAL	CB-CG1	-5.09	1.42	1.52
1	b	5	VAL	CB-CG1	-5.09	1.42	1.52
1	O	5	VAL	CB-CG1	-5.09	1.42	1.52
1	W	5	VAL	CB-CG1	-5.09	1.42	1.52
1	Y	5	VAL	CB-CG1	-5.09	1.42	1.52
1	j	5	VAL	CB-CG1	-5.09	1.42	1.52
1	M	5	VAL	CB-CG1	-5.08	1.42	1.52
1	f	5	VAL	CB-CG1	-5.08	1.42	1.52
1	k	5	VAL	CB-CG1	-5.08	1.42	1.52
1	d	5	VAL	CB-CG1	-5.07	1.42	1.52

All (41) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	42	LYS	CD-CE-NZ	-5.48	99.10	111.70
1	f	42	LYS	CD-CE-NZ	-5.47	99.12	111.70
1	h	42	LYS	CD-CE-NZ	-5.47	99.12	111.70
1	i	42	LYS	CD-CE-NZ	-5.47	99.12	111.70
1	B	42	LYS	CD-CE-NZ	-5.47	99.12	111.70
1	U	42	LYS	CD-CE-NZ	-5.47	99.12	111.70
1	G	42	LYS	CD-CE-NZ	-5.47	99.12	111.70
1	c	42	LYS	CD-CE-NZ	-5.47	99.13	111.70
1	R	42	LYS	CD-CE-NZ	-5.46	99.13	111.70
1	X	42	LYS	CD-CE-NZ	-5.46	99.13	111.70
1	o	42	LYS	CD-CE-NZ	-5.46	99.13	111.70
1	C	42	LYS	CD-CE-NZ	-5.46	99.14	111.70
1	D	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	J	42	LYS	CD-CE-NZ	-5.46	99.14	111.70
1	P	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	A	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	M	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	N	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	V	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	H	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	L	42	LYS	CD-CE-NZ	-5.46	99.15	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	a	42	LYS	CD-CE-NZ	-5.46	99.15	111.70
1	K	42	LYS	CD-CE-NZ	-5.45	99.16	111.70
1	S	42	LYS	CD-CE-NZ	-5.45	99.16	111.70
1	E	42	LYS	CD-CE-NZ	-5.45	99.16	111.70
1	k	42	LYS	CD-CE-NZ	-5.45	99.16	111.70
1	Q	42	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	j	42	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	l	42	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	n	42	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	F	42	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	W	42	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	Z	42	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	T	42	LYS	CD-CE-NZ	-5.45	99.18	111.70
1	g	42	LYS	CD-CE-NZ	-5.45	99.18	111.70
1	m	42	LYS	CD-CE-NZ	-5.45	99.18	111.70
1	I	42	LYS	CD-CE-NZ	-5.44	99.18	111.70
1	O	42	LYS	CD-CE-NZ	-5.44	99.18	111.70
1	Y	42	LYS	CD-CE-NZ	-5.44	99.18	111.70
1	e	42	LYS	CD-CE-NZ	-5.44	99.18	111.70
1	d	42	LYS	CD-CE-NZ	-5.44	99.19	111.70

There are no chirality outliers.

All (164) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	108	ASP	Peptide
1	A	137	LEU	Peptide
1	A	389	SER	Peptide
1	A	392	ILE	Peptide
1	B	108	ASP	Peptide
1	B	137	LEU	Peptide
1	B	389	SER	Peptide
1	B	392	ILE	Peptide
1	C	108	ASP	Peptide
1	C	137	LEU	Peptide
1	C	389	SER	Peptide
1	C	392	ILE	Peptide
1	D	108	ASP	Peptide
1	D	137	LEU	Peptide
1	D	389	SER	Peptide
1	D	392	ILE	Peptide
1	E	108	ASP	Peptide

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Mol	Chain	Res	Type	Group
1	E	137	LEU	Peptide
1	E	389	SER	Peptide
1	E	392	ILE	Peptide
1	F	108	ASP	Peptide
1	F	137	LEU	Peptide
1	F	389	SER	Peptide
1	F	392	ILE	Peptide
1	G	108	ASP	Peptide
1	G	137	LEU	Peptide
1	G	389	SER	Peptide
1	G	392	ILE	Peptide
1	H	108	ASP	Peptide
1	H	137	LEU	Peptide
1	H	389	SER	Peptide
1	H	392	ILE	Peptide
1	I	108	ASP	Peptide
1	I	137	LEU	Peptide
1	I	389	SER	Peptide
1	I	392	ILE	Peptide
1	J	108	ASP	Peptide
1	J	137	LEU	Peptide
1	J	389	SER	Peptide
1	J	392	ILE	Peptide
1	K	108	ASP	Peptide
1	K	137	LEU	Peptide
1	K	389	SER	Peptide
1	K	392	ILE	Peptide
1	L	108	ASP	Peptide
1	L	137	LEU	Peptide
1	L	389	SER	Peptide
1	L	392	ILE	Peptide
1	M	108	ASP	Peptide
1	M	137	LEU	Peptide
1	M	389	SER	Peptide
1	M	392	ILE	Peptide
1	N	108	ASP	Peptide
1	N	137	LEU	Peptide
1	N	389	SER	Peptide
1	N	392	ILE	Peptide
1	O	108	ASP	Peptide
1	O	137	LEU	Peptide
1	O	389	SER	Peptide

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Mol	Chain	Res	Type	Group
1	O	392	ILE	Peptide
1	P	108	ASP	Peptide
1	P	137	LEU	Peptide
1	P	389	SER	Peptide
1	P	392	ILE	Peptide
1	Q	108	ASP	Peptide
1	Q	137	LEU	Peptide
1	Q	389	SER	Peptide
1	Q	392	ILE	Peptide
1	R	108	ASP	Peptide
1	R	137	LEU	Peptide
1	R	389	SER	Peptide
1	R	392	ILE	Peptide
1	S	108	ASP	Peptide
1	S	137	LEU	Peptide
1	S	389	SER	Peptide
1	S	392	ILE	Peptide
1	T	108	ASP	Peptide
1	T	137	LEU	Peptide
1	T	389	SER	Peptide
1	T	392	ILE	Peptide
1	U	108	ASP	Peptide
1	U	137	LEU	Peptide
1	U	389	SER	Peptide
1	U	392	ILE	Peptide
1	V	108	ASP	Peptide
1	V	137	LEU	Peptide
1	V	389	SER	Peptide
1	V	392	ILE	Peptide
1	W	108	ASP	Peptide
1	W	137	LEU	Peptide
1	W	389	SER	Peptide
1	W	392	ILE	Peptide
1	X	108	ASP	Peptide
1	X	137	LEU	Peptide
1	X	389	SER	Peptide
1	X	392	ILE	Peptide
1	Y	108	ASP	Peptide
1	Y	137	LEU	Peptide
1	Y	389	SER	Peptide
1	Y	392	ILE	Peptide
1	Z	108	ASP	Peptide

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Mol	Chain	Res	Type	Group
1	Z	137	LEU	Peptide
1	Z	389	SER	Peptide
1	Z	392	ILE	Peptide
1	a	108	ASP	Peptide
1	a	137	LEU	Peptide
1	a	389	SER	Peptide
1	a	392	ILE	Peptide
1	b	108	ASP	Peptide
1	b	137	LEU	Peptide
1	b	389	SER	Peptide
1	b	392	ILE	Peptide
1	c	108	ASP	Peptide
1	c	137	LEU	Peptide
1	c	389	SER	Peptide
1	c	392	ILE	Peptide
1	d	108	ASP	Peptide
1	d	137	LEU	Peptide
1	d	389	SER	Peptide
1	d	392	ILE	Peptide
1	e	108	ASP	Peptide
1	e	137	LEU	Peptide
1	e	389	SER	Peptide
1	e	392	ILE	Peptide
1	f	108	ASP	Peptide
1	f	137	LEU	Peptide
1	f	389	SER	Peptide
1	f	392	ILE	Peptide
1	g	108	ASP	Peptide
1	g	137	LEU	Peptide
1	g	389	SER	Peptide
1	g	392	ILE	Peptide
1	h	108	ASP	Peptide
1	h	137	LEU	Peptide
1	h	389	SER	Peptide
1	h	392	ILE	Peptide
1	i	108	ASP	Peptide
1	i	137	LEU	Peptide
1	i	389	SER	Peptide
1	i	392	ILE	Peptide
1	j	108	ASP	Peptide
1	j	137	LEU	Peptide
1	j	389	SER	Peptide

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Mol	Chain	Res	Type	Group
1	j	392	ILE	Peptide
1	k	108	ASP	Peptide
1	k	137	LEU	Peptide
1	k	389	SER	Peptide
1	k	392	ILE	Peptide
1	l	108	ASP	Peptide
1	l	137	LEU	Peptide
1	l	389	SER	Peptide
1	l	392	ILE	Peptide
1	m	108	ASP	Peptide
1	m	137	LEU	Peptide
1	m	389	SER	Peptide
1	m	392	ILE	Peptide
1	n	108	ASP	Peptide
1	n	137	LEU	Peptide
1	n	389	SER	Peptide
1	n	392	ILE	Peptide
1	o	108	ASP	Peptide
1	o	137	LEU	Peptide
1	o	389	SER	Peptide
1	o	392	ILE	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1979	1964	1964	206	0
1	B	1979	1964	1964	209	0
1	C	1979	1964	1964	205	0
1	D	1979	1964	1964	207	0
1	E	1979	1964	1964	204	0
1	F	1979	1964	1964	210	0
1	G	1979	1964	1964	204	0
1	H	1979	1964	1964	210	0
1	I	1979	1964	1964	205	0
1	J	1979	1964	1964	204	0
1	K	1979	1964	1964	188	0
1	L	1979	1964	1964	188	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	M	1979	1964	1964	181	0
1	N	1979	1964	1964	185	0
1	O	1979	1964	1964	188	0
1	P	1979	1964	1964	145	0
1	Q	1979	1964	1964	149	0
1	R	1979	1964	1964	146	0
1	S	1979	1964	1964	150	0
1	T	1979	1964	1964	116	0
1	U	1979	1964	1964	119	0
1	V	1979	1964	1964	114	0
1	W	1979	1964	1964	117	0
1	X	1979	1964	1964	115	0
1	Y	1979	1964	1964	117	0
1	Z	1979	1964	1964	114	0
1	a	1979	1964	1964	0	0
1	b	1979	1964	1964	0	0
1	c	1979	1964	1964	0	0
1	d	1979	1964	1964	0	0
1	e	1979	1964	1964	0	0
1	f	1979	1964	1964	0	0
1	g	1979	1964	1964	0	0
1	h	1979	1964	1964	0	0
1	i	1979	1964	1964	0	0
1	j	1979	1964	1964	0	0
1	k	1979	1964	1964	0	0
1	l	1979	1964	1964	0	0
1	m	1979	1964	1964	0	0
1	n	1979	1964	1964	0	0
1	o	1979	1964	1964	0	0
All	All	81139	80524	80524	2731	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 17.

All (2731) 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:R:38:ILE:HD11	1:R:48:LEU:HB2	1.36	1.08
1:K:38:ILE:HD11	1:K:48:LEU:HB2	1.36	1.07
1:M:38:ILE:HD11	1:M:48:LEU:HB2	1.36	1.07
1:N:38:ILE:HD11	1:N:48:LEU:HB2	1.36	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:38:ILE:HD11	1:E:48:LEU:HB2	1.36	1.07
1:P:38:ILE:HD11	1:P:48:LEU:HB2	1.36	1.07
1:Z:38:ILE:HG22	1:Z:448:LYS:HD3	1.37	1.07
1:T:38:ILE:HD11	1:T:48:LEU:HB2	1.36	1.07
1:L:38:ILE:HD11	1:L:48:LEU:HB2	1.36	1.07
1:D:38:ILE:HG22	1:D:448:LYS:HD3	1.37	1.06
1:S:38:ILE:HG22	1:S:448:LYS:HD3	1.37	1.06
1:Q:38:ILE:HD11	1:Q:48:LEU:HB2	1.36	1.06
1:O:38:ILE:HD11	1:O:48:LEU:HB2	1.36	1.06
1:O:38:ILE:HG22	1:O:448:LYS:HD3	1.37	1.06
1:G:38:ILE:HD11	1:G:48:LEU:HB2	1.36	1.06
1:C:38:ILE:HG22	1:C:448:LYS:HD3	1.37	1.06
1:C:38:ILE:HD11	1:C:48:LEU:HB2	1.36	1.06
1:A:38:ILE:HG22	1:A:448:LYS:HD3	1.37	1.06
1:G:38:ILE:HG22	1:G:448:LYS:HD3	1.37	1.06
1:R:38:ILE:HG22	1:R:448:LYS:HD3	1.37	1.06
1:N:38:ILE:HG22	1:N:448:LYS:HD3	1.37	1.05
1:E:38:ILE:HG22	1:E:448:LYS:HD3	1.37	1.05
1:U:38:ILE:HG22	1:U:448:LYS:HD3	1.37	1.05
1:B:38:ILE:HG22	1:B:448:LYS:HD3	1.37	1.05
1:I:38:ILE:HD11	1:I:48:LEU:HB2	1.36	1.05
1:A:38:ILE:HD11	1:A:48:LEU:HB2	1.36	1.05
1:P:38:ILE:HG22	1:P:448:LYS:HD3	1.37	1.05
1:X:38:ILE:HG22	1:X:448:LYS:HD3	1.37	1.05
1:L:38:ILE:HG22	1:L:448:LYS:HD3	1.37	1.05
1:H:38:ILE:HD11	1:H:48:LEU:HB2	1.36	1.04
1:S:38:ILE:HD11	1:S:48:LEU:HB2	1.36	1.04
1:F:38:ILE:HD11	1:F:48:LEU:HB2	1.36	1.04
1:Y:38:ILE:HD11	1:Y:48:LEU:HB2	1.36	1.04
1:V:38:ILE:HD11	1:V:48:LEU:HB2	1.36	1.03
1:F:38:ILE:HG22	1:F:448:LYS:HD3	1.37	1.03
1:J:38:ILE:HD11	1:J:48:LEU:HB2	1.36	1.03
1:B:38:ILE:HD11	1:B:48:LEU:HB2	1.36	1.03
1:D:38:ILE:HD11	1:D:48:LEU:HB2	1.36	1.03
1:T:38:ILE:HG22	1:T:448:LYS:HD3	1.37	1.03
1:Y:38:ILE:HG22	1:Y:448:LYS:HD3	1.37	1.03
1:Q:38:ILE:HG22	1:Q:448:LYS:HD3	1.37	1.03
1:W:38:ILE:HG22	1:W:448:LYS:HD3	1.37	1.02
1:J:38:ILE:HG22	1:J:448:LYS:HD3	1.37	1.02
1:V:38:ILE:HG22	1:V:448:LYS:HD3	1.37	1.02
1:Z:38:ILE:HD11	1:Z:48:LEU:HB2	1.36	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:38:ILE:HD11	1:X:48:LEU:HB2	1.36	1.02
1:M:38:ILE:HG22	1:M:448:LYS:HD3	1.37	1.02
1:I:38:ILE:HG22	1:I:448:LYS:HD3	1.37	1.01
1:U:38:ILE:HD11	1:U:48:LEU:HB2	1.36	1.01
1:W:38:ILE:HD11	1:W:48:LEU:HB2	1.36	1.01
1:H:38:ILE:HG22	1:H:448:LYS:HD3	1.37	1.01
1:K:38:ILE:HG22	1:K:448:LYS:HD3	1.37	1.00
1:E:38:ILE:CG2	1:E:448:LYS:CD	2.45	0.95
1:U:38:ILE:CG2	1:U:448:LYS:CD	2.45	0.95
1:B:38:ILE:CG2	1:B:448:LYS:CD	2.45	0.95
1:H:38:ILE:CG2	1:H:448:LYS:CD	2.45	0.95
1:I:38:ILE:CG2	1:I:448:LYS:CD	2.45	0.95
1:K:38:ILE:CG2	1:K:448:LYS:CD	2.45	0.95
1:O:38:ILE:CG2	1:O:448:LYS:CD	2.45	0.95
1:D:38:ILE:CG2	1:D:448:LYS:CD	2.45	0.95
1:G:38:ILE:CG2	1:G:448:LYS:CD	2.45	0.94
1:N:38:ILE:CG2	1:N:448:LYS:CD	2.45	0.94
1:S:38:ILE:CG2	1:S:448:LYS:CD	2.45	0.94
1:X:38:ILE:CG2	1:X:448:LYS:CD	2.45	0.94
1:F:38:ILE:CG2	1:F:448:LYS:CD	2.45	0.94
1:J:38:ILE:CG2	1:J:448:LYS:CD	2.45	0.94
1:L:38:ILE:CG2	1:L:448:LYS:CD	2.45	0.94
1:C:38:ILE:CG2	1:C:448:LYS:CD	2.45	0.94
1:D:38:ILE:CG2	1:D:448:LYS:HD3	1.98	0.94
1:M:38:ILE:CG2	1:M:448:LYS:HD3	1.98	0.94
1:R:38:ILE:CG2	1:R:448:LYS:HD3	1.98	0.94
1:A:38:ILE:CG2	1:A:448:LYS:HD3	1.98	0.94
1:E:38:ILE:CG2	1:E:448:LYS:HD3	1.98	0.94
1:N:38:ILE:CG2	1:N:448:LYS:HD3	1.98	0.94
1:Q:38:ILE:CG2	1:Q:448:LYS:HD3	1.98	0.94
1:Y:38:ILE:CG2	1:Y:448:LYS:CD	2.45	0.94
1:Z:38:ILE:CG2	1:Z:448:LYS:CD	2.45	0.94
1:F:38:ILE:CG2	1:F:448:LYS:HD3	1.98	0.94
1:H:38:ILE:CG2	1:H:448:LYS:HD3	1.98	0.94
1:M:38:ILE:HG21	1:M:448:LYS:HE2	1.49	0.94
1:Q:38:ILE:HG21	1:Q:448:LYS:HE2	1.49	0.94
1:M:38:ILE:CG2	1:M:448:LYS:CD	2.45	0.94
1:B:38:ILE:CG2	1:B:448:LYS:HD3	1.98	0.94
1:C:38:ILE:CG2	1:C:448:LYS:HD3	1.98	0.94
1:P:38:ILE:CG2	1:P:448:LYS:CD	2.45	0.94
1:W:38:ILE:CG2	1:W:448:LYS:CD	2.45	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:ILE:CG2	1:A:448:LYS:CD	2.45	0.94
1:A:38:ILE:HG21	1:A:448:LYS:HE2	1.49	0.94
1:C:38:ILE:HG21	1:C:448:LYS:HE2	1.49	0.94
1:G:38:ILE:HG21	1:G:448:LYS:HE2	1.49	0.94
1:O:38:ILE:CG2	1:O:448:LYS:HD3	1.98	0.94
1:V:38:ILE:CG2	1:V:448:LYS:CD	2.45	0.94
1:G:38:ILE:CG2	1:G:448:LYS:HD3	1.98	0.94
1:Q:38:ILE:CG2	1:Q:448:LYS:CD	2.45	0.94
1:T:38:ILE:CG2	1:T:448:LYS:CD	2.45	0.94
1:T:38:ILE:CG2	1:T:448:LYS:HD3	1.98	0.93
1:F:38:ILE:HG21	1:F:448:LYS:HE2	1.49	0.93
1:K:38:ILE:CG2	1:K:448:LYS:HD3	1.98	0.93
1:R:38:ILE:CG2	1:R:448:LYS:CD	2.45	0.93
1:P:38:ILE:CG2	1:P:448:LYS:HD3	1.98	0.93
1:P:38:ILE:HG21	1:P:448:LYS:HE2	1.49	0.93
1:E:38:ILE:HG21	1:E:448:LYS:HE2	1.49	0.93
1:K:38:ILE:HG21	1:K:448:LYS:HE2	1.49	0.93
1:L:38:ILE:HG21	1:L:448:LYS:HE2	1.49	0.93
1:S:38:ILE:HG21	1:S:448:LYS:HE2	1.49	0.93
1:S:38:ILE:CG2	1:S:448:LYS:HD3	1.98	0.93
1:W:38:ILE:HG22	1:W:448:LYS:CD	1.99	0.93
1:X:38:ILE:HG22	1:X:448:LYS:CD	1.99	0.93
1:A:38:ILE:HG22	1:A:448:LYS:CD	1.99	0.93
1:B:38:ILE:HG22	1:B:448:LYS:CD	1.99	0.93
1:D:38:ILE:HG21	1:D:448:LYS:HE2	1.49	0.93
1:L:38:ILE:CG2	1:L:448:LYS:HD3	1.98	0.93
1:O:38:ILE:HG21	1:O:448:LYS:HE2	1.49	0.93
1:U:38:ILE:HG22	1:U:448:LYS:CD	1.99	0.93
1:Y:38:ILE:CG2	1:Y:448:LYS:HD3	1.98	0.93
1:V:38:ILE:HG22	1:V:448:LYS:CD	1.99	0.93
1:W:38:ILE:HG21	1:W:448:LYS:HE2	1.49	0.93
1:B:38:ILE:HG21	1:B:448:LYS:HE2	1.49	0.92
1:I:38:ILE:CG2	1:I:448:LYS:HD3	1.98	0.92
1:J:38:ILE:CG2	1:J:448:LYS:HD3	1.98	0.92
1:F:38:ILE:HG22	1:F:448:LYS:CD	1.99	0.92
1:H:38:ILE:HG21	1:H:448:LYS:HE2	1.49	0.92
1:X:38:ILE:HG21	1:X:448:LYS:HE2	1.49	0.92
1:J:38:ILE:HG22	1:J:448:LYS:CD	1.99	0.92
1:E:38:ILE:HG22	1:E:448:LYS:CD	1.99	0.92
1:M:38:ILE:HG22	1:M:448:LYS:CD	1.99	0.92
1:W:38:ILE:CG2	1:W:448:LYS:HD3	1.98	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:38:ILE:HG21	1:Z:448:LYS:HE2	1.49	0.92
1:G:7:THR:O	1:U:461:LYS:NZ	78.53	0.92
1:I:38:ILE:HG22	1:I:448:LYS:CD	1.99	0.92
1:R:38:ILE:HG21	1:R:448:LYS:HE2	1.49	0.92
1:U:38:ILE:HG21	1:U:448:LYS:HE2	1.49	0.92
1:Z:38:ILE:CG2	1:Z:448:LYS:HD3	1.98	0.92
1:N:38:ILE:HG22	1:N:448:LYS:CD	1.99	0.92
1:U:38:ILE:CG2	1:U:448:LYS:HD3	1.98	0.92
1:V:38:ILE:CG2	1:V:448:LYS:HD3	1.98	0.92
1:I:461:LYS:NZ	1:U:7:THR:O	2.03	0.92
1:Z:38:ILE:HG22	1:Z:448:LYS:CD	1.99	0.92
1:I:7:THR:O	1:W:461:LYS:NZ	78.53	0.92
1:F:461:LYS:NZ	1:T:7:THR:O	78.53	0.92
1:V:38:ILE:HG21	1:V:448:LYS:HE2	1.49	0.92
1:K:461:LYS:NZ	1:W:7:THR:O	2.03	0.92
1:Y:38:ILE:HG22	1:Y:448:LYS:CD	1.99	0.92
1:C:38:ILE:HG22	1:C:448:LYS:CD	1.99	0.92
1:D:38:ILE:HG22	1:D:448:LYS:CD	1.99	0.92
1:H:38:ILE:HG22	1:H:448:LYS:CD	1.99	0.92
1:I:38:ILE:HG21	1:I:448:LYS:HE2	1.49	0.92
1:B:461:LYS:NZ	1:K:7:THR:O	2.03	0.92
1:X:38:ILE:CG2	1:X:448:LYS:HD3	1.98	0.92
1:B:7:THR:O	1:N:461:LYS:NZ	2.03	0.91
1:E:7:THR:O	1:S:461:LYS:NZ	78.53	0.91
1:D:461:LYS:NZ	1:I:7:THR:O	2.03	0.91
1:O:38:ILE:HG22	1:O:448:LYS:CD	1.99	0.91
1:S:38:ILE:HG22	1:S:448:LYS:CD	1.99	0.91
1:Y:38:ILE:HG21	1:Y:448:LYS:HE2	1.49	0.91
1:G:38:ILE:HG22	1:G:448:LYS:CD	1.99	0.91
1:J:38:ILE:HG21	1:J:448:LYS:HE2	1.49	0.91
1:L:38:ILE:HG22	1:L:448:LYS:CD	1.99	0.91
1:K:38:ILE:HG22	1:K:448:LYS:CD	1.99	0.91
1:N:38:ILE:HG21	1:N:448:LYS:HE2	1.49	0.91
1:T:38:ILE:HG22	1:T:448:LYS:CD	1.99	0.91
1:H:7:THR:O	1:T:461:LYS:NZ	2.03	0.91
1:P:38:ILE:HG22	1:P:448:LYS:CD	1.99	0.91
1:H:461:LYS:NZ	1:V:7:THR:O	78.53	0.91
1:J:7:THR:O	1:V:461:LYS:NZ	2.03	0.91
1:N:7:THR:O	1:Z:461:LYS:NZ	2.03	0.91
1:C:7:THR:O	1:J:461:LYS:NZ	2.03	0.91
1:D:7:THR:O	1:P:461:LYS:NZ	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:461:LYS:NZ	1:R:7:THR:O	78.53	0.91
1:G:461:LYS:NZ	1:S:7:THR:O	2.03	0.91
1:A:461:LYS:NZ	1:M:7:THR:O	2.03	0.91
1:Q:38:ILE:HG22	1:Q:448:LYS:CD	1.99	0.91
1:A:7:THR:O	1:L:461:LYS:NZ	2.03	0.91
1:E:7:THR:O	1:H:461:LYS:NZ	2.03	0.91
1:L:7:THR:O	1:X:461:LYS:NZ	2.03	0.91
1:R:38:ILE:HG22	1:R:448:LYS:CD	1.99	0.91
1:M:461:LYS:NZ	1:Y:7:THR:O	2.03	0.91
1:E:37:ARG:CZ	1:U:66:ARG:HH12	88.54	0.90
1:F:7:THR:O	1:R:461:LYS:NZ	2.03	0.90
1:C:66:ARG:HH12	1:M:37:ARG:CZ	1.85	0.90
1:E:66:ARG:HH12	1:O:37:ARG:CZ	1.84	0.90
1:C:461:LYS:NZ	1:O:7:THR:O	2.03	0.90
1:J:461:LYS:NZ	1:X:7:THR:O	78.53	0.90
1:F:461:LYS:NZ	1:G:7:THR:O	2.03	0.90
1:B:66:ARG:HH12	1:I:37:ARG:CZ	1.85	0.90
1:K:66:ARG:HH12	1:U:37:ARG:CZ	1.85	0.90
1:B:461:LYS:NZ	1:P:7:THR:O	78.53	0.90
1:I:66:ARG:HH12	1:S:37:ARG:CZ	1.85	0.90
1:C:37:ARG:CZ	1:S:66:ARG:HH12	88.54	0.90
1:A:37:ARG:CZ	1:Q:66:ARG:HH12	88.54	0.90
1:D:66:ARG:HH12	1:G:37:ARG:CZ	1.85	0.90
1:K:7:THR:O	1:Y:461:LYS:NZ	78.53	0.90
1:B:37:ARG:CZ	1:L:66:ARG:HH12	1.85	0.90
1:L:461:LYS:NZ	1:Z:7:THR:O	78.53	0.90
1:D:37:ARG:CZ	1:N:66:ARG:HH12	1.85	0.90
1:G:66:ARG:HH12	1:Q:37:ARG:CZ	1.85	0.90
1:L:37:ARG:CZ	1:V:66:ARG:HH12	1.84	0.90
1:N:37:ARG:CZ	1:X:66:ARG:HH12	1.85	0.90
1:H:66:ARG:HH12	1:X:37:ARG:CZ	88.54	0.90
1:E:461:LYS:NZ	1:Q:7:THR:O	2.03	0.90
1:A:66:ARG:HH12	1:K:37:ARG:CZ	1.85	0.90
1:C:7:THR:O	1:Q:461:LYS:NZ	78.53	0.90
1:F:37:ARG:CZ	1:P:66:ARG:HH12	1.85	0.90
1:T:38:ILE:HG21	1:T:448:LYS:HE2	1.49	0.90
1:F:66:ARG:HH12	1:V:37:ARG:CZ	88.54	0.90
1:A:7:THR:O	1:O:461:LYS:NZ	78.53	0.90
1:D:66:ARG:HH12	1:T:37:ARG:CZ	88.54	0.90
1:E:37:ARG:CZ	1:F:66:ARG:HH12	1.85	0.90
1:J:66:ARG:HH12	1:Z:37:ARG:CZ	88.54	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:66:ARG:HH12	1:W:37:ARG:CZ	1.85	0.90
1:G:37:ARG:CZ	1:W:66:ARG:HH12	88.54	0.90
1:P:37:ARG:CZ	1:Z:66:ARG:HH12	1.85	0.90
1:A:37:ARG:CZ	1:J:66:ARG:HH12	1.85	0.90
1:J:37:ARG:CZ	1:T:66:ARG:HH12	1.85	0.89
1:B:66:ARG:HH12	1:R:37:ARG:CZ	88.54	0.89
1:I:37:ARG:CZ	1:Y:66:ARG:HH12	88.54	0.89
1:O:66:ARG:HH12	1:Y:37:ARG:CZ	1.85	0.89
1:H:37:ARG:CZ	1:R:66:ARG:HH12	1.85	0.89
1:C:37:ARG:CZ	1:H:66:ARG:HH12	1.85	0.88
1:A:38:ILE:CD1	1:A:48:LEU:HB2	2.06	0.85
1:B:38:ILE:CD1	1:B:48:LEU:HB2	2.06	0.85
1:E:38:ILE:CD1	1:E:48:LEU:HB2	2.06	0.85
1:D:38:ILE:CD1	1:D:48:LEU:HB2	2.06	0.85
1:F:38:ILE:CD1	1:F:48:LEU:HB2	2.06	0.85
1:K:38:ILE:CD1	1:K:48:LEU:HB2	2.06	0.85
1:L:38:ILE:CD1	1:L:48:LEU:HB2	2.06	0.85
1:C:38:ILE:CD1	1:C:48:LEU:HB2	2.06	0.85
1:T:38:ILE:CD1	1:T:48:LEU:HB2	2.06	0.85
1:Q:38:ILE:CD1	1:Q:48:LEU:HB2	2.06	0.85
1:J:38:ILE:CD1	1:J:48:LEU:HB2	2.06	0.85
1:G:38:ILE:CD1	1:G:48:LEU:HB2	2.06	0.85
1:N:38:ILE:CD1	1:N:48:LEU:HB2	2.06	0.85
1:U:38:ILE:CD1	1:U:48:LEU:HB2	2.06	0.85
1:H:38:ILE:CD1	1:H:48:LEU:HB2	2.06	0.85
1:R:38:ILE:CD1	1:R:48:LEU:HB2	2.06	0.85
1:Y:38:ILE:CD1	1:Y:48:LEU:HB2	2.06	0.85
1:I:38:ILE:CD1	1:I:48:LEU:HB2	2.06	0.85
1:S:38:ILE:CD1	1:S:48:LEU:HB2	2.06	0.84
1:V:38:ILE:CD1	1:V:48:LEU:HB2	2.06	0.84
1:M:38:ILE:CD1	1:M:48:LEU:HB2	2.06	0.84
1:O:38:ILE:CD1	1:O:48:LEU:HB2	2.06	0.84
1:P:38:ILE:CD1	1:P:48:LEU:HB2	2.06	0.84
1:Z:38:ILE:CD1	1:Z:48:LEU:HB2	2.06	0.84
1:X:38:ILE:CD1	1:X:48:LEU:HB2	2.06	0.84
1:W:38:ILE:CD1	1:W:48:LEU:HB2	2.06	0.83
1:E:42:LYS:HZ1	1:R:423:GLN:CB	1.94	0.81
1:A:42:LYS:HZ1	1:E:423:GLN:CB	95.58	0.81
1:N:423:GLN:CB	1:R:42:LYS:HZ1	95.59	0.80
1:K:42:LYS:HZ1	1:O:423:GLN:CB	95.58	0.79
1:C:42:LYS:HZ1	1:G:423:GLN:CB	95.58	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:42:LYS:HZ1	1:P:423:GLN:CB	1.95	0.79
1:L:423:GLN:CB	1:P:42:LYS:HZ1	95.59	0.79
1:N:38:ILE:HG21	1:N:448:LYS:CE	2.13	0.78
1:B:42:LYS:HZ1	1:X:423:GLN:CB	1.97	0.78
1:B:38:ILE:HG21	1:B:448:LYS:CE	2.14	0.78
1:J:38:ILE:HG21	1:J:448:LYS:CE	2.14	0.78
1:L:38:ILE:HG21	1:L:448:LYS:CE	2.14	0.78
1:Z:38:ILE:HG21	1:Z:448:LYS:CE	2.14	0.78
1:D:38:ILE:HG21	1:D:448:LYS:CE	2.14	0.78
1:P:38:ILE:HG21	1:P:448:LYS:CE	2.14	0.78
1:R:38:ILE:HG21	1:R:448:LYS:CE	2.14	0.78
1:I:42:LYS:HZ1	1:N:423:GLN:CB	1.96	0.78
1:U:38:ILE:HG21	1:U:448:LYS:CE	2.14	0.78
1:X:38:ILE:HG21	1:X:448:LYS:CE	2.14	0.78
1:E:38:ILE:HG21	1:E:448:LYS:CE	2.14	0.78
1:F:38:ILE:HG21	1:F:448:LYS:CE	2.14	0.78
1:G:38:ILE:HG21	1:G:448:LYS:CE	2.14	0.78
1:H:38:ILE:HG21	1:H:448:LYS:CE	2.14	0.78
1:I:38:ILE:HG21	1:I:448:LYS:CE	2.14	0.78
1:K:38:ILE:HG21	1:K:448:LYS:CE	2.14	0.78
1:A:38:ILE:HG21	1:A:448:LYS:CE	2.14	0.78
1:O:38:ILE:HG21	1:O:448:LYS:CE	2.14	0.78
1:Q:38:ILE:HG21	1:Q:448:LYS:CE	2.14	0.78
1:S:38:ILE:HG21	1:S:448:LYS:CE	2.14	0.78
1:H:423:GLN:CB	1:O:42:LYS:HZ1	1.96	0.78
1:T:38:ILE:HG21	1:T:448:LYS:CE	2.14	0.78
1:U:38:ILE:CG2	1:U:448:LYS:HE2	2.14	0.78
1:W:38:ILE:HG21	1:W:448:LYS:CE	2.14	0.78
1:B:38:ILE:CG2	1:B:448:LYS:HE2	2.14	0.77
1:C:38:ILE:HG21	1:C:448:LYS:CE	2.14	0.77
1:H:38:ILE:CG2	1:H:448:LYS:HE2	2.14	0.77
1:E:42:LYS:HZ1	1:I:423:GLN:CB	95.59	0.77
1:L:38:ILE:CG2	1:L:448:LYS:HE2	2.14	0.77
1:M:38:ILE:HG21	1:M:448:LYS:CE	2.14	0.77
1:D:423:GLN:CB	1:S:42:LYS:HZ1	1.96	0.77
1:V:38:ILE:HG21	1:V:448:LYS:CE	2.14	0.77
1:X:38:ILE:CG2	1:X:448:LYS:HE2	2.14	0.77
1:Z:38:ILE:CG2	1:Z:448:LYS:HE2	2.14	0.77
1:D:38:ILE:CG2	1:D:448:LYS:HE2	2.14	0.77
1:K:38:ILE:CG2	1:K:448:LYS:HE2	2.14	0.77
1:S:38:ILE:CG2	1:S:448:LYS:HE2	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:72:ILE:O	1:G:423:GLN:NE2	2.18	0.77
1:J:38:ILE:CG2	1:J:448:LYS:HE2	2.14	0.77
1:Y:38:ILE:HG21	1:Y:448:LYS:CE	2.14	0.77
1:A:38:ILE:CG2	1:A:448:LYS:HE2	2.14	0.77
1:E:72:ILE:O	1:E:423:GLN:NE2	2.18	0.77
1:I:72:ILE:O	1:I:423:GLN:NE2	2.18	0.77
1:L:72:ILE:O	1:L:423:GLN:NE2	2.18	0.77
1:M:38:ILE:CG2	1:M:448:LYS:HE2	2.14	0.77
1:I:42:LYS:HZ1	1:M:423:GLN:CB	95.58	0.77
1:O:38:ILE:CG2	1:O:448:LYS:HE2	2.14	0.77
1:R:72:ILE:O	1:R:423:GLN:NE2	2.18	0.77
1:W:38:ILE:CG2	1:W:448:LYS:HE2	2.14	0.77
1:Y:72:ILE:O	1:Y:423:GLN:NE2	2.18	0.77
1:C:72:ILE:O	1:C:423:GLN:NE2	2.18	0.77
1:F:38:ILE:CG2	1:F:448:LYS:HE2	2.14	0.77
1:G:38:ILE:CG2	1:G:448:LYS:HE2	2.14	0.77
1:F:423:GLN:CB	1:J:42:LYS:HZ1	95.58	0.77
1:K:72:ILE:O	1:K:423:GLN:NE2	2.18	0.77
1:P:72:ILE:O	1:P:423:GLN:NE2	2.18	0.77
1:M:42:LYS:HZ1	1:Q:423:GLN:CB	95.58	0.77
1:U:72:ILE:O	1:U:423:GLN:NE2	2.18	0.77
1:V:72:ILE:O	1:V:423:GLN:NE2	2.18	0.77
1:A:72:ILE:O	1:A:423:GLN:NE2	2.18	0.77
1:N:72:ILE:O	1:N:423:GLN:NE2	2.18	0.77
1:Q:38:ILE:CG2	1:Q:448:LYS:HE2	2.14	0.77
1:E:38:ILE:CG2	1:E:448:LYS:HE2	2.14	0.76
1:H:72:ILE:O	1:H:423:GLN:NE2	2.18	0.76
1:O:72:ILE:O	1:O:423:GLN:NE2	2.18	0.76
1:I:38:ILE:CG2	1:I:448:LYS:HE2	2.14	0.76
1:M:72:ILE:O	1:M:423:GLN:NE2	2.18	0.76
1:N:38:ILE:CG2	1:N:448:LYS:HE2	2.14	0.76
1:B:72:ILE:O	1:B:423:GLN:NE2	2.18	0.76
1:J:423:GLN:CB	1:M:42:LYS:HZ1	1.97	0.76
1:C:423:GLN:CB	1:Y:42:LYS:HZ1	1.99	0.76
1:Z:72:ILE:O	1:Z:423:GLN:NE2	2.18	0.76
1:A:42:LYS:HZ1	1:V:423:GLN:CB	1.98	0.76
1:C:42:LYS:HZ1	1:T:423:GLN:CB	1.99	0.76
1:D:42:LYS:HZ1	1:Z:423:GLN:CB	1.97	0.76
1:C:38:ILE:CG2	1:C:448:LYS:HE2	2.14	0.76
1:D:72:ILE:O	1:D:423:GLN:NE2	2.18	0.76
1:F:72:ILE:O	1:F:423:GLN:NE2	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:72:ILE:O	1:J:423:GLN:NE2	2.18	0.76
1:T:38:ILE:CG2	1:T:448:LYS:HE2	2.14	0.76
1:T:72:ILE:O	1:T:423:GLN:NE2	2.18	0.76
1:G:42:LYS:HZ1	1:K:423:GLN:CB	95.58	0.76
1:Q:72:ILE:O	1:Q:423:GLN:NE2	2.18	0.76
1:R:38:ILE:CG2	1:R:448:LYS:HE2	2.14	0.76
1:S:72:ILE:O	1:S:423:GLN:NE2	2.18	0.76
1:V:38:ILE:CG2	1:V:448:LYS:HE2	2.14	0.76
1:Y:38:ILE:CG2	1:Y:448:LYS:HE2	2.14	0.76
1:D:423:GLN:CB	1:H:42:LYS:HZ1	95.58	0.76
1:W:72:ILE:O	1:W:423:GLN:NE2	2.18	0.76
1:P:38:ILE:CG2	1:P:448:LYS:HE2	2.14	0.75
1:X:72:ILE:O	1:X:423:GLN:NE2	2.18	0.75
1:F:423:GLN:CB	1:Q:42:LYS:HZ1	1.98	0.75
1:L:83:GLN:O	1:L:86:THR:OG1	2.05	0.75
1:F:83:GLN:O	1:F:86:THR:OG1	2.05	0.75
1:P:83:GLN:O	1:P:86:THR:OG1	2.05	0.75
1:A:423:GLN:CB	1:W:42:LYS:HZ1	1.99	0.75
1:B:83:GLN:O	1:B:86:THR:OG1	2.05	0.75
1:Z:83:GLN:O	1:Z:86:THR:OG1	2.05	0.75
1:J:83:GLN:O	1:J:86:THR:OG1	2.05	0.75
1:J:423:GLN:CB	1:N:42:LYS:HZ1	95.58	0.75
1:E:83:GLN:O	1:E:86:THR:OG1	2.05	0.75
1:G:83:GLN:O	1:G:86:THR:OG1	2.05	0.74
1:Q:83:GLN:O	1:Q:86:THR:OG1	2.05	0.74
1:A:83:GLN:O	1:A:86:THR:OG1	2.05	0.74
1:D:83:GLN:O	1:D:86:THR:OG1	2.05	0.74
1:R:83:GLN:O	1:R:86:THR:OG1	2.05	0.74
1:U:83:GLN:O	1:U:86:THR:OG1	2.05	0.74
1:O:42:LYS:HZ1	1:S:423:GLN:CB	95.58	0.74
1:K:83:GLN:O	1:K:86:THR:OG1	2.05	0.74
1:M:83:GLN:O	1:M:86:THR:OG1	2.05	0.74
1:N:83:GLN:O	1:N:86:THR:OG1	2.05	0.74
1:O:83:GLN:O	1:O:86:THR:OG1	2.05	0.74
1:B:423:GLN:CB	1:F:42:LYS:HZ1	95.58	0.74
1:K:42:LYS:HZ1	1:L:423:GLN:CB	1.99	0.74
1:B:423:GLN:CB	1:U:42:LYS:HZ1	2.01	0.74
1:C:83:GLN:O	1:C:86:THR:OG1	2.05	0.74
1:V:83:GLN:O	1:V:86:THR:OG1	2.05	0.73
1:I:83:GLN:O	1:I:86:THR:OG1	2.05	0.73
1:S:83:GLN:O	1:S:86:THR:OG1	2.05	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:434:THR:HG22	1:J:16:ARG:HE	86.12	0.73
1:W:83:GLN:O	1:W:86:THR:OG1	2.05	0.73
1:X:83:GLN:O	1:X:86:THR:OG1	2.05	0.73
1:Y:83:GLN:O	1:Y:86:THR:OG1	2.05	0.73
1:B:16:ARG:HE	1:X:434:THR:HG22	1.54	0.73
1:B:434:THR:HG22	1:U:16:ARG:HE	1.54	0.73
1:J:434:THR:HG22	1:M:16:ARG:HE	1.54	0.73
1:C:434:THR:HG22	1:Y:16:ARG:HE	1.54	0.73
1:A:153:ALA:HB1	1:V:399:GLN:HB3	1.71	0.73
1:G:16:ARG:HE	1:K:434:THR:HG22	86.12	0.73
1:G:153:ALA:HB1	1:K:399:GLN:HB3	116.60	0.73
1:K:153:ALA:HB1	1:L:399:GLN:HB3	1.71	0.73
1:O:16:ARG:HE	1:S:434:THR:HG22	86.12	0.73
1:C:16:ARG:HE	1:G:434:THR:HG22	86.12	0.72
1:I:153:ALA:HB1	1:M:399:GLN:HB3	116.60	0.72
1:J:434:THR:HG22	1:N:16:ARG:HE	86.12	0.72
1:H:434:THR:HG22	1:L:16:ARG:HE	86.12	0.72
1:H:423:GLN:CB	1:L:42:LYS:HZ1	95.58	0.72
1:I:16:ARG:HE	1:M:434:THR:HG22	86.12	0.72
1:T:83:GLN:O	1:T:86:THR:OG1	2.05	0.72
1:A:399:GLN:HB3	1:W:153:ALA:HB1	1.71	0.72
1:G:16:ARG:HE	1:P:434:THR:HG22	1.54	0.72
1:A:16:ARG:HE	1:V:434:THR:HG22	1.54	0.72
1:C:16:ARG:HE	1:T:434:THR:HG22	1.54	0.72
1:B:434:THR:HG22	1:F:16:ARG:HE	86.12	0.72
1:F:399:GLN:HB3	1:J:153:ALA:HB1	116.60	0.72
1:K:16:ARG:HE	1:L:434:THR:HG22	1.54	0.72
1:B:153:ALA:HB1	1:X:399:GLN:HB3	1.71	0.72
1:C:399:GLN:HB3	1:Y:153:ALA:HB1	1.71	0.72
1:J:399:GLN:HB3	1:M:153:ALA:HB1	1.71	0.72
1:I:16:ARG:HE	1:N:434:THR:HG22	1.54	0.72
1:F:434:THR:HG22	1:Q:16:ARG:HE	1.54	0.72
1:N:434:THR:HG22	1:R:16:ARG:HE	86.12	0.72
1:H:83:GLN:O	1:H:86:THR:OG1	2.05	0.72
1:H:399:GLN:HB3	1:L:153:ALA:HB1	116.60	0.72
1:C:153:ALA:HB1	1:T:399:GLN:HB3	1.71	0.72
1:B:399:GLN:HB3	1:U:153:ALA:HB1	1.71	0.72
1:E:16:ARG:HE	1:I:434:THR:HG22	86.12	0.72
1:E:42:LYS:HZ1	1:R:423:GLN:HB2	1.55	0.72
1:D:434:THR:HG22	1:S:16:ARG:HE	1.54	0.72
1:L:434:THR:HG22	1:P:16:ARG:HE	86.12	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:LYS:HZ1	1:E:423:GLN:HB2	96.14	0.71
1:D:16:ARG:HE	1:Z:434:THR:HG22	1.54	0.71
1:G:153:ALA:HB1	1:P:399:GLN:HB3	1.71	0.71
1:I:153:ALA:HB1	1:N:399:GLN:HB3	1.71	0.71
1:K:16:ARG:HE	1:O:434:THR:HG22	86.12	0.71
1:C:153:ALA:HB1	1:G:399:GLN:HB3	116.60	0.71
1:J:399:GLN:HB3	1:N:153:ALA:HB1	116.60	0.71
1:E:153:ALA:HB1	1:R:399:GLN:HB3	1.71	0.71
1:A:434:THR:HG22	1:W:16:ARG:HE	1.54	0.71
1:E:16:ARG:HE	1:R:434:THR:HG22	1.54	0.71
1:L:399:GLN:HB3	1:P:153:ALA:HB1	116.60	0.71
1:M:16:ARG:HE	1:Q:434:THR:HG22	86.12	0.71
1:A:153:ALA:HB1	1:E:399:GLN:HB3	116.60	0.71
1:A:16:ARG:HE	1:E:434:THR:HG22	86.12	0.71
1:E:153:ALA:HB1	1:I:399:GLN:HB3	116.60	0.71
1:N:399:GLN:HB3	1:R:153:ALA:HB1	116.60	0.71
1:M:153:ALA:HB1	1:Q:399:GLN:HB3	116.60	0.71
1:D:399:GLN:HB3	1:H:153:ALA:HB1	116.60	0.71
1:D:434:THR:HG22	1:H:16:ARG:HE	86.12	0.71
1:K:153:ALA:HB1	1:O:399:GLN:HB3	116.60	0.71
1:B:93:ARG:HH12	1:F:56:ASN:CG	101.85	0.71
1:K:56:ASN:CG	1:O:93:ARG:HH12	101.85	0.71
1:A:56:ASN:CG	1:E:93:ARG:HH12	101.85	0.71
1:E:56:ASN:CG	1:R:93:ARG:HH12	1.95	0.71
1:F:93:ARG:HH12	1:Q:56:ASN:CG	1.95	0.71
1:H:434:THR:HG22	1:O:16:ARG:HE	1.54	0.71
1:H:93:ARG:HH12	1:O:56:ASN:CG	1.94	0.71
1:N:423:GLN:HB2	1:R:42:LYS:HZ1	96.14	0.71
1:N:93:ARG:HH12	1:R:56:ASN:CG	101.85	0.71
1:L:93:ARG:HH12	1:P:56:ASN:CG	101.85	0.71
1:K:42:LYS:HZ1	1:O:423:GLN:HB2	96.14	0.70
1:O:153:ALA:HB1	1:S:399:GLN:HB3	116.60	0.70
1:C:93:ARG:HH12	1:Y:56:ASN:CG	1.94	0.70
1:D:93:ARG:HH12	1:H:56:ASN:CG	101.85	0.70
1:H:399:GLN:HB3	1:O:153:ALA:HB1	1.71	0.70
1:G:56:ASN:CG	1:P:93:ARG:HH12	1.95	0.70
1:D:153:ALA:HB1	1:Z:399:GLN:HB3	1.71	0.70
1:B:399:GLN:HB3	1:F:153:ALA:HB1	116.60	0.70
1:H:423:GLN:HB2	1:O:42:LYS:HZ1	1.57	0.70
1:M:56:ASN:CG	1:Q:93:ARG:HH12	101.85	0.70
1:F:399:GLN:HB3	1:Q:153:ALA:HB1	1.71	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:399:GLN:HB3	1:S:153:ALA:HB1	1.71	0.70
1:C:56:ASN:CG	1:G:93:ARG:HH12	101.85	0.70
1:I:56:ASN:CG	1:M:93:ARG:HH12	101.85	0.70
1:R:38:ILE:CG2	1:R:448:LYS:CE	2.70	0.70
1:C:56:ASN:CG	1:T:93:ARG:HH12	1.95	0.70
1:D:56:ASN:CG	1:Z:93:ARG:HH12	1.95	0.70
1:C:42:LYS:HZ1	1:G:423:GLN:HB2	96.14	0.70
1:N:38:ILE:CG2	1:N:448:LYS:CE	2.70	0.70
1:T:38:ILE:CG2	1:T:448:LYS:CE	2.70	0.70
1:J:93:ARG:HH12	1:N:56:ASN:CG	101.85	0.70
1:J:93:ARG:HH12	1:M:56:ASN:CG	1.95	0.69
1:K:38:ILE:CG2	1:K:448:LYS:CE	2.70	0.69
1:L:38:ILE:CG2	1:L:448:LYS:CE	2.70	0.69
1:M:38:ILE:CG2	1:M:448:LYS:CE	2.70	0.69
1:P:38:ILE:CG2	1:P:448:LYS:CE	2.70	0.69
1:D:93:ARG:HH12	1:S:56:ASN:CG	1.95	0.69
1:G:38:ILE:CG2	1:G:448:LYS:CE	2.70	0.69
1:H:38:ILE:CG2	1:H:448:LYS:CE	2.70	0.69
1:X:38:ILE:CG2	1:X:448:LYS:CE	2.70	0.69
1:G:56:ASN:CG	1:K:93:ARG:HH12	101.85	0.69
1:O:56:ASN:CG	1:S:93:ARG:HH12	101.85	0.69
1:A:93:ARG:HH12	1:W:56:ASN:CG	1.95	0.69
1:B:42:LYS:HZ1	1:X:423:GLN:HB2	1.57	0.69
1:E:56:ASN:CG	1:I:93:ARG:HH12	101.85	0.69
1:Q:38:ILE:CG2	1:Q:448:LYS:CE	2.70	0.69
1:O:38:ILE:CG2	1:O:448:LYS:CE	2.70	0.69
1:F:93:ARG:HH12	1:J:56:ASN:CG	101.85	0.69
1:I:56:ASN:CG	1:N:93:ARG:HH12	1.95	0.69
1:M:42:LYS:HZ1	1:Q:423:GLN:HB2	96.14	0.69
1:W:38:ILE:CG2	1:W:448:LYS:CE	2.70	0.69
1:A:38:ILE:CG2	1:A:448:LYS:CE	2.70	0.69
1:B:93:ARG:HH12	1:U:56:ASN:CG	1.94	0.69
1:F:423:GLN:HB2	1:J:42:LYS:HZ1	96.14	0.69
1:I:38:ILE:CG2	1:I:448:LYS:CE	2.70	0.69
1:B:56:ASN:CG	1:X:93:ARG:HH12	1.95	0.69
1:F:38:ILE:CG2	1:F:448:LYS:CE	2.70	0.69
1:H:93:ARG:HH12	1:L:56:ASN:CG	101.85	0.69
1:V:38:ILE:CG2	1:V:448:LYS:CE	2.70	0.69
1:A:56:ASN:CG	1:V:93:ARG:HH12	1.94	0.69
1:D:423:GLN:HB2	1:S:42:LYS:HZ1	1.56	0.69
1:K:56:ASN:CG	1:L:93:ARG:HH12	1.94	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:430:ILE:O	1:K:434:THR:OG1	2.10	0.69
1:L:423:GLN:HB2	1:P:42:LYS:HZ1	96.14	0.69
1:I:42:LYS:HZ1	1:N:423:GLN:HB2	1.57	0.69
1:B:38:ILE:CG2	1:B:448:LYS:CE	2.70	0.68
1:J:423:GLN:HB2	1:M:42:LYS:HZ1	1.58	0.68
1:C:42:LYS:HZ1	1:T:423:GLN:HB2	1.58	0.68
1:D:38:ILE:CG2	1:D:448:LYS:CE	2.70	0.68
1:E:430:ILE:O	1:E:434:THR:OG1	2.10	0.68
1:J:38:ILE:CG2	1:J:448:LYS:CE	2.70	0.68
1:C:423:GLN:HB2	1:Y:42:LYS:HZ1	1.59	0.68
1:G:42:LYS:HZ1	1:P:423:GLN:HB2	1.56	0.68
1:G:430:ILE:O	1:G:434:THR:OG1	2.10	0.68
1:E:42:LYS:HZ1	1:I:423:GLN:HB2	96.14	0.68
1:E:38:ILE:CG2	1:E:448:LYS:CE	2.70	0.68
1:A:443:ALA:HB2	1:J:73:SER:HB3	1.76	0.68
1:F:73:SER:HB3	1:V:443:ALA:HB2	93.42	0.68
1:S:38:ILE:CG2	1:S:448:LYS:CE	2.70	0.68
1:D:42:LYS:HZ1	1:Z:423:GLN:HB2	1.58	0.68
1:D:423:GLN:HB2	1:H:42:LYS:HZ1	96.14	0.68
1:C:443:ALA:HB2	1:H:73:SER:HB3	1.76	0.68
1:I:42:LYS:HZ1	1:M:423:GLN:HB2	96.14	0.68
1:A:430:ILE:O	1:A:434:THR:OG1	2.10	0.68
1:B:443:ALA:HB2	1:L:73:SER:HB3	1.76	0.68
1:D:73:SER:HB3	1:T:443:ALA:HB2	93.42	0.68
1:W:430:ILE:O	1:W:434:THR:OG1	2.10	0.68
1:H:73:SER:HB3	1:X:443:ALA:HB2	93.42	0.68
1:G:443:ALA:HB2	1:W:73:SER:HB3	93.42	0.68
1:M:73:SER:HB3	1:W:443:ALA:HB2	1.76	0.68
1:N:430:ILE:O	1:N:434:THR:OG1	2.10	0.68
1:F:423:GLN:HB2	1:Q:42:LYS:HZ1	1.58	0.67
1:V:430:ILE:O	1:V:434:THR:OG1	2.10	0.67
1:I:443:ALA:HB2	1:Y:73:SER:HB3	93.42	0.67
1:O:73:SER:HB3	1:Y:443:ALA:HB2	1.76	0.67
1:Z:38:ILE:CG2	1:Z:448:LYS:CE	2.70	0.67
1:C:38:ILE:CG2	1:C:448:LYS:CE	2.70	0.67
1:G:42:LYS:HZ1	1:K:423:GLN:HB2	96.14	0.67
1:K:73:SER:HB3	1:U:443:ALA:HB2	1.76	0.67
1:E:443:ALA:HB2	1:U:73:SER:HB3	93.42	0.67
1:J:423:GLN:HB2	1:N:42:LYS:HZ1	96.14	0.67
1:A:73:SER:HB3	1:K:443:ALA:HB2	1.76	0.67
1:A:42:LYS:HZ1	1:V:423:GLN:HB2	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:38:ILE:CG2	1:U:448:LYS:CE	2.70	0.67
1:Y:38:ILE:CG2	1:Y:448:LYS:CE	2.70	0.67
1:C:73:SER:HB3	1:M:443:ALA:HB2	1.76	0.67
1:E:443:ALA:HB2	1:F:73:SER:HB3	1.76	0.67
1:J:73:SER:HB3	1:Z:443:ALA:HB2	93.42	0.67
1:D:443:ALA:HB2	1:N:73:SER:HB3	1.76	0.67
1:O:42:LYS:HZ1	1:S:423:GLN:HB2	96.14	0.67
1:A:443:ALA:HB2	1:Q:73:SER:HB3	93.42	0.67
1:B:73:SER:HB3	1:I:443:ALA:HB2	1.76	0.66
1:B:423:GLN:HB2	1:U:42:LYS:HZ1	1.60	0.66
1:B:73:SER:HB3	1:R:443:ALA:HB2	93.42	0.66
1:C:443:ALA:HB2	1:S:73:SER:HB3	93.42	0.66
1:J:443:ALA:HB2	1:T:73:SER:HB3	1.76	0.66
1:E:73:SER:HB3	1:O:443:ALA:HB2	1.76	0.66
1:D:73:SER:HB3	1:G:443:ALA:HB2	1.76	0.66
1:I:73:SER:HB3	1:S:443:ALA:HB2	1.76	0.66
1:L:443:ALA:HB2	1:V:73:SER:HB3	1.76	0.66
1:H:443:ALA:HB2	1:R:73:SER:HB3	1.76	0.66
1:A:423:GLN:HB2	1:W:42:LYS:HZ1	1.59	0.66
1:B:423:GLN:HB2	1:F:42:LYS:HZ1	96.14	0.66
1:K:42:LYS:HZ1	1:L:423:GLN:HB2	1.59	0.66
1:N:443:ALA:HB2	1:X:73:SER:HB3	1.76	0.66
1:F:443:ALA:HB2	1:P:73:SER:HB3	1.76	0.65
1:P:443:ALA:HB2	1:Z:73:SER:HB3	1.76	0.65
1:G:73:SER:HB3	1:Q:443:ALA:HB2	1.76	0.65
1:E:42:LYS:HZ1	1:R:423:GLN:CG	2.10	0.65
1:F:430:ILE:O	1:F:434:THR:OG1	2.10	0.65
1:H:432:ASN:HD22	1:R:126:ILE:CD1	2.10	0.65
1:D:126:ILE:CD1	1:T:432:ASN:HD22	101.16	0.65
1:C:432:ASN:HD22	1:H:126:ILE:CD1	2.10	0.65
1:E:126:ILE:CD1	1:O:432:ASN:HD22	2.10	0.64
1:O:126:ILE:CD1	1:Y:432:ASN:HD22	2.10	0.64
1:A:432:ASN:HD22	1:Q:126:ILE:CD1	101.16	0.64
1:A:126:ILE:CD1	1:K:432:ASN:HD22	2.10	0.64
1:H:423:GLN:HB2	1:L:42:LYS:HZ1	96.13	0.64
1:D:432:ASN:HD22	1:N:126:ILE:CD1	2.10	0.64
1:J:432:ASN:HD22	1:T:126:ILE:CD1	2.10	0.64
1:E:432:ASN:HD22	1:F:126:ILE:CD1	2.10	0.64
1:B:430:ILE:O	1:B:434:THR:OG1	2.10	0.64
1:A:432:ASN:HD22	1:J:126:ILE:CD1	2.10	0.64
1:C:126:ILE:CD1	1:M:432:ASN:HD22	2.10	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:126:ILE:CD1	1:V:432:ASN:HD22	101.16	0.64
1:M:126:ILE:CD1	1:W:432:ASN:HD22	2.10	0.64
1:B:126:ILE:CD1	1:R:432:ASN:HD22	101.16	0.64
1:A:42:LYS:HZ1	1:E:423:GLN:CG	95.25	0.64
1:I:432:ASN:HD22	1:Y:126:ILE:CD1	101.16	0.64
1:G:126:ILE:CD1	1:Q:432:ASN:HD22	2.10	0.64
1:G:432:ASN:HD22	1:W:126:ILE:CD1	101.16	0.64
1:K:126:ILE:CD1	1:U:432:ASN:HD22	2.10	0.64
1:J:126:ILE:CD1	1:Z:432:ASN:HD22	101.16	0.64
1:B:126:ILE:CD1	1:I:432:ASN:HD22	2.10	0.64
1:B:432:ASN:HD22	1:L:126:ILE:CD1	2.10	0.63
1:N:432:ASN:HD22	1:X:126:ILE:CD1	2.10	0.63
1:E:432:ASN:HD22	1:U:126:ILE:CD1	101.16	0.63
1:I:126:ILE:CD1	1:S:432:ASN:HD22	2.10	0.63
1:F:432:ASN:HD22	1:P:126:ILE:CD1	2.10	0.63
1:P:432:ASN:HD22	1:Z:126:ILE:CD1	2.10	0.63
1:H:126:ILE:CD1	1:X:432:ASN:HD22	101.16	0.63
1:C:40:SER:O	1:T:416:ARG:NH2	2.32	0.63
1:C:432:ASN:HD22	1:S:126:ILE:CD1	101.16	0.63
1:G:40:SER:O	1:P:416:ARG:NH2	2.32	0.63
1:I:40:SER:O	1:M:416:ARG:NH2	94.64	0.63
1:M:40:SER:O	1:Q:416:ARG:NH2	94.64	0.63
1:B:416:ARG:NH2	1:U:40:SER:O	2.32	0.63
1:B:40:SER:O	1:X:416:ARG:NH2	2.32	0.63
1:C:40:SER:O	1:G:416:ARG:NH2	94.64	0.63
1:C:416:ARG:NH2	1:Y:40:SER:O	2.32	0.63
1:D:416:ARG:NH2	1:S:40:SER:O	2.32	0.63
1:L:432:ASN:HD22	1:V:126:ILE:CD1	2.10	0.63
1:F:416:ARG:NH2	1:Q:40:SER:O	2.32	0.63
1:A:416:ARG:NH2	1:W:40:SER:O	2.32	0.63
1:D:40:SER:O	1:Z:416:ARG:NH2	2.32	0.63
1:D:416:ARG:NH2	1:H:40:SER:O	94.64	0.62
1:J:416:ARG:NH2	1:M:40:SER:O	2.32	0.62
1:D:126:ILE:CD1	1:G:432:ASN:HD22	2.10	0.62
1:O:40:SER:O	1:S:416:ARG:NH2	94.64	0.62
1:L:416:ARG:NH2	1:P:40:SER:O	94.64	0.62
1:A:40:SER:O	1:V:416:ARG:NH2	2.32	0.62
1:N:423:GLN:CG	1:R:42:LYS:HZ1	95.25	0.62
1:H:416:ARG:NH2	1:L:40:SER:O	94.64	0.62
1:M:430:ILE:O	1:M:434:THR:OG1	2.10	0.62
1:J:416:ARG:NH2	1:N:40:SER:O	94.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:416:ARG:NH2	1:O:40:SER:O	2.32	0.62
1:N:416:ARG:NH2	1:R:40:SER:O	94.64	0.62
1:B:416:ARG:NH2	1:F:40:SER:O	94.64	0.62
1:E:40:SER:O	1:I:416:ARG:NH2	94.64	0.62
1:F:416:ARG:NH2	1:J:40:SER:O	94.64	0.62
1:A:40:SER:O	1:E:416:ARG:NH2	94.64	0.62
1:I:40:SER:O	1:N:416:ARG:NH2	2.32	0.62
1:G:40:SER:O	1:K:416:ARG:NH2	94.64	0.62
1:K:40:SER:O	1:L:416:ARG:NH2	2.32	0.62
1:C:425:ARG:NH1	1:H:118:ALA:O	2.34	0.61
1:K:40:SER:O	1:O:416:ARG:NH2	94.64	0.61
1:A:118:ALA:O	1:K:425:ARG:NH1	2.34	0.61
1:L:425:ARG:NH1	1:V:118:ALA:O	2.34	0.61
1:O:118:ALA:O	1:Y:425:ARG:NH1	2.34	0.61
1:E:40:SER:O	1:R:416:ARG:NH2	2.32	0.61
1:C:118:ALA:O	1:M:425:ARG:NH1	2.34	0.61
1:C:42:LYS:HZ1	1:G:423:GLN:CG	95.25	0.61
1:A:425:ARG:NH1	1:Q:118:ALA:O	109.67	0.61
1:D:118:ALA:O	1:T:425:ARG:NH1	109.67	0.61
1:E:425:ARG:NH1	1:F:118:ALA:O	2.34	0.61
1:G:425:ARG:NH1	1:W:118:ALA:O	109.67	0.61
1:J:425:ARG:NH1	1:T:118:ALA:O	2.34	0.61
1:M:118:ALA:O	1:W:425:ARG:NH1	2.34	0.61
1:G:118:ALA:O	1:Q:425:ARG:NH1	2.34	0.61
1:B:118:ALA:O	1:I:425:ARG:NH1	2.34	0.61
1:E:425:ARG:NH1	1:U:118:ALA:O	109.66	0.61
1:H:118:ALA:O	1:X:425:ARG:NH1	109.67	0.61
1:J:118:ALA:O	1:Z:425:ARG:NH1	109.67	0.61
1:B:118:ALA:O	1:R:425:ARG:NH1	109.67	0.61
1:C:425:ARG:NH1	1:S:118:ALA:O	109.67	0.61
1:H:425:ARG:NH1	1:R:118:ALA:O	2.34	0.61
1:N:425:ARG:NH1	1:X:118:ALA:O	2.34	0.61
1:E:118:ALA:O	1:O:425:ARG:NH1	2.34	0.61
1:Y:430:ILE:O	1:Y:434:THR:OG1	2.10	0.61
1:E:432:ASN:ND2	1:F:126:ILE:CD1	2.64	0.61
1:F:425:ARG:NH1	1:P:118:ALA:O	2.34	0.61
1:D:425:ARG:NH1	1:N:118:ALA:O	2.34	0.61
1:N:432:ASN:ND2	1:X:126:ILE:CD1	2.64	0.61
1:E:126:ILE:CD1	1:O:432:ASN:ND2	2.64	0.61
1:B:126:ILE:CD1	1:I:432:ASN:ND2	2.64	0.61
1:A:464:VAL:CG1	1:M:484:LEU:HD12	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:432:ASN:ND2	1:Z:126:ILE:CD1	2.64	0.61
1:Q:430:ILE:O	1:Q:434:THR:OG1	2.10	0.61
1:B:126:ILE:CD1	1:R:432:ASN:ND2	101.51	0.61
1:D:464:VAL:CG1	1:R:484:LEU:HD12	71.27	0.61
1:A:425:ARG:NH1	1:J:118:ALA:O	2.34	0.60
1:F:126:ILE:CD1	1:V:432:ASN:ND2	101.51	0.60
1:F:432:ASN:ND2	1:P:126:ILE:CD1	2.64	0.60
1:H:432:ASN:ND2	1:R:126:ILE:CD1	2.64	0.60
1:I:38:ILE:HG21	1:I:448:LYS:CD	2.31	0.60
1:A:126:ILE:CD1	1:K:432:ASN:ND2	2.64	0.60
1:B:432:ASN:ND2	1:L:126:ILE:CD1	2.64	0.60
1:G:484:LEU:HD12	1:U:464:VAL:CG1	71.27	0.60
1:O:126:ILE:CD1	1:Y:432:ASN:ND2	2.64	0.60
1:A:432:ASN:ND2	1:Q:126:ILE:CD1	101.51	0.60
1:B:425:ARG:NH1	1:L:118:ALA:O	2.34	0.60
1:B:464:VAL:CG1	1:K:484:LEU:HD12	2.31	0.60
1:D:126:ILE:CD1	1:G:432:ASN:ND2	2.64	0.60
1:L:432:ASN:ND2	1:V:126:ILE:CD1	2.64	0.60
1:E:464:VAL:CG1	1:Q:484:LEU:HD12	2.31	0.60
1:G:464:VAL:CG1	1:S:484:LEU:HD12	2.31	0.60
1:B:464:VAL:CG1	1:P:484:LEU:HD12	71.27	0.60
1:D:118:ALA:O	1:G:425:ARG:NH1	2.34	0.60
1:E:432:ASN:ND2	1:U:126:ILE:CD1	101.51	0.60
1:E:484:LEU:HD12	1:H:464:VAL:CG1	2.31	0.60
1:F:118:ALA:O	1:V:425:ARG:NH1	109.67	0.60
1:H:464:VAL:CG1	1:V:484:LEU:HD12	71.27	0.60
1:I:432:ASN:ND2	1:Y:126:ILE:CD1	101.51	0.60
1:C:464:VAL:CG1	1:O:484:LEU:HD12	2.31	0.60
1:P:425:ARG:NH1	1:Z:118:ALA:O	2.34	0.60
1:I:126:ILE:CD1	1:S:432:ASN:ND2	2.64	0.60
1:K:484:LEU:HD12	1:Y:464:VAL:CG1	71.27	0.60
1:G:126:ILE:CD1	1:Q:432:ASN:ND2	2.64	0.60
1:I:425:ARG:NH1	1:Y:118:ALA:O	109.67	0.60
1:A:484:LEU:HD12	1:L:464:VAL:CG1	2.31	0.60
1:D:38:ILE:HG21	1:D:448:LYS:CD	2.31	0.60
1:D:484:LEU:HD12	1:P:464:VAL:CG1	2.31	0.60
1:G:432:ASN:ND2	1:W:126:ILE:CD1	101.51	0.60
1:H:126:ILE:CD1	1:X:432:ASN:ND2	101.51	0.60
1:A:432:ASN:ND2	1:J:126:ILE:CD1	2.64	0.60
1:K:126:ILE:CD1	1:U:432:ASN:ND2	2.64	0.60
1:C:126:ILE:CD1	1:M:432:ASN:ND2	2.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:118:ALA:O	1:U:425:ARG:NH1	2.34	0.60
1:L:484:LEU:HD12	1:X:464:VAL:CG1	2.31	0.60
1:C:432:ASN:ND2	1:H:126:ILE:CD1	2.64	0.60
1:I:118:ALA:O	1:S:425:ARG:NH1	2.34	0.60
1:D:423:GLN:CG	1:S:42:LYS:HZ1	2.15	0.60
1:N:484:LEU:HD12	1:Z:464:VAL:CG1	2.31	0.60
1:C:484:LEU:HD12	1:J:464:VAL:CG1	2.31	0.60
1:D:432:ASN:ND2	1:N:126:ILE:CD1	2.64	0.60
1:F:464:VAL:CG1	1:T:484:LEU:HD12	71.27	0.60
1:F:484:LEU:HD12	1:R:464:VAL:CG1	2.31	0.60
1:D:464:VAL:CG1	1:I:484:LEU:HD12	2.31	0.60
1:K:42:LYS:HZ1	1:O:423:GLN:CG	95.24	0.60
1:C:432:ASN:ND2	1:S:126:ILE:CD1	101.51	0.60
1:A:484:LEU:HD12	1:O:464:VAL:CG1	71.27	0.60
1:E:484:LEU:HD12	1:S:464:VAL:CG1	71.27	0.60
1:G:42:LYS:HZ1	1:P:423:GLN:CG	2.15	0.60
1:F:464:VAL:CG1	1:G:484:LEU:HD12	2.31	0.60
1:I:484:LEU:HD12	1:W:464:VAL:CG1	71.27	0.60
1:J:126:ILE:CD1	1:Z:432:ASN:ND2	101.51	0.60
1:K:464:VAL:CG1	1:W:484:LEU:HD12	2.31	0.60
1:M:464:VAL:CG1	1:Y:484:LEU:HD12	2.31	0.60
1:J:432:ASN:ND2	1:T:126:ILE:CD1	2.64	0.60
1:A:38:ILE:HD13	1:A:48:LEU:CA	2.32	0.60
1:D:38:ILE:HD13	1:D:48:LEU:CA	2.32	0.60
1:H:38:ILE:HD13	1:H:48:LEU:CA	2.32	0.60
1:J:430:ILE:O	1:J:434:THR:OG1	2.10	0.60
1:D:126:ILE:CD1	1:T:432:ASN:ND2	101.51	0.59
1:D:430:ILE:O	1:D:434:THR:OG1	2.10	0.59
1:H:38:ILE:HG21	1:H:448:LYS:CD	2.32	0.59
1:L:423:GLN:CG	1:P:42:LYS:HZ1	95.25	0.59
1:L:464:VAL:CG1	1:Z:484:LEU:HD12	71.27	0.59
1:B:484:LEU:HD12	1:N:464:VAL:CG1	2.31	0.59
1:J:464:VAL:CG1	1:X:484:LEU:HD12	71.27	0.59
1:E:38:ILE:HD13	1:E:48:LEU:CA	2.32	0.59
1:K:38:ILE:HD13	1:K:48:LEU:CA	2.32	0.59
1:Y:38:ILE:HD13	1:Y:48:LEU:CA	2.32	0.59
1:C:430:ILE:O	1:C:434:THR:OG1	2.10	0.59
1:L:38:ILE:HD13	1:L:48:LEU:CA	2.32	0.59
1:M:126:ILE:CD1	1:W:432:ASN:ND2	2.64	0.59
1:B:38:ILE:HD13	1:B:48:LEU:CA	2.32	0.59
1:J:38:ILE:HD13	1:J:48:LEU:CA	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:135:ARG:HD3	1:S:105:SER:HA	108.79	0.59
1:D:105:SER:HA	1:S:135:ARG:HD3	1.85	0.59
1:S:38:ILE:HD13	1:S:48:LEU:CA	2.32	0.59
1:X:38:ILE:HD13	1:X:48:LEU:CA	2.32	0.59
1:E:135:ARG:HD3	1:I:105:SER:HA	108.79	0.59
1:C:135:ARG:HD3	1:G:105:SER:HA	108.79	0.59
1:T:430:ILE:O	1:T:434:THR:OG1	2.10	0.59
1:U:38:ILE:HD13	1:U:48:LEU:CA	2.32	0.59
1:Z:38:ILE:HD13	1:Z:48:LEU:CA	2.32	0.59
1:F:38:ILE:HD13	1:F:48:LEU:CA	2.32	0.59
1:I:38:ILE:HD13	1:I:48:LEU:CA	2.32	0.59
1:J:484:LEU:HD12	1:V:464:VAL:CG1	2.31	0.59
1:N:38:ILE:HD13	1:N:48:LEU:CA	2.32	0.59
1:I:464:VAL:CG1	1:U:484:LEU:HD12	2.31	0.59
1:Z:430:ILE:O	1:Z:434:THR:OG1	2.10	0.59
1:C:484:LEU:HD12	1:Q:464:VAL:CG1	71.27	0.59
1:G:38:ILE:HD13	1:G:48:LEU:CA	2.32	0.59
1:O:38:ILE:HD13	1:O:48:LEU:CA	2.32	0.59
1:H:484:LEU:HD12	1:T:464:VAL:CG1	2.31	0.59
1:M:135:ARG:HD3	1:Q:105:SER:HA	108.79	0.59
1:W:38:ILE:HD13	1:W:48:LEU:CA	2.32	0.59
1:C:38:ILE:HD13	1:C:48:LEU:CA	2.32	0.59
1:G:135:ARG:HD3	1:P:105:SER:HA	1.85	0.59
1:H:430:ILE:O	1:H:434:THR:OG1	2.10	0.59
1:I:135:ARG:HD3	1:N:105:SER:HA	1.85	0.59
1:F:105:SER:HA	1:Q:135:ARG:HD3	1.85	0.59
1:P:38:ILE:HD13	1:P:48:LEU:CA	2.32	0.59
1:T:38:ILE:HG21	1:T:448:LYS:CD	2.32	0.59
1:B:105:SER:HA	1:U:135:ARG:HD3	1.85	0.59
1:D:135:ARG:HD3	1:Z:105:SER:HA	1.85	0.59
1:G:135:ARG:HD3	1:K:105:SER:HA	108.79	0.58
1:M:38:ILE:HD13	1:M:48:LEU:CA	2.32	0.58
1:M:154:TYR:H	1:Q:399:GLN:HG2	114.37	0.58
1:A:135:ARG:HD3	1:E:105:SER:HA	108.79	0.58
1:I:135:ARG:HD3	1:M:105:SER:HA	108.79	0.58
1:Q:38:ILE:HD13	1:Q:48:LEU:CA	2.32	0.58
1:B:420:ALA:HA	1:U:42:LYS:HD2	1.86	0.58
1:D:420:ALA:HA	1:S:42:LYS:HD2	1.86	0.58
1:A:42:LYS:HD2	1:E:420:ALA:HA	99.00	0.58
1:D:420:ALA:HA	1:H:42:LYS:HD2	99.00	0.58
1:K:135:ARG:HD3	1:O:105:SER:HA	108.79	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:38:ILE:HD13	1:R:48:LEU:CA	2.32	0.58
1:T:38:ILE:HD13	1:T:48:LEU:CA	2.32	0.58
1:C:420:ALA:HA	1:Y:42:LYS:HD2	1.85	0.58
1:A:154:TYR:H	1:E:399:GLN:HG2	114.37	0.58
1:E:154:TYR:H	1:R:399:GLN:HG2	1.69	0.58
1:B:420:ALA:HA	1:F:42:LYS:HD2	99.00	0.58
1:L:105:SER:HA	1:P:135:ARG:HD3	108.79	0.58
1:N:399:GLN:HG2	1:R:154:TYR:H	114.37	0.58
1:D:154:TYR:H	1:Z:399:GLN:HG2	1.68	0.58
1:A:105:SER:HA	1:W:135:ARG:HD3	1.85	0.58
1:C:154:TYR:H	1:G:399:GLN:HG2	114.37	0.58
1:F:399:GLN:HG2	1:Q:154:TYR:H	1.69	0.58
1:E:42:LYS:HZ1	1:I:423:GLN:CG	95.26	0.58
1:J:105:SER:HA	1:N:135:ARG:HD3	108.79	0.58
1:O:42:LYS:HD2	1:S:420:ALA:HA	98.99	0.58
1:V:38:ILE:HD13	1:V:48:LEU:CA	2.32	0.58
1:B:42:LYS:HD2	1:X:420:ALA:HA	1.86	0.58
1:D:42:LYS:HD2	1:Z:420:ALA:HA	1.86	0.58
1:C:105:SER:HA	1:Y:135:ARG:HD3	1.85	0.58
1:B:105:SER:HA	1:F:135:ARG:HD3	108.79	0.58
1:K:135:ARG:HD3	1:L:105:SER:HA	1.85	0.58
1:D:399:GLN:HG2	1:S:154:TYR:H	1.69	0.58
1:U:430:ILE:O	1:U:434:THR:OG1	2.10	0.58
1:B:135:ARG:HD3	1:X:105:SER:HA	1.85	0.58
1:A:420:ALA:HA	1:W:42:LYS:HD2	1.86	0.58
1:F:420:ALA:HA	1:J:42:LYS:HD2	99.00	0.58
1:F:420:ALA:HA	1:Q:42:LYS:HD2	1.86	0.58
1:J:420:ALA:HA	1:N:42:LYS:HD2	99.00	0.58
1:A:42:LYS:HD2	1:V:420:ALA:HA	1.85	0.58
1:B:399:GLN:HG2	1:F:154:TYR:H	114.37	0.58
1:F:105:SER:HA	1:J:135:ARG:HD3	108.79	0.58
1:H:420:ALA:HA	1:L:42:LYS:HD2	99.00	0.58
1:E:135:ARG:HD3	1:R:105:SER:HA	1.85	0.58
1:H:105:SER:HA	1:O:135:ARG:HD3	1.85	0.58
1:K:154:TYR:H	1:O:399:GLN:HG2	114.37	0.58
1:H:420:ALA:HA	1:O:42:LYS:HD2	1.86	0.58
1:C:42:LYS:HD2	1:T:420:ALA:HA	1.86	0.58
1:C:42:LYS:HD2	1:G:420:ALA:HA	98.99	0.58
1:I:42:LYS:HZ1	1:N:423:GLN:CG	2.16	0.58
1:J:105:SER:HA	1:M:135:ARG:HD3	1.85	0.58
1:I:154:TYR:H	1:N:399:GLN:HG2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:154:TYR:H	1:S:399:GLN:HG2	114.37	0.57
1:E:42:LYS:HD2	1:R:420:ALA:HA	1.86	0.57
1:B:42:LYS:HZ1	1:X:423:GLN:CG	2.17	0.57
1:A:135:ARG:HD3	1:V:105:SER:HA	1.85	0.57
1:D:399:GLN:HG2	1:H:154:TYR:H	114.37	0.57
1:E:154:TYR:H	1:I:399:GLN:HG2	114.37	0.57
1:E:38:ILE:O	1:E:38:ILE:HG23	2.05	0.57
1:H:105:SER:HA	1:L:135:ARG:HD3	108.79	0.57
1:I:38:ILE:O	1:I:38:ILE:HG23	2.05	0.57
1:M:42:LYS:HD2	1:Q:420:ALA:HA	99.00	0.57
1:J:399:GLN:HG2	1:N:154:TYR:H	114.37	0.57
1:G:154:TYR:H	1:P:399:GLN:HG2	1.69	0.57
1:V:38:ILE:HG23	1:V:38:ILE:O	2.05	0.57
1:E:42:LYS:CE	1:I:423:GLN:HB2	94.31	0.57
1:J:420:ALA:HA	1:M:42:LYS:HD2	1.85	0.57
1:K:42:LYS:HD2	1:L:420:ALA:HA	1.86	0.57
1:M:38:ILE:HG23	1:M:38:ILE:O	2.05	0.57
1:L:420:ALA:HA	1:P:42:LYS:HD2	99.00	0.57
1:A:38:ILE:O	1:A:38:ILE:HG23	2.05	0.57
1:A:423:GLN:HB2	1:W:42:LYS:CE	2.35	0.57
1:C:135:ARG:HD3	1:T:105:SER:HA	1.85	0.57
1:C:154:TYR:H	1:T:399:GLN:HG2	1.68	0.57
1:D:423:GLN:HB2	1:H:42:LYS:CE	94.31	0.57
1:G:38:ILE:O	1:G:38:ILE:HG23	2.05	0.57
1:C:42:LYS:CE	1:G:423:GLN:HB2	94.31	0.57
1:E:42:LYS:HD2	1:I:420:ALA:HA	99.00	0.57
1:I:42:LYS:CE	1:N:423:GLN:HB2	2.35	0.57
1:F:423:GLN:HB2	1:J:42:LYS:CE	94.31	0.57
1:N:105:SER:HA	1:R:135:ARG:HD3	108.79	0.57
1:B:42:LYS:CE	1:X:423:GLN:HB2	2.35	0.57
1:B:423:GLN:HB2	1:U:42:LYS:CE	2.35	0.57
1:D:105:SER:HA	1:H:135:ARG:HD3	108.79	0.57
1:H:423:GLN:CG	1:O:42:LYS:HZ1	2.16	0.57
1:I:42:LYS:HD2	1:N:420:ALA:HA	1.86	0.57
1:J:399:GLN:HG2	1:M:154:TYR:H	1.68	0.57
1:J:423:GLN:HB2	1:N:42:LYS:CE	94.31	0.57
1:L:399:GLN:HG2	1:P:154:TYR:H	114.37	0.57
1:J:423:GLN:HB2	1:M:42:LYS:CE	2.35	0.57
1:N:38:ILE:O	1:N:38:ILE:HG23	2.05	0.57
1:H:423:GLN:HB2	1:O:42:LYS:CE	2.35	0.57
1:G:42:LYS:CE	1:P:423:GLN:HB2	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:LYS:CE	1:V:423:GLN:HB2	2.35	0.57
1:Z:38:ILE:HG23	1:Z:38:ILE:O	2.05	0.57
1:C:38:ILE:O	1:C:38:ILE:HG23	2.05	0.57
1:C:399:GLN:HG2	1:Y:154:TYR:H	1.69	0.57
1:H:399:GLN:HG2	1:O:154:TYR:H	1.69	0.57
1:I:154:TYR:H	1:M:399:GLN:HG2	114.37	0.57
1:I:42:LYS:CE	1:M:423:GLN:HB2	94.31	0.57
1:K:42:LYS:CE	1:O:423:GLN:HB2	94.31	0.57
1:L:423:GLN:HB2	1:P:42:LYS:CE	94.31	0.57
1:R:38:ILE:O	1:R:38:ILE:HG23	2.05	0.57
1:D:42:LYS:CE	1:Z:423:GLN:HB2	2.35	0.57
1:K:42:LYS:HD2	1:O:420:ALA:HA	99.00	0.57
1:C:423:GLN:HB2	1:Y:42:LYS:CE	2.35	0.57
1:A:42:LYS:CE	1:E:423:GLN:HB2	94.31	0.57
1:B:423:GLN:HB2	1:F:42:LYS:CE	94.31	0.57
1:G:42:LYS:HD2	1:P:420:ALA:HA	1.86	0.57
1:H:38:ILE:HG23	1:H:38:ILE:O	2.05	0.57
1:P:38:ILE:O	1:P:38:ILE:HG23	2.05	0.57
1:Q:38:ILE:HG23	1:Q:38:ILE:O	2.05	0.57
1:S:430:ILE:O	1:S:434:THR:OG1	2.10	0.57
1:C:42:LYS:CE	1:T:423:GLN:HB2	2.35	0.57
1:B:399:GLN:HG2	1:U:154:TYR:H	1.69	0.57
1:W:38:ILE:O	1:W:38:ILE:HG23	2.05	0.57
1:X:38:ILE:HG23	1:X:38:ILE:O	2.05	0.57
1:A:13:ASN:HA	1:A:16:ARG:NH1	2.20	0.57
1:D:423:GLN:HB2	1:S:42:LYS:CE	2.35	0.57
1:E:42:LYS:CE	1:R:423:GLN:HB2	2.35	0.57
1:F:38:ILE:HG23	1:F:38:ILE:O	2.05	0.57
1:F:423:GLN:HB2	1:Q:42:LYS:CE	2.35	0.57
1:G:13:ASN:HA	1:G:16:ARG:NH1	2.20	0.57
1:F:399:GLN:HG2	1:J:154:TYR:H	114.37	0.57
1:M:13:ASN:HA	1:M:16:ARG:NH1	2.20	0.57
1:N:13:ASN:HA	1:N:16:ARG:NH1	2.20	0.57
1:N:420:ALA:HA	1:R:42:LYS:HD2	99.00	0.57
1:W:13:ASN:HA	1:W:16:ARG:NH1	2.20	0.57
1:B:38:ILE:O	1:B:38:ILE:HG23	2.05	0.56
1:D:38:ILE:O	1:D:38:ILE:HG23	2.05	0.56
1:F:13:ASN:HA	1:F:16:ARG:NH1	2.20	0.56
1:H:13:ASN:HA	1:H:16:ARG:NH1	2.20	0.56
1:J:13:ASN:HA	1:J:16:ARG:NH1	2.20	0.56
1:R:13:ASN:HA	1:R:16:ARG:NH1	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:423:GLN:HB2	1:R:42:LYS:CE	94.31	0.56
1:O:42:LYS:CE	1:S:423:GLN:HB2	94.31	0.56
1:V:13:ASN:HA	1:V:16:ARG:NH1	2.20	0.56
1:A:154:TYR:H	1:V:399:GLN:HG2	1.69	0.56
1:B:13:ASN:HA	1:B:16:ARG:NH1	2.20	0.56
1:C:13:ASN:HA	1:C:16:ARG:NH1	2.20	0.56
1:D:13:ASN:HA	1:D:16:ARG:NH1	2.20	0.56
1:E:13:ASN:HA	1:E:16:ARG:NH1	2.20	0.56
1:I:13:ASN:HA	1:I:16:ARG:NH1	2.20	0.56
1:G:42:LYS:HD2	1:K:420:ALA:HA	99.00	0.56
1:P:13:ASN:HA	1:P:16:ARG:NH1	2.20	0.56
1:M:42:LYS:CE	1:Q:423:GLN:HB2	94.31	0.56
1:Z:13:ASN:HA	1:Z:16:ARG:NH1	2.20	0.56
1:K:13:ASN:HA	1:K:16:ARG:NH1	2.20	0.56
1:I:42:LYS:HD2	1:M:420:ALA:HA	98.99	0.56
1:O:13:ASN:HA	1:O:16:ARG:NH1	2.20	0.56
1:D:42:LYS:HZ1	1:Z:423:GLN:CG	2.19	0.56
1:H:399:GLN:HG2	1:L:154:TYR:H	114.37	0.56
1:K:38:ILE:O	1:K:38:ILE:HG23	2.05	0.56
1:G:42:LYS:CE	1:K:423:GLN:HB2	94.31	0.56
1:L:38:ILE:O	1:L:38:ILE:HG23	2.05	0.56
1:H:423:GLN:HB2	1:L:42:LYS:CE	94.31	0.56
1:K:42:LYS:CE	1:L:423:GLN:HB2	2.35	0.56
1:K:154:TYR:H	1:L:399:GLN:HG2	1.68	0.56
1:O:38:ILE:O	1:O:38:ILE:HG23	2.05	0.56
1:Q:13:ASN:HA	1:Q:16:ARG:NH1	2.20	0.56
1:U:13:ASN:HA	1:U:16:ARG:NH1	2.20	0.56
1:U:38:ILE:HG23	1:U:38:ILE:O	2.05	0.56
1:X:13:ASN:HA	1:X:16:ARG:NH1	2.20	0.56
1:B:154:TYR:H	1:X:399:GLN:HG2	1.68	0.56
1:L:13:ASN:HA	1:L:16:ARG:NH1	2.20	0.56
1:Y:13:ASN:HA	1:Y:16:ARG:NH1	2.20	0.56
1:A:399:GLN:HG2	1:W:154:TYR:H	1.69	0.56
1:D:42:LYS:NZ	1:Z:423:GLN:HB2	2.21	0.56
1:A:423:GLN:HB2	1:W:42:LYS:NZ	2.21	0.56
1:C:423:GLN:HB2	1:Y:42:LYS:NZ	2.21	0.56
1:D:423:GLN:HB2	1:S:42:LYS:NZ	2.21	0.56
1:D:423:GLN:HG3	1:H:42:LYS:NZ	95.71	0.56
1:I:42:LYS:NZ	1:M:423:GLN:HB2	95.78	0.56
1:J:423:GLN:HB2	1:M:42:LYS:NZ	2.21	0.56
1:J:423:GLN:HB2	1:N:42:LYS:NZ	95.78	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:423:GLN:HB2	1:P:42:LYS:NZ	95.78	0.56
1:D:432:ASN:ND2	1:N:126:ILE:HG12	2.21	0.56
1:G:42:LYS:NZ	1:P:423:GLN:HB2	2.21	0.56
1:A:432:ASN:ND2	1:Q:126:ILE:HG12	100.05	0.56
1:T:13:ASN:HA	1:T:16:ARG:NH1	2.20	0.56
1:B:423:GLN:HB2	1:F:42:LYS:NZ	95.78	0.56
1:B:423:GLN:HG3	1:U:42:LYS:NZ	2.21	0.56
1:C:42:LYS:NZ	1:T:423:GLN:HB2	2.21	0.56
1:A:42:LYS:NZ	1:E:423:GLN:HB2	95.78	0.56
1:E:432:ASN:ND2	1:F:126:ILE:HG12	2.21	0.56
1:G:42:LYS:NZ	1:K:423:GLN:HB2	95.78	0.56
1:I:42:LYS:NZ	1:N:423:GLN:HB2	2.21	0.56
1:K:42:LYS:NZ	1:L:423:GLN:HB2	2.21	0.56
1:K:42:LYS:NZ	1:O:423:GLN:HB2	95.78	0.56
1:M:42:LYS:NZ	1:Q:423:GLN:HG3	95.71	0.56
1:E:42:LYS:NZ	1:R:423:GLN:HB2	2.21	0.56
1:F:423:GLN:HB2	1:Q:42:LYS:NZ	2.21	0.56
1:C:42:LYS:NZ	1:G:423:GLN:HB2	95.78	0.56
1:C:42:LYS:NZ	1:G:423:GLN:HG3	95.71	0.56
1:I:42:LYS:HZ1	1:M:423:GLN:CG	95.25	0.56
1:J:38:ILE:HG23	1:J:38:ILE:O	2.05	0.56
1:L:423:GLN:HG3	1:P:42:LYS:NZ	95.71	0.56
1:H:423:GLN:HB2	1:O:42:LYS:NZ	2.21	0.56
1:G:42:LYS:NZ	1:P:423:GLN:HG3	2.21	0.56
1:H:432:ASN:ND2	1:R:126:ILE:HG12	2.21	0.56
1:S:13:ASN:HA	1:S:16:ARG:NH1	2.20	0.56
1:B:423:GLN:HB2	1:U:42:LYS:NZ	2.21	0.56
1:A:42:LYS:NZ	1:V:423:GLN:HB2	2.21	0.56
1:B:42:LYS:NZ	1:X:423:GLN:HB2	2.21	0.56
1:B:42:LYS:NZ	1:X:423:GLN:HG3	2.21	0.56
1:Y:38:ILE:O	1:Y:38:ILE:HG23	2.05	0.56
1:A:126:ILE:HG12	1:K:432:ASN:ND2	2.21	0.56
1:C:126:ILE:HG12	1:M:432:ASN:ND2	2.21	0.56
1:D:42:LYS:NZ	1:Z:423:GLN:HG3	2.21	0.56
1:F:423:GLN:HB2	1:J:42:LYS:NZ	95.78	0.56
1:F:423:GLN:HG3	1:Q:42:LYS:NZ	2.21	0.56
1:D:423:GLN:HB2	1:H:42:LYS:NZ	95.78	0.56
1:E:42:LYS:NZ	1:I:423:GLN:HB2	95.78	0.56
1:H:423:GLN:HG3	1:O:42:LYS:NZ	2.21	0.56
1:S:38:ILE:HG23	1:S:38:ILE:O	2.05	0.56
1:D:126:ILE:HG12	1:T:432:ASN:ND2	100.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:126:ILE:HG12	1:Y:432:ASN:ND2	2.21	0.56
1:H:423:GLN:HB2	1:L:42:LYS:NZ	95.78	0.55
1:M:42:LYS:NZ	1:Q:423:GLN:HB2	95.78	0.55
1:N:423:GLN:HB2	1:R:42:LYS:NZ	95.78	0.55
1:B:126:ILE:HG12	1:R:432:ASN:ND2	100.05	0.55
1:B:423:GLN:HG3	1:F:42:LYS:NZ	95.71	0.55
1:C:423:GLN:HG3	1:Y:42:LYS:NZ	2.21	0.55
1:E:42:LYS:NZ	1:R:423:GLN:HG3	2.21	0.55
1:N:423:GLN:HG3	1:R:42:LYS:NZ	95.71	0.55
1:O:42:LYS:NZ	1:S:423:GLN:HB2	95.78	0.55
1:J:432:ASN:ND2	1:T:126:ILE:HG12	2.21	0.55
1:A:42:LYS:NZ	1:E:423:GLN:HG3	95.71	0.55
1:D:423:GLN:HG3	1:S:42:LYS:NZ	2.21	0.55
1:E:126:ILE:HG12	1:O:432:ASN:ND2	2.21	0.55
1:G:154:TYR:H	1:K:399:GLN:HG2	114.37	0.55
1:B:432:ASN:ND2	1:L:126:ILE:HG12	2.21	0.55
1:E:42:LYS:NZ	1:I:423:GLN:HG3	95.71	0.55
1:C:432:ASN:ND2	1:H:126:ILE:HG12	2.21	0.55
1:S:38:ILE:HG21	1:S:448:LYS:CD	2.32	0.55
1:A:42:LYS:NZ	1:V:423:GLN:HG3	2.21	0.55
1:I:432:ASN:ND2	1:Y:126:ILE:HG12	100.05	0.55
1:A:423:GLN:HG3	1:W:42:LYS:NZ	2.21	0.55
1:B:438:GLU:HG3	1:U:13:ASN:OD1	2.07	0.55
1:C:42:LYS:NZ	1:T:423:GLN:HG3	2.21	0.55
1:K:42:LYS:NZ	1:O:423:GLN:HG3	95.71	0.55
1:T:38:ILE:HG23	1:T:38:ILE:O	2.05	0.55
1:K:126:ILE:HG12	1:U:432:ASN:ND2	2.21	0.55
1:H:126:ILE:HG12	1:X:432:ASN:ND2	100.05	0.55
1:L:430:ILE:O	1:L:434:THR:OG1	2.10	0.55
1:M:42:LYS:HZ1	1:Q:423:GLN:CG	95.25	0.55
1:F:432:ASN:ND2	1:P:126:ILE:HG12	2.21	0.55
1:C:432:ASN:ND2	1:S:126:ILE:HG12	100.05	0.55
1:D:13:ASN:OD1	1:Z:438:GLU:HG3	2.07	0.55
1:C:13:ASN:OD1	1:G:438:GLU:HG3	83.18	0.55
1:H:438:GLU:HG3	1:L:13:ASN:OD1	83.18	0.55
1:L:432:ASN:ND2	1:V:126:ILE:HG12	2.21	0.55
1:G:432:ASN:ND2	1:W:126:ILE:HG12	100.05	0.55
1:P:432:ASN:ND2	1:Z:126:ILE:HG12	2.21	0.55
1:B:13:ASN:OD1	1:X:438:GLU:HG3	2.07	0.55
1:F:423:GLN:CG	1:J:42:LYS:HZ1	95.25	0.55
1:G:13:ASN:OD1	1:P:438:GLU:HG3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:423:GLN:HG3	1:L:42:LYS:NZ	95.71	0.55
1:O:13:ASN:OD1	1:S:438:GLU:HG3	83.17	0.55
1:O:42:LYS:NZ	1:S:423:GLN:HG3	95.71	0.55
1:D:438:GLU:HG3	1:S:13:ASN:OD1	2.07	0.55
1:F:423:GLN:HG3	1:J:42:LYS:NZ	95.71	0.55
1:D:126:ILE:HG12	1:G:432:ASN:ND2	2.21	0.55
1:I:42:LYS:NZ	1:M:423:GLN:HG3	95.71	0.55
1:R:430:ILE:O	1:R:434:THR:OG1	2.10	0.55
1:N:432:ASN:ND2	1:X:126:ILE:HG12	2.21	0.55
1:J:126:ILE:HG12	1:Z:432:ASN:ND2	100.05	0.55
1:B:38:ILE:HG21	1:B:448:LYS:CD	2.31	0.55
1:G:126:ILE:HG12	1:Q:432:ASN:ND2	2.21	0.55
1:I:126:ILE:HG12	1:S:432:ASN:ND2	2.21	0.55
1:I:42:LYS:NZ	1:N:423:GLN:HG3	2.21	0.55
1:J:438:GLU:HG3	1:M:13:ASN:OD1	2.07	0.55
1:A:438:GLU:HG3	1:W:13:ASN:OD1	2.07	0.55
1:E:13:ASN:OD1	1:I:438:GLU:HG3	83.18	0.54
1:J:423:GLN:HG3	1:N:42:LYS:NZ	95.71	0.54
1:J:438:GLU:HG3	1:N:13:ASN:OD1	83.18	0.54
1:E:432:ASN:ND2	1:U:126:ILE:HG12	100.05	0.54
1:F:126:ILE:HG12	1:V:432:ASN:ND2	100.05	0.54
1:A:42:LYS:HZ1	1:V:423:GLN:CG	2.20	0.54
1:F:438:GLU:HG3	1:J:13:ASN:OD1	83.17	0.54
1:J:423:GLN:CG	1:M:42:LYS:HZ1	2.19	0.54
1:J:423:GLN:HG3	1:M:42:LYS:NZ	2.21	0.54
1:A:13:ASN:OD1	1:V:438:GLU:HG3	2.07	0.54
1:K:13:ASN:OD1	1:L:438:GLU:HG3	2.07	0.54
1:K:42:LYS:NZ	1:L:423:GLN:HG3	2.21	0.54
1:E:13:ASN:OD1	1:R:438:GLU:HG3	2.07	0.54
1:E:42:LYS:HZ1	1:R:423:GLN:HG3	1.72	0.54
1:L:38:ILE:HG21	1:L:448:LYS:CD	2.31	0.54
1:I:13:ASN:OD1	1:M:438:GLU:HG3	83.18	0.54
1:N:438:GLU:HG3	1:R:13:ASN:OD1	83.17	0.54
1:V:121:ALA:O	1:V:124:THR:OG1	2.23	0.54
1:F:423:GLN:CG	1:Q:42:LYS:HZ1	2.20	0.54
1:K:13:ASN:OD1	1:O:438:GLU:HG3	83.17	0.54
1:L:438:GLU:HG3	1:P:13:ASN:OD1	83.18	0.54
1:M:13:ASN:OD1	1:Q:438:GLU:HG3	83.18	0.54
1:M:126:ILE:HG12	1:W:432:ASN:ND2	2.21	0.54
1:A:13:ASN:OD1	1:E:438:GLU:HG3	83.18	0.54
1:B:438:GLU:HG3	1:F:13:ASN:OD1	83.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:42:LYS:NZ	1:K:423:GLN:HG3	95.71	0.54
1:A:432:ASN:ND2	1:J:126:ILE:HG12	2.21	0.54
1:A:464:VAL:HG13	1:M:484:LEU:HD12	1.90	0.54
1:H:464:VAL:HG13	1:V:484:LEU:HD12	70.68	0.54
1:A:484:LEU:HD12	1:L:464:VAL:HG13	1.90	0.54
1:D:148:GLN:NE2	1:D:150:GLY:O	2.41	0.54
1:A:42:LYS:HZ1	1:E:423:GLN:HG3	96.06	0.54
1:J:484:LEU:HD12	1:V:464:VAL:HG13	1.90	0.54
1:F:438:GLU:HG3	1:Q:13:ASN:OD1	2.07	0.54
1:I:484:LEU:HD12	1:W:464:VAL:HG13	70.68	0.54
1:I:13:ASN:OD1	1:N:438:GLU:HG3	2.07	0.54
1:H:438:GLU:HG3	1:O:13:ASN:OD1	2.07	0.54
1:O:38:ILE:HG21	1:O:448:LYS:CD	2.31	0.54
1:E:148:GLN:NE2	1:E:150:GLY:O	2.41	0.54
1:B:126:ILE:HG12	1:I:432:ASN:ND2	2.21	0.54
1:N:148:GLN:NE2	1:N:150:GLY:O	2.41	0.54
1:M:464:VAL:HG13	1:Y:484:LEU:HD12	1.90	0.54
1:K:148:GLN:NE2	1:K:150:GLY:O	2.41	0.53
1:K:464:VAL:HG13	1:W:484:LEU:HD12	1.90	0.53
1:M:148:GLN:NE2	1:M:150:GLY:O	2.41	0.53
1:O:42:LYS:HZ1	1:S:423:GLN:CG	95.25	0.53
1:Y:148:GLN:NE2	1:Y:150:GLY:O	2.41	0.53
1:B:148:GLN:NE2	1:B:150:GLY:O	2.41	0.53
1:G:13:ASN:OD1	1:K:438:GLU:HG3	83.18	0.53
1:C:484:LEU:HD12	1:J:464:VAL:HG13	1.90	0.53
1:R:148:GLN:NE2	1:R:150:GLY:O	2.41	0.53
1:C:13:ASN:OD1	1:T:438:GLU:HG3	2.07	0.53
1:G:484:LEU:HD12	1:U:464:VAL:HG13	70.68	0.53
1:A:148:GLN:NE2	1:A:150:GLY:O	2.41	0.53
1:M:121:ALA:O	1:M:124:THR:OG1	2.23	0.53
1:Q:148:GLN:NE2	1:Q:150:GLY:O	2.41	0.53
1:L:484:LEU:HD12	1:X:464:VAL:HG13	1.90	0.53
1:C:148:GLN:NE2	1:C:150:GLY:O	2.41	0.53
1:D:438:GLU:HG3	1:H:13:ASN:OD1	83.18	0.53
1:H:148:GLN:NE2	1:H:150:GLY:O	2.41	0.53
1:I:148:GLN:NE2	1:I:150:GLY:O	2.41	0.53
1:J:148:GLN:NE2	1:J:150:GLY:O	2.41	0.53
1:U:38:ILE:HG21	1:U:448:LYS:CD	2.31	0.53
1:C:438:GLU:HG3	1:Y:13:ASN:OD1	2.07	0.53
1:K:484:LEU:HD12	1:Y:464:VAL:HG13	70.68	0.53
1:C:423:GLN:CG	1:Y:42:LYS:HZ1	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:148:GLN:NE2	1:F:150:GLY:O	2.41	0.53
1:F:464:VAL:HG13	1:T:484:LEU:HD12	70.68	0.53
1:B:464:VAL:HG13	1:K:484:LEU:HD12	1.90	0.53
1:L:148:GLN:NE2	1:L:150:GLY:O	2.41	0.53
1:O:148:GLN:NE2	1:O:150:GLY:O	2.41	0.53
1:C:464:VAL:HG13	1:O:484:LEU:HD12	1.90	0.53
1:P:148:GLN:NE2	1:P:150:GLY:O	2.41	0.53
1:C:42:LYS:HZ1	1:T:423:GLN:CG	2.21	0.53
1:I:464:VAL:HG13	1:U:484:LEU:HD12	1.90	0.53
1:J:38:ILE:HG21	1:J:448:LYS:CD	2.31	0.53
1:J:464:VAL:HG13	1:X:484:LEU:HD12	70.68	0.53
1:X:148:GLN:NE2	1:X:150:GLY:O	2.41	0.53
1:B:423:GLN:CG	1:U:42:LYS:NZ	2.72	0.53
1:B:42:LYS:NZ	1:X:423:GLN:CG	2.72	0.53
1:F:423:GLN:CG	1:Q:42:LYS:NZ	2.72	0.53
1:H:121:ALA:O	1:H:124:THR:OG1	2.23	0.53
1:L:423:GLN:CG	1:P:42:LYS:NZ	94.90	0.53
1:M:42:LYS:NZ	1:Q:423:GLN:CG	94.90	0.53
1:U:148:GLN:NE2	1:U:150:GLY:O	2.41	0.53
1:B:484:LEU:HD12	1:N:464:VAL:HG13	1.90	0.53
1:B:423:GLN:CG	1:F:42:LYS:NZ	94.90	0.53
1:M:38:ILE:HG21	1:M:448:LYS:CD	2.32	0.53
1:P:38:ILE:HG21	1:P:448:LYS:CD	2.31	0.53
1:W:148:GLN:NE2	1:W:150:GLY:O	2.41	0.53
1:D:423:GLN:CG	1:H:42:LYS:NZ	94.90	0.53
1:G:148:GLN:NE2	1:G:150:GLY:O	2.41	0.53
1:G:42:LYS:NZ	1:P:423:GLN:CG	2.72	0.53
1:O:126:ILE:HD13	1:Y:432:ASN:ND2	2.24	0.53
1:D:423:GLN:CG	1:H:42:LYS:HZ1	95.25	0.52
1:H:423:GLN:CG	1:L:42:LYS:NZ	94.90	0.52
1:C:484:LEU:HD12	1:Q:464:VAL:HG13	70.68	0.52
1:H:432:ASN:ND2	1:R:126:ILE:HD13	2.24	0.52
1:G:464:VAL:HG13	1:S:484:LEU:HD12	1.90	0.52
1:T:148:GLN:NE2	1:T:150:GLY:O	2.41	0.52
1:H:484:LEU:HD12	1:T:464:VAL:HG13	1.90	0.52
1:F:126:ILE:HD13	1:V:432:ASN:ND2	101.23	0.52
1:A:423:GLN:CG	1:W:42:LYS:NZ	2.72	0.52
1:C:42:LYS:NZ	1:G:423:GLN:CG	94.90	0.52
1:E:42:LYS:NZ	1:I:423:GLN:CG	94.90	0.52
1:E:484:LEU:HD12	1:S:464:VAL:HG13	70.68	0.52
1:H:423:GLN:CG	1:O:42:LYS:NZ	2.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:148:GLN:NE2	1:S:150:GLY:O	2.41	0.52
1:Z:148:GLN:NE2	1:Z:150:GLY:O	2.41	0.52
1:I:430:ILE:O	1:I:434:THR:OG1	2.10	0.52
1:K:42:LYS:NZ	1:L:423:GLN:CG	2.72	0.52
1:V:148:GLN:NE2	1:V:150:GLY:O	2.41	0.52
1:A:484:LEU:HD12	1:O:464:VAL:HG13	70.68	0.52
1:C:432:ASN:ND2	1:H:126:ILE:HD13	2.24	0.52
1:I:42:LYS:NZ	1:N:423:GLN:CG	2.72	0.52
1:F:423:GLN:CG	1:J:42:LYS:NZ	94.90	0.52
1:O:430:ILE:O	1:O:434:THR:OG1	2.10	0.52
1:E:126:ILE:HD13	1:O:432:ASN:ND2	2.25	0.52
1:A:432:ASN:ND2	1:J:126:ILE:HD13	2.25	0.52
1:D:42:LYS:NZ	1:Z:423:GLN:CG	2.72	0.52
1:K:42:LYS:NZ	1:O:423:GLN:CG	94.90	0.52
1:J:423:GLN:CG	1:M:42:LYS:NZ	2.72	0.52
1:L:432:ASN:ND2	1:V:126:ILE:HD13	2.24	0.52
1:A:42:LYS:NZ	1:V:423:GLN:CG	2.72	0.52
1:J:126:ILE:HD13	1:Z:432:ASN:ND2	101.23	0.52
1:C:423:GLN:CG	1:Y:42:LYS:NZ	2.72	0.52
1:D:464:VAL:HG13	1:R:484:LEU:HD12	70.68	0.52
1:D:484:LEU:HD12	1:P:464:VAL:HG13	1.90	0.52
1:I:432:ASN:ND2	1:Y:126:ILE:HD13	101.23	0.52
1:D:464:VAL:HG13	1:I:484:LEU:HD12	1.90	0.52
1:G:42:LYS:HZ1	1:K:423:GLN:CG	95.25	0.52
1:A:126:ILE:HD13	1:K:432:ASN:ND2	2.24	0.52
1:D:432:ASN:ND2	1:N:126:ILE:HD13	2.25	0.52
1:B:126:ILE:HD13	1:R:432:ASN:ND2	101.23	0.52
1:C:42:LYS:NZ	1:T:423:GLN:CG	2.72	0.52
1:D:126:ILE:HD13	1:T:432:ASN:ND2	101.23	0.52
1:F:464:VAL:HG13	1:G:484:LEU:HD12	1.90	0.52
1:I:42:LYS:NZ	1:M:423:GLN:CG	94.90	0.52
1:J:121:ALA:O	1:J:124:THR:OG1	2.23	0.52
1:G:42:LYS:NZ	1:K:423:GLN:CG	94.90	0.52
1:A:423:GLN:CG	1:W:42:LYS:HZ1	2.23	0.52
1:B:464:VAL:HG13	1:P:484:LEU:HD12	70.68	0.52
1:F:484:LEU:HD12	1:R:464:VAL:HG13	1.90	0.52
1:E:484:LEU:HD12	1:H:464:VAL:HG13	1.90	0.52
1:N:423:GLN:CG	1:R:42:LYS:NZ	94.90	0.52
1:J:423:GLN:CG	1:N:42:LYS:NZ	94.90	0.52
1:N:432:ASN:ND2	1:X:126:ILE:HD13	2.25	0.52
1:O:42:LYS:NZ	1:S:423:GLN:CG	94.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:423:GLN:CG	1:S:42:LYS:NZ	2.72	0.52
1:E:38:ILE:HG21	1:E:448:LYS:CD	2.31	0.52
1:E:432:ASN:ND2	1:F:126:ILE:HD13	2.25	0.52
1:N:484:LEU:HD12	1:Z:464:VAL:HG13	1.90	0.52
1:O:38:ILE:CD1	1:O:48:LEU:CB	2.85	0.52
1:H:126:ILE:HD13	1:X:432:ASN:ND2	101.23	0.52
1:E:464:VAL:HG13	1:Q:484:LEU:HD12	1.90	0.51
1:G:432:ASN:ND2	1:W:126:ILE:HD13	101.23	0.51
1:J:432:ASN:ND2	1:T:126:ILE:HD13	2.24	0.51
1:L:464:VAL:HG13	1:Z:484:LEU:HD12	70.68	0.51
1:K:38:ILE:CD1	1:K:48:LEU:CB	2.85	0.51
1:B:432:ASN:ND2	1:L:126:ILE:HD13	2.24	0.51
1:X:430:ILE:O	1:X:434:THR:OG1	2.10	0.51
1:M:126:ILE:HD13	1:W:432:ASN:ND2	2.25	0.51
1:L:419:LEU:C	1:P:42:LYS:HD2	99.21	0.51
1:K:126:ILE:HD13	1:U:432:ASN:ND2	2.24	0.51
1:A:42:LYS:HD2	1:V:419:LEU:C	2.31	0.51
1:C:126:ILE:HD13	1:M:432:ASN:ND2	2.24	0.51
1:D:121:ALA:O	1:D:124:THR:OG1	2.23	0.51
1:E:42:LYS:NZ	1:R:423:GLN:CG	2.72	0.51
1:B:126:ILE:HD13	1:I:432:ASN:ND2	2.24	0.51
1:J:419:LEU:C	1:M:42:LYS:HD2	2.31	0.51
1:F:419:LEU:C	1:J:42:LYS:HD2	99.21	0.51
1:L:38:ILE:CD1	1:L:48:LEU:CB	2.85	0.51
1:N:419:LEU:C	1:R:42:LYS:HD2	99.21	0.51
1:K:42:LYS:HZ1	1:O:423:GLN:HG3	96.05	0.51
1:H:419:LEU:C	1:O:42:LYS:HD2	2.31	0.51
1:U:38:ILE:CD1	1:U:48:LEU:CB	2.86	0.51
1:X:38:ILE:CD1	1:X:48:LEU:CB	2.86	0.51
1:P:432:ASN:ND2	1:Z:126:ILE:HD13	2.25	0.51
1:Z:38:ILE:HG21	1:Z:448:LYS:CD	2.31	0.51
1:A:419:LEU:C	1:W:42:LYS:HD2	2.31	0.51
1:A:42:LYS:NZ	1:E:423:GLN:CG	94.90	0.51
1:B:423:GLN:H	1:U:42:LYS:HZ1	1.59	0.51
1:G:38:ILE:CD1	1:G:48:LEU:CB	2.85	0.51
1:C:42:LYS:HZ1	1:G:423:GLN:HG3	96.05	0.51
1:G:42:LYS:HD2	1:K:419:LEU:C	99.21	0.51
1:N:38:ILE:CD1	1:N:48:LEU:CB	2.86	0.51
1:N:38:ILE:HG21	1:N:448:LYS:CD	2.31	0.51
1:I:42:LYS:HD2	1:N:419:LEU:C	2.31	0.51
1:N:423:GLN:HG3	1:R:42:LYS:HZ1	96.06	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:42:LYS:HD2	1:Q:419:LEU:C	99.21	0.51
1:C:432:ASN:ND2	1:S:126:ILE:HD13	101.23	0.51
1:D:126:ILE:HD13	1:G:432:ASN:ND2	2.25	0.51
1:E:42:LYS:HD2	1:I:419:LEU:C	99.21	0.51
1:K:42:LYS:HD2	1:O:419:LEU:C	99.21	0.51
1:G:42:LYS:HD2	1:P:419:LEU:C	2.31	0.51
1:F:419:LEU:C	1:Q:42:LYS:HD2	2.31	0.51
1:R:38:ILE:CD1	1:R:48:LEU:CB	2.86	0.51
1:O:42:LYS:HD2	1:S:419:LEU:C	99.21	0.51
1:W:121:ALA:O	1:W:124:THR:OG1	2.23	0.51
1:I:38:ILE:CD1	1:I:48:LEU:CB	2.86	0.51
1:K:42:LYS:HZ1	1:L:423:GLN:CG	2.23	0.51
1:B:42:LYS:HD2	1:X:419:LEU:C	2.31	0.51
1:D:419:LEU:C	1:H:42:LYS:HD2	99.21	0.51
1:E:432:ASN:ND2	1:U:126:ILE:HD13	101.23	0.51
1:J:38:ILE:CD1	1:J:48:LEU:CB	2.85	0.51
1:J:419:LEU:C	1:N:42:LYS:HD2	99.21	0.51
1:A:432:ASN:ND2	1:Q:126:ILE:HD13	101.23	0.51
1:I:126:ILE:HD13	1:S:432:ASN:ND2	2.25	0.51
1:E:42:LYS:HD2	1:R:419:LEU:C	2.31	0.51
1:B:419:LEU:C	1:F:42:LYS:HD2	99.21	0.51
1:G:38:ILE:HG21	1:G:448:LYS:CD	2.31	0.51
1:K:42:LYS:HD2	1:L:419:LEU:C	2.31	0.51
1:B:423:GLN:CG	1:F:42:LYS:HZ1	95.24	0.51
1:C:42:LYS:HD2	1:G:419:LEU:C	99.21	0.51
1:H:38:ILE:CD1	1:H:48:LEU:CB	2.85	0.51
1:I:42:LYS:HD2	1:M:419:LEU:C	99.21	0.51
1:O:128:ASP:O	1:O:129:THR:OG1	2.29	0.51
1:C:419:LEU:C	1:Y:42:LYS:HD2	2.31	0.51
1:D:419:LEU:C	1:S:42:LYS:HD2	2.31	0.50
1:G:126:ILE:HD13	1:Q:432:ASN:ND2	2.24	0.50
1:B:38:ILE:CD1	1:B:48:LEU:CB	2.86	0.50
1:F:432:ASN:ND2	1:P:126:ILE:HD13	2.25	0.50
1:K:121:ALA:O	1:K:124:THR:OG1	2.23	0.50
1:L:128:ASP:O	1:L:129:THR:OG1	2.29	0.50
1:L:169:ILE:CG2	1:L:408:ALA:HB1	2.42	0.50
1:H:419:LEU:C	1:L:42:LYS:HD2	99.21	0.50
1:T:169:ILE:CG2	1:T:408:ALA:HB1	2.42	0.50
1:C:42:LYS:HD2	1:T:419:LEU:C	2.31	0.50
1:C:128:ASP:O	1:C:129:THR:OG1	2.29	0.50
1:E:38:ILE:CD1	1:E:48:LEU:CB	2.85	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:121:ALA:O	1:F:124:THR:OG1	2.23	0.50
1:F:169:ILE:CG2	1:F:408:ALA:HB1	2.42	0.50
1:H:128:ASP:O	1:H:129:THR:OG1	2.29	0.50
1:J:169:ILE:CG2	1:J:408:ALA:HB1	2.42	0.50
1:N:128:ASP:O	1:N:129:THR:OG1	2.29	0.50
1:V:169:ILE:CG2	1:V:408:ALA:HB1	2.42	0.50
1:V:38:ILE:CD1	1:V:48:LEU:CB	2.85	0.50
1:A:169:ILE:CG2	1:A:408:ALA:HB1	2.42	0.50
1:B:419:LEU:C	1:U:42:LYS:HD2	2.31	0.50
1:C:169:ILE:CG2	1:C:408:ALA:HB1	2.42	0.50
1:E:169:ILE:CG2	1:E:408:ALA:HB1	2.42	0.50
1:G:169:ILE:CG2	1:G:408:ALA:HB1	2.42	0.50
1:I:169:ILE:CG2	1:I:408:ALA:HB1	2.42	0.50
1:N:169:ILE:CG2	1:N:408:ALA:HB1	2.42	0.50
1:R:169:ILE:CG2	1:R:408:ALA:HB1	2.42	0.50
1:S:169:ILE:CG2	1:S:408:ALA:HB1	2.42	0.50
1:U:169:ILE:CG2	1:U:408:ALA:HB1	2.42	0.50
1:X:169:ILE:CG2	1:X:408:ALA:HB1	2.42	0.50
1:C:139:ASP:OD1	1:C:139:ASP:N	2.45	0.50
1:E:128:ASP:O	1:E:129:THR:OG1	2.29	0.50
1:K:169:ILE:CG2	1:K:408:ALA:HB1	2.42	0.50
1:J:423:GLN:CG	1:N:42:LYS:HZ1	95.24	0.50
1:O:139:ASP:N	1:O:139:ASP:OD1	2.45	0.50
1:A:42:LYS:HD2	1:E:419:LEU:C	99.21	0.50
1:B:169:ILE:CG2	1:B:408:ALA:HB1	2.42	0.50
1:D:169:ILE:CG2	1:D:408:ALA:HB1	2.42	0.50
1:H:93:ARG:NH1	1:L:56:ASN:HB3	101.36	0.50
1:J:108:ASP:CB	1:W:49:GLN:HG2	2.42	0.50
1:S:128:ASP:O	1:S:129:THR:OG1	2.29	0.50
1:B:93:ARG:NH1	1:U:56:ASN:HB3	2.27	0.50
1:E:56:ASN:HB3	1:I:93:ARG:NH1	101.36	0.50
1:G:121:ALA:O	1:G:124:THR:OG1	2.23	0.50
1:I:128:ASP:O	1:I:129:THR:OG1	2.29	0.50
1:K:56:ASN:HB3	1:L:93:ARG:NH1	2.27	0.50
1:M:169:ILE:CG2	1:M:408:ALA:HB1	2.42	0.50
1:J:93:ARG:NH1	1:M:56:ASN:HB3	2.27	0.50
1:Q:139:ASP:N	1:Q:139:ASP:OD1	2.45	0.50
1:Q:169:ILE:CG2	1:Q:408:ALA:HB1	2.42	0.50
1:O:49:GLN:HG2	1:R:108:ASP:CB	2.42	0.50
1:Y:169:ILE:CG2	1:Y:408:ALA:HB1	2.42	0.50
1:D:42:LYS:HD2	1:Z:419:LEU:C	2.31	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:ILE:CD1	1:A:48:LEU:CB	2.86	0.50
1:A:49:GLN:HG2	1:F:108:ASP:CB	106.22	0.50
1:A:93:ARG:NH1	1:W:56:ASN:HB3	2.27	0.50
1:B:423:GLN:H	1:F:42:LYS:HZ1	98.08	0.50
1:B:56:ASN:HB3	1:X:93:ARG:NH1	2.27	0.50
1:E:108:ASP:CB	1:K:49:GLN:HG2	106.22	0.50
1:F:93:ARG:NH1	1:J:56:ASN:HB3	101.36	0.50
1:I:56:ASN:HB3	1:M:93:ARG:NH1	101.36	0.50
1:I:56:ASN:HB3	1:N:93:ARG:NH1	2.27	0.50
1:O:169:ILE:CG2	1:O:408:ALA:HB1	2.42	0.50
1:S:38:ILE:CD1	1:S:48:LEU:CB	2.85	0.50
1:C:56:ASN:HB3	1:T:93:ARG:NH1	2.27	0.50
1:W:169:ILE:CG2	1:W:408:ALA:HB1	2.42	0.50
1:C:93:ARG:NH1	1:Y:56:ASN:HB3	2.27	0.50
1:D:128:ASP:O	1:D:129:THR:OG1	2.29	0.50
1:H:169:ILE:CG2	1:H:408:ALA:HB1	2.42	0.50
1:I:108:ASP:CB	1:O:49:GLN:HG2	106.22	0.50
1:J:423:GLN:H	1:N:42:LYS:HZ1	98.08	0.50
1:R:38:ILE:HG21	1:R:448:LYS:CD	2.31	0.50
1:N:108:ASP:CB	1:S:49:GLN:HG2	2.42	0.50
1:T:38:ILE:CD1	1:T:48:LEU:CB	2.86	0.50
1:W:38:ILE:CD1	1:W:48:LEU:CB	2.86	0.50
1:A:108:ASP:CB	1:G:49:GLN:HG2	106.22	0.49
1:A:121:ALA:O	1:A:124:THR:OG1	2.23	0.49
1:E:139:ASP:OD1	1:E:139:ASP:N	2.45	0.49
1:G:128:ASP:O	1:G:129:THR:OG1	2.29	0.49
1:P:169:ILE:CG2	1:P:408:ALA:HB1	2.42	0.49
1:B:423:GLN:CG	1:U:42:LYS:HZ1	2.25	0.49
1:A:128:ASP:O	1:A:129:THR:OG1	2.29	0.49
1:B:108:ASP:CB	1:E:49:GLN:HG2	106.22	0.49
1:B:49:GLN:HG2	1:H:108:ASP:CB	106.22	0.49
1:H:423:GLN:H	1:L:42:LYS:HZ1	98.08	0.49
1:H:49:GLN:HG2	1:N:108:ASP:CB	106.22	0.49
1:H:108:ASP:CB	1:Y:49:GLN:HG2	2.42	0.49
1:E:121:ALA:O	1:E:124:THR:OG1	2.23	0.49
1:F:49:GLN:HG2	1:L:108:ASP:CB	106.22	0.49
1:G:108:ASP:CB	1:M:49:GLN:HG2	106.22	0.49
1:K:139:ASP:OD1	1:K:139:ASP:N	2.45	0.49
1:G:56:ASN:HB3	1:K:93:ARG:NH1	101.36	0.49
1:P:108:ASP:CB	1:Q:49:GLN:HG2	2.42	0.49
1:M:49:GLN:HG2	1:T:108:ASP:CB	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:169:ILE:CG2	1:Z:408:ALA:HB1	2.42	0.49
1:C:108:ASP:CB	1:I:49:GLN:HG2	106.22	0.49
1:D:38:ILE:CD1	1:D:48:LEU:CB	2.85	0.49
1:D:56:ASN:HB3	1:Z:93:ARG:NH1	2.27	0.49
1:D:49:GLN:HG2	1:J:108:ASP:CB	106.22	0.49
1:K:56:ASN:HB3	1:O:93:ARG:NH1	101.36	0.49
1:T:121:ALA:O	1:T:124:THR:OG1	2.23	0.49
1:U:128:ASP:O	1:U:129:THR:OG1	2.29	0.49
1:I:49:GLN:HG2	1:X:108:ASP:CB	2.42	0.49
1:H:139:ASP:N	1:H:139:ASP:OD1	2.45	0.49
1:G:42:LYS:HZ1	1:P:423:GLN:HG3	1.76	0.49
1:D:423:GLN:HG3	1:S:42:LYS:HZ1	1.76	0.49
1:Z:38:ILE:CD1	1:Z:48:LEU:CB	2.86	0.49
1:A:56:ASN:HB3	1:V:93:ARG:NH1	2.27	0.49
1:F:128:ASP:O	1:F:129:THR:OG1	2.29	0.49
1:M:38:ILE:CD1	1:M:48:LEU:CB	2.85	0.49
1:C:121:ALA:O	1:C:124:THR:OG1	2.23	0.49
1:J:128:ASP:O	1:J:129:THR:OG1	2.29	0.49
1:J:93:ARG:NH1	1:N:56:ASN:HB3	101.36	0.49
1:D:93:ARG:NH1	1:S:56:ASN:HB3	2.27	0.49
1:C:49:GLN:HG2	1:D:108:ASP:CB	106.22	0.49
1:C:56:ASN:HB3	1:G:93:ARG:NH1	101.36	0.49
1:E:56:ASN:HB3	1:R:93:ARG:NH1	2.27	0.49
1:H:423:GLN:CB	1:L:42:LYS:NZ	95.23	0.49
1:J:139:ASP:N	1:J:139:ASP:OD1	2.45	0.49
1:M:139:ASP:N	1:M:139:ASP:OD1	2.45	0.49
1:H:93:ARG:NH1	1:O:56:ASN:HB3	2.27	0.49
1:G:56:ASN:HB3	1:P:93:ARG:NH1	2.27	0.49
1:N:93:ARG:NH1	1:R:56:ASN:HB3	101.36	0.49
1:L:108:ASP:CB	1:U:49:GLN:HG2	2.42	0.49
1:A:139:ASP:OD1	1:A:139:ASP:N	2.45	0.49
1:B:423:GLN:CB	1:U:42:LYS:NZ	2.75	0.49
1:G:49:GLN:HG2	1:Z:108:ASP:CB	2.42	0.49
1:K:49:GLN:HG2	1:V:108:ASP:CB	2.42	0.49
1:L:121:ALA:O	1:L:124:THR:OG1	2.23	0.49
1:L:423:GLN:HG3	1:P:42:LYS:HZ1	96.06	0.49
1:T:139:ASP:N	1:T:139:ASP:OD1	2.45	0.49
1:F:93:ARG:NH1	1:Q:56:ASN:HB3	2.27	0.48
1:H:423:GLN:CG	1:L:42:LYS:HZ1	95.24	0.48
1:K:128:ASP:O	1:K:129:THR:OG1	2.29	0.48
1:P:128:ASP:O	1:P:129:THR:OG1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:56:ASN:HB3	1:E:93:ARG:NH1	101.36	0.48
1:H:423:GLN:HG3	1:O:42:LYS:HZ1	1.78	0.48
1:Q:420:ALA:O	1:Q:424:ASN:ND2	2.47	0.48
1:T:128:ASP:O	1:T:129:THR:OG1	2.29	0.48
1:E:420:ALA:O	1:E:424:ASN:ND2	2.47	0.48
1:M:56:ASN:HB3	1:Q:93:ARG:NH1	101.36	0.48
1:P:38:ILE:CD1	1:P:48:LEU:CB	2.85	0.48
1:R:420:ALA:O	1:R:424:ASN:ND2	2.47	0.48
1:B:93:ARG:NH1	1:F:56:ASN:HB3	101.36	0.48
1:D:420:ALA:O	1:D:424:ASN:ND2	2.47	0.48
1:D:93:ARG:NH1	1:H:56:ASN:HB3	101.36	0.48
1:M:420:ALA:O	1:M:424:ASN:ND2	2.47	0.48
1:O:56:ASN:HB3	1:S:93:ARG:NH1	101.36	0.48
1:B:420:ALA:O	1:B:424:ASN:ND2	2.47	0.48
1:F:420:ALA:O	1:F:424:ASN:ND2	2.47	0.48
1:N:420:ALA:O	1:N:424:ASN:ND2	2.47	0.48
1:X:139:ASP:OD1	1:X:139:ASP:N	2.45	0.48
1:C:420:ALA:O	1:C:424:ASN:ND2	2.47	0.48
1:G:488:ARG:HH12	1:U:467:GLN:HB3	68.25	0.48
1:K:420:ALA:O	1:K:424:ASN:ND2	2.47	0.48
1:L:420:ALA:O	1:L:424:ASN:ND2	2.47	0.48
1:L:93:ARG:NH1	1:P:56:ASN:HB3	101.36	0.48
1:R:121:ALA:O	1:R:124:THR:OG1	2.23	0.48
1:S:139:ASP:OD1	1:S:139:ASP:N	2.45	0.48
1:B:128:ASP:O	1:B:129:THR:OG1	2.29	0.48
1:B:38:ILE:CD1	1:B:48:LEU:N	2.77	0.48
1:D:38:ILE:CD1	1:D:48:LEU:N	2.77	0.48
1:E:42:LYS:HZ1	1:I:423:GLN:HG3	96.07	0.48
1:G:38:ILE:CD1	1:G:48:LEU:N	2.77	0.48
1:G:56:ASN:CB	1:P:93:ARG:NH1	2.77	0.48
1:I:38:ILE:CD1	1:I:48:LEU:N	2.77	0.48
1:M:38:ILE:CD1	1:M:48:LEU:N	2.77	0.48
1:B:488:ARG:HH12	1:N:467:GLN:HB3	1.79	0.48
1:N:38:ILE:CD1	1:N:48:LEU:N	2.77	0.48
1:P:38:ILE:CD1	1:P:48:LEU:N	2.77	0.48
1:T:38:ILE:CD1	1:T:48:LEU:N	2.77	0.48
1:Y:420:ALA:O	1:Y:424:ASN:ND2	2.47	0.48
1:B:467:GLN:HB3	1:K:488:ARG:HH12	1.79	0.48
1:C:56:ASN:CB	1:T:93:ARG:NH1	2.77	0.48
1:D:93:ARG:NH1	1:H:56:ASN:CB	101.21	0.48
1:B:93:ARG:NH1	1:F:56:ASN:CB	101.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:56:ASN:CB	1:G:93:ARG:NH1	101.21	0.48
1:I:467:GLN:HB3	1:U:488:ARG:HH12	1.79	0.48
1:J:38:ILE:CD1	1:J:48:LEU:N	2.77	0.48
1:K:38:ILE:HG21	1:K:448:LYS:CD	2.32	0.48
1:K:56:ASN:CB	1:O:93:ARG:NH1	101.21	0.48
1:O:56:ASN:CB	1:S:93:ARG:NH1	101.21	0.48
1:P:420:ALA:O	1:P:424:ASN:ND2	2.47	0.48
1:F:93:ARG:NH1	1:Q:56:ASN:CB	2.77	0.48
1:S:38:ILE:CD1	1:S:48:LEU:N	2.77	0.48
1:J:467:GLN:HB3	1:X:488:ARG:HH12	68.25	0.48
1:X:38:ILE:CD1	1:X:48:LEU:N	2.77	0.48
1:C:93:ARG:NH1	1:Y:56:ASN:CB	2.77	0.48
1:Z:420:ALA:O	1:Z:424:ASN:ND2	2.47	0.48
1:Z:38:ILE:CD1	1:Z:48:LEU:N	2.77	0.48
1:A:420:ALA:O	1:A:424:ASN:ND2	2.47	0.48
1:A:38:ILE:CD1	1:A:48:LEU:N	2.77	0.48
1:C:38:ILE:CD1	1:C:48:LEU:N	2.77	0.48
1:H:420:ALA:O	1:H:424:ASN:ND2	2.47	0.48
1:K:38:ILE:CD1	1:K:48:LEU:N	2.77	0.48
1:L:38:ILE:CD1	1:L:48:LEU:N	2.77	0.48
1:B:467:GLN:HB3	1:P:488:ARG:HH12	68.25	0.48
1:U:38:ILE:CD1	1:U:48:LEU:N	2.77	0.48
1:V:128:ASP:O	1:V:129:THR:OG1	2.29	0.48
1:X:420:ALA:O	1:X:424:ASN:ND2	2.47	0.48
1:L:488:ARG:HH12	1:X:467:GLN:HB3	1.79	0.48
1:Z:139:ASP:OD1	1:Z:139:ASP:N	2.45	0.48
1:L:467:GLN:HB3	1:Z:488:ARG:HH12	68.25	0.48
1:A:56:ASN:CB	1:E:93:ARG:NH1	101.21	0.48
1:C:423:GLN:H	1:Y:42:LYS:HZ1	1.62	0.48
1:C:42:LYS:HZ1	1:T:423:GLN:H	1.62	0.48
1:D:488:ARG:HH12	1:P:467:GLN:HB3	1.79	0.48
1:F:38:ILE:CD1	1:F:48:LEU:CB	2.86	0.48
1:F:38:ILE:CD1	1:F:48:LEU:N	2.77	0.48
1:F:93:ARG:NH1	1:J:56:ASN:CB	101.21	0.48
1:G:139:ASP:OD1	1:G:139:ASP:N	2.45	0.48
1:I:121:ALA:O	1:I:124:THR:OG1	2.23	0.48
1:N:139:ASP:OD1	1:N:139:ASP:N	2.45	0.48
1:N:93:ARG:NH1	1:R:56:ASN:CB	101.21	0.48
1:L:93:ARG:NH1	1:P:56:ASN:CB	101.21	0.48
1:Q:38:ILE:CD1	1:Q:48:LEU:N	2.77	0.48
1:O:42:LYS:HZ1	1:S:423:GLN:H	98.09	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:93:ARG:NH1	1:S:56:ASN:CB	2.77	0.48
1:V:139:ASP:OD1	1:V:139:ASP:N	2.45	0.48
1:N:488:ARG:HH12	1:Z:467:GLN:HB3	1.79	0.48
1:E:38:ILE:CD1	1:E:48:LEU:N	2.77	0.47
1:G:420:ALA:O	1:G:424:ASN:ND2	2.47	0.47
1:H:38:ILE:CD1	1:H:48:LEU:N	2.77	0.47
1:H:93:ARG:NH1	1:O:56:ASN:CB	2.77	0.47
1:D:467:GLN:HB3	1:I:488:ARG:HH12	1.79	0.47
1:K:467:GLN:HB3	1:W:488:ARG:HH12	1.79	0.47
1:L:139:ASP:N	1:L:139:ASP:OD1	2.45	0.47
1:N:121:ALA:O	1:N:124:THR:OG1	2.23	0.47
1:D:467:GLN:HB3	1:R:488:ARG:HH12	68.25	0.47
1:T:420:ALA:O	1:T:424:ASN:ND2	2.47	0.47
1:V:420:ALA:O	1:V:424:ASN:ND2	2.47	0.47
1:W:420:ALA:O	1:W:424:ASN:ND2	2.47	0.47
1:W:38:ILE:CD1	1:W:48:LEU:N	2.77	0.47
1:C:38:ILE:CD1	1:C:48:LEU:CB	2.85	0.47
1:F:467:GLN:HB3	1:G:488:ARG:HH12	1.79	0.47
1:J:420:ALA:O	1:J:424:ASN:ND2	2.47	0.47
1:K:42:LYS:HZ1	1:L:423:GLN:H	1.61	0.47
1:V:38:ILE:CD1	1:V:48:LEU:N	2.77	0.47
1:A:423:GLN:H	1:W:42:LYS:HZ1	1.61	0.47
1:E:488:ARG:HH12	1:H:467:GLN:HB3	1.79	0.47
1:H:488:ARG:HH12	1:T:467:GLN:HB3	1.79	0.47
1:J:93:ARG:NH1	1:M:56:ASN:CB	2.77	0.47
1:J:93:ARG:NH1	1:N:56:ASN:CB	101.21	0.47
1:M:56:ASN:CB	1:Q:93:ARG:NH1	101.21	0.47
1:F:488:ARG:HH12	1:R:467:GLN:HB3	1.79	0.47
1:E:488:ARG:HH12	1:S:467:GLN:HB3	68.25	0.47
1:U:420:ALA:O	1:U:424:ASN:ND2	2.47	0.47
1:B:56:ASN:CB	1:X:93:ARG:NH1	2.77	0.47
1:G:42:LYS:HZ1	1:K:423:GLN:H	98.09	0.47
1:I:420:ALA:O	1:I:424:ASN:ND2	2.47	0.47
1:O:420:ALA:O	1:O:424:ASN:ND2	2.47	0.47
1:O:38:ILE:CD1	1:O:48:LEU:N	2.77	0.47
1:G:467:GLN:HB3	1:S:488:ARG:HH12	1.79	0.47
1:Y:38:ILE:CD1	1:Y:48:LEU:N	2.77	0.47
1:Z:121:ALA:O	1:Z:124:THR:OG1	2.23	0.47
1:C:452:PHE:CE2	1:Y:487:LEU:HD12	2.50	0.47
1:E:467:GLN:HB3	1:Q:488:ARG:HH12	1.79	0.47
1:A:488:ARG:HH12	1:L:467:GLN:HB3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:139:ASP:OD1	1:B:139:ASP:N	2.45	0.47
1:E:56:ASN:CB	1:I:93:ARG:NH1	101.21	0.47
1:G:56:ASN:CB	1:K:93:ARG:NH1	101.21	0.47
1:A:467:GLN:HB3	1:M:488:ARG:HH12	1.79	0.47
1:C:467:GLN:HB3	1:O:488:ARG:HH12	1.79	0.47
1:C:488:ARG:HH12	1:Q:467:GLN:HB3	68.25	0.47
1:Z:124:THR:HG22	1:Z:166:ALA:HB1	1.97	0.47
1:D:56:ASN:CB	1:Z:93:ARG:NH1	2.77	0.47
1:A:56:ASN:CB	1:V:93:ARG:NH1	2.77	0.47
1:B:423:GLN:CB	1:F:42:LYS:NZ	95.23	0.47
1:B:452:PHE:CE2	1:F:487:LEU:HD12	71.01	0.47
1:B:93:ARG:NH1	1:U:56:ASN:CB	2.77	0.47
1:C:124:THR:HG22	1:C:166:ALA:HB1	1.97	0.47
1:C:487:LEU:HD12	1:T:452:PHE:CE2	2.50	0.47
1:A:487:LEU:HD12	1:E:452:PHE:CE2	71.02	0.47
1:E:56:ASN:CB	1:R:93:ARG:NH1	2.77	0.47
1:G:124:THR:HG22	1:G:166:ALA:HB1	1.97	0.47
1:K:487:LEU:HD12	1:O:452:PHE:CE2	71.02	0.47
1:L:124:THR:HG22	1:L:166:ALA:HB1	1.97	0.47
1:K:56:ASN:CB	1:L:93:ARG:NH1	2.77	0.47
1:M:42:LYS:HZ1	1:Q:423:GLN:HG3	96.06	0.47
1:I:42:LYS:HZ1	1:N:423:GLN:HG3	1.77	0.47
1:O:124:THR:HG22	1:O:166:ALA:HB1	1.97	0.47
1:A:488:ARG:HH12	1:O:467:GLN:HB3	68.25	0.47
1:O:487:LEU:HD12	1:S:452:PHE:CE2	71.02	0.47
1:F:452:PHE:CE2	1:Q:487:LEU:HD12	2.50	0.47
1:E:487:LEU:HD12	1:R:452:PHE:CE2	2.50	0.47
1:F:467:GLN:HB3	1:T:488:ARG:HH12	68.25	0.47
1:A:93:ARG:NH1	1:W:56:ASN:CB	2.77	0.47
1:D:38:ILE:CG2	1:D:448:LYS:HD2	2.42	0.47
1:D:452:PHE:CE2	1:S:487:LEU:HD12	2.50	0.47
1:F:124:THR:HG22	1:F:166:ALA:HB1	1.97	0.47
1:J:452:PHE:CE2	1:N:487:LEU:HD12	71.02	0.47
1:I:56:ASN:CB	1:N:93:ARG:NH1	2.77	0.47
1:R:38:ILE:CD1	1:R:48:LEU:N	2.77	0.47
1:S:124:THR:HG22	1:S:166:ALA:HB1	1.97	0.47
1:S:38:ILE:CG2	1:S:448:LYS:HD2	2.42	0.47
1:S:420:ALA:O	1:S:424:ASN:ND2	2.47	0.47
1:A:487:LEU:HD12	1:V:452:PHE:CE2	2.50	0.47
1:D:124:THR:HG22	1:D:166:ALA:HB1	1.97	0.47
1:D:452:PHE:CE2	1:H:487:LEU:HD12	71.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:487:LEU:HD12	1:K:452:PHE:CE2	71.02	0.47
1:L:452:PHE:CE2	1:P:487:LEU:HD12	71.02	0.47
1:N:38:ILE:HG21	1:N:448:LYS:HD3	1.91	0.47
1:U:38:ILE:HG21	1:U:448:LYS:HD3	1.91	0.47
1:H:467:GLN:HB3	1:V:488:ARG:HH12	68.25	0.47
1:I:488:ARG:HH12	1:W:467:GLN:HB3	68.25	0.47
1:C:488:ARG:HH12	1:J:467:GLN:HB3	1.79	0.47
1:H:452:PHE:CE2	1:O:487:LEU:HD12	2.50	0.47
1:J:124:THR:HG22	1:J:166:ALA:HB1	1.97	0.47
1:K:488:ARG:HH12	1:Y:467:GLN:HB3	68.25	0.47
1:I:487:LEU:HD12	1:M:452:PHE:CE2	71.02	0.47
1:I:56:ASN:CB	1:M:93:ARG:NH1	101.21	0.47
1:N:124:THR:HG22	1:N:166:ALA:HB1	1.97	0.47
1:I:487:LEU:HD12	1:N:452:PHE:CE2	2.50	0.47
1:O:38:ILE:CG2	1:O:448:LYS:HD2	2.42	0.47
1:P:124:THR:HG22	1:P:166:ALA:HB1	1.97	0.47
1:Q:124:THR:HG22	1:Q:166:ALA:HB1	1.97	0.47
1:Q:38:ILE:CD1	1:Q:48:LEU:CB	2.85	0.47
1:M:487:LEU:HD12	1:Q:452:PHE:CE2	71.02	0.47
1:Z:38:ILE:CG2	1:Z:448:LYS:HD2	2.42	0.47
1:B:124:THR:HG22	1:B:166:ALA:HB1	1.97	0.47
1:D:423:GLN:CB	1:H:42:LYS:NZ	95.23	0.47
1:D:423:GLN:H	1:H:42:LYS:HZ1	98.08	0.47
1:E:124:THR:HG22	1:E:166:ALA:HB1	1.97	0.47
1:H:93:ARG:NH1	1:L:56:ASN:CB	101.21	0.47
1:I:124:THR:HG22	1:I:166:ALA:HB1	1.97	0.47
1:K:487:LEU:HD12	1:L:452:PHE:CE2	2.50	0.47
1:L:38:ILE:CG2	1:L:448:LYS:HD2	2.42	0.47
1:I:16:ARG:NH2	1:M:438:GLU:HB2	85.51	0.47
1:B:438:GLU:HB2	1:U:16:ARG:NH2	2.30	0.47
1:A:452:PHE:CE2	1:W:487:LEU:HD12	2.50	0.47
1:C:16:ARG:NH2	1:T:438:GLU:HB2	2.31	0.46
1:F:452:PHE:CE2	1:J:487:LEU:HD12	71.02	0.46
1:I:16:ARG:NH2	1:N:438:GLU:HB2	2.30	0.46
1:M:16:ARG:NH2	1:Q:438:GLU:HB2	85.51	0.46
1:E:487:LEU:HD12	1:I:452:PHE:CE2	71.02	0.46
1:F:438:GLU:HB2	1:Q:16:ARG:NH2	2.30	0.46
1:G:16:ARG:NH2	1:K:438:GLU:HB2	85.51	0.46
1:I:42:LYS:HZ1	1:M:423:GLN:HG3	96.06	0.46
1:J:438:GLU:HB2	1:N:16:ARG:NH2	85.51	0.46
1:P:38:ILE:CG2	1:P:448:LYS:HD2	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:124:THR:HG22	1:R:166:ALA:HB1	1.97	0.46
1:E:16:ARG:NH2	1:R:438:GLU:HB2	2.31	0.46
1:C:487:LEU:HD12	1:T:452:PHE:HE2	1.81	0.46
1:Y:139:ASP:OD1	1:Y:139:ASP:N	2.45	0.46
1:Y:38:ILE:CD1	1:Y:48:LEU:CB	2.86	0.46
1:C:452:PHE:HE2	1:Y:487:LEU:HD12	1.81	0.46
1:D:487:LEU:HD12	1:Z:452:PHE:CE2	2.50	0.46
1:E:38:ILE:CG2	1:E:448:LYS:HD2	2.42	0.46
1:G:487:LEU:HD12	1:P:452:PHE:CE2	2.50	0.46
1:J:438:GLU:HB2	1:M:16:ARG:NH2	2.30	0.46
1:K:16:ARG:NH2	1:O:438:GLU:HB2	85.51	0.46
1:M:128:ASP:O	1:M:129:THR:OG1	2.29	0.46
1:M:124:THR:HG22	1:M:166:ALA:HB1	1.97	0.46
1:M:467:GLN:HB3	1:Y:488:ARG:HH12	1.79	0.46
1:G:487:LEU:HD12	1:P:452:PHE:HE2	1.81	0.46
1:U:124:THR:HG22	1:U:166:ALA:HB1	1.97	0.46
1:A:42:LYS:HZ1	1:V:423:GLN:H	1.63	0.46
1:C:438:GLU:HB2	1:Y:16:ARG:NH2	2.30	0.46
1:A:16:ARG:NH2	1:E:438:GLU:HB2	85.51	0.46
1:A:16:ARG:NH2	1:V:438:GLU:HB2	2.30	0.46
1:A:38:ILE:HD13	1:A:48:LEU:HA	1.98	0.46
1:B:121:ALA:O	1:B:124:THR:OG1	2.23	0.46
1:B:452:PHE:HE2	1:F:487:LEU:HD12	70.63	0.46
1:C:487:LEU:HD12	1:G:452:PHE:HE2	70.63	0.46
1:E:38:ILE:HD13	1:E:48:LEU:HA	1.98	0.46
1:E:487:LEU:HD12	1:R:452:PHE:HE2	1.81	0.46
1:H:452:PHE:CE2	1:L:487:LEU:HD12	71.02	0.46
1:J:423:GLN:CB	1:N:42:LYS:NZ	95.23	0.46
1:K:38:ILE:HD13	1:K:48:LEU:HA	1.98	0.46
1:K:16:ARG:NH2	1:L:438:GLU:HB2	2.31	0.46
1:N:438:GLU:HB2	1:R:16:ARG:NH2	85.51	0.46
1:K:487:LEU:HD12	1:O:452:PHE:HE2	70.63	0.46
1:N:452:PHE:CE2	1:R:487:LEU:HD12	71.01	0.46
1:T:124:THR:HG22	1:T:166:ALA:HB1	1.97	0.46
1:A:124:THR:HG22	1:A:166:ALA:HB1	1.97	0.46
1:B:38:ILE:HD13	1:B:48:LEU:HA	1.98	0.46
1:D:139:ASP:N	1:D:139:ASP:OD1	2.45	0.46
1:D:438:GLU:HB2	1:H:16:ARG:NH2	85.51	0.46
1:A:487:LEU:HD12	1:E:452:PHE:HE2	70.63	0.46
1:F:38:ILE:HD13	1:F:48:LEU:HA	1.98	0.46
1:E:16:ARG:NH2	1:I:438:GLU:HB2	85.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:438:GLU:HB2	1:L:16:ARG:NH2	85.51	0.46
1:P:38:ILE:HD13	1:P:48:LEU:HA	1.98	0.46
1:Q:38:ILE:HD13	1:Q:48:LEU:HA	1.98	0.46
1:O:487:LEU:HD12	1:S:452:PHE:HE2	70.63	0.46
1:X:128:ASP:O	1:X:129:THR:OG1	2.29	0.46
1:Y:38:ILE:HD13	1:Y:48:LEU:HA	1.98	0.46
1:D:16:ARG:NH2	1:Z:438:GLU:HB2	2.31	0.46
1:F:452:PHE:HE2	1:J:487:LEU:HD12	70.63	0.46
1:G:38:ILE:HD13	1:G:48:LEU:HA	1.98	0.46
1:I:139:ASP:N	1:I:139:ASP:OD1	2.45	0.46
1:I:417:ALA:HB1	1:Y:111:ALA:HB1	106.31	0.46
1:J:38:ILE:CG2	1:J:448:LYS:HD2	2.42	0.46
1:M:38:ILE:HD13	1:M:48:LEU:HA	1.98	0.46
1:I:487:LEU:HD12	1:M:452:PHE:HE2	70.63	0.46
1:J:452:PHE:CE2	1:M:487:LEU:HD12	2.50	0.46
1:O:38:ILE:HD13	1:O:48:LEU:HA	1.98	0.46
1:F:423:GLN:H	1:Q:42:LYS:HZ1	1.63	0.46
1:V:124:THR:HG22	1:V:166:ALA:HB1	1.97	0.46
1:J:488:ARG:HH12	1:V:467:GLN:HB3	1.79	0.46
1:X:124:THR:HG22	1:X:166:ALA:HB1	1.97	0.46
1:D:487:LEU:HD12	1:Z:452:PHE:HE2	1.81	0.46
1:B:16:ARG:NH2	1:X:438:GLU:HB2	2.31	0.46
1:B:487:LEU:HD12	1:X:452:PHE:CE2	2.50	0.46
1:C:38:ILE:HD13	1:C:48:LEU:HA	1.98	0.46
1:H:38:ILE:HD13	1:H:48:LEU:HA	1.98	0.46
1:I:38:ILE:HD13	1:I:48:LEU:HA	1.98	0.46
1:N:452:PHE:HE2	1:R:487:LEU:HD12	70.63	0.46
1:P:139:ASP:OD1	1:P:139:ASP:N	2.45	0.46
1:L:452:PHE:HE2	1:P:487:LEU:HD12	70.63	0.46
1:R:38:ILE:HD13	1:R:48:LEU:HA	1.98	0.46
1:X:121:ALA:O	1:X:124:THR:OG1	2.23	0.46
1:B:487:LEU:HD12	1:X:452:PHE:HE2	1.81	0.46
1:D:111:ALA:HB1	1:T:417:ALA:HB1	106.31	0.46
1:D:38:ILE:HD13	1:D:48:LEU:HA	1.98	0.46
1:F:423:GLN:H	1:J:42:LYS:HZ1	98.09	0.46
1:F:452:PHE:HE2	1:Q:487:LEU:HD12	1.81	0.46
1:G:38:ILE:CG2	1:G:448:LYS:HD2	2.42	0.46
1:C:487:LEU:HD12	1:G:452:PHE:CE2	71.02	0.46
1:G:487:LEU:HD12	1:K:452:PHE:HE2	70.63	0.46
1:L:438:GLU:HB2	1:P:16:ARG:NH2	85.51	0.46
1:L:38:ILE:HD13	1:L:48:LEU:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:452:PHE:HE2	1:M:487:LEU:HD12	1.81	0.46
1:R:38:ILE:HG22	1:R:448:LYS:HD2	1.95	0.46
1:F:111:ALA:HB1	1:V:417:ALA:HB1	106.31	0.46
1:I:53:ARG:NH1	1:Y:133:GLY:H	104.78	0.46
1:A:38:ILE:HD11	1:A:48:LEU:CB	2.27	0.46
1:A:38:ILE:HG21	1:A:448:LYS:CD	2.31	0.46
1:C:16:ARG:NH2	1:G:438:GLU:HB2	85.51	0.46
1:C:417:ALA:HB1	1:H:111:ALA:HB1	1.98	0.46
1:D:452:PHE:HE2	1:S:487:LEU:HD12	1.81	0.46
1:E:111:ALA:HB1	1:O:417:ALA:HB1	1.98	0.46
1:H:438:GLU:HB2	1:O:16:ARG:NH2	2.31	0.46
1:J:423:GLN:H	1:M:42:LYS:HZ1	1.64	0.46
1:K:124:THR:HG22	1:K:166:ALA:HB1	1.97	0.46
1:A:73:SER:CB	1:K:443:ALA:HB2	2.45	0.46
1:D:53:ARG:NH1	1:N:133:GLY:H	2.14	0.46
1:H:452:PHE:HE2	1:O:487:LEU:HD12	1.81	0.46
1:S:38:ILE:HD13	1:S:48:LEU:HA	1.98	0.46
1:B:452:PHE:CE2	1:U:487:LEU:HD12	2.50	0.46
1:B:452:PHE:HE2	1:U:487:LEU:HD12	1.81	0.46
1:F:73:SER:CB	1:V:443:ALA:HB2	93.37	0.46
1:Z:128:ASP:O	1:Z:129:THR:OG1	2.29	0.46
1:A:111:ALA:HB1	1:K:417:ALA:HB1	1.98	0.46
1:A:417:ALA:HB1	1:J:111:ALA:HB1	1.98	0.46
1:B:438:GLU:HB2	1:F:16:ARG:NH2	85.51	0.46
1:D:111:ALA:HB1	1:G:417:ALA:HB1	1.98	0.46
1:D:438:GLU:HB2	1:S:16:ARG:NH2	2.30	0.46
1:F:438:GLU:HB2	1:J:16:ARG:NH2	85.51	0.46
1:H:124:THR:HG22	1:H:166:ALA:HB1	1.97	0.46
1:I:443:ALA:HB2	1:Y:73:SER:CB	93.37	0.46
1:I:38:ILE:HG21	1:I:448:LYS:HD3	1.91	0.46
1:J:452:PHE:HE2	1:N:487:LEU:HD12	70.63	0.46
1:L:443:ALA:HB2	1:V:73:SER:CB	2.45	0.46
1:M:133:GLY:H	1:W:53:ARG:NH1	2.14	0.46
1:N:38:ILE:HG22	1:N:448:LYS:HD2	1.95	0.46
1:N:38:ILE:HD13	1:N:48:LEU:HA	1.98	0.46
1:Z:38:ILE:HD13	1:Z:48:LEU:HA	1.98	0.46
1:D:42:LYS:HZ1	1:Z:423:GLN:H	1.64	0.46
1:A:438:GLU:HB2	1:W:16:ARG:NH2	2.31	0.45
1:B:111:ALA:HB1	1:I:417:ALA:HB1	1.98	0.45
1:E:53:ARG:NH1	1:U:133:GLY:H	104.78	0.45
1:G:16:ARG:NH2	1:P:438:GLU:HB2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:53:ARG:NH1	1:J:133:GLY:H	2.14	0.45
1:K:487:LEU:HD12	1:L:452:PHE:HE2	1.81	0.45
1:N:38:ILE:CG2	1:N:448:LYS:HD2	2.42	0.45
1:O:445:SER:O	1:O:449:ASP:N	2.41	0.45
1:P:417:ALA:HB1	1:Z:111:ALA:HB1	1.98	0.45
1:Q:128:ASP:O	1:Q:129:THR:OG1	2.29	0.45
1:U:121:ALA:O	1:U:124:THR:OG1	2.23	0.45
1:W:38:ILE:HD13	1:W:48:LEU:HA	1.98	0.45
1:J:111:ALA:HB1	1:Z:417:ALA:HB1	106.31	0.45
1:J:133:GLY:H	1:Z:53:ARG:NH1	104.78	0.45
1:B:38:ILE:CG2	1:B:448:LYS:HD2	2.42	0.45
1:C:133:GLY:H	1:M:53:ARG:NH1	2.14	0.45
1:C:38:ILE:CG2	1:C:448:LYS:HD2	2.42	0.45
1:E:417:ALA:HB1	1:U:111:ALA:HB1	106.31	0.45
1:F:423:GLN:HG3	1:Q:42:LYS:HZ1	1.81	0.45
1:G:443:ALA:HB2	1:W:73:SER:CB	93.37	0.45
1:B:133:GLY:H	1:I:53:ARG:NH1	2.14	0.45
1:J:38:ILE:HD13	1:J:48:LEU:HA	1.98	0.45
1:M:38:ILE:CG2	1:M:448:LYS:HD2	2.42	0.45
1:C:111:ALA:HB1	1:M:417:ALA:HB1	1.98	0.45
1:C:73:SER:CB	1:M:443:ALA:HB2	2.45	0.45
1:Q:38:ILE:CG2	1:Q:448:LYS:HD2	2.42	0.45
1:T:38:ILE:HD13	1:T:48:LEU:HA	1.98	0.45
1:U:139:ASP:N	1:U:139:ASP:OD1	2.45	0.45
1:L:53:ARG:NH1	1:V:133:GLY:H	2.14	0.45
1:P:53:ARG:NH1	1:Z:133:GLY:H	2.14	0.45
1:I:133:GLY:H	1:S:53:ARG:NH1	2.14	0.45
1:D:417:ALA:HB1	1:N:111:ALA:HB1	1.98	0.45
1:Q:121:ALA:O	1:Q:124:THR:OG1	2.23	0.45
1:H:53:ARG:NH1	1:R:133:GLY:H	2.14	0.45
1:C:417:ALA:HB1	1:S:111:ALA:HB1	106.31	0.45
1:U:38:ILE:CG2	1:U:448:LYS:HD2	2.42	0.45
1:F:133:GLY:H	1:V:53:ARG:NH1	104.78	0.45
1:X:38:ILE:CG2	1:X:448:LYS:HD2	2.42	0.45
1:A:53:ARG:NH1	1:Q:133:GLY:H	104.78	0.45
1:H:103:SER:HB3	1:L:146:SER:H	110.94	0.45
1:J:38:ILE:HG22	1:J:448:LYS:HD2	1.95	0.45
1:I:111:ALA:HB1	1:S:417:ALA:HB1	1.98	0.45
1:U:38:ILE:HD13	1:U:48:LEU:HA	1.98	0.45
1:W:139:ASP:N	1:W:139:ASP:OD1	2.45	0.45
1:M:111:ALA:HB1	1:W:417:ALA:HB1	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:111:ALA:HB1	1:Y:417:ALA:HB1	1.98	0.45
1:A:423:GLN:CB	1:W:42:LYS:NZ	2.75	0.45
1:A:443:ALA:HB2	1:J:73:SER:CB	2.45	0.45
1:B:417:ALA:HB1	1:L:111:ALA:HB1	1.98	0.45
1:A:146:SER:H	1:E:103:SER:HB3	110.94	0.45
1:E:53:ARG:NH1	1:F:133:GLY:H	2.14	0.45
1:F:38:ILE:CG2	1:F:448:LYS:HD2	2.42	0.45
1:G:133:GLY:H	1:Q:53:ARG:NH1	2.14	0.45
1:H:452:PHE:HE2	1:L:487:LEU:HD12	70.63	0.45
1:J:443:ALA:HB2	1:T:73:SER:CB	2.45	0.45
1:N:417:ALA:HB1	1:X:111:ALA:HB1	1.98	0.45
1:G:111:ALA:HB1	1:Q:417:ALA:HB1	1.98	0.45
1:M:487:LEU:HD12	1:Q:452:PHE:HE2	70.63	0.45
1:E:146:SER:H	1:R:103:SER:HB3	1.82	0.45
1:O:16:ARG:NH2	1:S:438:GLU:HB2	85.51	0.45
1:G:417:ALA:HB1	1:W:111:ALA:HB1	106.31	0.45
1:X:445:SER:O	1:X:449:ASP:N	2.41	0.45
1:Y:124:THR:HG22	1:Y:166:ALA:HB1	1.97	0.45
1:Z:38:ILE:HG21	1:Z:448:LYS:HD3	1.91	0.45
1:C:443:ALA:HB2	1:H:73:SER:CB	2.45	0.45
1:D:103:SER:HB3	1:H:146:SER:H	110.94	0.45
1:B:484:LEU:HD13	1:N:468:ALA:HB2	1.99	0.45
1:J:53:ARG:NH1	1:T:133:GLY:H	2.14	0.45
1:D:73:SER:CB	1:T:443:ALA:HB2	93.37	0.45
1:H:468:ALA:HB2	1:V:484:LEU:HD13	68.42	0.45
1:W:124:THR:HG22	1:W:166:ALA:HB1	1.97	0.45
1:B:42:LYS:HZ1	1:X:423:GLN:HG3	1.79	0.45
1:L:484:LEU:HD13	1:X:468:ALA:HB2	1.99	0.45
1:J:468:ALA:HB2	1:X:484:LEU:HD13	68.42	0.45
1:B:133:GLY:H	1:R:53:ARG:NH1	104.78	0.45
1:D:42:LYS:HZ1	1:Z:423:GLN:HG3	1.80	0.45
1:B:468:ALA:HB2	1:K:484:LEU:HD13	1.99	0.45
1:K:146:SER:H	1:L:103:SER:HB3	1.82	0.45
1:I:487:LEU:HD12	1:N:452:PHE:HE2	1.81	0.45
1:E:133:GLY:H	1:O:53:ARG:NH1	2.14	0.45
1:O:53:ARG:HA	1:O:56:ASN:HD22	1.82	0.45
1:F:417:ALA:HB1	1:P:111:ALA:HB1	1.98	0.45
1:P:121:ALA:O	1:P:124:THR:OG1	2.23	0.45
1:F:468:ALA:HB2	1:T:484:LEU:HD13	68.42	0.45
1:K:73:SER:CB	1:U:443:ALA:HB2	2.45	0.45
1:I:468:ALA:HB2	1:U:484:LEU:HD13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:103:SER:HB3	1:W:146:SER:H	1.82	0.45
1:B:111:ALA:HB1	1:R:417:ALA:HB1	106.31	0.45
1:B:53:ARG:HA	1:B:56:ASN:HD22	1.82	0.45
1:C:53:ARG:HA	1:C:56:ASN:HD22	1.82	0.45
1:E:121:ALA:HB3	1:O:425:ARG:NH1	2.32	0.45
1:E:417:ALA:HB1	1:F:111:ALA:HB1	1.98	0.45
1:H:103:SER:HB3	1:O:146:SER:H	1.82	0.45
1:D:468:ALA:HB2	1:I:484:LEU:HD13	1.99	0.45
1:J:417:ALA:HB1	1:T:111:ALA:HB1	1.98	0.45
1:A:133:GLY:H	1:K:53:ARG:NH1	2.14	0.45
1:A:484:LEU:HD13	1:L:468:ALA:HB2	1.99	0.45
1:M:445:SER:O	1:M:449:ASP:N	2.41	0.45
1:M:53:ARG:HA	1:M:56:ASN:HD22	1.82	0.45
1:N:53:ARG:HA	1:N:56:ASN:HD22	1.82	0.45
1:O:38:ILE:HG22	1:O:448:LYS:HD2	1.95	0.45
1:P:53:ARG:HA	1:P:56:ASN:HD22	1.82	0.45
1:B:73:SER:CB	1:R:443:ALA:HB2	93.37	0.45
1:O:146:SER:H	1:S:103:SER:HB3	110.94	0.45
1:D:103:SER:HB3	1:S:146:SER:H	1.82	0.45
1:D:133:GLY:H	1:T:53:ARG:NH1	104.78	0.45
1:V:38:ILE:HD13	1:V:48:LEU:HA	1.98	0.45
1:J:484:LEU:HD13	1:V:468:ALA:HB2	1.99	0.45
1:N:484:LEU:HD13	1:Z:468:ALA:HB2	1.99	0.45
1:A:121:ALA:HB3	1:K:425:ARG:NH1	2.32	0.45
1:B:392:ILE:O	1:B:394:THR:N	2.50	0.45
1:D:146:SER:H	1:Z:103:SER:HB3	1.82	0.45
1:F:392:ILE:O	1:F:394:THR:N	2.50	0.45
1:F:53:ARG:HA	1:F:56:ASN:HD22	1.82	0.45
1:G:53:ARG:HA	1:G:56:ASN:HD22	1.82	0.45
1:H:111:ALA:HB1	1:X:417:ALA:HB1	106.31	0.45
1:C:425:ARG:NH1	1:H:121:ALA:HB3	2.32	0.45
1:E:146:SER:H	1:I:103:SER:HB3	110.94	0.45
1:I:38:ILE:CG2	1:I:448:LYS:HD2	2.42	0.45
1:I:392:ILE:O	1:I:394:THR:N	2.50	0.45
1:K:53:ARG:HA	1:K:56:ASN:HD22	1.82	0.45
1:M:146:SER:H	1:Q:103:SER:HB3	110.94	0.45
1:C:121:ALA:HB3	1:M:425:ARG:NH1	2.32	0.45
1:O:133:GLY:H	1:Y:53:ARG:NH1	2.14	0.45
1:R:392:ILE:O	1:R:394:THR:N	2.50	0.45
1:D:121:ALA:HB3	1:T:425:ARG:NH1	109.89	0.45
1:W:128:ASP:O	1:W:129:THR:OG1	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:392:ILE:O	1:W:394:THR:N	2.50	0.45
1:X:38:ILE:HD13	1:X:48:LEU:HA	1.98	0.45
1:A:146:SER:H	1:V:103:SER:HB3	1.82	0.45
1:A:392:ILE:O	1:A:394:THR:N	2.50	0.45
1:C:146:SER:H	1:G:103:SER:HB3	110.94	0.45
1:C:53:ARG:NH1	1:S:133:GLY:H	104.78	0.45
1:D:392:ILE:O	1:D:394:THR:N	2.50	0.45
1:E:53:ARG:HA	1:E:56:ASN:HD22	1.82	0.45
1:G:146:SER:H	1:K:103:SER:HB3	110.94	0.45
1:H:38:ILE:HG22	1:H:448:LYS:HD2	1.95	0.45
1:H:392:ILE:O	1:H:394:THR:N	2.50	0.45
1:H:425:ARG:NH1	1:R:121:ALA:HB3	2.32	0.45
1:H:53:ARG:HA	1:H:56:ASN:HD22	1.82	0.45
1:L:103:SER:HB3	1:P:146:SER:H	110.94	0.45
1:L:392:ILE:O	1:L:394:THR:N	2.50	0.45
1:I:146:SER:H	1:M:103:SER:HB3	110.94	0.45
1:N:392:ILE:O	1:N:394:THR:N	2.50	0.45
1:P:392:ILE:O	1:P:394:THR:N	2.50	0.45
1:D:484:LEU:HD13	1:P:468:ALA:HB2	1.99	0.45
1:N:103:SER:HB3	1:R:146:SER:H	110.94	0.45
1:E:484:LEU:HD13	1:S:468:ALA:HB2	68.42	0.45
1:J:425:ARG:NH1	1:T:121:ALA:HB3	2.32	0.45
1:T:53:ARG:HA	1:T:56:ASN:HD22	1.82	0.45
1:K:111:ALA:HB1	1:U:417:ALA:HB1	1.98	0.45
1:G:484:LEU:HD13	1:U:468:ALA:HB2	68.42	0.45
1:M:121:ALA:HB3	1:W:425:ARG:NH1	2.32	0.45
1:M:73:SER:CB	1:W:443:ALA:HB2	2.45	0.45
1:N:53:ARG:NH1	1:X:133:GLY:H	2.14	0.45
1:H:133:GLY:H	1:X:53:ARG:NH1	104.78	0.45
1:O:73:SER:CB	1:Y:443:ALA:HB2	2.45	0.45
1:A:417:ALA:HB1	1:Q:111:ALA:HB1	106.31	0.44
1:A:468:ALA:HB2	1:M:484:LEU:HD13	1.99	0.44
1:B:443:ALA:HB2	1:L:73:SER:CB	2.45	0.44
1:C:443:ALA:HB2	1:S:73:SER:CB	93.37	0.44
1:C:445:SER:O	1:C:449:ASP:N	2.41	0.44
1:E:392:ILE:O	1:E:394:THR:N	2.50	0.44
1:E:445:SER:O	1:E:449:ASP:N	2.41	0.44
1:E:487:LEU:HD12	1:I:452:PHE:HE2	70.63	0.44
1:K:392:ILE:O	1:K:394:THR:N	2.50	0.44
1:K:468:ALA:HB2	1:W:484:LEU:HD13	1.99	0.44
1:L:420:ALA:CA	1:P:42:LYS:HD2	99.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:468:ALA:HB2	1:Z:484:LEU:HD13	68.42	0.44
1:M:392:ILE:O	1:M:394:THR:N	2.50	0.44
1:M:42:LYS:HD2	1:Q:420:ALA:CA	99.80	0.44
1:Q:53:ARG:HA	1:Q:56:ASN:HD22	1.82	0.44
1:B:121:ALA:HB3	1:R:425:ARG:NH1	109.89	0.44
1:D:468:ALA:HB2	1:R:484:LEU:HD13	68.42	0.44
1:R:53:ARG:HA	1:R:56:ASN:HD22	1.82	0.44
1:X:392:ILE:O	1:X:394:THR:N	2.50	0.44
1:Z:53:ARG:HA	1:Z:56:ASN:HD22	1.82	0.44
1:A:452:PHE:HE2	1:W:487:LEU:HD12	1.81	0.44
1:B:103:SER:HB3	1:U:146:SER:H	1.82	0.44
1:B:146:SER:H	1:X:103:SER:HB3	1.82	0.44
1:C:484:LEU:HD13	1:J:468:ALA:HB2	1.99	0.44
1:D:38:ILE:HG22	1:D:448:LYS:HD2	1.95	0.44
1:E:38:ILE:HG21	1:E:448:LYS:HD3	1.91	0.44
1:G:392:ILE:O	1:G:394:THR:N	2.50	0.44
1:G:468:ALA:HB2	1:S:484:LEU:HD13	1.99	0.44
1:C:53:ARG:NH1	1:H:133:GLY:H	2.14	0.44
1:H:417:ALA:HB1	1:R:111:ALA:HB1	1.98	0.44
1:I:42:LYS:HD2	1:N:420:ALA:CA	2.48	0.44
1:I:53:ARG:HA	1:I:56:ASN:HD22	1.82	0.44
1:A:425:ARG:NH1	1:J:121:ALA:HB3	2.32	0.44
1:J:53:ARG:HA	1:J:56:ASN:HD22	1.82	0.44
1:K:133:GLY:H	1:U:53:ARG:NH1	2.14	0.44
1:B:425:ARG:NH1	1:L:121:ALA:HB3	2.32	0.44
1:L:445:SER:O	1:L:449:ASP:N	2.41	0.44
1:M:38:ILE:HD11	1:M:48:LEU:CB	2.27	0.44
1:N:443:ALA:HB2	1:X:73:SER:CB	2.45	0.44
1:O:42:LYS:HD2	1:S:420:ALA:CA	99.80	0.44
1:T:392:ILE:O	1:T:394:THR:N	2.50	0.44
1:H:484:LEU:HD13	1:T:468:ALA:HB2	1.99	0.44
1:V:392:ILE:O	1:V:394:THR:N	2.50	0.44
1:A:445:SER:O	1:A:449:ASP:N	2.41	0.44
1:B:468:ALA:HB2	1:P:484:LEU:HD13	68.42	0.44
1:D:121:ALA:HB3	1:G:425:ARG:NH1	2.32	0.44
1:D:425:ARG:NH1	1:N:121:ALA:HB3	2.32	0.44
1:D:53:ARG:HA	1:D:56:ASN:HD22	1.82	0.44
1:G:121:ALA:HB3	1:Q:425:ARG:NH1	2.32	0.44
1:G:42:LYS:HD2	1:P:420:ALA:CA	2.48	0.44
1:I:146:SER:H	1:N:103:SER:HB3	1.82	0.44
1:I:425:ARG:NH1	1:Y:121:ALA:HB3	109.89	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:392:ILE:O	1:J:394:THR:N	2.50	0.44
1:L:53:ARG:HA	1:L:56:ASN:HD22	1.82	0.44
1:J:420:ALA:CA	1:N:42:LYS:HD2	99.80	0.44
1:O:392:ILE:O	1:O:394:THR:N	2.50	0.44
1:F:53:ARG:NH1	1:P:133:GLY:H	2.14	0.44
1:Q:392:ILE:O	1:Q:394:THR:N	2.50	0.44
1:O:42:LYS:HZ1	1:S:423:GLN:HG3	96.06	0.44
1:S:53:ARG:HA	1:S:56:ASN:HD22	1.82	0.44
1:H:121:ALA:HB3	1:X:425:ARG:NH1	109.89	0.44
1:Y:53:ARG:HA	1:Y:56:ASN:HD22	1.82	0.44
1:P:425:ARG:NH1	1:Z:121:ALA:HB3	2.32	0.44
1:Z:392:ILE:O	1:Z:394:THR:N	2.50	0.44
1:A:487:LEU:HD12	1:V:452:PHE:HE2	1.81	0.44
1:C:392:ILE:O	1:C:394:THR:N	2.50	0.44
1:D:452:PHE:HE2	1:H:487:LEU:HD12	70.63	0.44
1:D:133:GLY:H	1:G:53:ARG:NH1	2.14	0.44
1:G:53:ARG:NH1	1:W:133:GLY:H	104.78	0.44
1:I:435:ASN:O	1:I:438:GLU:HB3	2.18	0.44
1:L:417:ALA:HB1	1:V:111:ALA:HB1	1.98	0.44
1:I:42:LYS:HZ1	1:M:423:GLN:H	98.09	0.44
1:M:435:ASN:O	1:M:438:GLU:HB3	2.18	0.44
1:N:435:ASN:O	1:N:438:GLU:HB3	2.18	0.44
1:O:121:ALA:HB3	1:Y:425:ARG:NH1	2.32	0.44
1:F:103:SER:HB3	1:Q:146:SER:H	1.82	0.44
1:F:420:ALA:CA	1:Q:42:LYS:HD2	2.48	0.44
1:Q:445:SER:O	1:Q:449:ASP:N	2.41	0.44
1:F:484:LEU:HD13	1:R:468:ALA:HB2	1.99	0.44
1:S:392:ILE:O	1:S:394:THR:N	2.50	0.44
1:X:53:ARG:HA	1:X:56:ASN:HD22	1.82	0.44
1:Y:392:ILE:O	1:Y:394:THR:N	2.50	0.44
1:E:425:ARG:NH1	1:U:121:ALA:HB3	109.89	0.44
1:E:484:LEU:HD13	1:H:468:ALA:HB2	1.99	0.44
1:F:468:ALA:HB2	1:G:484:LEU:HD13	1.99	0.44
1:G:435:ASN:O	1:G:438:GLU:HB3	2.18	0.44
1:B:53:ARG:NH1	1:L:133:GLY:H	2.14	0.44
1:F:425:ARG:NH1	1:P:121:ALA:HB3	2.32	0.44
1:P:435:ASN:O	1:P:438:GLU:HB3	2.18	0.44
1:M:42:LYS:HZ1	1:Q:423:GLN:H	98.08	0.44
1:N:420:ALA:CA	1:R:42:LYS:HD2	99.80	0.44
1:R:435:ASN:O	1:R:438:GLU:HB3	2.18	0.44
1:D:420:ALA:CA	1:S:42:LYS:HD2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:121:ALA:HB3	1:V:425:ARG:NH1	109.89	0.44
1:V:435:ASN:O	1:V:438:GLU:HB3	2.18	0.44
1:H:73:SER:CB	1:X:443:ALA:HB2	93.37	0.44
1:C:38:ILE:HG22	1:C:448:LYS:HD2	1.95	0.44
1:C:425:ARG:NH1	1:S:121:ALA:HB3	109.89	0.44
1:C:468:ALA:HB2	1:O:484:LEU:HD13	1.99	0.44
1:E:37:ARG:CZ	1:F:66:ARG:NH1	2.68	0.44
1:E:38:ILE:HG22	1:E:448:LYS:HD2	1.95	0.44
1:H:420:ALA:CA	1:O:42:LYS:HD2	2.48	0.44
1:H:445:SER:O	1:H:449:ASP:N	2.41	0.44
1:K:121:ALA:HB3	1:U:425:ARG:NH1	2.32	0.44
1:K:42:LYS:HD2	1:L:420:ALA:CA	2.48	0.44
1:K:42:LYS:HD2	1:O:420:ALA:CA	99.80	0.44
1:K:435:ASN:O	1:K:438:GLU:HB3	2.18	0.44
1:J:103:SER:HB3	1:M:146:SER:H	1.82	0.44
1:G:146:SER:H	1:P:103:SER:HB3	1.82	0.44
1:S:38:ILE:HG22	1:S:448:LYS:HD2	1.95	0.44
1:T:435:ASN:O	1:T:438:GLU:HB3	2.18	0.44
1:B:93:ARG:NH1	1:U:56:ASN:CG	2.69	0.44
1:L:425:ARG:NH1	1:V:121:ALA:HB3	2.32	0.44
1:A:42:LYS:NZ	1:V:423:GLN:CB	2.76	0.44
1:W:53:ARG:HA	1:W:56:ASN:HD22	1.82	0.44
1:J:121:ALA:HB3	1:Z:425:ARG:NH1	109.89	0.44
1:A:435:ASN:O	1:A:438:GLU:HB3	2.18	0.44
1:A:53:ARG:HA	1:A:56:ASN:HD22	1.82	0.44
1:B:420:ALA:CA	1:F:42:LYS:HD2	99.80	0.44
1:E:425:ARG:NH1	1:F:121:ALA:HB3	2.32	0.44
1:F:423:GLN:HG3	1:J:42:LYS:HZ1	96.06	0.44
1:F:435:ASN:O	1:F:438:GLU:HB3	2.18	0.44
1:D:66:ARG:NH1	1:G:37:ARG:CZ	2.68	0.44
1:G:425:ARG:NH1	1:W:121:ALA:HB3	109.89	0.44
1:G:42:LYS:HD2	1:K:420:ALA:CA	99.80	0.44
1:B:121:ALA:HB3	1:I:425:ARG:NH1	2.32	0.44
1:B:73:SER:CB	1:I:443:ALA:HB2	2.45	0.44
1:I:484:LEU:HD13	1:W:468:ALA:HB2	68.42	0.44
1:K:146:SER:H	1:O:103:SER:HB3	110.94	0.44
1:H:420:ALA:CA	1:L:42:LYS:HD2	99.80	0.44
1:O:435:ASN:O	1:O:438:GLU:HB3	2.18	0.44
1:Q:435:ASN:O	1:Q:438:GLU:HB3	2.18	0.44
1:M:468:ALA:HB2	1:Y:484:LEU:HD13	1.99	0.44
1:A:419:LEU:O	1:W:42:LYS:NZ	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:425:ARG:NH1	1:Q:121:ALA:HB3	109.89	0.44
1:D:420:ALA:CA	1:H:42:LYS:HD2	99.80	0.44
1:D:443:ALA:HB2	1:N:73:SER:CB	2.45	0.44
1:D:38:ILE:HG21	1:D:448:LYS:HD3	1.91	0.44
1:E:435:ASN:O	1:E:438:GLU:HB3	2.18	0.44
1:E:468:ALA:HB2	1:Q:484:LEU:HD13	1.99	0.44
1:L:435:ASN:O	1:L:438:GLU:HB3	2.18	0.44
1:U:53:ARG:HA	1:U:56:ASN:HD22	1.82	0.44
1:X:38:ILE:HG22	1:X:448:LYS:HD2	1.95	0.44
1:Y:435:ASN:O	1:Y:438:GLU:HB3	2.18	0.44
1:C:435:ASN:O	1:C:438:GLU:HB3	2.18	0.44
1:C:484:LEU:HD13	1:Q:468:ALA:HB2	68.42	0.44
1:E:59:SER:OG	1:I:90:GLN:NE2	94.11	0.44
1:I:61:LEU:HD22	1:I:433:LEU:HD11	2.00	0.44
1:J:420:ALA:CA	1:M:42:LYS:HD2	2.47	0.44
1:J:93:ARG:NH1	1:N:56:ASN:CG	102.50	0.44
1:O:59:SER:OG	1:S:90:GLN:NE2	94.11	0.44
1:R:38:ILE:CG2	1:R:448:LYS:HD2	2.42	0.44
1:U:392:ILE:O	1:U:394:THR:N	2.50	0.44
1:X:435:ASN:O	1:X:438:GLU:HB3	2.18	0.44
1:J:126:ILE:HD11	1:Z:432:ASN:HD22	100.80	0.44
1:A:61:LEU:HD22	1:A:433:LEU:HD11	2.00	0.43
1:B:419:LEU:O	1:F:42:LYS:NZ	99.58	0.43
1:B:42:LYS:HZ1	1:X:423:GLN:H	1.65	0.43
1:B:432:ASN:HD22	1:L:126:ILE:HD11	1.83	0.43
1:B:90:GLN:NE2	1:U:59:SER:OG	2.51	0.43
1:C:146:SER:H	1:T:103:SER:HB3	1.82	0.43
1:D:61:LEU:HD22	1:D:433:LEU:HD11	2.00	0.43
1:F:61:LEU:HD22	1:F:433:LEU:HD11	2.00	0.43
1:B:126:ILE:CG1	1:I:432:ASN:ND2	2.82	0.43
1:L:61:LEU:HD22	1:L:433:LEU:HD11	2.00	0.43
1:J:103:SER:HB3	1:N:146:SER:H	110.94	0.43
1:N:61:LEU:HD22	1:N:433:LEU:HD11	2.00	0.43
1:O:61:LEU:HD22	1:O:433:LEU:HD11	2.00	0.43
1:O:56:ASN:CG	1:S:93:ARG:NH1	102.50	0.43
1:P:61:LEU:HD22	1:P:433:LEU:HD11	2.00	0.43
1:K:126:ILE:HD11	1:U:432:ASN:HD22	1.83	0.43
1:H:66:ARG:NH1	1:X:37:ARG:CZ	89.23	0.43
1:Y:61:LEU:HD22	1:Y:433:LEU:HD11	2.00	0.43
1:J:126:ILE:CG1	1:Z:432:ASN:ND2	101.02	0.43
1:A:484:LEU:HD13	1:O:468:ALA:HB2	68.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:423:GLN:HG3	1:H:42:LYS:HZ1	96.06	0.43
1:D:90:GLN:NE2	1:S:59:SER:OG	2.51	0.43
1:E:443:ALA:HB2	1:F:73:SER:CB	2.45	0.43
1:F:38:ILE:HG21	1:F:448:LYS:CD	2.31	0.43
1:G:61:LEU:HD22	1:G:433:LEU:HD11	2.00	0.43
1:H:61:LEU:HD22	1:H:433:LEU:HD11	2.00	0.43
1:E:42:LYS:HZ1	1:I:423:GLN:H	98.09	0.43
1:I:42:LYS:HD2	1:M:420:ALA:CA	99.80	0.43
1:F:420:ALA:CA	1:J:42:LYS:HD2	99.80	0.43
1:J:435:ASN:O	1:J:438:GLU:HB3	2.18	0.43
1:J:61:LEU:HD22	1:J:433:LEU:HD11	2.00	0.43
1:M:38:ILE:HG22	1:M:448:LYS:HD2	1.95	0.43
1:D:432:ASN:ND2	1:N:126:ILE:CG1	2.81	0.43
1:S:61:LEU:HD22	1:S:433:LEU:HD11	2.01	0.43
1:I:73:SER:CB	1:S:443:ALA:HB2	2.45	0.43
1:B:420:ALA:CA	1:U:42:LYS:HD2	2.48	0.43
1:B:93:ARG:NH1	1:U:56:ASN:OD1	2.43	0.43
1:U:61:LEU:HD22	1:U:433:LEU:HD11	2.00	0.43
1:W:61:LEU:HD22	1:W:433:LEU:HD11	2.01	0.43
1:C:61:LEU:HD22	1:C:433:LEU:HD11	2.00	0.43
1:D:42:LYS:HD2	1:Z:420:ALA:CA	2.48	0.43
1:D:435:ASN:O	1:D:438:GLU:HB3	2.18	0.43
1:E:432:ASN:ND2	1:U:126:ILE:CG1	101.02	0.43
1:E:61:LEU:HD22	1:E:433:LEU:HD11	2.00	0.43
1:G:59:SER:OG	1:K:90:GLN:NE2	94.11	0.43
1:C:56:ASN:HA	1:G:90:GLN:HE22	97.42	0.43
1:H:435:ASN:O	1:H:438:GLU:HB3	2.18	0.43
1:F:103:SER:HB3	1:J:146:SER:H	110.94	0.43
1:J:445:SER:O	1:J:449:ASP:N	2.41	0.43
1:J:90:GLN:HE22	1:N:56:ASN:HA	97.42	0.43
1:I:59:SER:OG	1:N:90:GLN:NE2	2.51	0.43
1:Q:61:LEU:HD22	1:Q:433:LEU:HD11	2.00	0.43
1:D:93:ARG:NH1	1:S:56:ASN:CG	2.69	0.43
1:V:61:LEU:HD22	1:V:433:LEU:HD11	2.00	0.43
1:N:425:ARG:NH1	1:X:121:ALA:HB3	2.32	0.43
1:H:126:ILE:HD11	1:X:432:ASN:HD22	100.80	0.43
1:B:56:ASN:HA	1:X:90:GLN:HE22	1.83	0.43
1:K:484:LEU:HD13	1:Y:468:ALA:HB2	68.42	0.43
1:Z:61:LEU:HD22	1:Z:433:LEU:HD11	2.00	0.43
1:A:126:ILE:CG1	1:K:432:ASN:ND2	2.81	0.43
1:B:61:LEU:HD22	1:B:433:LEU:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:59:SER:OG	1:X:90:GLN:NE2	2.51	0.43
1:B:90:GLN:HE22	1:U:56:ASN:HA	1.83	0.43
1:C:432:ASN:HD22	1:S:126:ILE:HD11	100.80	0.43
1:D:56:ASN:HA	1:Z:90:GLN:HE22	1.83	0.43
1:F:139:ASP:OD1	1:F:139:ASP:N	2.45	0.43
1:B:103:SER:HB3	1:F:146:SER:H	110.94	0.43
1:C:59:SER:OG	1:G:90:GLN:NE2	94.11	0.43
1:I:37:ARG:CZ	1:Y:66:ARG:NH1	89.23	0.43
1:I:38:ILE:HG22	1:I:448:LYS:HD2	1.95	0.43
1:K:126:ILE:CG1	1:U:432:ASN:ND2	2.82	0.43
1:K:38:ILE:CG2	1:K:448:LYS:HD2	2.42	0.43
1:G:42:LYS:NZ	1:K:423:GLN:CB	95.23	0.43
1:M:61:LEU:HD22	1:M:433:LEU:HD11	2.00	0.43
1:N:432:ASN:ND2	1:X:126:ILE:CG1	2.82	0.43
1:L:432:ASN:ND2	1:V:126:ILE:CG1	2.82	0.43
1:V:53:ARG:HA	1:V:56:ASN:HD22	1.82	0.43
1:C:93:ARG:NH1	1:Y:56:ASN:CG	2.69	0.43
1:A:432:ASN:ND2	1:J:126:ILE:CG1	2.82	0.43
1:A:443:ALA:HB2	1:Q:73:SER:CB	93.37	0.43
1:B:435:ASN:O	1:B:438:GLU:HB3	2.18	0.43
1:C:420:ALA:CA	1:Y:42:LYS:HD2	2.48	0.43
1:H:443:ALA:HB2	1:R:73:SER:CB	2.45	0.43
1:K:59:SER:OG	1:L:90:GLN:NE2	2.51	0.43
1:E:66:ARG:NH1	1:O:37:ARG:CZ	2.68	0.43
1:E:73:SER:CB	1:O:443:ALA:HB2	2.45	0.43
1:G:56:ASN:HA	1:P:90:GLN:HE22	1.83	0.43
1:R:61:LEU:HD22	1:R:433:LEU:HD11	2.00	0.43
1:O:56:ASN:HA	1:S:90:GLN:HE22	97.42	0.43
1:T:38:ILE:HG22	1:T:448:LYS:HD2	1.95	0.43
1:M:126:ILE:HD11	1:W:432:ASN:HD22	1.84	0.43
1:W:435:ASN:O	1:W:438:GLU:HB3	2.18	0.43
1:B:38:ILE:CD1	1:B:48:LEU:CA	2.97	0.43
1:E:443:ALA:HB2	1:U:73:SER:CB	93.37	0.43
1:B:90:GLN:HE22	1:F:56:ASN:HA	97.42	0.43
1:F:90:GLN:HE22	1:Q:56:ASN:HA	1.83	0.43
1:D:126:ILE:HD11	1:G:432:ASN:HD22	1.83	0.43
1:I:42:LYS:HZ1	1:N:423:GLN:H	1.66	0.43
1:G:59:SER:OG	1:P:90:GLN:NE2	2.51	0.43
1:C:432:ASN:ND2	1:S:126:ILE:CG1	101.02	0.43
1:I:121:ALA:HB3	1:S:425:ARG:NH1	2.32	0.43
1:S:435:ASN:O	1:S:438:GLU:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:61:LEU:HD22	1:T:433:LEU:HD11	2.00	0.43
1:J:73:SER:CB	1:Z:443:ALA:HB2	93.37	0.43
1:C:126:ILE:CG1	1:M:432:ASN:ND2	2.82	0.43
1:D:56:ASN:CG	1:Z:93:ARG:NH1	2.69	0.43
1:H:38:ILE:CG2	1:H:448:LYS:HD2	2.42	0.43
1:K:61:LEU:HD22	1:K:433:LEU:HD11	2.00	0.43
1:K:59:SER:OG	1:O:90:GLN:NE2	94.11	0.43
1:M:126:ILE:CG1	1:W:432:ASN:ND2	2.82	0.43
1:H:423:GLN:H	1:O:42:LYS:HZ1	1.66	0.43
1:F:126:ILE:CG1	1:V:432:ASN:ND2	101.02	0.43
1:X:61:LEU:HD22	1:X:433:LEU:HD11	2.00	0.43
1:Z:435:ASN:O	1:Z:438:GLU:HB3	2.18	0.43
1:A:42:LYS:HD2	1:E:420:ALA:CA	99.80	0.43
1:A:432:ASN:HD22	1:J:126:ILE:HD11	1.83	0.43
1:A:432:ASN:HD22	1:Q:126:ILE:HD11	100.80	0.43
1:A:59:SER:OG	1:E:90:GLN:NE2	94.11	0.43
1:C:103:SER:HB3	1:Y:146:SER:H	1.82	0.43
1:C:56:ASN:CG	1:T:93:ARG:NH1	2.69	0.43
1:E:38:ILE:CD1	1:E:48:LEU:CA	2.97	0.43
1:E:59:SER:OG	1:R:90:GLN:NE2	2.51	0.43
1:F:38:ILE:CD1	1:F:48:LEU:CA	2.97	0.43
1:G:38:ILE:HG22	1:G:448:LYS:HD2	1.95	0.43
1:H:423:GLN:HG3	1:L:42:LYS:HZ3	96.05	0.43
1:I:56:ASN:CG	1:N:93:ARG:NH1	2.69	0.43
1:F:90:GLN:NE2	1:J:59:SER:OG	94.11	0.43
1:K:38:ILE:CD1	1:K:48:LEU:CA	2.97	0.43
1:G:56:ASN:HA	1:K:90:GLN:HE22	97.42	0.43
1:L:38:ILE:CD1	1:L:48:LEU:CA	2.97	0.43
1:O:38:ILE:CD1	1:O:48:LEU:CA	2.97	0.43
1:G:126:ILE:CG1	1:Q:432:ASN:ND2	2.82	0.43
1:R:445:SER:O	1:R:449:ASP:N	2.41	0.43
1:R:38:ILE:CD1	1:R:48:LEU:CA	2.97	0.43
1:I:126:ILE:CG1	1:S:432:ASN:ND2	2.81	0.43
1:D:90:GLN:HE22	1:S:56:ASN:HA	1.83	0.43
1:T:445:SER:O	1:T:449:ASP:N	2.41	0.43
1:C:56:ASN:HA	1:T:90:GLN:HE22	1.83	0.43
1:H:126:ILE:CG1	1:X:432:ASN:ND2	101.02	0.43
1:O:66:ARG:NH1	1:Y:37:ARG:CZ	2.68	0.43
1:Y:38:ILE:CD1	1:Y:48:LEU:CA	2.97	0.43
1:P:432:ASN:ND2	1:Z:126:ILE:CG1	2.81	0.43
1:A:38:ILE:CD1	1:A:48:LEU:CA	2.97	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:425:ARG:HH12	1:L:121:ALA:HB3	1.84	0.43
1:B:56:ASN:OD1	1:X:93:ARG:NH1	2.43	0.43
1:E:432:ASN:HD22	1:U:126:ILE:HD11	100.80	0.43
1:I:432:ASN:ND2	1:Y:126:ILE:CG1	101.02	0.43
1:I:38:ILE:CD1	1:I:48:LEU:CA	2.97	0.43
1:F:90:GLN:NE2	1:Q:59:SER:OG	2.51	0.43
1:M:59:SER:OG	1:Q:90:GLN:NE2	94.11	0.43
1:A:38:ILE:HD13	1:A:48:LEU:N	2.34	0.43
1:C:38:ILE:HG21	1:C:448:LYS:CD	2.32	0.43
1:D:90:GLN:NE2	1:H:59:SER:OG	94.11	0.43
1:G:432:ASN:ND2	1:W:126:ILE:CG1	101.02	0.43
1:H:38:ILE:CD1	1:H:48:LEU:CA	2.97	0.43
1:I:121:ALA:HB3	1:S:425:ARG:HH12	1.84	0.43
1:J:432:ASN:HD22	1:T:126:ILE:HD11	1.84	0.43
1:B:432:ASN:ND2	1:L:126:ILE:CG1	2.82	0.43
1:J:90:GLN:NE2	1:M:59:SER:OG	2.51	0.43
1:I:56:ASN:HA	1:M:90:GLN:HE22	97.42	0.43
1:D:425:ARG:HH12	1:N:121:ALA:HB3	1.84	0.43
1:I:56:ASN:HA	1:N:90:GLN:HE22	1.83	0.43
1:R:139:ASP:N	1:R:139:ASP:OD1	2.45	0.43
1:N:90:GLN:NE2	1:R:59:SER:OG	94.11	0.43
1:U:38:ILE:HG22	1:U:448:LYS:HD2	1.95	0.43
1:V:445:SER:O	1:V:449:ASP:N	2.41	0.43
1:A:90:GLN:NE2	1:W:59:SER:OG	2.51	0.43
1:H:121:ALA:HB3	1:X:425:ARG:HH12	110.15	0.43
1:O:126:ILE:HD11	1:Y:432:ASN:HD22	1.83	0.43
1:C:90:GLN:HE22	1:Y:56:ASN:HA	1.83	0.43
1:A:121:ALA:HB3	1:K:425:ARG:HH12	1.84	0.42
1:B:38:ILE:HD13	1:B:48:LEU:N	2.34	0.42
1:B:90:GLN:NE2	1:F:59:SER:OG	94.11	0.42
1:C:38:ILE:HD13	1:C:48:LEU:N	2.34	0.42
1:D:432:ASN:HD22	1:N:126:ILE:HD11	1.83	0.42
1:E:38:ILE:HD13	1:E:48:LEU:N	2.34	0.42
1:E:432:ASN:HD22	1:F:126:ILE:HD11	1.84	0.42
1:F:432:ASN:ND2	1:P:126:ILE:CG1	2.82	0.42
1:F:443:ALA:HB2	1:P:73:SER:CB	2.45	0.42
1:J:38:ILE:HD13	1:J:48:LEU:N	2.34	0.42
1:K:121:ALA:HB3	1:U:425:ARG:HH12	1.84	0.42
1:K:38:ILE:HD13	1:K:48:LEU:N	2.34	0.42
1:L:90:GLN:HE22	1:P:56:ASN:HA	97.42	0.42
1:M:56:ASN:HA	1:Q:90:GLN:HE22	97.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:38:ILE:CD1	1:N:48:LEU:CA	2.97	0.42
1:E:126:ILE:CG1	1:O:432:ASN:ND2	2.82	0.42
1:F:425:ARG:HH12	1:P:121:ALA:HB3	1.84	0.42
1:P:432:ASN:HD22	1:Z:126:ILE:HD11	1.84	0.42
1:L:425:ARG:HH12	1:V:121:ALA:HB3	1.84	0.42
1:A:420:ALA:CA	1:W:42:LYS:HD2	2.48	0.42
1:W:38:ILE:HD13	1:W:48:LEU:N	2.34	0.42
1:B:42:LYS:HD2	1:X:420:ALA:CA	2.48	0.42
1:Y:38:ILE:HD13	1:Y:48:LEU:N	2.34	0.42
1:Z:38:ILE:HD13	1:Z:48:LEU:N	2.34	0.42
1:A:38:ILE:CG2	1:A:448:LYS:HD2	2.42	0.42
1:C:38:ILE:CD1	1:C:48:LEU:CA	2.97	0.42
1:C:56:ASN:CG	1:G:93:ARG:NH1	102.50	0.42
1:E:432:ASN:ND2	1:F:126:ILE:CG1	2.82	0.42
1:G:38:ILE:HD13	1:G:48:LEU:N	2.34	0.42
1:I:108:ASP:CG	1:O:49:GLN:HG2	106.77	0.42
1:K:56:ASN:HA	1:L:90:GLN:HE22	1.83	0.42
1:M:38:ILE:HD13	1:M:48:LEU:N	2.34	0.42
1:I:59:SER:OG	1:M:90:GLN:NE2	94.11	0.42
1:O:49:GLN:HG2	1:R:108:ASP:CG	2.40	0.42
1:G:66:ARG:NH1	1:Q:37:ARG:CZ	2.68	0.42
1:Q:38:ILE:CD1	1:Q:48:LEU:CA	2.97	0.42
1:U:38:ILE:HD13	1:U:48:LEU:N	2.34	0.42
1:U:435:ASN:O	1:U:438:GLU:HB3	2.18	0.42
1:G:425:ARG:HH12	1:W:121:ALA:HB3	110.15	0.42
1:X:38:ILE:HD13	1:X:48:LEU:N	2.34	0.42
1:A:42:LYS:HD2	1:V:420:ALA:CA	2.48	0.42
1:B:419:LEU:O	1:U:42:LYS:NZ	2.40	0.42
1:C:42:LYS:HD2	1:T:420:ALA:CA	2.48	0.42
1:C:59:SER:OG	1:T:90:GLN:NE2	2.51	0.42
1:D:38:ILE:HD13	1:D:48:LEU:N	2.34	0.42
1:E:121:ALA:HB3	1:O:425:ARG:HH12	1.84	0.42
1:F:445:SER:O	1:F:449:ASP:N	2.41	0.42
1:F:452:PHE:CE2	1:Q:484:LEU:HD23	2.55	0.42
1:D:126:ILE:CG1	1:G:432:ASN:ND2	2.81	0.42
1:G:484:LEU:HD23	1:K:452:PHE:CE2	71.22	0.42
1:H:38:ILE:HD13	1:H:48:LEU:N	2.34	0.42
1:J:121:ALA:HB3	1:Z:425:ARG:HH12	110.15	0.42
1:L:38:ILE:HG21	1:L:448:LYS:HD3	1.91	0.42
1:C:126:ILE:HD11	1:M:432:ASN:HD22	1.83	0.42
1:B:126:ILE:CG1	1:R:432:ASN:ND2	101.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:108:ASP:CG	1:S:49:GLN:HG2	2.40	0.42
1:M:49:GLN:HG2	1:T:108:ASP:CG	2.40	0.42
1:J:425:ARG:HH12	1:T:121:ALA:HB3	1.84	0.42
1:D:126:ILE:CG1	1:T:432:ASN:ND2	101.02	0.42
1:V:38:ILE:HD13	1:V:48:LEU:N	2.34	0.42
1:F:126:ILE:HD11	1:V:432:ASN:HD22	100.80	0.42
1:I:49:GLN:HG2	1:X:108:ASP:CG	2.40	0.42
1:N:425:ARG:HH12	1:X:121:ALA:HB3	1.84	0.42
1:A:56:ASN:HA	1:V:90:GLN:HE22	1.83	0.42
1:C:108:ASP:CG	1:I:49:GLN:HG2	106.77	0.42
1:C:42:LYS:HD2	1:G:420:ALA:CA	99.80	0.42
1:C:432:ASN:HD22	1:H:126:ILE:HD11	1.84	0.42
1:D:445:SER:O	1:D:449:ASP:N	2.41	0.42
1:D:38:ILE:CD1	1:D:48:LEU:CA	2.97	0.42
1:E:108:ASP:CG	1:K:49:GLN:HG2	106.77	0.42
1:F:38:ILE:HD13	1:F:48:LEU:N	2.34	0.42
1:F:38:ILE:HG22	1:F:448:LYS:HD2	1.95	0.42
1:B:452:PHE:CE2	1:F:484:LEU:HD23	71.22	0.42
1:H:38:ILE:CG2	1:H:38:ILE:O	2.68	0.42
1:H:432:ASN:HD22	1:R:126:ILE:HD11	1.83	0.42
1:B:126:ILE:HD11	1:I:432:ASN:HD22	1.83	0.42
1:I:484:LEU:HD23	1:N:452:PHE:CE2	2.55	0.42
1:J:432:ASN:ND2	1:T:126:ILE:CG1	2.81	0.42
1:K:56:ASN:CG	1:O:93:ARG:NH1	102.50	0.42
1:K:56:ASN:HA	1:O:90:GLN:HE22	97.42	0.42
1:L:38:ILE:O	1:L:38:ILE:CG2	2.68	0.42
1:K:42:LYS:NZ	1:L:419:LEU:O	2.40	0.42
1:L:452:PHE:CE2	1:P:484:LEU:HD23	71.23	0.42
1:M:121:ALA:HB3	1:W:425:ARG:HH12	1.84	0.42
1:M:38:ILE:CD1	1:M:48:LEU:CA	2.97	0.42
1:J:90:GLN:HE22	1:M:56:ASN:HA	1.83	0.42
1:N:38:ILE:O	1:N:38:ILE:CG2	2.68	0.42
1:N:38:ILE:HD13	1:N:48:LEU:N	2.34	0.42
1:N:90:GLN:HE22	1:R:56:ASN:HA	97.42	0.42
1:Q:38:ILE:HG22	1:Q:448:LYS:HD2	1.95	0.42
1:G:121:ALA:HB3	1:Q:425:ARG:HH12	1.84	0.42
1:C:425:ARG:HH12	1:S:121:ALA:HB3	110.15	0.42
1:A:432:ASN:ND2	1:Q:126:ILE:CG1	101.02	0.42
1:B:104:ASN:HA	1:B:109:ARG:HH22	1.85	0.42
1:B:38:ILE:CG2	1:B:38:ILE:O	2.68	0.42
1:C:38:ILE:O	1:C:38:ILE:CG2	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:38:ILE:O	1:D:38:ILE:CG2	2.68	0.42
1:G:484:LEU:HD23	1:P:452:PHE:CE2	2.55	0.42
1:G:56:ASN:CG	1:P:93:ARG:NH1	2.69	0.42
1:G:73:SER:CB	1:Q:443:ALA:HB2	2.45	0.42
1:I:38:ILE:O	1:I:38:ILE:CG2	2.68	0.42
1:I:56:ASN:OD1	1:M:93:ARG:NH1	102.85	0.42
1:J:38:ILE:CD1	1:J:48:LEU:CA	2.97	0.42
1:K:484:LEU:HD23	1:L:452:PHE:CE2	2.55	0.42
1:J:452:PHE:CE2	1:N:484:LEU:HD23	71.22	0.42
1:O:38:ILE:O	1:O:38:ILE:CG2	2.68	0.42
1:P:104:ASN:HA	1:P:109:ARG:HH22	1.85	0.42
1:F:93:ARG:NH1	1:Q:56:ASN:OD1	2.43	0.42
1:R:38:ILE:HD13	1:R:48:LEU:N	2.34	0.42
1:R:38:ILE:CG2	1:R:38:ILE:O	2.68	0.42
1:B:126:ILE:HD11	1:R:432:ASN:HD22	100.80	0.42
1:O:484:LEU:HD23	1:S:452:PHE:CE2	71.22	0.42
1:U:38:ILE:CG2	1:U:38:ILE:O	2.68	0.42
1:L:108:ASP:CG	1:U:49:GLN:HG2	2.40	0.42
1:V:38:ILE:HG21	1:V:448:LYS:HD3	1.91	0.42
1:Y:38:ILE:O	1:Y:38:ILE:CG2	2.68	0.42
1:A:425:ARG:HH12	1:Q:121:ALA:HB3	110.15	0.42
1:C:121:ALA:HB3	1:M:425:ARG:HH12	1.84	0.42
1:D:452:PHE:CE2	1:H:484:LEU:HD23	71.22	0.42
1:D:452:PHE:CE2	1:S:484:LEU:HD23	2.55	0.42
1:A:484:LEU:HD23	1:E:452:PHE:CE2	71.23	0.42
1:E:56:ASN:HA	1:I:90:GLN:HE22	97.42	0.42
1:E:56:ASN:HA	1:R:90:GLN:HE22	1.83	0.42
1:B:93:ARG:NH1	1:F:56:ASN:OD1	102.85	0.42
1:G:42:LYS:HZ1	1:P:423:GLN:H	1.67	0.42
1:B:66:ARG:NH1	1:I:37:ARG:CZ	2.68	0.42
1:F:93:ARG:NH1	1:J:56:ASN:OD1	102.85	0.42
1:L:104:ASN:HA	1:L:109:ARG:HH22	1.85	0.42
1:K:42:LYS:NZ	1:L:423:GLN:CB	2.75	0.42
1:J:93:ARG:NH1	1:M:56:ASN:OD1	2.43	0.42
1:M:56:ASN:OD1	1:Q:93:ARG:NH1	102.85	0.42
1:N:104:ASN:HA	1:N:109:ARG:HH22	1.85	0.42
1:O:38:ILE:HD13	1:O:48:LEU:N	2.34	0.42
1:L:423:GLN:H	1:P:42:LYS:HZ1	98.09	0.42
1:H:425:ARG:HH12	1:R:121:ALA:HB3	1.84	0.42
1:H:432:ASN:ND2	1:R:126:ILE:CG1	2.81	0.42
1:S:38:ILE:HD13	1:S:48:LEU:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:38:ILE:HD13	1:T:48:LEU:N	2.34	0.42
1:C:484:LEU:HD23	1:T:452:PHE:CE2	2.55	0.42
1:K:49:GLN:HG2	1:V:108:ASP:CG	2.40	0.42
1:V:38:ILE:HG22	1:V:448:LYS:HD2	1.95	0.42
1:V:38:ILE:CG2	1:V:38:ILE:O	2.68	0.42
1:X:38:ILE:O	1:X:38:ILE:CG2	2.68	0.42
1:C:452:PHE:CE2	1:Y:484:LEU:HD23	2.55	0.42
1:D:484:LEU:HD23	1:Z:452:PHE:CE2	2.55	0.42
1:A:56:ASN:HA	1:E:90:GLN:HE22	97.42	0.42
1:C:432:ASN:ND2	1:H:126:ILE:CG1	2.82	0.42
1:E:38:ILE:O	1:E:38:ILE:CG2	2.68	0.42
1:E:56:ASN:CG	1:I:93:ARG:NH1	102.50	0.42
1:G:108:ASP:CG	1:M:49:GLN:HG2	106.77	0.42
1:D:121:ALA:HB3	1:G:425:ARG:HH12	1.84	0.42
1:H:49:GLN:HG2	1:N:108:ASP:CG	106.77	0.42
1:H:90:GLN:HE22	1:O:56:ASN:HA	1.83	0.42
1:E:484:LEU:HD23	1:I:452:PHE:CE2	71.22	0.42
1:K:38:ILE:O	1:K:38:ILE:CG2	2.68	0.42
1:J:423:GLN:N	1:N:42:LYS:HZ1	97.65	0.42
1:I:5:VAL:CG1	1:N:449:ASP:OD2	2.68	0.42
1:O:126:ILE:CG1	1:Y:432:ASN:ND2	2.82	0.42
1:P:108:ASP:CG	1:Q:49:GLN:HG2	2.40	0.42
1:P:38:ILE:HD13	1:P:48:LEU:N	2.34	0.42
1:I:66:ARG:NH1	1:S:37:ARG:CZ	2.68	0.42
1:S:38:ILE:HG21	1:S:448:LYS:HD3	1.91	0.42
1:B:452:PHE:CE2	1:U:484:LEU:HD23	2.55	0.42
1:A:484:LEU:HD23	1:V:452:PHE:CE2	2.55	0.42
1:W:38:ILE:CD1	1:W:48:LEU:CA	2.97	0.42
1:Z:104:ASN:HA	1:Z:109:ARG:HH22	1.85	0.42
1:A:449:ASP:OD2	1:W:5:VAL:CG1	2.68	0.42
1:B:108:ASP:CG	1:E:49:GLN:HG2	106.77	0.42
1:B:423:GLN:HG3	1:U:42:LYS:HZ3	1.83	0.42
1:D:104:ASN:HA	1:D:109:ARG:HH22	1.85	0.42
1:D:423:GLN:H	1:S:42:LYS:HZ1	1.68	0.42
1:D:90:GLN:HE22	1:H:56:ASN:HA	97.42	0.42
1:D:73:SER:CB	1:G:443:ALA:HB2	2.45	0.42
1:H:452:PHE:CE2	1:L:484:LEU:HD23	71.23	0.42
1:H:90:GLN:HE22	1:L:56:ASN:HA	97.42	0.42
1:I:104:ASN:HA	1:I:109:ARG:HH22	1.85	0.42
1:I:38:ILE:HD13	1:I:48:LEU:N	2.34	0.42
1:D:49:GLN:HG2	1:J:108:ASP:CG	106.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:126:ILE:HD11	1:O:432:ASN:HD22	1.84	0.42
1:H:93:ARG:NH1	1:O:56:ASN:CG	2.69	0.42
1:P:38:ILE:HG22	1:P:448:LYS:HD2	1.95	0.42
1:M:484:LEU:HD23	1:Q:452:PHE:CE2	71.23	0.42
1:D:126:ILE:HD11	1:T:432:ASN:HD22	100.80	0.42
1:A:59:SER:OG	1:V:90:GLN:NE2	2.51	0.42
1:W:38:ILE:CG2	1:W:448:LYS:HD2	2.42	0.42
1:X:38:ILE:CD1	1:X:48:LEU:CA	2.97	0.42
1:C:90:GLN:NE2	1:Y:59:SER:OG	2.51	0.42
1:Z:38:ILE:HG22	1:Z:448:LYS:HD2	1.95	0.42
1:A:425:ARG:HH12	1:J:121:ALA:HB3	1.84	0.42
1:B:38:ILE:HG22	1:B:448:LYS:HD2	1.95	0.42
1:B:5:VAL:CG1	1:X:449:ASP:OD2	2.68	0.42
1:C:127:SER:OG	1:C:139:ASP:HB3	2.20	0.42
1:C:49:GLN:HG2	1:D:108:ASP:CG	106.77	0.42
1:E:5:VAL:CG1	1:I:449:ASP:OD2	78.05	0.42
1:F:104:ASN:HA	1:F:109:ARG:HH22	1.85	0.42
1:A:108:ASP:CG	1:G:49:GLN:HG2	106.77	0.42
1:G:49:GLN:HG2	1:Z:108:ASP:CG	2.40	0.42
1:G:5:VAL:CG1	1:K:449:ASP:OD2	78.05	0.42
1:B:49:GLN:HG2	1:H:108:ASP:CG	106.77	0.42
1:H:452:PHE:CE2	1:O:484:LEU:HD23	2.55	0.42
1:L:38:ILE:HD13	1:L:48:LEU:N	2.34	0.42
1:M:38:ILE:O	1:M:38:ILE:CG2	2.68	0.42
1:I:484:LEU:HD23	1:M:452:PHE:CE2	71.23	0.42
1:O:121:ALA:HB3	1:Y:425:ARG:HH12	1.84	0.42
1:O:5:VAL:CG1	1:S:449:ASP:OD2	78.05	0.42
1:L:93:ARG:NH1	1:P:56:ASN:CG	102.50	0.42
1:R:104:ASN:HA	1:R:109:ARG:HH22	1.85	0.42
1:T:38:ILE:CD1	1:T:48:LEU:CA	2.97	0.42
1:A:5:VAL:CG1	1:V:449:ASP:OD2	2.68	0.42
1:P:443:ALA:HB2	1:Z:73:SER:CB	2.45	0.42
1:A:122:GLU:HG2	1:K:425:ARG:NH1	2.35	0.42
1:B:121:ALA:HB3	1:I:425:ARG:HH12	1.84	0.42
1:B:121:ALA:HB3	1:R:425:ARG:HH12	110.15	0.42
1:B:127:SER:OG	1:B:139:ASP:HB3	2.20	0.42
1:C:425:ARG:NH1	1:S:122:GLU:HG2	106.91	0.42
1:D:146:SER:OG	1:D:146:SER:O	2.36	0.42
1:E:42:LYS:HD2	1:R:420:ALA:CA	2.48	0.42
1:E:484:LEU:HD23	1:R:452:PHE:CE2	2.55	0.42
1:E:425:ARG:NH1	1:F:122:GLU:HG2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:104:ASN:HA	1:G:109:ARG:HH22	1.85	0.42
1:G:127:SER:OG	1:G:139:ASP:HB3	2.20	0.42
1:F:49:GLN:HG2	1:L:108:ASP:CG	106.77	0.42
1:M:56:ASN:CG	1:Q:93:ARG:NH1	102.50	0.42
1:J:90:GLN:NE2	1:N:59:SER:OG	94.11	0.42
1:P:127:SER:OG	1:P:139:ASP:HB3	2.20	0.42
1:Q:38:ILE:HD13	1:Q:48:LEU:N	2.34	0.42
1:B:122:GLU:HG2	1:R:425:ARG:NH1	106.91	0.42
1:S:38:ILE:CG2	1:S:38:ILE:O	2.68	0.42
1:S:38:ILE:CD1	1:S:48:LEU:CA	2.97	0.42
1:B:423:GLN:N	1:U:42:LYS:HZ1	2.17	0.42
1:B:449:ASP:OD2	1:U:5:VAL:CG1	2.68	0.42
1:X:104:ASN:HA	1:X:109:ARG:HH22	1.85	0.42
1:Y:121:ALA:O	1:Y:124:THR:OG1	2.23	0.42
1:C:122:GLU:HG2	1:M:425:ARG:NH1	2.35	0.41
1:E:122:GLU:HG2	1:O:425:ARG:NH1	2.35	0.41
1:F:127:SER:OG	1:F:139:ASP:HB3	2.20	0.41
1:J:104:ASN:HA	1:J:109:ARG:HH22	1.85	0.41
1:F:90:GLN:HE22	1:J:56:ASN:HA	97.42	0.41
1:L:127:SER:OG	1:L:139:ASP:HB3	2.20	0.41
1:M:104:ASN:HA	1:M:109:ARG:HH22	1.85	0.41
1:M:127:SER:OG	1:M:139:ASP:HB3	2.20	0.41
1:N:432:ASN:HD22	1:X:126:ILE:HD11	1.84	0.41
1:O:121:ALA:O	1:O:124:THR:OG1	2.23	0.41
1:H:90:GLN:NE2	1:O:59:SER:OG	2.51	0.41
1:L:90:GLN:NE2	1:P:59:SER:OG	94.11	0.41
1:Q:127:SER:OG	1:Q:139:ASP:HB3	2.20	0.41
1:F:93:ARG:NH1	1:Q:56:ASN:CG	2.69	0.41
1:S:104:ASN:HA	1:S:109:ARG:HH22	1.85	0.41
1:V:38:ILE:CG2	1:V:448:LYS:HD2	2.42	0.41
1:A:38:ILE:CG2	1:A:38:ILE:O	2.68	0.41
1:A:56:ASN:CG	1:E:93:ARG:NH1	102.50	0.41
1:B:423:GLN:HG3	1:F:42:LYS:HZ1	96.05	0.41
1:C:484:LEU:HD23	1:G:452:PHE:CE2	71.23	0.41
1:D:122:GLU:HG2	1:G:425:ARG:NH1	2.35	0.41
1:D:122:GLU:HG2	1:T:425:ARG:NH1	106.91	0.41
1:D:127:SER:OG	1:D:139:ASP:HB3	2.20	0.41
1:E:425:ARG:HH12	1:F:121:ALA:HB3	1.84	0.41
1:F:38:ILE:O	1:F:38:ILE:CG2	2.68	0.41
1:G:38:ILE:O	1:G:38:ILE:CG2	2.68	0.41
1:G:56:ASN:OD1	1:K:93:ARG:NH1	102.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:104:ASN:HA	1:H:109:ARG:HH22	1.85	0.41
1:H:38:ILE:HG21	1:H:448:LYS:HD3	1.91	0.41
1:D:93:ARG:NH1	1:H:56:ASN:CG	102.50	0.41
1:D:449:ASP:OD2	1:H:5:VAL:CG1	78.05	0.41
1:K:5:VAL:CG1	1:L:449:ASP:OD2	2.68	0.41
1:N:127:SER:OG	1:N:139:ASP:HB3	2.20	0.41
1:N:13:ASN:HA	1:N:16:ARG:HH12	1.86	0.41
1:N:449:ASP:OD2	1:R:5:VAL:CG1	78.05	0.41
1:O:127:SER:OG	1:O:139:ASP:HB3	2.20	0.41
1:K:484:LEU:HD23	1:O:452:PHE:CE2	71.22	0.41
1:F:425:ARG:NH1	1:P:122:GLU:HG2	2.35	0.41
1:L:449:ASP:OD2	1:P:5:VAL:CG1	78.05	0.41
1:S:127:SER:OG	1:S:139:ASP:HB3	2.20	0.41
1:W:104:ASN:HA	1:W:109:ARG:HH22	1.85	0.41
1:A:452:PHE:CE2	1:W:484:LEU:HD23	2.55	0.41
1:A:90:GLN:HE22	1:W:56:ASN:HA	1.83	0.41
1:Y:104:ASN:HA	1:Y:109:ARG:HH22	1.85	0.41
1:P:425:ARG:HH12	1:Z:121:ALA:HB3	1.84	0.41
1:A:127:SER:OG	1:A:139:ASP:HB3	2.20	0.41
1:A:38:ILE:HG22	1:A:448:LYS:HD2	1.95	0.41
1:A:49:GLN:HG2	1:F:108:ASP:CG	106.77	0.41
1:B:423:GLN:HG3	1:F:42:LYS:HZ3	96.05	0.41
1:C:104:ASN:HA	1:C:109:ARG:HH22	1.85	0.41
1:D:59:SER:OG	1:Z:90:GLN:NE2	2.51	0.41
1:E:127:SER:OG	1:E:139:ASP:HB3	2.20	0.41
1:F:449:ASP:OD2	1:J:5:VAL:CG1	78.05	0.41
1:G:38:ILE:CD1	1:G:48:LEU:CA	2.97	0.41
1:I:42:LYS:HD2	1:M:420:ALA:N	100.00	0.41
1:J:37:ARG:CZ	1:T:66:ARG:NH1	2.68	0.41
1:J:449:ASP:OD2	1:N:5:VAL:CG1	78.05	0.41
1:B:425:ARG:NH1	1:L:122:GLU:HG2	2.35	0.41
1:H:90:GLN:NE2	1:L:59:SER:OG	94.11	0.41
1:N:452:PHE:CE2	1:R:484:LEU:HD23	71.23	0.41
1:Q:104:ASN:HA	1:Q:109:ARG:HH22	1.85	0.41
1:R:127:SER:OG	1:R:139:ASP:HB3	2.20	0.41
1:N:420:ALA:N	1:R:42:LYS:HD2	100.00	0.41
1:E:5:VAL:CG1	1:R:449:ASP:OD2	2.68	0.41
1:J:425:ARG:NH1	1:T:122:GLU:HG2	2.35	0.41
1:B:484:LEU:HD23	1:X:452:PHE:CE2	2.55	0.41
1:I:425:ARG:HH12	1:Y:121:ALA:HB3	110.15	0.41
1:Z:127:SER:OG	1:Z:139:ASP:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:425:ARG:NH1	1:Q:122:GLU:HG2	106.91	0.41
1:B:449:ASP:OD2	1:F:5:VAL:CG1	78.05	0.41
1:C:423:GLN:HG3	1:Y:42:LYS:HZ1	1.82	0.41
1:E:104:ASN:HA	1:E:109:ARG:HH22	1.85	0.41
1:E:42:LYS:HD2	1:I:420:ALA:CA	99.80	0.41
1:G:432:ASN:HD22	1:W:126:ILE:HD11	100.80	0.41
1:G:5:VAL:CG1	1:P:449:ASP:OD2	2.68	0.41
1:J:13:ASN:HA	1:J:16:ARG:HH12	1.86	0.41
1:A:66:ARG:NH1	1:K:37:ARG:CZ	2.68	0.41
1:H:449:ASP:OD2	1:L:5:VAL:CG1	78.05	0.41
1:M:13:ASN:HA	1:M:16:ARG:HH12	1.86	0.41
1:M:42:LYS:HD2	1:Q:420:ALA:N	100.00	0.41
1:D:425:ARG:NH1	1:N:122:GLU:HG2	2.35	0.41
1:O:13:ASN:HA	1:O:16:ARG:HH12	1.86	0.41
1:K:42:LYS:HD2	1:O:420:ALA:N	100.00	0.41
1:G:122:GLU:HG2	1:Q:425:ARG:NH1	2.35	0.41
1:F:449:ASP:OD2	1:Q:5:VAL:CG1	2.68	0.41
1:O:42:LYS:NZ	1:S:419:LEU:O	99.58	0.41
1:I:425:ARG:NH1	1:Y:122:GLU:HG2	106.91	0.41
1:H:108:ASP:CG	1:Y:49:GLN:HG2	2.40	0.41
1:J:122:GLU:HG2	1:Z:425:ARG:NH1	106.91	0.41
1:A:37:ARG:CZ	1:Q:66:ARG:NH1	89.23	0.41
1:A:439:ASN:HB2	1:Q:77:THR:HG22	92.18	0.41
1:D:449:ASP:OD2	1:S:5:VAL:CG1	2.68	0.41
1:E:425:ARG:HH12	1:U:121:ALA:HB3	110.15	0.41
1:B:93:ARG:NH1	1:F:56:ASN:CG	102.50	0.41
1:G:42:LYS:HD2	1:K:420:ALA:N	100.00	0.41
1:C:425:ARG:HH12	1:H:121:ALA:HB3	1.84	0.41
1:C:425:ARG:NH1	1:H:122:GLU:HG2	2.36	0.41
1:K:13:ASN:HA	1:K:16:ARG:HH12	1.86	0.41
1:K:42:LYS:HD2	1:L:420:ALA:N	2.36	0.41
1:J:420:ALA:N	1:M:42:LYS:HD2	2.36	0.41
1:J:452:PHE:CE2	1:M:484:LEU:HD23	2.55	0.41
1:H:449:ASP:OD2	1:O:5:VAL:CG1	2.68	0.41
1:O:77:THR:HG22	1:Y:439:ASN:HB2	2.03	0.41
1:P:425:ARG:NH1	1:Z:122:GLU:HG2	2.35	0.41
1:R:13:ASN:HA	1:R:16:ARG:HH12	1.86	0.41
1:A:5:VAL:CG1	1:E:449:ASP:OD2	78.05	0.41
1:D:5:VAL:CG1	1:Z:449:ASP:OD2	2.68	0.41
1:E:56:ASN:CG	1:R:93:ARG:NH1	2.69	0.41
1:G:445:SER:O	1:G:449:ASP:N	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:77:THR:HG22	1:Q:439:ASN:HB2	2.03	0.41
1:H:439:ASN:HB2	1:R:77:THR:HG22	2.03	0.41
1:I:127:SER:OG	1:I:139:ASP:HB3	2.20	0.41
1:I:439:ASN:HB2	1:Y:77:THR:HG22	92.18	0.41
1:J:420:ALA:N	1:N:42:LYS:HD2	100.00	0.41
1:L:420:ALA:N	1:P:42:LYS:HD2	100.00	0.41
1:H:420:ALA:N	1:O:42:LYS:HD2	2.36	0.41
1:H:425:ARG:NH1	1:R:122:GLU:HG2	2.35	0.41
1:E:42:LYS:HD2	1:R:420:ALA:N	2.36	0.41
1:B:77:THR:HG22	1:R:439:ASN:HB2	92.18	0.41
1:T:104:ASN:HA	1:T:109:ARG:HH22	1.85	0.41
1:D:121:ALA:HB3	1:T:425:ARG:HH12	110.15	0.41
1:J:439:ASN:HB2	1:T:77:THR:HG22	2.03	0.41
1:U:38:ILE:CD1	1:U:48:LEU:CA	2.97	0.41
1:A:42:LYS:HD2	1:V:420:ALA:N	2.36	0.41
1:A:439:ASN:HB2	1:J:77:THR:HG22	2.03	0.41
1:B:37:ARG:CZ	1:L:66:ARG:NH1	2.68	0.41
1:C:77:THR:HG22	1:M:439:ASN:HB2	2.03	0.41
1:D:439:ASN:HB2	1:N:77:THR:HG22	2.03	0.41
1:F:13:ASN:HA	1:F:16:ARG:HH12	1.86	0.41
1:G:42:LYS:HD2	1:P:420:ALA:N	2.36	0.41
1:H:13:ASN:HA	1:H:16:ARG:HH12	1.86	0.41
1:C:439:ASN:HB2	1:H:77:THR:HG22	2.03	0.41
1:J:127:SER:OG	1:J:139:ASP:HB3	2.20	0.41
1:J:449:ASP:OD2	1:M:5:VAL:CG1	2.68	0.41
1:F:452:PHE:CE2	1:J:484:LEU:HD23	71.22	0.41
1:K:127:SER:OG	1:K:139:ASP:HB3	2.20	0.41
1:M:122:GLU:HG2	1:W:425:ARG:NH1	2.35	0.41
1:J:423:GLN:HG3	1:N:42:LYS:HZ3	96.05	0.41
1:O:104:ASN:HA	1:O:109:ARG:HH22	1.85	0.41
1:K:42:LYS:HZ1	1:O:423:GLN:H	98.08	0.41
1:E:77:THR:HG22	1:O:439:ASN:HB2	2.03	0.41
1:F:439:ASN:HB2	1:P:77:THR:HG22	2.03	0.41
1:Q:13:ASN:HA	1:Q:16:ARG:HH12	1.86	0.41
1:C:42:LYS:HD2	1:T:420:ALA:N	2.36	0.41
1:C:5:VAL:CG1	1:T:449:ASP:OD2	2.68	0.41
1:K:122:GLU:HG2	1:U:425:ARG:NH1	2.35	0.41
1:L:425:ARG:NH1	1:V:122:GLU:HG2	2.35	0.41
1:B:42:LYS:HD2	1:X:420:ALA:N	2.36	0.41
1:A:169:ILE:HG22	1:A:408:ALA:HB1	2.03	0.41
1:A:56:ASN:OD1	1:E:93:ARG:NH1	102.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:445:SER:O	1:B:449:ASP:N	2.41	0.41
1:C:37:ARG:CZ	1:S:66:ARG:NH1	89.23	0.41
1:F:121:ALA:HB3	1:V:425:ARG:HH12	110.15	0.41
1:H:127:SER:OG	1:H:139:ASP:HB3	2.20	0.41
1:I:122:GLU:HG2	1:S:425:ARG:NH1	2.35	0.41
1:I:13:ASN:HA	1:I:16:ARG:HH12	1.85	0.41
1:F:93:ARG:NH1	1:J:56:ASN:CG	102.50	0.41
1:K:104:ASN:HA	1:K:109:ARG:HH22	1.85	0.41
1:K:38:ILE:HG22	1:K:448:LYS:HD2	1.95	0.41
1:H:423:GLN:N	1:L:42:LYS:HZ1	97.65	0.41
1:N:445:SER:O	1:N:449:ASP:N	2.41	0.41
1:O:42:LYS:HZ1	1:S:423:GLN:N	97.66	0.41
1:P:38:ILE:O	1:P:38:ILE:CG2	2.68	0.41
1:P:38:ILE:HG21	1:P:448:LYS:HD3	1.91	0.41
1:F:420:ALA:N	1:Q:42:LYS:HD2	2.36	0.41
1:E:425:ARG:NH1	1:U:122:GLU:HG2	106.91	0.41
1:F:77:THR:HG22	1:V:439:ASN:HB2	92.18	0.41
1:A:423:GLN:N	1:W:42:LYS:HZ1	2.18	0.41
1:M:77:THR:HG22	1:W:439:ASN:HB2	2.03	0.41
1:Y:169:ILE:HG22	1:Y:408:ALA:HB1	2.03	0.41
1:C:449:ASP:OD2	1:Y:5:VAL:CG1	2.68	0.41
1:A:104:ASN:HA	1:A:109:ARG:HH22	1.85	0.41
1:A:423:GLN:HG3	1:W:42:LYS:HZ3	1.86	0.41
1:A:77:THR:HG22	1:K:439:ASN:HB2	2.03	0.41
1:C:56:ASN:OD1	1:T:93:ARG:NH1	2.43	0.41
1:E:56:ASN:OD1	1:R:93:ARG:NH1	2.43	0.41
1:F:169:ILE:HG22	1:F:408:ALA:HB1	2.03	0.41
1:E:439:ASN:HB2	1:F:77:THR:HG22	2.03	0.41
1:D:420:ALA:N	1:H:42:LYS:HD2	100.00	0.41
1:I:42:LYS:HD2	1:N:420:ALA:N	2.36	0.41
1:F:420:ALA:N	1:J:42:LYS:HD2	100.00	0.41
1:L:13:ASN:HA	1:L:16:ARG:HH12	1.86	0.41
1:H:420:ALA:N	1:L:42:LYS:HD2	100.00	0.41
1:N:93:ARG:NH1	1:R:56:ASN:CG	102.50	0.41
1:N:93:ARG:NH1	1:R:56:ASN:OD1	102.85	0.41
1:T:13:ASN:HA	1:T:16:ARG:HH12	1.86	0.41
1:W:38:ILE:CG2	1:W:38:ILE:O	2.68	0.41
1:J:108:ASP:CG	1:W:49:GLN:HG2	2.40	0.41
1:C:93:ARG:NH1	1:Y:56:ASN:OD1	2.43	0.41
1:C:42:LYS:HD2	1:G:420:ALA:N	100.00	0.41
1:C:5:VAL:CG1	1:G:449:ASP:OD2	78.05	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:77:THR:HG22	1:T:439:ASN:HB2	92.18	0.41
1:A:42:LYS:HD2	1:E:420:ALA:N	100.00	0.41
1:E:42:LYS:HD2	1:I:420:ALA:N	100.00	0.41
1:H:169:ILE:HG22	1:H:408:ALA:HB1	2.03	0.41
1:J:38:ILE:CG2	1:J:38:ILE:O	2.68	0.41
1:A:126:ILE:HD11	1:K:432:ASN:HD22	1.83	0.41
1:K:56:ASN:OD1	1:L:93:ARG:NH1	2.43	0.41
1:K:5:VAL:CG1	1:O:449:ASP:OD2	78.05	0.41
1:M:5:VAL:CG1	1:Q:449:ASP:OD2	78.05	0.41
1:P:13:ASN:HA	1:P:16:ARG:HH12	1.86	0.41
1:P:439:ASN:HB2	1:Z:77:THR:HG22	2.03	0.41
1:U:104:ASN:HA	1:U:109:ARG:HH22	1.85	0.41
1:U:127:SER:OG	1:U:139:ASP:HB3	2.20	0.41
1:V:169:ILE:HG22	1:V:408:ALA:HB1	2.03	0.41
1:W:169:ILE:HG22	1:W:408:ALA:HB1	2.03	0.41
1:X:127:SER:OG	1:X:139:ASP:HB3	2.20	0.41
1:A:38:ILE:HG21	1:A:448:LYS:HD3	1.91	0.41
1:B:420:ALA:N	1:U:42:LYS:HD2	2.36	0.41
1:D:169:ILE:HG22	1:D:408:ALA:HB1	2.03	0.41
1:E:13:ASN:HA	1:E:16:ARG:HH12	1.86	0.41
1:B:423:GLN:N	1:F:42:LYS:HZ1	97.65	0.41
1:G:169:ILE:HG22	1:G:408:ALA:HB1	2.03	0.41
1:I:5:VAL:CG1	1:M:449:ASP:OD2	78.05	0.41
1:L:439:ASN:HB2	1:V:77:THR:HG22	2.03	0.41
1:B:439:ASN:HB2	1:L:77:THR:HG22	2.03	0.41
1:N:146:SER:O	1:N:146:SER:OG	2.36	0.41
1:N:39:ASN:OD1	1:N:40:SER:N	2.55	0.41
1:O:42:LYS:HD2	1:S:420:ALA:N	100.00	0.41
1:Q:39:ASN:OD1	1:Q:40:SER:N	2.54	0.41
1:C:439:ASN:HB2	1:S:77:THR:HG22	92.18	0.41
1:T:127:SER:OG	1:T:139:ASP:HB3	2.20	0.41
1:W:39:ASN:OD1	1:W:40:SER:N	2.54	0.41
1:G:439:ASN:HB2	1:W:77:THR:HG22	92.18	0.41
1:Y:127:SER:OG	1:Y:139:ASP:HB3	2.20	0.41
1:O:122:GLU:HG2	1:Y:425:ARG:NH1	2.35	0.41
1:Z:38:ILE:O	1:Z:38:ILE:CG2	2.68	0.41
1:A:420:ALA:N	1:W:42:LYS:HD2	2.36	0.40
1:C:42:LYS:HZ1	1:G:423:GLN:H	98.08	0.40
1:D:77:THR:HG22	1:G:439:ASN:HB2	2.03	0.40
1:E:39:ASN:OD1	1:E:40:SER:N	2.54	0.40
1:G:13:ASN:HA	1:G:16:ARG:HH12	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:122:GLU:HG2	1:X:425:ARG:NH1	106.91	0.40
1:H:39:ASN:OD1	1:H:40:SER:N	2.55	0.40
1:I:445:SER:O	1:I:449:ASP:N	2.41	0.40
1:K:77:THR:HG22	1:U:439:ASN:HB2	2.03	0.40
1:L:38:ILE:HG22	1:L:448:LYS:HD2	1.95	0.40
1:L:39:ASN:OD1	1:L:40:SER:N	2.55	0.40
1:M:39:ASN:OD1	1:M:40:SER:N	2.55	0.40
1:Q:38:ILE:CG2	1:Q:38:ILE:O	2.68	0.40
1:R:39:ASN:OD1	1:R:40:SER:N	2.54	0.40
1:I:77:THR:HG22	1:S:439:ASN:HB2	2.03	0.40
1:W:13:ASN:HA	1:W:16:ARG:HH12	1.86	0.40
1:D:42:LYS:HD2	1:Z:420:ALA:N	2.36	0.40
1:C:169:ILE:HG22	1:C:408:ALA:HB1	2.03	0.40
1:C:39:ASN:OD1	1:C:40:SER:N	2.54	0.40
1:D:13:ASN:HA	1:D:16:ARG:HH12	1.86	0.40
1:D:39:ASN:OD1	1:D:40:SER:N	2.54	0.40
1:E:439:ASN:HB2	1:U:77:THR:HG22	92.18	0.40
1:F:39:ASN:OD1	1:F:40:SER:N	2.55	0.40
1:B:420:ALA:N	1:F:42:LYS:HD2	100.00	0.40
1:G:425:ARG:NH1	1:W:122:GLU:HG2	106.91	0.40
1:I:39:ASN:OD1	1:I:40:SER:N	2.54	0.40
1:J:169:ILE:HG22	1:J:408:ALA:HB1	2.03	0.40
1:N:425:ARG:NH1	1:X:122:GLU:HG2	2.35	0.40
1:O:169:ILE:HG22	1:O:408:ALA:HB1	2.03	0.40
1:O:38:ILE:HG21	1:O:448:LYS:HD3	1.91	0.40
1:H:93:ARG:NH1	1:O:56:ASN:OD1	2.43	0.40
1:C:42:LYS:HZ1	1:T:423:GLN:HG3	1.82	0.40
1:V:104:ASN:HA	1:V:109:ARG:HH22	1.85	0.40
1:V:38:ILE:CD1	1:V:48:LEU:CA	2.97	0.40
1:W:38:ILE:HG21	1:W:448:LYS:CD	2.31	0.40
1:N:439:ASN:HB2	1:X:77:THR:HG22	2.03	0.40
1:C:420:ALA:N	1:Y:42:LYS:HD2	2.36	0.40
1:Z:39:ASN:OD1	1:Z:40:SER:N	2.54	0.40
1:A:425:ARG:NH1	1:J:122:GLU:HG2	2.35	0.40
1:K:39:ASN:OD1	1:K:40:SER:N	2.54	0.40
1:K:56:ASN:OD1	1:O:93:ARG:NH1	102.85	0.40
1:P:142:PHE:HZ	1:P:145:THR:HG1	1.69	0.40
1:S:121:ALA:O	1:S:124:THR:OG1	2.23	0.40
1:S:39:ASN:OD1	1:S:40:SER:N	2.54	0.40
1:T:39:ASN:OD1	1:T:40:SER:N	2.55	0.40
1:F:66:ARG:NH1	1:V:37:ARG:CZ	89.23	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:169:ILE:HG22	1:X:408:ALA:HB1	2.03	0.40
1:Y:38:ILE:CG2	1:Y:448:LYS:HD2	2.42	0.40
1:Y:39:ASN:OD1	1:Y:40:SER:N	2.54	0.40
1:A:39:ASN:OD1	1:A:40:SER:N	2.54	0.40
1:F:122:GLU:HG2	1:V:425:ARG:NH1	106.91	0.40
1:D:93:ARG:NH1	1:H:56:ASN:OD1	102.85	0.40
1:H:77:THR:HG22	1:X:439:ASN:HB2	92.18	0.40
1:B:122:GLU:HG2	1:I:425:ARG:NH1	2.35	0.40
1:J:77:THR:HG22	1:Z:439:ASN:HB2	92.18	0.40
1:K:169:ILE:HG22	1:K:408:ALA:HB1	2.03	0.40
1:V:127:SER:OG	1:V:139:ASP:HB3	2.20	0.40
1:Y:13:ASN:HA	1:Y:16:ARG:HH12	1.86	0.40
1:I:432:ASN:HD22	1:Y:126:ILE:HD11	100.80	0.40
1:N:169:ILE:HG22	1:N:408:ALA:HB1	2.03	0.40
1:O:39:ASN:OD1	1:O:40:SER:N	2.54	0.40
1:P:39:ASN:OD1	1:P:40:SER:N	2.55	0.40
1:S:13:ASN:HA	1:S:16:ARG:HH12	1.86	0.40
1:D:420:ALA:N	1:S:42:LYS:HD2	2.36	0.40
1:U:39:ASN:OD1	1:U:40:SER:N	2.55	0.40
1:W:127:SER:OG	1:W:139:ASP:HB3	2.20	0.40
1:C:423:GLN:N	1:Y:42:LYS:HZ1	2.19	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	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	B	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	C	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	D	265/488 (54%)	246 (93%)	19 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	F	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	G	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	H	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	I	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	J	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	K	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	L	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	M	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	N	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	O	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	P	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	Q	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	R	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	S	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	T	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	U	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	V	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	W	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	X	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	Y	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	Z	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	a	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	b	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	c	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	d	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	e	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	f	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	g	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	h	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	i	265/488 (54%)	246 (93%)	19 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	j	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	k	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	l	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	m	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	n	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
1	o	265/488 (54%)	246 (93%)	19 (7%)	0	100	100
All	All	10865/20008 (54%)	10086 (93%)	779 (7%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	B	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	C	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	D	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	E	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	F	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	G	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	H	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	I	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	J	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	K	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	L	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	M	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	N	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	O	211/363 (58%)	210 (100%)	1 (0%)	91	95

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	P	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	Q	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	R	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	S	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	T	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	U	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	V	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	W	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	X	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	Y	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	Z	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	a	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	b	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	c	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	d	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	e	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	f	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	g	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	h	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	i	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	j	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	k	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	l	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	m	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	n	211/363 (58%)	210 (100%)	1 (0%)	91	95
1	o	211/363 (58%)	210 (100%)	1 (0%)	91	95
All	All	8651/14883 (58%)	8610 (100%)	41 (0%)	91	95

All (41) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	136	LYS
1	B	136	LYS

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Mol	Chain	Res	Type
1	C	136	LYS
1	D	136	LYS
1	E	136	LYS
1	F	136	LYS
1	G	136	LYS
1	H	136	LYS
1	I	136	LYS
1	J	136	LYS
1	K	136	LYS
1	L	136	LYS
1	M	136	LYS
1	N	136	LYS
1	O	136	LYS
1	P	136	LYS
1	Q	136	LYS
1	R	136	LYS
1	S	136	LYS
1	T	136	LYS
1	U	136	LYS
1	V	136	LYS
1	W	136	LYS
1	X	136	LYS
1	Y	136	LYS
1	Z	136	LYS
1	a	136	LYS
1	b	136	LYS
1	c	136	LYS
1	d	136	LYS
1	e	136	LYS
1	f	136	LYS
1	g	136	LYS
1	h	136	LYS
1	i	136	LYS
1	j	136	LYS
1	k	136	LYS
1	l	136	LYS
1	m	136	LYS
1	n	136	LYS
1	o	136	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (229) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	30	GLN
1	A	83	GLN
1	A	148	GLN
1	A	432	ASN
1	A	466	GLN
1	B	30	GLN
1	B	83	GLN
1	B	148	GLN
1	B	432	ASN
1	B	466	GLN
1	C	30	GLN
1	C	83	GLN
1	C	148	GLN
1	C	424	ASN
1	C	432	ASN
1	C	466	GLN
1	D	30	GLN
1	D	83	GLN
1	D	148	GLN
1	D	424	ASN
1	D	432	ASN
1	D	466	GLN
1	E	30	GLN
1	E	83	GLN
1	E	148	GLN
1	E	424	ASN
1	E	432	ASN
1	E	466	GLN
1	F	30	GLN
1	F	83	GLN
1	F	148	GLN
1	F	432	ASN
1	F	466	GLN
1	G	30	GLN
1	G	83	GLN
1	G	148	GLN
1	G	432	ASN
1	G	466	GLN
1	H	30	GLN
1	H	83	GLN
1	H	148	GLN
1	H	424	ASN
1	H	432	ASN

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Mol	Chain	Res	Type
1	H	466	GLN
1	I	30	GLN
1	I	83	GLN
1	I	148	GLN
1	I	424	ASN
1	I	432	ASN
1	I	466	GLN
1	J	30	GLN
1	J	83	GLN
1	J	148	GLN
1	J	424	ASN
1	J	432	ASN
1	J	466	GLN
1	K	30	GLN
1	K	83	GLN
1	K	148	GLN
1	K	424	ASN
1	K	432	ASN
1	K	466	GLN
1	L	30	GLN
1	L	83	GLN
1	L	148	GLN
1	L	424	ASN
1	L	432	ASN
1	L	466	GLN
1	M	30	GLN
1	M	83	GLN
1	M	148	GLN
1	M	432	ASN
1	M	466	GLN
1	N	30	GLN
1	N	83	GLN
1	N	148	GLN
1	N	424	ASN
1	N	432	ASN
1	N	466	GLN
1	O	30	GLN
1	O	83	GLN
1	O	148	GLN
1	O	424	ASN
1	O	432	ASN
1	O	466	GLN

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Mol	Chain	Res	Type
1	P	30	GLN
1	P	83	GLN
1	P	148	GLN
1	P	432	ASN
1	P	466	GLN
1	Q	30	GLN
1	Q	83	GLN
1	Q	148	GLN
1	Q	424	ASN
1	Q	432	ASN
1	Q	466	GLN
1	R	30	GLN
1	R	83	GLN
1	R	148	GLN
1	R	424	ASN
1	R	432	ASN
1	R	466	GLN
1	S	30	GLN
1	S	83	GLN
1	S	148	GLN
1	S	424	ASN
1	S	432	ASN
1	S	466	GLN
1	T	30	GLN
1	T	56	ASN
1	T	83	GLN
1	T	148	GLN
1	T	424	ASN
1	T	432	ASN
1	T	466	GLN
1	U	30	GLN
1	U	148	GLN
1	U	432	ASN
1	U	466	GLN
1	V	30	GLN
1	V	56	ASN
1	V	83	GLN
1	V	148	GLN
1	V	432	ASN
1	V	466	GLN
1	W	30	GLN
1	W	148	GLN

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Mol	Chain	Res	Type
1	W	423	GLN
1	W	424	ASN
1	W	432	ASN
1	W	466	GLN
1	X	30	GLN
1	X	56	ASN
1	X	83	GLN
1	X	148	GLN
1	X	424	ASN
1	X	432	ASN
1	X	466	GLN
1	Y	30	GLN
1	Y	148	GLN
1	Y	424	ASN
1	Y	432	ASN
1	Y	466	GLN
1	Z	30	GLN
1	Z	56	ASN
1	Z	83	GLN
1	Z	148	GLN
1	Z	424	ASN
1	Z	432	ASN
1	Z	466	GLN
1	a	30	GLN
1	a	148	GLN
1	a	424	ASN
1	a	432	ASN
1	a	466	GLN
1	b	30	GLN
1	b	56	ASN
1	b	83	GLN
1	b	148	GLN
1	b	432	ASN
1	b	466	GLN
1	c	30	GLN
1	c	148	GLN
1	c	432	ASN
1	c	466	GLN
1	d	30	GLN
1	d	56	ASN
1	d	83	GLN
1	d	148	GLN

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Mol	Chain	Res	Type
1	d	432	ASN
1	d	466	GLN
1	e	30	GLN
1	e	148	GLN
1	e	424	ASN
1	e	432	ASN
1	e	466	GLN
1	f	30	GLN
1	f	56	ASN
1	f	83	GLN
1	f	148	GLN
1	f	424	ASN
1	f	466	GLN
1	g	30	GLN
1	g	148	GLN
1	g	424	ASN
1	g	432	ASN
1	g	466	GLN
1	h	30	GLN
1	h	56	ASN
1	h	83	GLN
1	h	148	GLN
1	h	424	ASN
1	h	466	GLN
1	i	30	GLN
1	i	148	GLN
1	i	424	ASN
1	i	432	ASN
1	i	466	GLN
1	j	30	GLN
1	j	56	ASN
1	j	83	GLN
1	j	148	GLN
1	j	466	GLN
1	k	30	GLN
1	k	148	GLN
1	k	424	ASN
1	k	432	ASN
1	k	466	GLN
1	l	30	GLN
1	l	56	ASN
1	l	83	GLN

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Mol	Chain	Res	Type
1	l	148	GLN
1	l	424	ASN
1	l	466	GLN
1	m	30	GLN
1	m	148	GLN
1	m	424	ASN
1	m	432	ASN
1	m	466	GLN
1	n	30	GLN
1	n	56	ASN
1	n	83	GLN
1	n	148	GLN
1	n	424	ASN
1	n	466	GLN
1	o	30	GLN
1	o	148	GLN
1	o	432	ASN
1	o	466	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.