



# Full wwPDB X-ray Structure Validation Report ⓘ

Jan 31, 2016 – 07:29 PM GMT

PDB ID : 1FOU  
Title : CONNECTOR PROTEIN FROM BACTERIOPHAGE PHI29  
Authors : Simpson, A.A.; Tao, Y.; Leiman, P.G.; Badasso, M.O.; He, Y.; Jardine, P.J.; Olson, N.H.; Morais, M.C.; Grimes, S.N.; Anderson, D.L.; Baker, T.S.; Rossmann, M.G.  
Deposited on : 2000-08-28  
Resolution : 3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : rb-20026688  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk26865

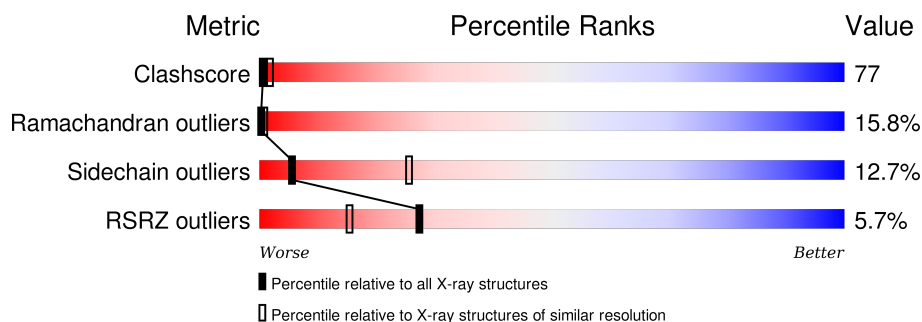
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RSRZ outliers	91569	1129 (3.24-3.16)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	309	<div> <div>3%</div> <div>20% 46% 15% • 17%</div> </div>
1	B	309	<div> <div>4%</div> <div>17% 47% 16% • 17%</div> </div>
1	C	309	<div> <div>5%</div> <div>15% 51% 15% • 17%</div> </div>
1	D	309	<div> <div>3%</div> <div>13% 54% 14% • 17%</div> </div>
1	E	309	<div> <div>11%</div> <div>16% 49% 16% • 17%</div> </div>
1	F	309	<div> <div>6%</div> <div>20% 45% 14% • 17%</div> </div>
1	G	309	<div> <div>6%</div> <div>17% 49% 16% • 17%</div> </div>

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Mol	Chain	Length	Quality of chain
1	H	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div>8%17%51%15%•17%</div></div>
1	I	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div>2%19%48%14%•17%</div></div>
1	J	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div>2%16%49%16%•17%</div></div>
1	K	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div>4%17%49%14%•17%</div></div>
1	L	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div>3%22%42%15%•17%</div></div>

## 2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 25272 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called UPPER COLLAR PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	B	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	C	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	D	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	E	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	F	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	G	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	H	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	I	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	J	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	K	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	L	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			

There are 60 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	225	LYS	LEU	CONFLICT	UNP P04332
A	226	LEU	GLY	CONFLICT	UNP P04332
A	227	GLN	ILE	CONFLICT	UNP P04332
A	228	THR	LYS	CONFLICT	UNP P04332
A	251	ASP	GLU	CONFLICT	UNP P04332

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Chain	Residue	Modelled	Actual	Comment	Reference
B	225	LYS	LEU	CONFLICT	UNP P04332
B	226	LEU	GLY	CONFLICT	UNP P04332
B	227	GLN	ILE	CONFLICT	UNP P04332
B	228	THR	LYS	CONFLICT	UNP P04332
B	251	ASP	GLU	CONFLICT	UNP P04332
C	225	LYS	LEU	CONFLICT	UNP P04332
C	226	LEU	GLY	CONFLICT	UNP P04332
C	227	GLN	ILE	CONFLICT	UNP P04332
C	228	THR	LYS	CONFLICT	UNP P04332
C	251	ASP	GLU	CONFLICT	UNP P04332
D	225	LYS	LEU	CONFLICT	UNP P04332
D	226	LEU	GLY	CONFLICT	UNP P04332
D	227	GLN	ILE	CONFLICT	UNP P04332
D	228	THR	LYS	CONFLICT	UNP P04332
D	251	ASP	GLU	CONFLICT	UNP P04332
E	225	LYS	LEU	CONFLICT	UNP P04332
E	226	LEU	GLY	CONFLICT	UNP P04332
E	227	GLN	ILE	CONFLICT	UNP P04332
E	228	THR	LYS	CONFLICT	UNP P04332
E	251	ASP	GLU	CONFLICT	UNP P04332
F	225	LYS	LEU	CONFLICT	UNP P04332
F	226	LEU	GLY	CONFLICT	UNP P04332
F	227	GLN	ILE	CONFLICT	UNP P04332
F	228	THR	LYS	CONFLICT	UNP P04332
F	251	ASP	GLU	CONFLICT	UNP P04332
G	225	LYS	LEU	CONFLICT	UNP P04332
G	226	LEU	GLY	CONFLICT	UNP P04332
G	227	GLN	ILE	CONFLICT	UNP P04332
G	228	THR	LYS	CONFLICT	UNP P04332
G	251	ASP	GLU	CONFLICT	UNP P04332
H	225	LYS	LEU	CONFLICT	UNP P04332
H	226	LEU	GLY	CONFLICT	UNP P04332
H	227	GLN	ILE	CONFLICT	UNP P04332
H	228	THR	LYS	CONFLICT	UNP P04332
H	251	ASP	GLU	CONFLICT	UNP P04332
I	225	LYS	LEU	CONFLICT	UNP P04332
I	226	LEU	GLY	CONFLICT	UNP P04332
I	227	GLN	ILE	CONFLICT	UNP P04332
I	228	THR	LYS	CONFLICT	UNP P04332
I	251	ASP	GLU	CONFLICT	UNP P04332
J	225	LYS	LEU	CONFLICT	UNP P04332
J	226	LEU	GLY	CONFLICT	UNP P04332

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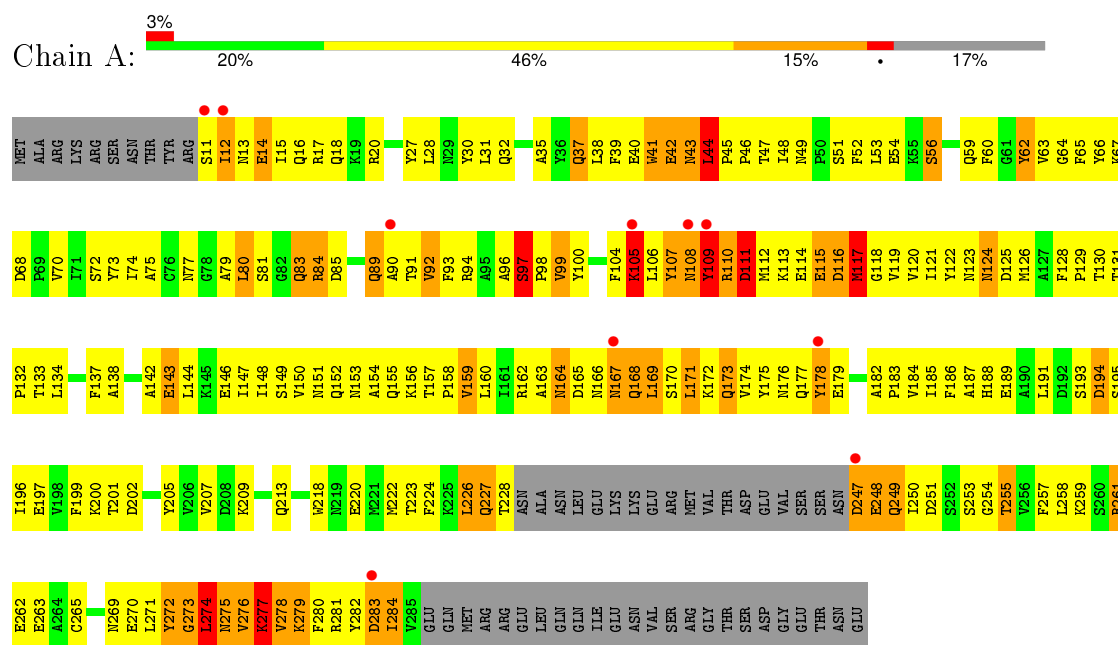
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Chain	Residue	Modelled	Actual	Comment	Reference
J	227	GLN	ILE	CONFLICT	UNP P04332
J	228	THR	LYS	CONFLICT	UNP P04332
J	251	ASP	GLU	CONFLICT	UNP P04332
K	225	LYS	LEU	CONFLICT	UNP P04332
K	226	LEU	GLY	CONFLICT	UNP P04332
K	227	GLN	ILE	CONFLICT	UNP P04332
K	228	THR	LYS	CONFLICT	UNP P04332
K	251	ASP	GLU	CONFLICT	UNP P04332
L	225	LYS	LEU	CONFLICT	UNP P04332
L	226	LEU	GLY	CONFLICT	UNP P04332
L	227	GLN	ILE	CONFLICT	UNP P04332
L	228	THR	LYS	CONFLICT	UNP P04332
L	251	ASP	GLU	CONFLICT	UNP P04332

### 3 Residue-property plots

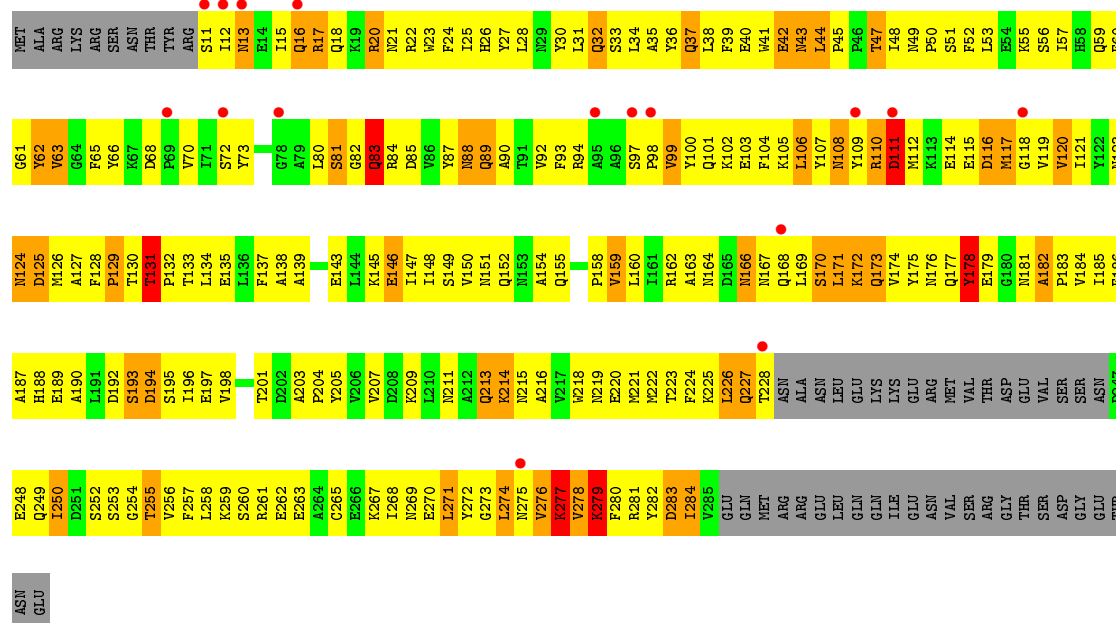
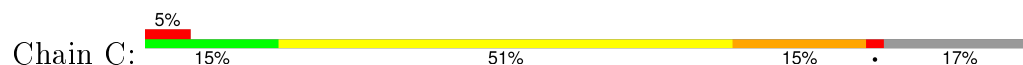
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according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

#### • Molecule 1: UPPER COLLAR PROTEIN

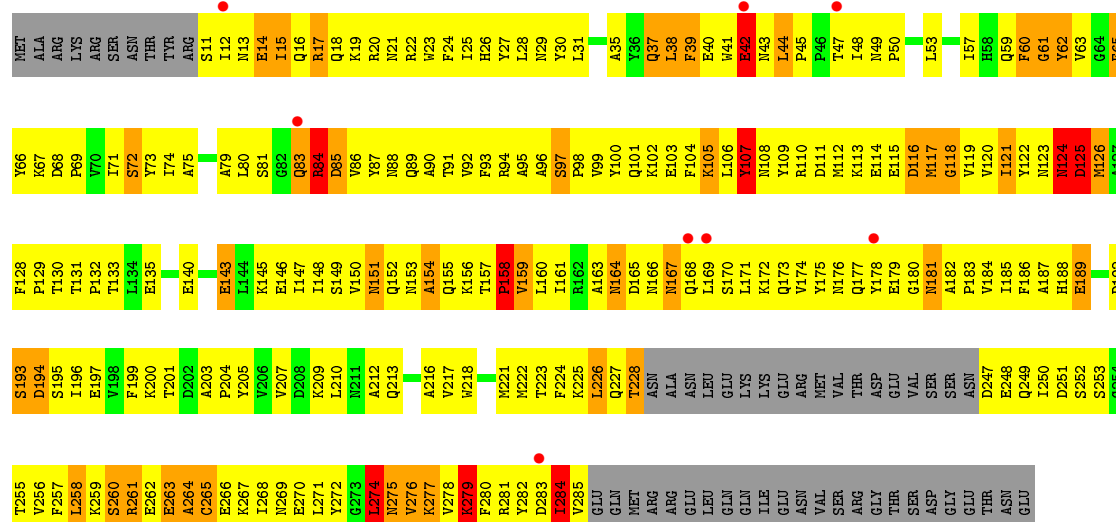
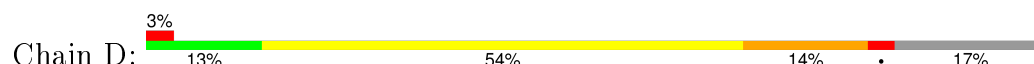




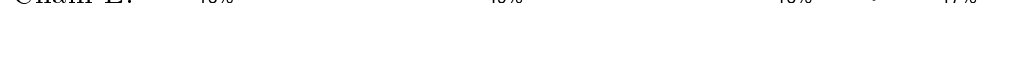
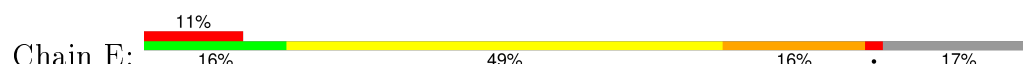
### ● Molecule 1: UPPER COLLAR PROTEIN



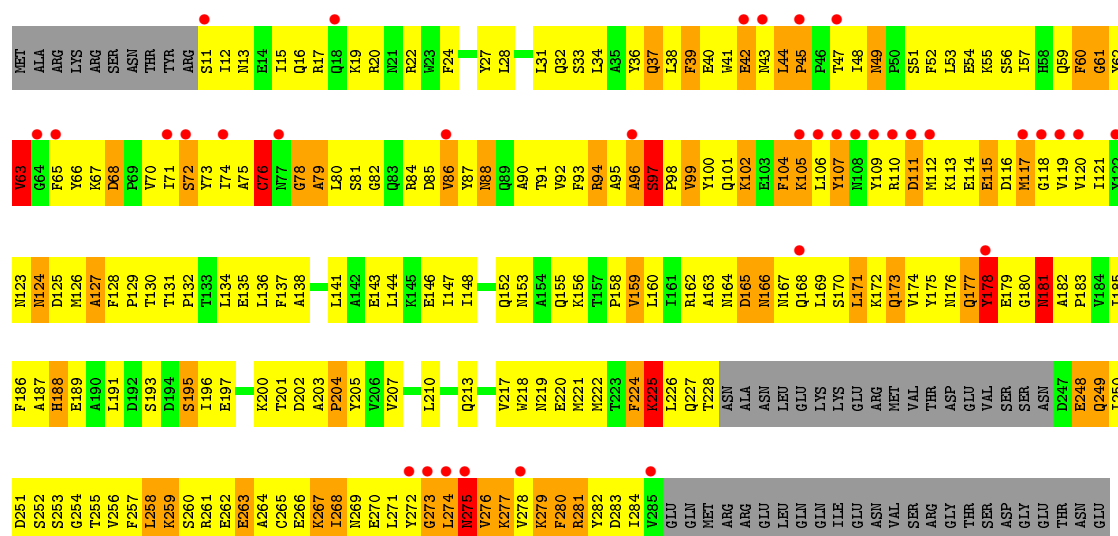
### ● Molecule 1: UPPER COLLAR PROTEIN



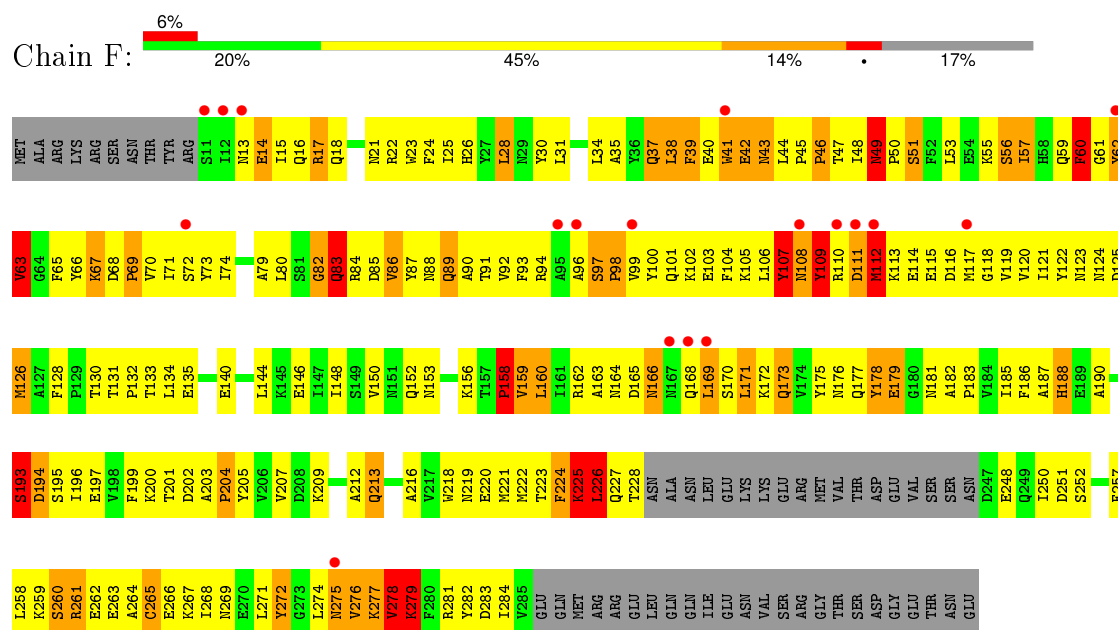
### ● Molecule 1: UPPER COLLAR PROTEIN



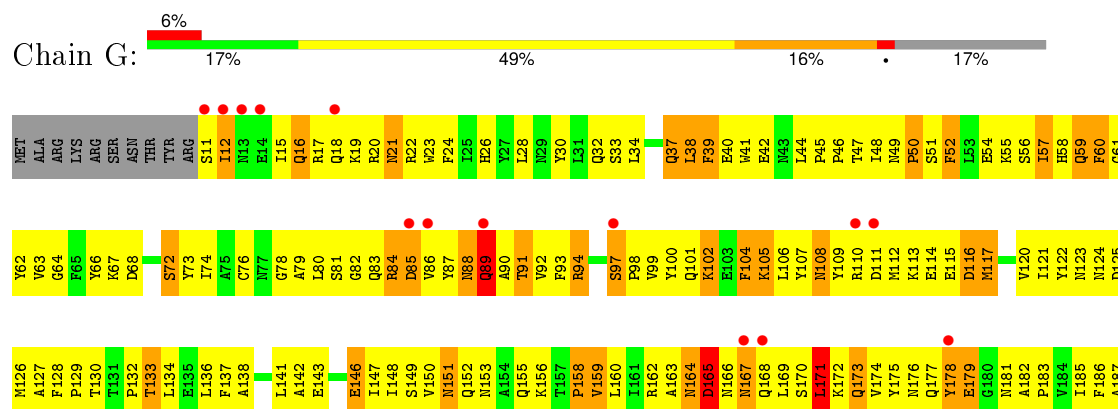




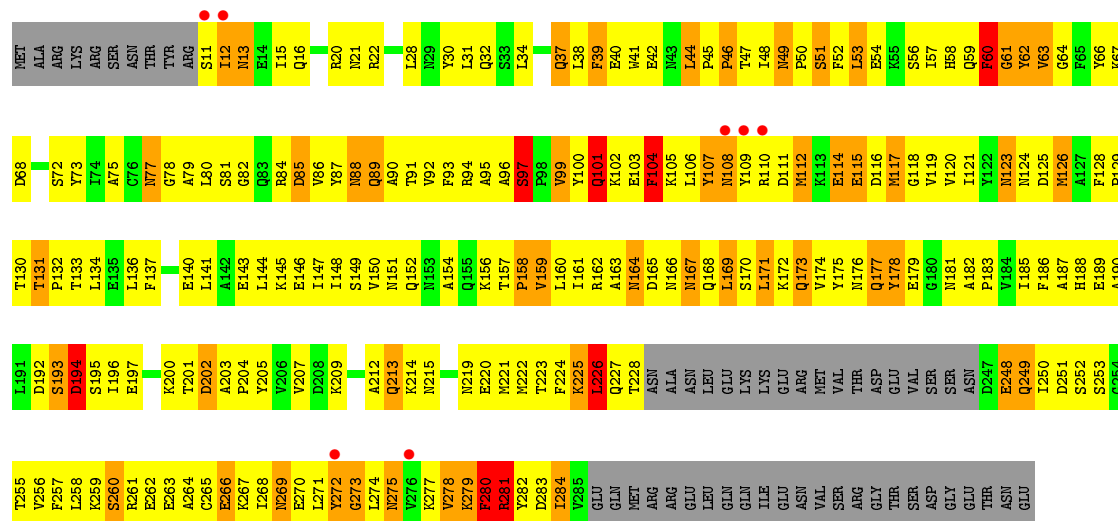
### • Molecule 1: UPPER COLLAR PROTEIN



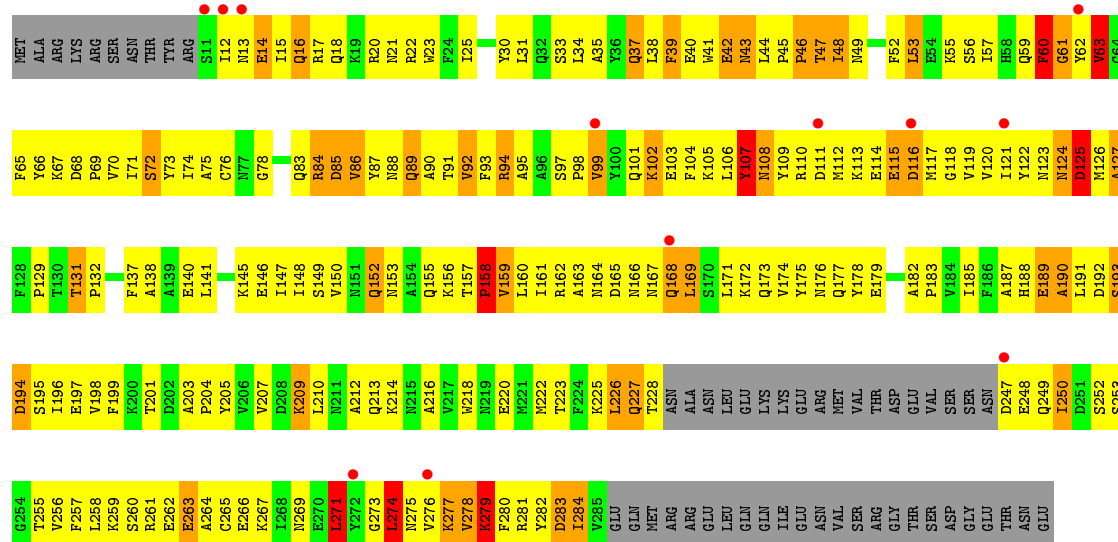
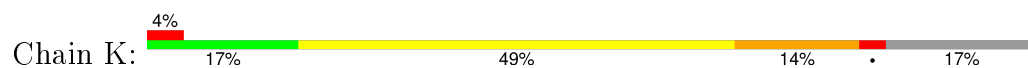
### • Molecule 1: UPPER COLLAR PROTEIN



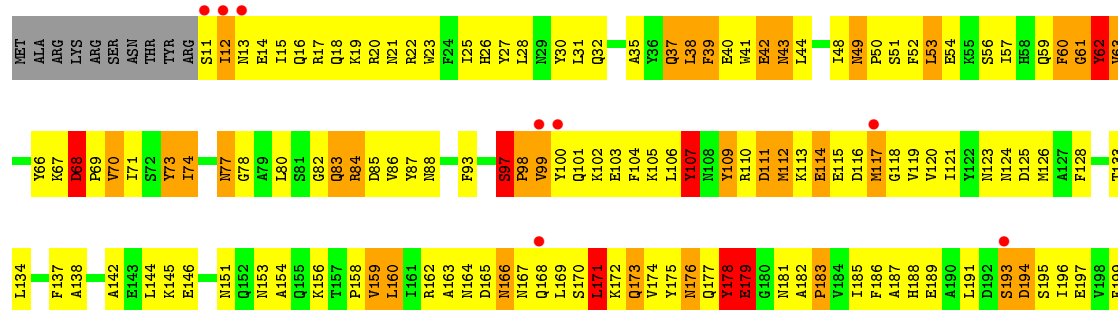
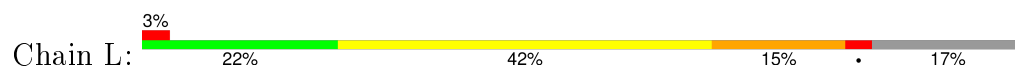




### • Molecule 1: UPPER COLLAR PROTEIN



### • Molecule 1: UPPER COLLAR PROTEIN



K200	T201	D202	A203	P204	Y205	V206	V207	D208	K209	L210	N211	K212	Q213		A216	V217	W218	N219	E220	M221	M222	T223	F224	K225	L226	Q227	T228	ASN	ALA	ASN	ASN	LEU	LEU	LYS	GLU	ARG	MET	VAL	THR	SER	GLU	VAL	SER	ASN	D247	E248	D249	I250	D251		T255	V256	F257	L258	K259	S260	R261	E262
------	------	------	------	------	------	------	------	------	------	------	------	------	------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	--	------	------	------	------	------	------	------	------

E263	A264	C265	E266	K267	I268	M269	E270	L271	Y272	G273	L274	M275	V276	K277	V278	K279	F280	R281	Y282	D283	T284	V285	GLU	GLN	MET	ARG	ARG	GLU	LEU	GLN	GLN	ILE	GLU	ASN	VAL	SER	ARG	GLY	THR	SER	ASP	GLY	GLU	THR	ASN	GLU
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	177.16Å 169.24Å 185.44Å 90.00° 114.10° 90.00°	Depositor
Resolution (Å)	9.00 – 3.20 48.53 – 3.50	Depositor EDS
% Data completeness (in resolution range)	99.5 (9.00-3.20) 99.0 (48.53-3.50)	Depositor EDS
$R_{merge}$	0.03	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	14.94 (at 3.48Å)	Xtriage
Refinement program	CNS	Depositor
R, $R_{free}$	0.290 , 0.360 0.277 , (Not available)	Depositor DCC
$R_{free}$ test set	No test flags present.	DCC
Wilson B-factor (Å <sup>2</sup> )	56.7	Xtriage
Anisotropy	0.434	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 41.8	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.50$ , $\langle L^2 \rangle = 0.33$	Xtriage
Outliers	0 of 62141 reflections	Xtriage
$F_o, F_c$ correlation	0.80	EDS
Total number of atoms	25272	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	15.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.95% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

## 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  >5	RMSZ	# Z  >5
1	A	0.47	0/2153	0.73	2/2918 (0.1%)
1	B	0.46	0/2153	0.74	2/2918 (0.1%)
1	C	0.46	0/2153	0.73	0/2918
1	D	0.44	0/2153	0.75	0/2918
1	E	0.43	0/2153	0.71	1/2918 (0.0%)
1	F	0.45	0/2153	0.70	1/2918 (0.0%)
1	G	0.44	0/2153	0.71	1/2918 (0.0%)
1	H	0.43	0/2153	0.70	2/2918 (0.1%)
1	I	0.49	0/2153	0.77	2/2918 (0.1%)
1	J	0.46	0/2153	0.78	4/2918 (0.1%)
1	K	0.45	0/2153	0.71	0/2918
1	L	0.49	0/2153	0.72	2/2918 (0.1%)
All	All	0.46	0/25836	0.73	17/35016 (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	D	0	1
1	L	0	1
All	All	0	2

There are no bond length outliers.

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	44	LEU	CA-CB-CG	6.78	130.90	115.30
1	E	177	GLN	N-CA-C	-6.53	93.38	111.00
1	G	38	LEU	CA-CB-CG	6.40	130.03	115.30
1	H	38	LEU	CA-CB-CG	6.34	129.88	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	177	GLN	N-CA-C	-6.27	94.06	111.00
1	I	279	LYS	N-CA-C	6.18	127.68	111.00
1	J	177	GLN	N-CA-C	-6.04	94.71	111.00
1	A	105	LYS	N-CA-C	-5.82	95.29	111.00
1	L	171	LEU	N-CA-C	-5.50	96.14	111.00
1	B	252	SER	N-CA-C	-5.44	96.31	111.00
1	J	273	GLY	N-CA-C	5.36	126.50	113.10
1	A	44	LEU	CA-CB-CG	5.25	127.38	115.30
1	F	158	PRO	N-CA-C	-5.19	98.61	112.10
1	J	284	ILE	N-CA-C	-5.15	97.10	111.00
1	L	271	LEU	N-CA-C	-5.13	97.16	111.00
1	J	158	PRO	N-CA-C	-5.11	98.82	112.10
1	I	158	PRO	N-CA-C	-5.04	99.01	112.10

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	D	107	TYR	Sidechain
1	L	62	TYR	Sidechain

## 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	2106	0	2051	310	0
1	B	2106	0	2051	346	0
1	C	2106	0	2051	373	0
1	D	2106	0	2051	395	0
1	E	2106	0	2051	375	0
1	F	2106	0	2051	332	0
1	G	2106	0	2051	364	0
1	H	2106	0	2051	332	0
1	I	2106	0	2051	343	0
1	J	2106	0	2051	370	0
1	K	2106	0	2051	359	0
1	L	2106	0	2051	314	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	25272	0	24612	3838	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 77.

All (3838) 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:F:119:VAL:HG11	1:F:268:ILE:HB	1.31	1.11
1:I:275:ASN:HB2	1:I:277:LYS:HE3	1.18	1.11
1:C:43:ASN:HB2	1:C:277:LYS:HD2	1.33	1.10
1:D:163:ALA:HB3	1:E:187:ALA:HB2	1.26	1.10
1:K:278:VAL:HG23	1:K:279:LYS:H	1.14	1.10
1:J:117:MET:HG3	1:J:118:GLY:H	1.10	1.10
1:G:163:ALA:HB3	1:H:187:ALA:HB2	1.27	1.10
1:C:47:THR:HG21	1:C:73:TYR:H	1.17	1.10
1:H:97:SER:HB3	1:H:98:PRO:HD2	1.32	1.09
1:J:89:GLN:HG3	1:J:91:THR:H	1.17	1.08
1:A:275:ASN:HB3	1:A:277:LYS:HE2	1.34	1.08
1:F:15:ILE:HA	1:F:18:GLN:HE21	1.12	1.07
1:L:278:VAL:HG12	1:L:279:LYS:H	1.19	1.07
1:K:109:TYR:H	1:K:112:MET:HB3	1.11	1.06
1:C:274:LEU:HD23	1:C:276:VAL:H	1.16	1.05
1:J:85:ASP:HB2	1:J:89:GLN:H	1.17	1.04
1:F:108:ASN:HD21	1:F:271:LEU:HB2	1.16	1.04
1:A:108:ASN:HD21	1:A:117:MET:HB2	1.16	1.04
1:I:117:MET:HG2	1:I:271:LEU:HD13	1.36	1.04
1:J:223:THR:HG23	1:J:250:ILE:HG12	1.37	1.04
1:F:277:LYS:NZ	1:F:278:VAL:H	1.56	1.04
1:K:250:ILE:HD13	1:K:250:ILE:H	1.18	1.03
1:D:85:ASP:CG	1:D:89:GLN:HB3	1.79	1.03
1:D:57:ILE:HG22	1:D:123:ASN:HB2	1.38	1.02
1:D:265:CYS:SG	1:D:276:VAL:HA	1.98	1.02
1:B:43:ASN:N	1:B:277:LYS:HZ3	1.56	1.02
1:H:81:SER:HB3	1:H:94:ARG:HE	1.19	1.02
1:C:249:GLN:HG2	1:D:222:MET:HE2	1.38	1.02
1:F:277:LYS:HZ2	1:F:277:LYS:N	1.58	1.02
1:B:84:ARG:HB3	1:B:88:ASN:HA	1.41	1.02
1:C:109:TYR:HB3	1:C:112:MET:SD	1.99	1.02
1:J:147:ILE:HG12	1:K:156:LYS:HE3	1.41	1.01
1:F:41:TRP:HA	1:F:278:VAL:HA	1.39	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:174:VAL:HG13	1:E:177:GLN:HE21	1.24	1.01
1:K:43:ASN:HB3	1:K:277:LYS:HD2	1.43	1.00
1:A:275:ASN:HB3	1:A:277:LYS:CE	1.91	1.00
1:H:201:THR:HG23	1:I:159:VAL:HG11	1.42	0.99
1:C:164:ASN:HB3	1:C:195:SER:HA	1.43	0.99
1:H:182:ALA:HB1	1:H:183:PRO:HD2	1.45	0.99
1:J:66:TYR:HB2	1:J:104:PHE:CZ	1.96	0.99
1:K:162:ARG:NH1	1:L:193:SER:HA	1.77	0.99
1:I:163:ALA:HB3	1:J:187:ALA:HB2	1.45	0.99
1:E:201:THR:HG23	1:F:159:VAL:HG11	1.44	0.98
1:D:158:PRO:O	1:D:159:VAL:HG23	1.62	0.98
1:B:163:ALA:HB3	1:C:187:ALA:HB2	1.41	0.98
1:E:261:ARG:HG3	1:E:261:ARG:HH11	1.24	0.98
1:K:158:PRO:O	1:K:159:VAL:HG23	1.64	0.98
1:G:177:GLN:HG2	1:G:179:GLU:HG2	1.45	0.98
1:J:124:ASN:HD21	1:J:128:PHE:HB2	1.25	0.98
1:A:66:TYR:HB2	1:A:104:PHE:CZ	1.97	0.98
1:D:67:LYS:HB2	1:D:117:MET:HE2	1.42	0.97
1:E:81:SER:HA	1:E:84:ARG:HH22	1.22	0.97
1:A:187:ALA:HB2	1:L:163:ALA:HB3	1.46	0.97
1:C:40:GLU:HB2	1:C:281:ARG:HE	1.28	0.97
1:E:163:ALA:HB3	1:F:187:ALA:HB2	1.45	0.97
1:K:85:ASP:OD1	1:K:89:GLN:HB3	1.65	0.97
1:F:85:ASP:HB3	1:F:89:GLN:HG3	1.47	0.96
1:C:257:PHE:HB3	1:C:261:ARG:HH21	1.27	0.96
1:D:201:THR:HG23	1:E:159:VAL:HG11	1.48	0.96
1:G:41:TRP:HA	1:G:277:LYS:HB3	1.46	0.96
1:E:93:PHE:HB3	1:E:104:PHE:HB2	1.48	0.96
1:I:11:SER:HB3	1:J:172:LYS:HE2	1.48	0.96
1:K:265:CYS:SG	1:K:276:VAL:HA	2.06	0.96
1:H:93:PHE:HB2	1:H:106:LEU:HD21	1.48	0.96
1:J:269:ASN:HD21	1:J:275:ASN:HB2	1.31	0.95
1:A:159:VAL:HG11	1:L:201:THR:HG23	1.48	0.95
1:F:13:ASN:HD21	1:H:179:GLU:HA	1.29	0.95
1:G:17:ARG:HG3	1:G:20:ARG:HH21	1.28	0.95
1:E:44:LEU:HG	1:E:277:LYS:HZ1	1.29	0.95
1:F:84:ARG:HB3	1:F:88:ASN:HA	1.46	0.94
1:E:37:GLN:O	1:E:281:ARG:HD2	1.67	0.94
1:E:93:PHE:HB3	1:E:104:PHE:CB	1.97	0.94
1:L:274:LEU:HD23	1:L:276:VAL:H	1.32	0.94
1:K:109:TYR:H	1:K:112:MET:CB	1.79	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:225:LYS:HE3	1:J:227:GLN:HE21	1.32	0.94
1:L:164:ASN:HD22	1:L:195:SER:HA	1.32	0.94
1:D:84:ARG:HH11	1:D:84:ARG:HB3	1.33	0.94
1:K:67:LYS:HG2	1:K:117:MET:HG2	1.48	0.94
1:K:55:LYS:HB3	1:K:59:GLN:HE22	1.31	0.93
1:H:163:ALA:HB3	1:I:187:ALA:HB2	1.47	0.93
1:A:85:ASP:OD1	1:A:89:GLN:HB2	1.69	0.93
1:D:174:VAL:HG12	1:D:177:GLN:NE2	1.83	0.92
1:D:11:SER:N	1:F:179:GLU:HB3	1.83	0.92
1:K:117:MET:HB2	1:K:271:LEU:HD13	1.51	0.92
1:J:249:GLN:O	1:J:253:SER:HB2	1.69	0.92
1:I:123:ASN:ND2	1:I:261:ARG:HH21	1.67	0.92
1:E:78:GLY:HA3	1:E:95:ALA:HA	1.50	0.92
1:I:162:ARG:NH1	1:J:193:SER:HA	1.85	0.92
1:J:222:MET:HB3	1:J:227:GLN:HB2	1.52	0.91
1:B:87:TYR:O	1:B:88:ASN:HB2	1.70	0.91
1:D:174:VAL:HG12	1:D:177:GLN:HE21	1.34	0.91
1:J:77:ASN:H	1:J:77:ASN:HD22	1.04	0.91
1:E:265:CYS:O	1:E:268:ILE:HG22	1.69	0.91
1:K:269:ASN:ND2	1:K:275:ASN:H	1.69	0.91
1:B:43:ASN:HB2	1:B:277:LYS:HD2	1.51	0.90
1:D:269:ASN:HB3	1:D:274:LEU:HA	1.53	0.90
1:D:174:VAL:O	1:D:177:GLN:HG3	1.70	0.90
1:E:99:VAL:HG13	1:E:100:TYR:H	1.34	0.90
1:A:163:ALA:HB3	1:B:187:ALA:HB2	1.53	0.90
1:J:67:LYS:HZ2	1:J:272:TYR:HE2	0.94	0.90
1:F:41:TRP:HZ3	1:F:265:CYS:HB3	1.34	0.89
1:F:261:ARG:HD2	1:F:261:ARG:H	1.33	0.89
1:H:53:LEU:HG	1:H:65:PHE:CZ	2.07	0.89
1:L:15:ILE:HA	1:L:18:GLN:HE21	1.37	0.89
1:J:89:GLN:HG3	1:J:91:THR:N	1.88	0.89
1:K:269:ASN:HD21	1:K:275:ASN:H	1.18	0.89
1:L:248:GLU:O	1:L:250:ILE:N	2.05	0.89
1:E:66:TYR:HB2	1:E:104:PHE:CZ	2.08	0.89
1:D:117:MET:HG3	1:D:271:LEU:HD13	1.55	0.89
1:B:42:GLU:C	1:B:277:LYS:HZ3	1.76	0.89
1:K:163:ALA:HB3	1:L:187:ALA:HB2	1.52	0.89
1:I:201:THR:HG23	1:J:159:VAL:HG11	1.55	0.89
1:H:13:ASN:HA	1:H:16:GLN:HE21	1.38	0.88
1:J:201:THR:HG23	1:K:159:VAL:HG11	1.55	0.88
1:B:117:MET:HB2	1:B:271:LEU:HD13	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:48:ILE:HD11	1:J:73:TYR:HB3	1.56	0.88
1:D:44:LEU:HD23	1:D:275:ASN:ND2	1.87	0.88
1:C:43:ASN:N	1:C:277:LYS:HZ3	1.71	0.88
1:B:108:ASN:ND2	1:B:119:VAL:HG21	1.88	0.88
1:J:275:ASN:O	1:J:277:LYS:HG3	1.74	0.88
1:G:89:GLN:NE2	1:G:91:THR:HA	1.89	0.87
1:J:77:ASN:HD22	1:J:77:ASN:N	1.70	0.87
1:D:148:ILE:HG23	1:D:207:VAL:HG13	1.56	0.87
1:L:42:GLU:O	1:L:43:ASN:HB2	1.73	0.87
1:H:97:SER:HB3	1:H:98:PRO:CD	2.04	0.87
1:B:270:GLU:O	1:B:271:LEU:HG	1.74	0.87
1:F:164:ASN:HB3	1:F:195:SER:HA	1.54	0.87
1:C:131:THR:O	1:C:135:GLU:HG3	1.75	0.87
1:B:223:THR:HG23	1:B:250:ILE:HG23	1.57	0.87
1:G:16:GLN:HG3	1:G:20:ARG:NE	1.89	0.87
1:K:193:SER:O	1:K:194:ASP:HB2	1.75	0.87
1:D:107:TYR:HB2	1:D:267:LYS:HD3	1.56	0.86
1:K:109:TYR:N	1:K:112:MET:HB3	1.89	0.86
1:C:163:ALA:HB3	1:D:187:ALA:CB	2.05	0.86
1:K:94:ARG:HG3	1:K:103:GLU:HG2	1.57	0.86
1:A:201:THR:HG23	1:B:159:VAL:HG11	1.55	0.86
1:F:47:THR:HG21	1:F:72:SER:HB3	1.55	0.86
1:I:112:MET:O	1:I:113:LYS:HB2	1.74	0.86
1:G:163:ALA:HB3	1:H:187:ALA:CB	2.05	0.86
1:H:62:TYR:HE2	1:H:79:ALA:HA	1.39	0.86
1:A:164:ASN:HB3	1:A:195:SER:HA	1.57	0.86
1:A:108:ASN:ND2	1:A:117:MET:HB2	1.91	0.86
1:G:168:GLN:HB3	1:G:188:HIS:NE2	1.89	0.86
1:K:105:LYS:NZ	1:K:114:GLU:HG2	1.90	0.86
1:I:117:MET:CE	1:I:271:LEU:HD22	2.06	0.86
1:D:44:LEU:HD23	1:D:275:ASN:HD21	1.37	0.86
1:I:28:LEU:HD11	1:I:135:GLU:HG2	1.58	0.86
1:A:104:PHE:O	1:A:105:LYS:HG3	1.74	0.85
1:E:44:LEU:HA	1:E:275:ASN:HD21	1.42	0.85
1:D:43:ASN:O	1:D:44:LEU:HB2	1.76	0.85
1:I:124:ASN:HD21	1:I:128:PHE:H	1.24	0.85
1:F:277:LYS:HZ3	1:F:278:VAL:H	1.19	0.85
1:D:105:LYS:HE2	1:D:105:LYS:H	1.39	0.85
1:F:31:LEU:HB3	1:F:134:LEU:HD22	1.56	0.85
1:K:102:LYS:HG3	1:K:103:GLU:H	1.39	0.85
1:J:117:MET:HG3	1:J:118:GLY:N	1.91	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:44:LEU:HD23	1:B:275:ASN:HD21	1.39	0.85
1:H:44:LEU:HB3	1:H:45:PRO:HD2	1.57	0.85
1:A:133:THR:HG21	1:A:224:PHE:CE2	2.12	0.85
1:I:74:ILE:HG12	1:I:75:ALA:H	1.41	0.85
1:D:249:GLN:HG3	1:D:250:ILE:HD12	1.59	0.85
1:I:258:LEU:HD21	1:I:278:VAL:HG13	1.55	0.85
1:K:42:GLU:C	1:K:277:LYS:HZ3	1.80	0.85
1:I:61:GLY:O	1:I:63:VAL:HG23	1.77	0.85
1:J:174:VAL:CG1	1:J:177:GLN:HE21	1.89	0.85
1:B:108:ASN:CG	1:B:267:LYS:HB3	1.97	0.84
1:J:108:ASN:ND2	1:J:271:LEU:HB2	1.92	0.84
1:I:277:LYS:HG3	1:I:278:VAL:H	1.42	0.84
1:K:53:LEU:HD21	1:K:121:ILE:HD12	1.58	0.84
1:D:43:ASN:H	1:D:277:LYS:HD2	1.41	0.84
1:C:53:LEU:HD12	1:C:63:VAL:HG21	1.57	0.84
1:K:41:TRP:O	1:K:277:LYS:HG2	1.77	0.84
1:L:126:MET:HG2	1:L:128:PHE:CZ	2.12	0.84
1:I:56:SER:HB3	1:I:63:VAL:HG22	1.59	0.84
1:J:258:LEU:HD12	1:J:278:VAL:HG12	1.60	0.84
1:A:261:ARG:HB3	1:A:278:VAL:HG13	1.60	0.84
1:I:42:GLU:O	1:I:43:ASN:HB2	1.77	0.84
1:H:124:ASN:ND2	1:H:128:PHE:HB2	1.93	0.84
1:C:89:GLN:HE22	1:C:107:TYR:HD2	1.25	0.84
1:A:43:ASN:O	1:A:44:LEU:HB2	1.76	0.83
1:L:106:LEU:HD22	1:L:120:VAL:HG23	1.58	0.83
1:L:117:MET:CE	1:L:271:LEU:HG	2.08	0.83
1:B:42:GLU:H	1:B:277:LYS:HB3	1.43	0.83
1:K:275:ASN:HD22	1:K:277:LYS:HE2	1.43	0.83
1:D:18:GLN:HG2	1:D:22:ARG:HH12	1.42	0.83
1:C:119:VAL:HG11	1:C:268:ILE:HG22	1.61	0.83
1:A:274:LEU:O	1:A:275:ASN:HB2	1.76	0.83
1:B:16:GLN:HG2	1:B:20:ARG:HD2	1.59	0.83
1:A:93:PHE:H	1:A:104:PHE:HB2	1.43	0.83
1:K:278:VAL:HG23	1:K:279:LYS:N	1.93	0.83
1:H:81:SER:CB	1:H:94:ARG:HE	1.90	0.83
1:J:201:THR:HG21	1:L:183:PRO:HG3	1.60	0.83
1:G:81:SER:HB3	1:G:94:ARG:HE	1.40	0.83
1:E:44:LEU:HD12	1:E:44:LEU:N	1.93	0.83
1:G:188:HIS:O	1:G:190:ALA:N	2.10	0.83
1:E:49:ASN:HD21	1:E:51:SER:HB3	1.43	0.83
1:L:69:PRO:O	1:L:70:VAL:HG13	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:266:GLU:HA	1:I:269:ASN:HD22	1.42	0.83
1:A:93:PHE:HB3	1:A:104:PHE:CG	2.14	0.83
1:I:117:MET:CG	1:I:271:LEU:HD13	2.09	0.82
1:E:44:LEU:HG	1:E:277:LYS:NZ	1.94	0.82
1:J:89:GLN:CG	1:J:91:THR:H	1.92	0.82
1:C:283:ASP:HB3	1:C:284:ILE:HD12	1.58	0.82
1:D:179:GLU:HG3	1:D:181:ASN:H	1.41	0.82
1:I:43:ASN:HB3	1:I:277:LYS:NZ	1.94	0.82
1:D:276:VAL:O	1:D:277:LYS:HG3	1.80	0.82
1:C:102:LYS:HG3	1:C:103:GLU:H	1.43	0.82
1:L:117:MET:HG2	1:L:271:LEU:HD21	1.60	0.82
1:E:182:ALA:HB1	1:E:183:PRO:HD2	1.60	0.82
1:H:256:VAL:HG11	1:I:33:SER:HB3	1.62	0.82
1:F:107:TYR:HB2	1:F:267:LYS:HD3	1.61	0.82
1:E:11:SER:N	1:G:181:ASN:HD22	1.76	0.82
1:C:163:ALA:HB3	1:D:187:ALA:HB2	1.61	0.82
1:I:228:THR:HB	1:I:250:ILE:HD11	1.62	0.82
1:F:117:MET:HE2	1:F:271:LEU:HD11	1.61	0.81
1:C:47:THR:CG2	1:C:73:TYR:H	1.92	0.81
1:H:81:SER:HB3	1:H:94:ARG:NE	1.94	0.81
1:I:262:GLU:HG2	1:I:278:VAL:HG22	1.60	0.81
1:G:148:ILE:O	1:G:152:GLN:HG3	1.80	0.81
1:G:221:MET:HE2	1:G:221:MET:O	1.81	0.81
1:J:117:MET:CG	1:J:118:GLY:H	1.87	0.81
1:E:174:VAL:CG1	1:E:177:GLN:HE21	1.94	0.81
1:K:250:ILE:HD13	1:K:250:ILE:N	1.95	0.81
1:D:43:ASN:H	1:D:277:LYS:CD	1.92	0.81
1:B:43:ASN:N	1:B:277:LYS:NZ	2.29	0.81
1:C:63:VAL:CG1	1:C:121:ILE:HB	2.11	0.81
1:A:148:ILE:HG23	1:A:207:VAL:HG13	1.62	0.81
1:G:249:GLN:HA	1:G:252:SER:HB2	1.61	0.81
1:E:16:GLN:NE2	1:E:20:ARG:HH21	1.78	0.81
1:F:93:PHE:HB2	1:F:106:LEU:HD21	1.61	0.81
1:C:41:TRP:O	1:C:277:LYS:HB3	1.80	0.81
1:K:124:ASN:ND2	1:K:126:MET:H	1.77	0.81
1:H:13:ASN:HD22	1:J:179:GLU:HG2	1.43	0.81
1:D:84:ARG:NH1	1:D:84:ARG:HB3	1.94	0.81
1:G:89:GLN:HE21	1:G:91:THR:HA	1.44	0.81
1:B:62:TYR:HE2	1:B:80:LEU:HG	1.46	0.81
1:C:268:ILE:HD12	1:C:275:ASN:HD22	1.46	0.81
1:E:174:VAL:HG13	1:E:177:GLN:NE2	1.95	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:44:LEU:HA	1:D:275:ASN:HD21	1.46	0.81
1:D:283:ASP:O	1:D:285:VAL:HG13	1.79	0.81
1:B:168:GLN:HE22	1:B:169:LEU:HG	1.45	0.81
1:G:17:ARG:HG3	1:G:20:ARG:NH2	1.95	0.81
1:I:278:VAL:HG12	1:I:279:LYS:N	1.94	0.81
1:C:40:GLU:HG3	1:C:281:ARG:HH21	1.45	0.80
1:K:259:LYS:O	1:K:262:GLU:HG2	1.81	0.80
1:A:223:THR:HG23	1:A:250:ILE:HG12	1.64	0.80
1:C:117:MET:SD	1:C:271:LEU:HB2	2.21	0.80
1:L:201:THR:O	1:L:201:THR:HG22	1.80	0.80
1:G:148:ILE:HG23	1:G:207:VAL:HG13	1.64	0.80
1:B:174:VAL:O	1:B:177:GLN:HG2	1.81	0.80
1:K:109:TYR:C	1:K:111:ASP:H	1.82	0.80
1:D:250:ILE:HD12	1:D:250:ILE:H	1.46	0.80
1:H:87:TYR:CD1	1:I:49:ASN:HB2	2.17	0.80
1:J:258:LEU:CD1	1:J:278:VAL:HG12	2.12	0.80
1:L:274:LEU:HD23	1:L:275:ASN:N	1.95	0.80
1:E:81:SER:HA	1:E:84:ARG:NH2	1.96	0.80
1:B:274:LEU:C	1:B:274:LEU:HD23	2.02	0.80
1:J:205:TYR:CZ	1:J:207:VAL:HB	2.16	0.80
1:I:164:ASN:HB2	1:I:195:SER:HA	1.61	0.80
1:F:248:GLU:OE2	1:G:227:GLN:HA	1.82	0.79
1:K:250:ILE:CD1	1:K:250:ILE:H	1.86	0.79
1:I:45:PRO:HG2	1:I:48:ILE:HD13	1.64	0.79
1:C:43:ASN:HB2	1:C:277:LYS:CD	2.12	0.79
1:L:117:MET:HE3	1:L:271:LEU:HG	1.62	0.79
1:K:106:LEU:HD22	1:K:120:VAL:HG23	1.63	0.79
1:H:40:GLU:HB2	1:H:281:ARG:HG2	1.63	0.79
1:D:124:ASN:HB2	1:D:256:VAL:O	1.83	0.79
1:D:163:ALA:HB3	1:E:187:ALA:CB	2.11	0.79
1:A:90:ALA:HB3	1:A:106:LEU:HD12	1.63	0.79
1:E:163:ALA:O	1:F:187:ALA:HA	1.83	0.79
1:G:15:ILE:O	1:G:18:GLN:HB2	1.83	0.79
1:L:41:TRP:HE3	1:L:277:LYS:HG3	1.48	0.79
1:C:223:THR:HG23	1:C:250:ILE:HD13	1.63	0.79
1:C:107:TYR:CZ	1:C:109:TYR:HB2	2.18	0.79
1:B:78:GLY:HA3	1:B:94:ARG:O	1.82	0.79
1:K:110:ARG:HG3	1:K:111:ASP:OD1	1.83	0.79
1:D:68:ASP:OD2	1:D:71:ILE:HG12	1.83	0.79
1:F:277:LYS:NZ	1:F:277:LYS:N	2.31	0.78
1:L:271:LEU:O	1:L:272:TYR:HB2	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:123:ASN:ND2	1:C:261:ARG:HH22	1.81	0.78
1:C:274:LEU:HD23	1:C:276:VAL:N	1.96	0.78
1:C:40:GLU:HB2	1:C:281:ARG:NE	1.98	0.78
1:G:222:MET:HB3	1:G:227:GLN:HB2	1.63	0.78
1:D:197:GLU:HG2	1:D:199:PHE:CZ	2.18	0.78
1:B:249:GLN:O	1:B:253:SER:HB2	1.83	0.78
1:G:67:LYS:HA	1:G:73:TYR:HA	1.66	0.78
1:D:279:LYS:HB3	1:D:279:LYS:HZ2	1.48	0.78
1:B:108:ASN:HD21	1:B:119:VAL:HG11	1.47	0.78
1:I:168:GLN:HB3	1:I:188:HIS:CE1	2.18	0.78
1:K:275:ASN:O	1:K:277:LYS:HD3	1.84	0.78
1:A:115:GLU:O	1:A:116:ASP:HB3	1.84	0.78
1:G:19:LYS:HG3	1:G:22:ARG:HH12	1.49	0.78
1:H:278:VAL:HG23	1:H:279:LYS:H	1.49	0.78
1:L:57:ILE:HG12	1:L:63:VAL:HG21	1.65	0.78
1:L:73:TYR:HE2	1:L:271:LEU:HD13	1.47	0.78
1:J:172:LYS:HE3	1:K:179:GLU:OE2	1.84	0.78
1:G:85:ASP:HB3	1:G:89:GLN:N	1.97	0.78
1:J:262:GLU:HA	1:J:278:VAL:HG21	1.66	0.78
1:D:258:LEU:HA	1:D:261:ARG:HD2	1.65	0.78
1:D:284:ILE:HD12	1:D:284:ILE:N	1.98	0.78
1:B:39:PHE:HA	1:B:279:LYS:O	1.83	0.78
1:K:269:ASN:HD21	1:K:275:ASN:N	1.82	0.78
1:E:28:LEU:HD11	1:E:135:GLU:HG2	1.66	0.78
1:C:257:PHE:HB3	1:C:261:ARG:NH2	1.97	0.78
1:C:271:LEU:HD12	1:C:271:LEU:O	1.85	0.77
1:K:85:ASP:CG	1:K:89:GLN:HB3	2.04	0.77
1:L:15:ILE:HA	1:L:18:GLN:NE2	1.99	0.77
1:G:80:LEU:HB3	1:G:90:ALA:CB	2.15	0.77
1:B:53:LEU:HD11	1:B:121:ILE:HD12	1.65	0.77
1:H:264:ALA:HA	1:H:267:LYS:HG3	1.65	0.77
1:D:87:TYR:OH	1:E:48:ILE:HA	1.85	0.77
1:E:65:PHE:CD2	1:E:268:ILE:HD11	2.19	0.77
1:G:170:SER:O	1:G:174:VAL:HG23	1.84	0.77
1:L:274:LEU:HD23	1:L:276:VAL:N	1.99	0.77
1:E:158:PRO:O	1:E:159:VAL:HB	1.85	0.77
1:I:74:ILE:HG12	1:I:75:ALA:N	2.00	0.77
1:H:87:TYR:OH	1:I:48:ILE:HA	1.84	0.77
1:D:169:LEU:HB3	1:D:186:PHE:CE1	2.20	0.77
1:B:117:MET:HB3	1:B:271:LEU:HD22	1.67	0.77
1:H:86:VAL:N	1:I:99:VAL:HG11	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:43:ASN:HB2	1:D:277:LYS:HE2	1.65	0.77
1:D:117:MET:HG3	1:D:271:LEU:CD1	2.14	0.77
1:C:174:VAL:O	1:C:177:GLN:HB3	1.85	0.77
1:H:123:ASN:HD22	1:H:261:ARG:NH2	1.83	0.77
1:H:11:SER:N	1:J:181:ASN:HD22	1.81	0.77
1:K:67:LYS:CG	1:K:117:MET:HG2	2.15	0.77
1:F:277:LYS:O	1:F:279:LYS:N	2.18	0.77
1:J:67:LYS:HD3	1:J:117:MET:SD	2.26	0.77
1:B:44:LEU:HA	1:B:275:ASN:ND2	1.99	0.77
1:L:168:GLN:HE22	1:L:169:LEU:HG	1.48	0.77
1:B:171:LEU:O	1:B:172:LYS:HB3	1.83	0.77
1:A:143:GLU:O	1:A:147:ILE:HG13	1.84	0.77
1:I:259:LYS:O	1:I:263:GLU:HG2	1.86	0.76
1:D:81:SER:HB3	1:D:94:ARG:NH2	1.99	0.76
1:C:89:GLN:HG2	1:C:90:ALA:O	1.84	0.76
1:E:165:ASP:OD1	1:E:191:LEU:HA	1.84	0.76
1:C:201:THR:CG2	1:D:159:VAL:HG11	2.16	0.76
1:E:158:PRO:HB2	1:E:200:LYS:NZ	2.00	0.76
1:D:89:GLN:HG2	1:D:90:ALA:N	1.99	0.76
1:J:164:ASN:HB3	1:J:195:SER:HA	1.66	0.76
1:E:263:GLU:HG2	1:E:267:LYS:HZ2	1.50	0.76
1:F:277:LYS:NZ	1:F:278:VAL:N	2.34	0.76
1:I:106:LEU:HD22	1:I:120:VAL:HG23	1.67	0.76
1:I:68:ASP:OD1	1:I:69:PRO:HD2	1.85	0.76
1:B:91:THR:HG22	1:B:92:VAL:HG23	1.68	0.76
1:A:226:LEU:HD11	1:A:283:ASP:OD1	1.85	0.76
1:I:100:TYR:OH	1:I:102:LYS:HD2	1.85	0.76
1:D:279:LYS:NZ	1:D:279:LYS:HB3	2.01	0.76
1:J:177:GLN:O	1:J:179:GLU:N	2.18	0.76
1:G:274:LEU:O	1:G:275:ASN:HB2	1.83	0.76
1:K:87:TYR:O	1:K:88:ASN:HB2	1.85	0.76
1:G:90:ALA:O	1:G:92:VAL:N	2.18	0.76
1:J:156:LYS:O	1:J:157:THR:HG23	1.86	0.76
1:A:20:ARG:HG2	1:A:146:GLU:HG3	1.68	0.76
1:E:53:LEU:HB2	1:E:63:VAL:HG21	1.67	0.76
1:G:41:TRP:CA	1:G:277:LYS:HB3	2.16	0.76
1:I:201:THR:HG22	1:I:201:THR:O	1.85	0.76
1:F:277:LYS:HZ2	1:F:277:LYS:CA	1.99	0.76
1:H:82:GLY:HA3	1:H:91:THR:HB	1.67	0.76
1:I:162:ARG:HH12	1:J:193:SER:HA	1.48	0.76
1:I:163:ALA:HB3	1:J:187:ALA:CB	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:110:ARG:HD3	1:K:46:PRO:HG3	1.68	0.76
1:C:259:LYS:HG3	1:D:281:ARG:NH2	2.00	0.76
1:L:117:MET:HG2	1:L:271:LEU:CD2	2.15	0.76
1:G:38:LEU:HD11	1:G:225:LYS:HB2	1.67	0.76
1:F:21:ASN:O	1:F:25:ILE:HG13	1.85	0.76
1:C:106:LEU:HD22	1:C:120:VAL:HG13	1.67	0.75
1:L:278:VAL:HG12	1:L:279:LYS:N	2.00	0.75
1:K:83:GLN:HE21	1:K:84:ARG:H	1.34	0.75
1:H:123:ASN:ND2	1:H:261:ARG:HH22	1.84	0.75
1:D:248:GLU:O	1:D:252:SER:HB2	1.86	0.75
1:C:222:MET:HB3	1:C:227:GLN:CB	2.16	0.75
1:A:14:GLU:HA	1:A:17:ARG:HG3	1.68	0.75
1:H:74:ILE:HD12	1:H:74:ILE:N	2.01	0.75
1:A:276:VAL:HG13	1:A:277:LYS:H	1.50	0.75
1:A:41:TRP:O	1:A:277:LYS:HA	1.87	0.75
1:F:163:ALA:HB3	1:G:187:ALA:HB2	1.68	0.75
1:H:43:ASN:HB3	1:H:277:LYS:HZ1	1.51	0.75
1:A:28:LEU:O	1:A:32:GLN:HG3	1.86	0.75
1:E:68:ASP:CG	1:E:71:ILE:H	1.88	0.75
1:E:84:ARG:HH11	1:E:90:ALA:HA	1.51	0.75
1:B:62:TYR:CE2	1:B:80:LEU:HG	2.20	0.75
1:K:37:GLN:O	1:K:281:ARG:HD2	1.86	0.75
1:J:67:LYS:HZ3	1:J:271:LEU:HD21	1.49	0.75
1:E:172:LYS:HB2	1:F:185:ILE:HD12	1.68	0.75
1:B:42:GLU:CA	1:B:277:LYS:HG2	2.16	0.75
1:A:163:ALA:HB3	1:B:187:ALA:CB	2.15	0.75
1:H:123:ASN:ND2	1:H:261:ARG:NH2	2.35	0.75
1:L:164:ASN:HB3	1:L:195:SER:HA	1.69	0.75
1:J:77:ASN:ND2	1:J:77:ASN:H	1.83	0.75
1:F:38:LEU:H	1:F:38:LEU:HD23	1.52	0.75
1:A:151:ASN:O	1:A:154:ALA:HB3	1.87	0.75
1:A:165:ASP:HB2	1:A:195:SER:HB2	1.69	0.75
1:E:32:GLN:OE1	1:E:134:LEU:HD12	1.87	0.75
1:H:55:LYS:HD3	1:H:59:GLN:NE2	2.02	0.75
1:C:146:GLU:O	1:C:150:VAL:HG23	1.86	0.75
1:I:252:SER:HB2	1:J:37:GLN:OE1	1.87	0.75
1:L:277:LYS:HA	1:L:277:LYS:NZ	2.02	0.75
1:I:194:ASP:OD1	1:J:193:SER:HB3	1.87	0.75
1:G:19:LYS:HA	1:G:22:ARG:CZ	2.17	0.75
1:E:109:TYR:HB2	1:E:112:MET:CG	2.17	0.75
1:A:40:GLU:HG2	1:A:279:LYS:NZ	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:44:LEU:HD23	1:B:275:ASN:ND2	2.02	0.75
1:A:93:PHE:HB2	1:A:106:LEU:HD21	1.69	0.75
1:F:47:THR:HG21	1:F:73:TYR:H	1.52	0.74
1:J:222:MET:HB3	1:J:227:GLN:CB	2.16	0.74
1:B:258:LEU:HD22	1:B:262:GLU:HG3	1.68	0.74
1:C:42:GLU:C	1:C:277:LYS:NZ	2.41	0.74
1:B:42:GLU:C	1:B:277:LYS:HG2	2.08	0.74
1:C:168:GLN:HB3	1:C:188:HIS:CD2	2.22	0.74
1:G:47:THR:HG21	1:G:73:TYR:O	1.85	0.74
1:J:41:TRP:HB3	1:J:277:LYS:HE2	1.68	0.74
1:E:174:VAL:O	1:E:177:GLN:HG3	1.87	0.74
1:K:42:GLU:O	1:K:43:ASN:HB2	1.87	0.74
1:E:201:THR:O	1:E:201:THR:HG22	1.85	0.74
1:G:269:ASN:HD21	1:G:275:ASN:HB3	1.50	0.74
1:F:222:MET:HB3	1:F:227:GLN:CB	2.16	0.74
1:L:98:PRO:HG2	1:L:99:VAL:HG23	1.70	0.74
1:C:255:THR:HA	1:C:258:LEU:HB3	1.70	0.74
1:F:68:ASP:HB3	1:F:69:PRO:HD2	1.68	0.74
1:G:105:LYS:NZ	1:G:105:LYS:H	1.84	0.74
1:B:42:GLU:HG2	1:B:279:LYS:HZ1	1.52	0.74
1:H:43:ASN:HB3	1:H:277:LYS:NZ	2.03	0.74
1:B:103:GLU:HG2	1:B:104:PHE:N	2.03	0.74
1:B:201:THR:O	1:B:201:THR:HG22	1.88	0.74
1:F:13:ASN:ND2	1:H:179:GLU:HA	2.03	0.74
1:I:124:ASN:ND2	1:I:128:PHE:H	1.85	0.74
1:I:59:GLN:O	1:I:129:PRO:HB3	1.86	0.74
1:H:158:PRO:O	1:H:159:VAL:HB	1.86	0.74
1:K:147:ILE:HG12	1:L:156:LYS:HD2	1.69	0.74
1:K:21:ASN:O	1:K:25:ILE:HG13	1.87	0.74
1:D:42:GLU:HB3	1:D:277:LYS:CD	2.18	0.74
1:D:197:GLU:HG2	1:D:199:PHE:CE1	2.23	0.74
1:H:152:GLN:O	1:H:155:GLN:HG2	1.88	0.74
1:F:277:LYS:NZ	1:F:277:LYS:H	1.85	0.74
1:I:56:SER:HB3	1:I:63:VAL:CG2	2.16	0.74
1:J:60:PHE:HD1	1:J:60:PHE:O	1.71	0.74
1:K:90:ALA:O	1:K:91:THR:HB	1.88	0.74
1:G:162:ARG:HH21	1:G:164:ASN:HB2	1.52	0.74
1:G:109:TYR:HB2	1:G:112:MET:HB2	1.68	0.74
1:K:213:GLN:HE22	1:L:211:ASN:CG	1.90	0.74
1:E:44:LEU:HD12	1:E:44:LEU:H	1.52	0.74
1:B:125:ASP:O	1:B:126:MET:HB2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:LEU:HD13	1:A:275:ASN:N	2.02	0.74
1:D:260:SER:O	1:D:263:GLU:N	2.19	0.74
1:D:284:ILE:HD12	1:D:284:ILE:H	1.53	0.74
1:D:171:LEU:HD22	1:D:175:TYR:CE1	2.23	0.74
1:B:181:ASN:O	1:B:182:ALA:HB2	1.86	0.74
1:I:282:TYR:CG	1:I:283:ASP:N	2.56	0.74
1:B:168:GLN:HB3	1:B:188:HIS:NE2	2.03	0.73
1:G:262:GLU:C	1:G:264:ALA:H	1.91	0.73
1:L:205:TYR:CZ	1:L:207:VAL:HB	2.23	0.73
1:C:53:LEU:O	1:C:56:SER:HB2	1.88	0.73
1:J:171:LEU:O	1:J:173:GLN:N	2.20	0.73
1:D:188:HIS:O	1:D:189:GLU:HB3	1.86	0.73
1:A:187:ALA:CB	1:L:163:ALA:HB3	2.17	0.73
1:A:41:TRP:C	1:A:277:LYS:HA	2.09	0.73
1:L:117:MET:CE	1:L:118:GLY:H	2.00	0.73
1:E:81:SER:CA	1:E:84:ARG:HH22	2.00	0.73
1:E:38:LEU:O	1:E:39:PHE:HB2	1.89	0.73
1:I:271:LEU:C	1:I:273:GLY:H	1.90	0.73
1:I:62:TYR:HE2	1:I:79:ALA:HA	1.52	0.73
1:L:277:LYS:HA	1:L:277:LYS:HZ3	1.52	0.73
1:K:259:LYS:HD2	1:L:281:ARG:NH1	2.02	0.73
1:H:168:GLN:HB3	1:H:188:HIS:CD2	2.23	0.73
1:C:168:GLN:HB3	1:C:188:HIS:NE2	2.04	0.73
1:F:225:LYS:HB3	1:F:225:LYS:NZ	2.04	0.73
1:D:23:TRP:CE2	1:D:145:LYS:HE3	2.23	0.73
1:C:133:THR:HG21	1:C:224:PHE:CE2	2.23	0.73
1:C:55:LYS:HG2	1:C:59:GLN:OE1	1.89	0.73
1:H:109:TYR:OH	1:I:46:PRO:HB2	1.87	0.73
1:I:86:VAL:HG12	1:J:99:VAL:HG12	1.69	0.73
1:J:278:VAL:O	1:J:280:PHE:N	2.22	0.73
1:C:37:GLN:O	1:C:281:ARG:HD2	1.89	0.73
1:L:35:ALA:O	1:L:38:LEU:HG	1.89	0.73
1:A:248:GLU:O	1:A:249:GLN:HB3	1.88	0.73
1:J:44:LEU:HG	1:J:277:LYS:CE	2.19	0.73
1:C:47:THR:HG21	1:C:73:TYR:N	2.01	0.73
1:L:39:PHE:CZ	1:L:257:PHE:HB2	2.24	0.73
1:B:90:ALA:HB3	1:B:106:LEU:HD13	1.69	0.73
1:C:110:ARG:C	1:C:112:MET:H	1.92	0.73
1:B:188:HIS:O	1:B:189:GLU:HB3	1.89	0.73
1:K:86:VAL:HG13	1:L:99:VAL:CG1	2.18	0.73
1:A:169:LEU:HD22	1:A:186:PHE:HE1	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:277:LYS:HG3	1:A:278:VAL:HG23	1.71	0.72
1:H:124:ASN:C	1:H:126:MET:H	1.90	0.72
1:E:263:GLU:HG2	1:E:267:LYS:NZ	2.04	0.72
1:I:42:GLU:C	1:I:277:LYS:HZ3	1.91	0.72
1:E:11:SER:N	1:G:179:GLU:HB2	2.04	0.72
1:F:106:LEU:HA	1:F:118:GLY:HA3	1.71	0.72
1:C:263:GLU:O	1:C:267:LYS:HG3	1.88	0.72
1:K:62:TYR:O	1:K:63:VAL:HG12	1.89	0.72
1:J:77:ASN:ND2	1:J:77:ASN:N	2.34	0.72
1:L:41:TRP:HA	1:L:277:LYS:HB3	1.72	0.72
1:I:271:LEU:HG	1:I:271:LEU:O	1.89	0.72
1:G:17:ARG:O	1:G:21:ASN:HB2	1.89	0.72
1:D:172:LYS:HB2	1:E:185:ILE:HD12	1.68	0.72
1:E:261:ARG:NH1	1:E:261:ARG:HG3	1.91	0.72
1:K:41:TRP:HA	1:K:277:LYS:HB3	1.71	0.72
1:A:167:ASN:HB3	1:A:188:HIS:CD2	2.24	0.72
1:A:117:MET:CG	1:A:118:GLY:H	1.99	0.72
1:D:226:LEU:HD22	1:D:280:PHE:CD2	2.25	0.72
1:K:117:MET:HG3	1:K:118:GLY:N	2.04	0.72
1:A:148:ILE:O	1:A:152:GLN:HG3	1.90	0.72
1:G:81:SER:HB3	1:G:94:ARG:NE	2.05	0.72
1:J:188:HIS:CD2	1:J:190:ALA:HB3	2.25	0.72
1:F:265:CYS:HA	1:F:268:ILE:HG22	1.72	0.72
1:A:41:TRP:CE3	1:A:277:LYS:HB2	2.25	0.72
1:B:38:LEU:HD21	1:B:227:GLN:HE22	1.53	0.72
1:D:253:SER:O	1:D:256:VAL:HB	1.90	0.72
1:B:269:ASN:HD21	1:B:275:ASN:N	1.87	0.72
1:I:186:PHE:CD2	1:I:196:ILE:HD11	2.25	0.72
1:D:95:ALA:HB3	1:D:102:LYS:H	1.55	0.72
1:C:13:ASN:HA	1:C:16:GLN:HE21	1.54	0.72
1:G:177:GLN:HG2	1:G:179:GLU:CG	2.19	0.71
1:D:267:LYS:HA	1:D:270:GLU:OE1	1.90	0.71
1:J:226:LEU:HD22	1:J:280:PHE:CE2	2.25	0.71
1:C:171:LEU:O	1:C:173:GLN:N	2.22	0.71
1:A:20:ARG:HG2	1:A:146:GLU:CG	2.20	0.71
1:E:66:TYR:HB2	1:E:104:PHE:CE1	2.24	0.71
1:F:41:TRP:CZ3	1:F:265:CYS:HB3	2.24	0.71
1:K:159:VAL:CG1	1:L:183:PRO:HB3	2.20	0.71
1:L:268:ILE:O	1:L:271:LEU:HB2	1.91	0.71
1:B:41:TRP:C	1:B:277:LYS:HZ2	1.94	0.71
1:K:43:ASN:HB3	1:K:277:LYS:CD	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:168:GLN:OE1	1:G:169:LEU:HG	1.90	0.71
1:B:205:TYR:CZ	1:B:207:VAL:HB	2.24	0.71
1:I:171:LEU:HB3	1:J:185:ILE:HD13	1.71	0.71
1:F:15:ILE:HA	1:F:18:GLN:NE2	1.97	0.71
1:I:162:ARG:NE	1:I:164:ASN:HD21	1.89	0.71
1:F:195:SER:O	1:F:196:ILE:HG13	1.90	0.71
1:J:201:THR:HG22	1:J:201:THR:O	1.88	0.71
1:F:115:GLU:O	1:F:116:ASP:HB3	1.88	0.71
1:J:86:VAL:HA	1:K:99:VAL:HG11	1.73	0.71
1:J:108:ASN:CG	1:J:270:GLU:HB2	2.11	0.71
1:B:85:ASP:CG	1:B:89:GLN:HB3	2.11	0.71
1:E:84:ARG:HB3	1:E:88:ASN:C	2.10	0.71
1:E:53:LEU:HA	1:E:63:VAL:HG21	1.73	0.71
1:E:72:SER:O	1:E:73:TYR:HB2	1.90	0.71
1:I:273:GLY:O	1:I:274:LEU:HG	1.91	0.71
1:E:84:ARG:HB3	1:E:88:ASN:O	1.90	0.71
1:B:126:MET:O	1:B:128:PHE:N	2.21	0.71
1:H:60:PHE:O	1:H:62:TYR:N	2.22	0.71
1:G:269:ASN:HD22	1:G:269:ASN:N	1.87	0.71
1:J:108:ASN:CG	1:J:271:LEU:HB2	2.11	0.71
1:C:269:ASN:HD21	1:C:276:VAL:HG21	1.56	0.71
1:H:97:SER:CB	1:H:98:PRO:HD2	2.16	0.71
1:A:158:PRO:O	1:A:159:VAL:HB	1.87	0.71
1:G:124:ASN:C	1:G:126:MET:H	1.91	0.71
1:A:52:PHE:O	1:A:56:SER:HB2	1.89	0.71
1:J:163:ALA:HB3	1:K:187:ALA:CB	2.21	0.71
1:F:48:ILE:HD12	1:F:48:ILE:O	1.91	0.70
1:I:248:GLU:OE2	1:J:226:LEU:HG	1.89	0.70
1:D:107:TYR:CB	1:D:267:LYS:HD3	2.21	0.70
1:A:105:LYS:HD2	1:A:116:ASP:OD2	1.91	0.70
1:A:227:GLN:O	1:A:228:THR:O	2.08	0.70
1:L:69:PRO:O	1:L:70:VAL:HG22	1.90	0.70
1:A:13:ASN:O	1:A:17:ARG:HG3	1.91	0.70
1:G:121:ILE:HD11	1:G:268:ILE:HD11	1.73	0.70
1:J:48:ILE:HD11	1:J:73:TYR:CB	2.20	0.70
1:B:163:ALA:HB3	1:C:187:ALA:CB	2.20	0.70
1:E:49:ASN:ND2	1:E:51:SER:HB3	2.05	0.70
1:E:78:GLY:O	1:E:94:ARG:HB2	1.91	0.70
1:C:108:ASN:H	1:C:108:ASN:HD22	1.37	0.70
1:G:19:LYS:HA	1:G:22:ARG:NH1	2.06	0.70
1:L:171:LEU:O	1:L:173:GLN:N	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:67:LYS:HD3	1:F:73:TYR:CZ	2.27	0.70
1:A:274:LEU:HD13	1:A:275:ASN:H	1.57	0.70
1:K:108:ASN:HA	1:K:112:MET:CG	2.22	0.70
1:L:106:LEU:O	1:L:107:TYR:HB3	1.91	0.70
1:C:171:LEU:C	1:C:173:GLN:H	1.94	0.70
1:A:49:ASN:HB2	1:L:87:TYR:CE1	2.27	0.70
1:K:171:LEU:HB3	1:L:185:ILE:HD13	1.73	0.70
1:E:275:ASN:O	1:E:277:LYS:HD3	1.92	0.70
1:K:283:ASP:CG	1:K:284:ILE:H	1.94	0.70
1:G:177:GLN:O	1:G:179:GLU:N	2.24	0.70
1:A:226:LEU:HA	1:A:250:ILE:HG23	1.73	0.70
1:G:55:LYS:HB3	1:G:59:GLN:NE2	2.07	0.70
1:K:201:THR:O	1:L:159:VAL:HG21	1.90	0.70
1:E:126:MET:O	1:E:128:PHE:N	2.24	0.70
1:J:41:TRP:HE3	1:J:277:LYS:HD3	1.56	0.70
1:D:201:THR:O	1:D:201:THR:HG22	1.91	0.70
1:G:85:ASP:CB	1:G:89:GLN:HB3	2.22	0.70
1:G:28:LEU:O	1:G:32:GLN:HG3	1.91	0.70
1:H:74:ILE:HG22	1:H:75:ALA:N	2.07	0.70
1:H:107:TYR:HD1	1:H:267:LYS:HD3	1.55	0.70
1:K:188:HIS:O	1:K:189:GLU:CB	2.39	0.70
1:I:44:LEU:HD22	1:I:45:PRO:HD2	1.74	0.70
1:J:41:TRP:CE3	1:J:277:LYS:HD3	2.27	0.70
1:K:226:LEU:C	1:K:227:GLN:HG2	2.11	0.70
1:C:227:GLN:OE1	1:C:227:GLN:HA	1.91	0.70
1:E:109:TYR:HB2	1:E:112:MET:HG2	1.73	0.70
1:E:117:MET:CB	1:E:271:LEU:HD13	2.21	0.70
1:J:136:LEU:CD1	1:K:22:ARG:HD2	2.22	0.70
1:B:45:PRO:HB2	1:B:47:THR:HG22	1.74	0.70
1:E:40:GLU:O	1:E:279:LYS:HB2	1.91	0.69
1:C:41:TRP:O	1:C:42:GLU:HB2	1.92	0.69
1:K:171:LEU:HD22	1:K:175:TYR:HE1	1.55	0.69
1:A:41:TRP:O	1:A:42:GLU:HB2	1.92	0.69
1:K:119:VAL:HG12	1:K:120:VAL:N	2.05	0.69
1:G:79:ALA:O	1:G:94:ARG:HG3	1.91	0.69
1:B:60:PHE:O	1:B:62:TYR:N	2.22	0.69
1:E:205:TYR:CZ	1:E:207:VAL:HB	2.27	0.69
1:F:130:THR:HG22	1:F:134:LEU:HG	1.74	0.69
1:K:97:SER:OG	1:K:99:VAL:HG12	1.93	0.69
1:C:268:ILE:HB	1:C:271:LEU:HD23	1.74	0.69
1:L:109:TYR:HB2	1:L:112:MET:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:120:VAL:HG21	1:D:122:TYR:CE1	2.27	0.69
1:F:221:MET:CE	1:F:225:LYS:HE2	2.22	0.69
1:B:148:ILE:HG23	1:B:207:VAL:HG13	1.75	0.69
1:F:172:LYS:O	1:F:176:ASN:OD1	2.11	0.69
1:D:261:ARG:HB3	1:D:278:VAL:HG11	1.73	0.69
1:G:16:GLN:NE2	1:G:20:ARG:HG3	2.07	0.69
1:C:17:ARG:O	1:C:21:ASN:HB2	1.91	0.69
1:L:213:GLN:O	1:L:217:VAL:HG23	1.90	0.69
1:C:59:GLN:O	1:C:60:PHE:CD1	2.46	0.69
1:A:270:GLU:O	1:A:271:LEU:HD22	1.92	0.69
1:L:255:THR:HG22	1:L:259:LYS:HG3	1.75	0.69
1:L:258:LEU:CD2	1:L:262:GLU:HG3	2.22	0.69
1:D:274:LEU:HD13	1:D:275:ASN:N	2.08	0.69
1:K:105:LYS:HZ2	1:K:114:GLU:HG2	1.56	0.69
1:K:105:LYS:HZ3	1:K:114:GLU:HG2	1.57	0.69
1:C:13:ASN:HD22	1:C:16:GLN:HB3	1.57	0.69
1:I:87:TYR:O	1:I:88:ASN:HB2	1.91	0.69
1:A:275:ASN:O	1:A:277:LYS:HG2	1.92	0.69
1:D:274:LEU:O	1:D:275:ASN:HB2	1.90	0.69
1:E:117:MET:HB2	1:E:271:LEU:HD13	1.73	0.69
1:J:213:GLN:HA	1:J:213:GLN:NE2	2.07	0.69
1:F:277:LYS:HZ2	1:F:278:VAL:H	1.39	0.69
1:G:179:GLU:OE2	1:G:181:ASN:HB2	1.93	0.69
1:B:269:ASN:OD1	1:B:276:VAL:HG23	1.92	0.69
1:E:81:SER:C	1:E:84:ARG:HH12	1.96	0.69
1:E:86:VAL:HG12	1:E:87:TYR:N	2.07	0.69
1:K:102:LYS:HG3	1:K:103:GLU:N	2.08	0.69
1:A:172:LYS:H	1:A:175:TYR:HD1	1.40	0.69
1:F:126:MET:HE3	1:F:126:MET:H	1.58	0.69
1:E:40:GLU:HG3	1:E:281:ARG:NH2	2.08	0.69
1:E:71:ILE:CG2	1:E:74:ILE:HB	2.23	0.69
1:F:74:ILE:HG21	1:F:100:TYR:CE2	2.28	0.69
1:K:247:ASP:N	1:K:250:ILE:HD11	2.08	0.69
1:D:125:ASP:OD2	1:E:33:SER:HB2	1.93	0.69
1:D:81:SER:HB3	1:D:94:ARG:CZ	2.23	0.69
1:G:169:LEU:HD12	1:G:187:ALA:O	1.93	0.69
1:J:151:ASN:OD1	1:J:207:VAL:HG23	1.93	0.69
1:L:179:GLU:HG3	1:L:181:ASN:H	1.57	0.69
1:K:125:ASP:OD1	1:K:256:VAL:HG13	1.93	0.69
1:H:182:ALA:HB1	1:H:183:PRO:CD	2.22	0.69
1:K:222:MET:HB3	1:K:227:GLN:CB	2.22	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:171:LEU:HB3	1:G:185:ILE:HD13	1.73	0.68
1:E:62:TYR:O	1:E:63:VAL:HG12	1.92	0.68
1:F:265:CYS:HA	1:F:268:ILE:CG2	2.23	0.68
1:H:259:LYS:HD2	1:I:281:ARG:NH1	2.09	0.68
1:E:27:TYR:O	1:E:31:LEU:HG	1.93	0.68
1:I:258:LEU:CD2	1:I:278:VAL:HG13	2.23	0.68
1:K:259:LYS:HD2	1:L:281:ARG:HH12	1.57	0.68
1:D:107:TYR:HD1	1:D:108:ASN:N	1.92	0.68
1:D:222:MET:HB3	1:D:227:GLN:CB	2.23	0.68
1:I:201:THR:HG21	1:K:183:PRO:HG3	1.75	0.68
1:A:168:GLN:CA	1:A:168:GLN:HE21	2.06	0.68
1:F:47:THR:CG2	1:F:72:SER:HB3	2.22	0.68
1:G:45:PRO:HG2	1:G:48:ILE:HG12	1.76	0.68
1:F:260:SER:O	1:F:263:GLU:HG2	1.94	0.68
1:F:42:GLU:HB3	1:F:277:LYS:HD2	1.76	0.68
1:I:117:MET:SD	1:I:271:LEU:HD22	2.34	0.68
1:J:91:THR:C	1:J:106:LEU:HD12	2.13	0.68
1:B:179:GLU:HB3	1:L:11:SER:HA	1.75	0.68
1:I:150:VAL:HG11	1:J:156:LYS:HG3	1.75	0.68
1:E:44:LEU:CG	1:E:277:LYS:HZ1	2.03	0.68
1:J:45:PRO:HG2	1:J:48:ILE:HD13	1.75	0.68
1:K:43:ASN:HD22	1:K:275:ASN:HA	1.58	0.68
1:C:17:ARG:N	1:C:17:ARG:HD2	2.08	0.68
1:J:86:VAL:HG12	1:K:99:VAL:HG22	1.74	0.68
1:C:98:PRO:O	1:C:99:VAL:HB	1.94	0.68
1:J:44:LEU:HG	1:J:277:LYS:NZ	2.09	0.68
1:A:275:ASN:HB3	1:A:277:LYS:NZ	2.09	0.68
1:K:124:ASN:ND2	1:K:126:MET:O	2.27	0.68
1:D:179:GLU:HG3	1:D:181:ASN:N	2.08	0.68
1:E:71:ILE:HG21	1:E:74:ILE:HB	1.76	0.68
1:C:107:TYR:CE2	1:C:109:TYR:HB2	2.29	0.68
1:C:171:LEU:HB2	1:D:185:ILE:HD13	1.76	0.68
1:H:40:GLU:HG2	1:H:42:GLU:OE2	1.94	0.68
1:I:249:GLN:HB3	1:J:222:MET:CE	2.24	0.68
1:C:226:LEU:O	1:C:227:GLN:HG2	1.93	0.68
1:F:259:LYS:HG2	1:F:263:GLU:OE2	1.94	0.68
1:G:85:ASP:OD2	1:G:87:TYR:N	2.24	0.68
1:L:171:LEU:HD22	1:L:175:TYR:CE1	2.29	0.68
1:I:275:ASN:HB2	1:I:277:LYS:CE	2.11	0.67
1:C:269:ASN:HD21	1:C:276:VAL:CG2	2.06	0.67
1:C:55:LYS:O	1:C:59:GLN:HG3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:170:SER:O	1:E:173:GLN:HB2	1.95	0.67
1:G:174:VAL:O	1:G:177:GLN:HB2	1.94	0.67
1:D:222:MET:HB3	1:D:227:GLN:HB2	1.75	0.67
1:B:108:ASN:ND2	1:B:267:LYS:HB3	2.09	0.67
1:G:175:TYR:C	1:G:177:GLN:H	1.96	0.67
1:H:91:THR:HG22	1:H:92:VAL:HG23	1.73	0.67
1:C:15:ILE:HA	1:C:18:GLN:HE21	1.59	0.67
1:G:66:TYR:CE2	1:G:68:ASP:HA	2.29	0.67
1:K:57:ILE:CG2	1:K:123:ASN:HB2	2.25	0.67
1:L:41:TRP:HE3	1:L:277:LYS:CG	2.07	0.67
1:C:63:VAL:HG11	1:C:121:ILE:HB	1.77	0.67
1:D:66:TYR:CE1	1:D:116:ASP:HA	2.29	0.67
1:F:223:THR:HG23	1:F:250:ILE:HD13	1.75	0.67
1:D:148:ILE:O	1:D:152:GLN:HG3	1.94	0.67
1:F:284:ILE:N	1:F:284:ILE:HD12	2.08	0.67
1:F:148:ILE:O	1:F:152:GLN:HG2	1.94	0.67
1:K:109:TYR:CD2	1:K:112:MET:HB2	2.30	0.67
1:B:43:ASN:O	1:B:44:LEU:HB2	1.95	0.67
1:G:81:SER:HB3	1:G:94:ARG:HH21	1.60	0.67
1:C:182:ALA:HB1	1:C:183:PRO:HD2	1.77	0.67
1:J:110:ARG:CD	1:K:46:PRO:HG3	2.24	0.67
1:F:71:ILE:HD12	1:F:71:ILE:N	2.10	0.67
1:J:41:TRP:HE3	1:J:277:LYS:CD	2.07	0.67
1:I:248:GLU:HG2	1:J:282:TYR:CD2	2.29	0.67
1:J:195:SER:O	1:J:196:ILE:HG13	1.95	0.67
1:E:80:LEU:HD22	1:E:90:ALA:HB3	1.75	0.67
1:D:11:SER:N	1:D:13:ASN:HD21	1.93	0.67
1:G:259:LYS:HE2	1:H:281:ARG:NH2	2.10	0.67
1:L:84:ARG:HB3	1:L:88:ASN:HA	1.77	0.67
1:J:39:PHE:HZ	1:J:257:PHE:HB2	1.58	0.67
1:D:41:TRP:O	1:D:43:ASN:N	2.27	0.67
1:G:12:ILE:HD12	1:I:181:ASN:OD1	1.94	0.67
1:J:158:PRO:O	1:J:159:VAL:HB	1.95	0.67
1:C:102:LYS:HG3	1:C:103:GLU:N	2.10	0.67
1:E:165:ASP:O	1:E:167:ASN:N	2.28	0.67
1:G:182:ALA:HB1	1:G:183:PRO:HD2	1.76	0.67
1:K:124:ASN:HA	1:K:256:VAL:O	1.95	0.67
1:A:46:PRO:HG3	1:L:110:ARG:HD3	1.77	0.67
1:F:261:ARG:HG2	1:F:261:ARG:HH11	1.59	0.67
1:E:20:ARG:HG2	1:E:146:GLU:HG3	1.77	0.67
1:J:148:ILE:O	1:J:152:GLN:HG3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:168:GLN:HE22	1:B:169:LEU:CG	2.08	0.66
1:I:43:ASN:CB	1:I:277:LYS:NZ	2.59	0.66
1:G:171:LEU:O	1:G:173:GLN:N	2.29	0.66
1:B:274:LEU:HD23	1:B:275:ASN:N	2.11	0.66
1:D:171:LEU:HB3	1:E:185:ILE:HD13	1.76	0.66
1:F:40:GLU:HB2	1:F:281:ARG:HE	1.58	0.66
1:A:40:GLU:HG2	1:A:279:LYS:HZ2	1.60	0.66
1:K:57:ILE:O	1:K:61:GLY:HA2	1.96	0.66
1:K:189:GLU:C	1:K:191:LEU:H	1.99	0.66
1:J:59:GLN:O	1:J:60:PHE:C	2.33	0.66
1:D:57:ILE:HG22	1:D:123:ASN:CB	2.19	0.66
1:B:44:LEU:HA	1:B:275:ASN:HD21	1.59	0.66
1:I:11:SER:HB3	1:J:172:LYS:CE	2.24	0.66
1:H:163:ALA:O	1:I:187:ALA:HA	1.95	0.66
1:L:142:ALA:O	1:L:146:GLU:HB2	1.96	0.66
1:C:172:LYS:HE2	1:D:179:GLU:OE1	1.95	0.66
1:B:137:PHE:CD2	1:B:221:MET:HB2	2.31	0.66
1:K:55:LYS:HB3	1:K:59:GLN:NE2	2.08	0.66
1:B:39:PHE:CZ	1:B:257:PHE:HB3	2.31	0.66
1:B:269:ASN:ND2	1:B:275:ASN:N	2.44	0.66
1:F:278:VAL:O	1:F:279:LYS:HD3	1.95	0.66
1:I:84:ARG:HD3	1:I:90:ALA:HA	1.77	0.66
1:E:42:GLU:C	1:E:277:LYS:HZ3	1.98	0.66
1:J:67:LYS:HG2	1:J:117:MET:HG2	1.76	0.66
1:K:225:LYS:O	1:K:227:GLN:HG2	1.95	0.66
1:K:226:LEU:O	1:K:227:GLN:HG2	1.96	0.66
1:C:47:THR:OG1	1:C:72:SER:HB3	1.95	0.66
1:L:117:MET:SD	1:L:118:GLY:N	2.68	0.66
1:G:59:GLN:O	1:G:129:PRO:HB3	1.95	0.66
1:C:158:PRO:O	1:C:159:VAL:HB	1.94	0.66
1:B:125:ASP:OD1	1:B:256:VAL:HG13	1.94	0.66
1:H:53:LEU:HD21	1:H:121:ILE:HD12	1.77	0.66
1:B:106:LEU:O	1:B:107:TYR:HB2	1.95	0.66
1:B:269:ASN:O	1:B:271:LEU:N	2.25	0.66
1:L:164:ASN:ND2	1:L:195:SER:HA	2.10	0.66
1:F:39:PHE:HZ	1:F:257:PHE:HB2	1.60	0.66
1:B:60:PHE:C	1:B:62:TYR:H	1.98	0.66
1:H:269:ASN:HA	1:H:273:GLY:HA3	1.78	0.66
1:K:23:TRP:NE1	1:K:145:LYS:HE2	2.11	0.66
1:E:55:LYS:O	1:E:59:GLN:HG3	1.96	0.66
1:C:44:LEU:HB2	1:C:45:PRO:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:39:PHE:CZ	1:F:257:PHE:HB2	2.31	0.66
1:K:65:PHE:HD1	1:K:121:ILE:HD11	1.61	0.66
1:C:222:MET:HB3	1:C:227:GLN:HB2	1.78	0.66
1:F:124:ASN:HD21	1:F:128:PHE:HB2	1.60	0.66
1:J:67:LYS:NZ	1:J:272:TYR:HE2	1.82	0.65
1:J:163:ALA:HB3	1:K:187:ALA:HB2	1.78	0.65
1:C:82:GLY:O	1:C:84:ARG:NH1	2.29	0.65
1:J:84:ARG:HA	1:J:89:GLN:O	1.97	0.65
1:D:66:TYR:HE1	1:D:116:ASP:HA	1.59	0.65
1:C:124:ASN:HD21	1:C:128:PHE:HB2	1.59	0.65
1:D:97:SER:C	1:D:99:VAL:H	1.97	0.65
1:E:221:MET:HE2	1:E:225:LYS:HD3	1.77	0.65
1:F:65:PHE:HB2	1:F:119:VAL:HB	1.78	0.65
1:I:259:LYS:HA	1:I:262:GLU:OE1	1.97	0.65
1:J:44:LEU:HD22	1:J:48:ILE:HB	1.77	0.65
1:F:84:ARG:HH11	1:F:84:ARG:HG3	1.59	0.65
1:L:168:GLN:NE2	1:L:169:LEU:HG	2.10	0.65
1:G:188:HIS:O	1:G:188:HIS:CG	2.47	0.65
1:I:182:ALA:HB1	1:I:183:PRO:HD2	1.77	0.65
1:K:12:ILE:O	1:K:12:ILE:HG22	1.96	0.65
1:F:277:LYS:H	1:F:277:LYS:CE	2.09	0.65
1:A:12:ILE:HG23	1:A:15:ILE:HB	1.77	0.65
1:F:117:MET:HG3	1:F:118:GLY:N	2.12	0.65
1:J:80:LEU:HB3	1:J:90:ALA:HB2	1.78	0.65
1:L:43:ASN:N	1:L:277:LYS:HE2	2.11	0.65
1:K:269:ASN:ND2	1:K:275:ASN:N	2.38	0.65
1:H:201:THR:HG21	1:J:183:PRO:HG3	1.78	0.65
1:A:159:VAL:HG21	1:L:202:ASP:O	1.96	0.65
1:F:222:MET:HB3	1:F:227:GLN:HB2	1.78	0.65
1:H:39:PHE:HE2	1:H:258:LEU:HB2	1.62	0.65
1:J:40:GLU:HB2	1:J:281:ARG:HG2	1.77	0.65
1:C:40:GLU:O	1:C:278:VAL:O	2.15	0.65
1:G:50:PRO:O	1:G:51:SER:HB2	1.96	0.65
1:D:247:ASP:OD1	1:D:248:GLU:N	2.30	0.65
1:D:120:VAL:HG21	1:D:122:TYR:CZ	2.32	0.65
1:E:158:PRO:HB2	1:E:200:LYS:HZ1	1.60	0.65
1:G:86:VAL:HG13	1:G:87:TYR:N	2.11	0.65
1:A:173:GLN:HA	1:A:176:ASN:HD22	1.61	0.65
1:K:188:HIS:HB3	1:K:191:LEU:HD21	1.79	0.65
1:C:205:TYR:CZ	1:C:207:VAL:HB	2.32	0.65
1:H:85:ASP:C	1:I:99:VAL:HG21	2.17	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:85:ASP:OD1	1:J:89:GLN:HG2	1.97	0.65
1:C:40:GLU:CG	1:C:281:ARG:HH21	2.09	0.65
1:E:19:LYS:HA	1:E:22:ARG:HB2	1.78	0.65
1:G:81:SER:CB	1:G:94:ARG:HE	2.08	0.65
1:I:28:LEU:CD1	1:I:135:GLU:HG2	2.27	0.65
1:D:133:THR:HG21	1:D:224:PHE:CE2	2.32	0.65
1:H:150:VAL:HG11	1:I:156:LYS:HG3	1.77	0.65
1:K:20:ARG:NE	1:K:146:GLU:OE1	2.30	0.65
1:J:85:ASP:HB2	1:J:89:GLN:N	2.02	0.64
1:C:40:GLU:OE1	1:C:279:LYS:NZ	2.30	0.64
1:E:169:LEU:HB3	1:E:186:PHE:CE1	2.31	0.64
1:D:283:ASP:HB2	1:D:284:ILE:HD12	1.79	0.64
1:D:169:LEU:HB3	1:D:186:PHE:CZ	2.32	0.64
1:A:226:LEU:O	1:A:227:GLN:HG2	1.98	0.64
1:A:282:TYR:O	1:A:284:ILE:HG22	1.97	0.64
1:B:158:PRO:O	1:B:159:VAL:HB	1.97	0.64
1:E:74:ILE:HG12	1:E:75:ALA:N	2.11	0.64
1:L:40:GLU:HG3	1:L:281:ARG:HH21	1.62	0.64
1:F:227:GLN:O	1:F:228:THR:O	2.15	0.64
1:A:172:LYS:HZ1	1:L:11:SER:HB3	1.61	0.64
1:C:43:ASN:CB	1:C:277:LYS:HD2	2.20	0.64
1:F:201:THR:HG22	1:F:201:THR:O	1.97	0.64
1:E:248:GLU:O	1:E:250:ILE:N	2.31	0.64
1:A:164:ASN:O	1:A:164:ASN:ND2	2.30	0.64
1:F:166:ASN:HD21	1:G:187:ALA:HB1	1.61	0.64
1:E:16:GLN:O	1:E:20:ARG:HG3	1.98	0.64
1:F:108:ASN:ND2	1:F:271:LEU:HB2	2.00	0.64
1:H:85:ASP:O	1:I:99:VAL:HG21	1.96	0.64
1:J:228:THR:HB	1:J:250:ILE:CD1	2.27	0.64
1:L:104:PHE:CD2	1:L:118:GLY:HA3	2.32	0.64
1:F:225:LYS:HB3	1:F:225:LYS:HZ2	1.61	0.64
1:G:55:LYS:HB3	1:G:59:GLN:HE22	1.61	0.64
1:B:99:VAL:HG12	1:B:99:VAL:O	1.97	0.64
1:E:53:LEU:CA	1:E:63:VAL:HG21	2.28	0.64
1:B:42:GLU:H	1:B:277:LYS:CB	2.11	0.64
1:G:262:GLU:HG2	1:G:278:VAL:HG22	1.79	0.64
1:E:53:LEU:HD23	1:E:54:GLU:H	1.61	0.64
1:H:62:TYR:CE2	1:H:79:ALA:HA	2.28	0.64
1:K:109:TYR:C	1:K:111:ASP:N	2.51	0.64
1:B:117:MET:CB	1:B:271:LEU:HD13	2.25	0.64
1:K:275:ASN:HD22	1:K:277:LYS:CE	2.10	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:114:GLU:HG2	1:G:115:GLU:H	1.61	0.64
1:H:204:PRO:HG3	1:I:202:ASP:OD1	1.97	0.64
1:E:262:GLU:HG2	1:E:278:VAL:HG22	1.80	0.64
1:F:265:CYS:O	1:F:269:ASN:HB2	1.97	0.64
1:H:206:VAL:O	1:H:210:LEU:HG	1.98	0.64
1:I:107:TYR:HA	1:I:119:VAL:HG22	1.77	0.64
1:J:225:LYS:HE3	1:J:227:GLN:NE2	2.08	0.64
1:D:280:PHE:HB2	1:D:283:ASP:OD2	1.97	0.64
1:C:89:GLN:NE2	1:C:107:TYR:HD2	1.95	0.64
1:G:92:VAL:HG22	1:G:93:PHE:O	1.98	0.64
1:F:277:LYS:HZ2	1:F:278:VAL:N	1.95	0.64
1:C:42:GLU:O	1:C:277:LYS:HG2	1.98	0.64
1:E:168:GLN:OE1	1:E:169:LEU:HG	1.97	0.64
1:H:188:HIS:O	1:H:188:HIS:CG	2.49	0.64
1:B:171:LEU:HB3	1:C:185:ILE:HD13	1.78	0.64
1:K:172:LYS:HE3	1:L:179:GLU:OE2	1.97	0.64
1:E:269:ASN:HA	1:E:272:TYR:O	1.98	0.64
1:E:42:GLU:O	1:E:43:ASN:HB3	1.98	0.64
1:L:42:GLU:C	1:L:277:LYS:HZ1	2.01	0.64
1:K:119:VAL:CG1	1:K:120:VAL:N	2.61	0.64
1:L:112:MET:SD	1:L:112:MET:O	2.55	0.64
1:D:267:LYS:O	1:D:270:GLU:HG2	1.98	0.64
1:G:165:ASP:C	1:G:167:ASN:H	1.99	0.64
1:B:16:GLN:HG2	1:B:20:ARG:CD	2.27	0.64
1:J:125:ASP:HB3	1:K:55:LYS:HE2	1.79	0.63
1:D:179:GLU:HB2	1:D:181:ASN:ND2	2.13	0.63
1:L:203:ALA:O	1:L:204:PRO:C	2.37	0.63
1:K:174:VAL:HG13	1:K:177:GLN:HE21	1.63	0.63
1:K:174:VAL:O	1:K:177:GLN:HG3	1.98	0.63
1:H:188:HIS:O	1:H:190:ALA:N	2.30	0.63
1:B:183:PRO:HG3	1:L:201:THR:HG21	1.79	0.63
1:H:163:ALA:HB3	1:I:187:ALA:CB	2.26	0.63
1:E:249:GLN:HE22	1:F:218:TRP:HE1	1.45	0.63
1:F:163:ALA:HB3	1:G:187:ALA:CB	2.28	0.63
1:A:209:LYS:HD3	1:B:205:TYR:CD2	2.34	0.63
1:I:66:TYR:HB2	1:I:104:PHE:CZ	2.33	0.63
1:I:117:MET:HE3	1:I:271:LEU:HB2	1.80	0.63
1:J:60:PHE:CD1	1:J:60:PHE:O	2.51	0.63
1:A:54:GLU:OE1	1:A:261:ARG:NH1	2.30	0.63
1:K:93:PHE:HB2	1:K:106:LEU:HD21	1.81	0.63
1:K:249:GLN:HG3	1:K:250:ILE:HD13	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:53:LEU:O	1:D:57:ILE:HG13	1.97	0.63
1:B:108:ASN:OD1	1:B:267:LYS:HB3	1.97	0.63
1:A:222:MET:HB3	1:A:227:GLN:HB2	1.80	0.63
1:H:107:TYR:CD1	1:H:267:LYS:HD3	2.32	0.63
1:F:117:MET:CE	1:F:271:LEU:HD21	2.28	0.63
1:E:91:THR:O	1:E:106:LEU:HG	1.98	0.63
1:H:226:LEU:HD12	1:H:251:ASP:HA	1.80	0.63
1:I:271:LEU:O	1:I:273:GLY:N	2.27	0.63
1:J:103:GLU:O	1:J:104:PHE:HB2	1.96	0.63
1:J:117:MET:HB2	1:J:271:LEU:HD13	1.79	0.63
1:J:85:ASP:HB3	1:J:87:TYR:H	1.61	0.63
1:K:85:ASP:C	1:K:87:TYR:H	2.02	0.63
1:B:42:GLU:OE1	1:B:279:LYS:HB2	1.98	0.63
1:H:13:ASN:ND2	1:J:179:GLU:HA	2.13	0.63
1:D:188:HIS:O	1:D:189:GLU:CB	2.46	0.63
1:B:181:ASN:O	1:B:182:ALA:CB	2.46	0.63
1:I:108:ASN:O	1:I:109:TYR:HB3	1.96	0.63
1:E:168:GLN:HB3	1:E:188:HIS:CD2	2.34	0.63
1:D:35:ALA:HB2	1:D:225:LYS:HZ3	1.64	0.63
1:D:169:LEU:HD11	1:D:187:ALA:O	1.99	0.63
1:D:11:SER:N	1:D:13:ASN:ND2	2.47	0.63
1:G:80:LEU:HB3	1:G:90:ALA:HB2	1.80	0.63
1:C:15:ILE:HA	1:C:18:GLN:NE2	2.13	0.63
1:J:108:ASN:OD1	1:J:270:GLU:HB2	1.99	0.63
1:L:109:TYR:CB	1:L:112:MET:HB3	2.29	0.63
1:D:105:LYS:H	1:D:105:LYS:CE	2.11	0.63
1:A:81:SER:OG	1:A:94:ARG:HG3	1.98	0.63
1:I:269:ASN:ND2	1:I:276:VAL:HG22	2.12	0.63
1:F:97:SER:O	1:F:100:TYR:O	2.17	0.63
1:G:47:THR:HG22	1:G:48:ILE:HD13	1.78	0.63
1:J:275:ASN:CG	1:J:277:LYS:HD2	2.19	0.63
1:D:263:GLU:O	1:D:264:ALA:C	2.35	0.63
1:I:164:ASN:HD22	1:I:164:ASN:N	1.94	0.63
1:I:209:LYS:HD2	1:J:205:TYR:CD2	2.34	0.63
1:A:174:VAL:O	1:A:177:GLN:HB2	1.97	0.63
1:D:131:THR:O	1:D:135:GLU:HG3	1.98	0.63
1:J:271:LEU:O	1:J:272:TYR:HB2	1.97	0.63
1:A:41:TRP:HE3	1:A:277:LYS:HD3	1.64	0.63
1:K:249:GLN:HA	1:K:252:SER:HG	1.64	0.63
1:B:43:ASN:O	1:B:44:LEU:CB	2.47	0.63
1:C:109:TYR:O	1:C:111:ASP:N	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:174:VAL:O	1:J:177:GLN:HG3	1.99	0.63
1:L:13:ASN:HA	1:L:16:GLN:CB	2.28	0.63
1:K:205:TYR:CZ	1:K:207:VAL:HB	2.34	0.63
1:C:84:ARG:HD2	1:C:88:ASN:O	1.99	0.63
1:G:63:VAL:HG22	1:G:64:GLY:H	1.62	0.63
1:J:165:ASP:C	1:J:167:ASN:H	2.01	0.63
1:B:213:GLN:HE22	1:C:211:ASN:CG	2.02	0.63
1:K:124:ASN:HD22	1:K:126:MET:H	1.47	0.62
1:D:66:TYR:CE2	1:D:68:ASP:HA	2.33	0.62
1:A:205:TYR:CZ	1:A:207:VAL:HB	2.33	0.62
1:B:171:LEU:O	1:B:172:LYS:CB	2.47	0.62
1:H:38:LEU:HD11	1:H:225:LYS:HB3	1.81	0.62
1:A:188:HIS:HB3	1:A:191:LEU:HG	1.81	0.62
1:L:282:TYR:O	1:L:283:ASP:CB	2.47	0.62
1:D:20:ARG:HD3	1:D:146:GLU:OE1	1.99	0.62
1:A:269:ASN:N	1:A:269:ASN:HD22	1.96	0.62
1:A:41:TRP:HE3	1:A:277:LYS:HB2	1.61	0.62
1:D:278:VAL:O	1:D:279:LYS:O	2.17	0.62
1:F:203:ALA:HB1	1:G:158:PRO:HG3	1.79	0.62
1:K:94:ARG:HG3	1:K:103:GLU:CG	2.29	0.62
1:H:124:ASN:ND2	1:H:128:PHE:O	2.31	0.62
1:B:188:HIS:ND1	1:B:188:HIS:O	2.33	0.62
1:J:188:HIS:HD2	1:J:190:ALA:HB3	1.64	0.62
1:K:17:ARG:HA	1:K:20:ARG:HB2	1.81	0.62
1:F:62:TYR:O	1:F:63:VAL:HG12	1.98	0.62
1:F:268:ILE:O	1:F:271:LEU:HB3	2.00	0.62
1:J:174:VAL:HG13	1:J:177:GLN:HE21	1.61	0.62
1:G:226:LEU:HA	1:G:250:ILE:HG23	1.79	0.62
1:J:136:LEU:HD13	1:K:22:ARG:HD2	1.79	0.62
1:F:148:ILE:HG23	1:F:207:VAL:HG13	1.81	0.62
1:A:93:PHE:HB3	1:A:104:PHE:CD1	2.35	0.62
1:H:108:ASN:CG	1:H:271:LEU:HD11	2.19	0.62
1:H:92:VAL:HG12	1:H:93:PHE:N	2.15	0.62
1:E:105:LYS:HE3	1:E:116:ASP:O	2.00	0.62
1:E:68:ASP:OD1	1:E:71:ILE:HB	1.99	0.62
1:C:53:LEU:HD11	1:C:121:ILE:HD12	1.81	0.62
1:B:12:ILE:HG22	1:B:13:ASN:H	1.63	0.62
1:K:165:ASP:HB3	1:K:167:ASN:ND2	2.15	0.62
1:I:66:TYR:HB2	1:I:104:PHE:CE1	2.34	0.62
1:F:13:ASN:O	1:F:17:ARG:HD3	1.99	0.62
1:A:41:TRP:CE3	1:A:277:LYS:HD3	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:283:ASP:O	1:I:285:VAL:HG23	1.99	0.62
1:C:214:LYS:NZ	1:C:214:LYS:HB3	2.14	0.62
1:F:94:ARG:HB3	1:F:103:GLU:OE1	2.00	0.62
1:J:84:ARG:HD2	1:J:88:ASN:O	1.99	0.62
1:F:162:ARG:NH1	1:F:197:GLU:OE1	2.28	0.62
1:D:170:SER:O	1:D:174:VAL:HG23	1.99	0.62
1:C:13:ASN:HD21	1:C:17:ARG:NE	1.98	0.62
1:B:37:GLN:O	1:B:281:ARG:HD2	1.99	0.62
1:B:30:TYR:O	1:B:34:LEU:HG	1.99	0.62
1:L:106:LEU:HD23	1:L:118:GLY:C	2.19	0.62
1:J:174:VAL:C	1:J:176:ASN:H	2.04	0.62
1:A:11:SER:N	1:B:176:ASN:OD1	2.33	0.62
1:L:16:GLN:HG2	1:L:20:ARG:HE	1.65	0.62
1:A:129:PRO:O	1:A:132:PRO:HD2	1.99	0.62
1:B:81:SER:OG	1:B:82:GLY:N	2.30	0.62
1:K:138:ALA:HA	1:K:141:LEU:HD12	1.81	0.62
1:D:248:GLU:O	1:D:252:SER:CB	2.47	0.62
1:F:50:PRO:O	1:F:51:SER:CB	2.48	0.62
1:F:50:PRO:O	1:F:51:SER:HB3	1.99	0.62
1:C:42:GLU:N	1:C:277:LYS:HZ2	1.97	0.62
1:H:201:THR:HG22	1:H:201:THR:O	1.99	0.62
1:C:201:THR:HG23	1:D:159:VAL:HG11	1.82	0.62
1:A:39:PHE:CZ	1:A:257:PHE:HB2	2.35	0.62
1:F:59:GLN:O	1:F:60:PHE:CD1	2.53	0.62
1:E:11:SER:N	1:G:181:ASN:HB2	2.16	0.61
1:K:78:GLY:HA3	1:K:95:ALA:HA	1.81	0.61
1:B:247:ASP:HA	1:B:250:ILE:HD11	1.80	0.61
1:D:274:LEU:HD13	1:D:275:ASN:H	1.64	0.61
1:B:43:ASN:HB2	1:B:277:LYS:CD	2.26	0.61
1:G:16:GLN:HG3	1:G:20:ARG:CZ	2.29	0.61
1:L:13:ASN:HA	1:L:16:GLN:HB3	1.81	0.61
1:G:138:ALA:HA	1:G:141:LEU:HD12	1.82	0.61
1:G:124:ASN:HB2	1:G:126:MET:O	2.00	0.61
1:K:86:VAL:HG13	1:L:99:VAL:HG11	1.79	0.61
1:D:95:ALA:HB3	1:D:101:GLN:HA	1.82	0.61
1:F:169:LEU:HD23	1:F:170:SER:H	1.63	0.61
1:E:71:ILE:CD1	1:E:74:ILE:HD12	2.29	0.61
1:I:274:LEU:CD1	1:I:275:ASN:HB3	2.31	0.61
1:J:262:GLU:HB3	1:J:278:VAL:HG11	1.80	0.61
1:F:260:SER:HA	1:F:263:GLU:OE2	1.99	0.61
1:G:81:SER:H	1:G:90:ALA:HB1	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:182:ALA:HB1	1:D:183:PRO:HD2	1.82	0.61
1:H:267:LYS:HA	1:H:270:GLU:OE1	2.01	0.61
1:J:144:LEU:O	1:J:148:ILE:HG13	2.00	0.61
1:B:123:ASN:O	1:B:124:ASN:HB3	1.98	0.61
1:C:268:ILE:C	1:C:270:GLU:H	2.04	0.61
1:B:84:ARG:HB3	1:B:88:ASN:CA	2.24	0.61
1:I:250:ILE:HG22	1:I:251:ASP:N	2.14	0.61
1:A:169:LEU:HD22	1:A:186:PHE:CE1	2.35	0.61
1:H:66:TYR:HE2	1:H:100:TYR:OH	1.83	0.61
1:I:51:SER:O	1:I:55:LYS:HG3	2.01	0.61
1:I:55:LYS:O	1:I:59:GLN:HB2	2.01	0.61
1:K:189:GLU:C	1:K:191:LEU:N	2.54	0.61
1:B:124:ASN:HA	1:B:260:SER:HB3	1.82	0.61
1:C:41:TRP:HB3	1:C:277:LYS:HZ1	1.64	0.61
1:D:275:ASN:C	1:D:277:LYS:HE3	2.21	0.61
1:B:42:GLU:N	1:B:277:LYS:HG2	2.15	0.61
1:G:30:TYR:CE2	1:G:218:TRP:CH2	2.89	0.61
1:J:188:HIS:O	1:J:189:GLU:HB3	2.00	0.61
1:K:48:ILE:HD13	1:K:73:TYR:HB3	1.81	0.61
1:A:201:THR:O	1:B:159:VAL:HG21	2.01	0.61
1:J:222:MET:HA	1:J:227:GLN:HG3	1.82	0.61
1:J:228:THR:HB	1:J:250:ILE:HD11	1.82	0.61
1:L:37:GLN:O	1:L:281:ARG:HD2	2.01	0.61
1:D:81:SER:O	1:D:92:VAL:N	2.34	0.61
1:B:115:GLU:O	1:B:116:ASP:HB2	2.00	0.61
1:J:258:LEU:HD22	1:J:280:PHE:CE1	2.35	0.61
1:G:172:LYS:H	1:G:175:TYR:HD1	1.46	0.61
1:L:269:ASN:OD1	1:L:274:LEU:HA	2.01	0.61
1:K:107:TYR:HE1	1:K:109:TYR:HH	1.48	0.61
1:B:38:LEU:HD21	1:B:227:GLN:NE2	2.15	0.61
1:L:66:TYR:HB2	1:L:104:PHE:CZ	2.36	0.61
1:D:39:PHE:CE1	1:D:258:LEU:HB2	2.36	0.61
1:G:275:ASN:C	1:G:277:LYS:HD3	2.21	0.61
1:H:37:GLN:O	1:H:281:ARG:HG3	2.00	0.61
1:I:20:ARG:HG2	1:I:146:GLU:HG3	1.82	0.61
1:J:31:LEU:HB3	1:J:134:LEU:HD22	1.81	0.61
1:E:125:ASP:O	1:E:126:MET:HB2	2.00	0.61
1:C:42:GLU:C	1:C:277:LYS:HZ2	2.03	0.61
1:G:162:ARG:NH2	1:G:194:ASP:O	2.34	0.61
1:F:31:LEU:O	1:F:35:ALA:N	2.32	0.61
1:E:28:LEU:CD1	1:E:135:GLU:HG2	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:277:LYS:O	1:J:279:LYS:N	2.33	0.60
1:H:72:SER:O	1:H:73:TYR:HB2	2.00	0.60
1:H:65:PHE:HA	1:H:74:ILE:O	2.00	0.60
1:L:41:TRP:O	1:L:277:LYS:NZ	2.34	0.60
1:L:117:MET:HE2	1:L:118:GLY:H	1.64	0.60
1:C:283:ASP:HB3	1:C:284:ILE:CD1	2.29	0.60
1:K:269:ASN:CG	1:K:274:LEU:HA	2.21	0.60
1:H:218:TRP:O	1:H:221:MET:HB3	2.01	0.60
1:H:43:ASN:HB3	1:H:275:ASN:OD1	2.00	0.60
1:K:34:LEU:O	1:K:37:GLN:NE2	2.33	0.60
1:L:178:TYR:O	1:L:179:GLU:HB3	2.01	0.60
1:K:66:TYR:CE2	1:K:68:ASP:HA	2.35	0.60
1:F:117:MET:CG	1:F:118:GLY:H	2.12	0.60
1:J:108:ASN:ND2	1:J:271:LEU:CB	2.64	0.60
1:C:271:LEU:O	1:C:272:TYR:HB2	2.01	0.60
1:E:188:HIS:CG	1:E:188:HIS:O	2.53	0.60
1:L:265:CYS:O	1:L:268:ILE:N	2.34	0.60
1:C:226:LEU:O	1:C:227:GLN:CG	2.49	0.60
1:C:201:THR:HG21	1:D:161:ILE:HD11	1.81	0.60
1:C:186:PHE:CD2	1:C:196:ILE:HD11	2.36	0.60
1:G:222:MET:HB3	1:G:227:GLN:CB	2.31	0.60
1:B:168:GLN:NE2	1:B:169:LEU:HG	2.15	0.60
1:I:172:LYS:HA	1:I:175:TYR:HB2	1.82	0.60
1:K:71:ILE:O	1:K:73:TYR:N	2.34	0.60
1:F:110:ARG:HD2	1:G:46:PRO:CG	2.30	0.60
1:E:92:VAL:HA	1:E:104:PHE:O	2.02	0.60
1:E:96:ALA:O	1:E:97:SER:HB3	2.00	0.60
1:F:98:PRO:C	1:F:100:TYR:H	2.05	0.60
1:J:264:ALA:HA	1:J:267:LYS:HE2	1.82	0.60
1:L:280:PHE:O	1:L:281:ARG:HB3	2.01	0.60
1:K:84:ARG:NH1	1:K:84:ARG:HB3	2.15	0.60
1:A:74:ILE:HG12	1:A:75:ALA:N	2.16	0.60
1:L:188:HIS:CG	1:L:188:HIS:O	2.55	0.60
1:L:15:ILE:HG23	1:L:18:GLN:NE2	2.17	0.60
1:L:57:ILE:CG1	1:L:63:VAL:HG21	2.31	0.60
1:H:110:ARG:O	1:H:111:ASP:HB2	2.00	0.60
1:G:124:ASN:C	1:G:126:MET:N	2.55	0.60
1:J:81:SER:O	1:J:90:ALA:O	2.18	0.60
1:L:41:TRP:CE3	1:L:277:LYS:HG3	2.34	0.60
1:B:247:ASP:HA	1:B:250:ILE:CD1	2.31	0.60
1:D:115:GLU:O	1:D:116:ASP:HB2	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:158:PRO:O	1:B:159:VAL:CB	2.49	0.60
1:K:174:VAL:CG1	1:K:177:GLN:HE21	2.14	0.60
1:L:282:TYR:O	1:L:283:ASP:HB2	2.00	0.60
1:H:177:GLN:O	1:H:179:GLU:N	2.34	0.60
1:D:258:LEU:C	1:D:258:LEU:HD23	2.22	0.60
1:C:57:ILE:O	1:C:61:GLY:HA2	2.00	0.60
1:K:162:ARG:HH12	1:L:193:SER:HA	1.64	0.60
1:K:67:LYS:HD3	1:K:117:MET:HE2	1.81	0.60
1:A:226:LEU:HD21	1:A:283:ASP:OD2	2.02	0.60
1:E:28:LEU:HD23	1:E:32:GLN:HG2	1.83	0.60
1:A:49:ASN:HB2	1:L:87:TYR:CD1	2.37	0.60
1:K:145:LYS:HD2	1:K:145:LYS:O	2.01	0.60
1:F:265:CYS:SG	1:F:276:VAL:HA	2.42	0.60
1:F:117:MET:CE	1:F:271:LEU:HD11	2.31	0.60
1:C:42:GLU:HG3	1:C:279:LYS:NZ	2.17	0.60
1:L:274:LEU:CD2	1:L:275:ASN:N	2.64	0.60
1:B:42:GLU:HG2	1:B:279:LYS:NZ	2.16	0.60
1:E:158:PRO:O	1:E:159:VAL:CB	2.49	0.60
1:D:179:GLU:CG	1:D:180:GLY:N	2.64	0.60
1:H:108:ASN:O	1:H:109:TYR:HB2	2.02	0.60
1:E:152:GLN:O	1:E:155:GLN:HG2	2.00	0.60
1:H:99:VAL:HG12	1:H:99:VAL:O	2.01	0.60
1:E:43:ASN:O	1:E:275:ASN:ND2	2.35	0.60
1:A:45:PRO:HG3	1:A:73:TYR:CG	2.37	0.60
1:D:43:ASN:N	1:D:277:LYS:HD2	2.13	0.60
1:B:108:ASN:HB3	1:B:271:LEU:HG	1.83	0.60
1:I:228:THR:CB	1:I:250:ILE:HD11	2.31	0.60
1:I:171:LEU:O	1:I:172:LYS:HB2	2.02	0.60
1:G:213:GLN:O	1:G:216:ALA:HB3	2.01	0.60
1:B:200:LYS:HD3	1:B:202:ASP:OD2	2.01	0.60
1:E:275:ASN:C	1:E:277:LYS:HD3	2.22	0.60
1:J:90:ALA:O	1:J:92:VAL:N	2.29	0.60
1:K:57:ILE:HG23	1:K:123:ASN:HB2	1.83	0.60
1:L:54:GLU:HG2	1:L:261:ARG:HH22	1.67	0.60
1:L:222:MET:HB3	1:L:227:GLN:HB2	1.84	0.60
1:B:226:LEU:HD22	1:B:251:ASP:CG	2.21	0.60
1:K:42:GLU:C	1:K:277:LYS:NZ	2.55	0.60
1:F:84:ARG:HD3	1:F:89:GLN:O	2.01	0.60
1:H:265:CYS:HA	1:H:268:ILE:HD12	1.82	0.60
1:F:59:GLN:O	1:F:61:GLY:N	2.35	0.60
1:E:279:LYS:C	1:E:281:ARG:H	2.03	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:42:GLU:HB3	1:D:277:LYS:HD3	1.83	0.60
1:I:158:PRO:O	1:I:159:VAL:HB	2.01	0.60
1:A:283:ASP:O	1:A:284:ILE:HB	2.01	0.60
1:I:124:ASN:C	1:I:126:MET:H	2.04	0.60
1:C:148:ILE:O	1:C:152:GLN:HG3	2.02	0.60
1:G:200:LYS:NZ	1:G:202:ASP:OD1	2.33	0.60
1:E:79:ALA:CB	1:E:94:ARG:HH21	2.14	0.60
1:I:98:PRO:O	1:I:99:VAL:HB	2.01	0.60
1:J:117:MET:CE	1:J:271:LEU:HD22	2.32	0.60
1:D:258:LEU:HD21	1:D:262:GLU:HG2	1.84	0.60
1:B:91:THR:CG2	1:B:92:VAL:HG23	2.31	0.60
1:G:277:LYS:N	1:G:277:LYS:HD3	2.16	0.60
1:H:109:TYR:CG	1:H:110:ARG:N	2.69	0.60
1:G:109:TYR:N	1:G:112:MET:HB2	2.17	0.60
1:B:148:ILE:O	1:B:152:GLN:HG3	2.01	0.60
1:L:179:GLU:CG	1:L:181:ASN:H	2.15	0.60
1:L:23:TRP:NE1	1:L:145:LYS:HE3	2.17	0.60
1:I:47:THR:HB	1:I:73:TYR:O	2.01	0.59
1:J:34:LEU:O	1:J:37:GLN:NE2	2.35	0.59
1:B:125:ASP:O	1:B:126:MET:HE2	2.02	0.59
1:A:43:ASN:ND2	1:A:276:VAL:HG12	2.17	0.59
1:K:39:PHE:CE1	1:K:258:LEU:HB2	2.36	0.59
1:I:20:ARG:NE	1:I:146:GLU:HG3	2.16	0.59
1:A:182:ALA:HB1	1:A:183:PRO:HD2	1.84	0.59
1:I:153:ASN:C	1:I:155:GLN:H	2.05	0.59
1:E:53:LEU:CB	1:E:63:VAL:HG21	2.32	0.59
1:I:43:ASN:CB	1:I:277:LYS:HZ3	2.14	0.59
1:I:85:ASP:CG	1:I:89:GLN:HB3	2.21	0.59
1:J:117:MET:HB2	1:J:271:LEU:CD1	2.30	0.59
1:E:175:TYR:C	1:E:177:GLN:H	2.06	0.59
1:F:160:LEU:HD11	1:G:171:LEU:HD21	1.84	0.59
1:D:123:ASN:O	1:D:124:ASN:OD1	2.19	0.59
1:C:110:ARG:O	1:C:112:MET:N	2.35	0.59
1:K:67:LYS:HD3	1:K:117:MET:CE	2.31	0.59
1:L:12:ILE:O	1:L:16:GLN:HB2	2.02	0.59
1:H:259:LYS:HD2	1:I:281:ARG:HH12	1.65	0.59
1:B:201:THR:HG23	1:C:159:VAL:HG11	1.84	0.59
1:A:168:GLN:HA	1:A:168:GLN:HE21	1.68	0.59
1:B:136:LEU:HD13	1:C:22:ARG:HD2	1.84	0.59
1:F:37:GLN:O	1:F:281:ARG:HD2	2.02	0.59
1:I:117:MET:HE2	1:I:118:GLY:H	1.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:84:ARG:HD2	1:I:88:ASN:O	2.02	0.59
1:D:39:PHE:CZ	1:D:257:PHE:O	2.55	0.59
1:J:201:THR:CG2	1:L:183:PRO:HG3	2.31	0.59
1:A:12:ILE:CG2	1:A:15:ILE:HB	2.33	0.59
1:D:147:ILE:HG12	1:E:156:LYS:HD2	1.83	0.59
1:I:109:TYR:HE2	1:I:112:MET:SD	2.25	0.59
1:G:179:GLU:OE2	1:G:181:ASN:N	2.36	0.59
1:D:158:PRO:O	1:D:159:VAL:CG2	2.43	0.59
1:F:38:LEU:O	1:F:39:PHE:HB2	2.01	0.59
1:A:156:LYS:HE3	1:B:178:TYR:CE1	2.37	0.59
1:L:113:LYS:O	1:L:114:GLU:HG3	2.03	0.59
1:J:49:ASN:HB3	1:J:52:PHE:HB3	1.84	0.59
1:G:170:SER:OG	1:G:173:GLN:HB2	2.03	0.59
1:G:171:LEU:HD23	1:G:175:TYR:CE1	2.37	0.59
1:G:171:LEU:O	1:G:172:LYS:HB3	2.01	0.59
1:K:39:PHE:HE1	1:K:258:LEU:HB2	1.66	0.59
1:E:67:LYS:HE3	1:E:117:MET:HG2	1.83	0.59
1:J:53:LEU:O	1:J:56:SER:HB2	2.02	0.59
1:F:213:GLN:O	1:F:216:ALA:HB3	2.02	0.59
1:I:117:MET:HG2	1:I:271:LEU:CD1	2.24	0.59
1:D:111:ASP:O	1:D:112:MET:HG2	2.02	0.59
1:F:201:THR:HG23	1:G:159:VAL:HG11	1.83	0.59
1:D:146:GLU:O	1:D:150:VAL:HG23	2.02	0.59
1:I:170:SER:OG	1:I:173:GLN:HB2	2.03	0.59
1:I:50:PRO:O	1:I:54:GLU:HG3	2.03	0.59
1:F:53:LEU:HD11	1:F:121:ILE:HD12	1.83	0.59
1:F:67:LYS:HG3	1:F:72:SER:O	2.03	0.59
1:H:64:GLY:O	1:H:75:ALA:HA	2.01	0.59
1:K:92:VAL:HG12	1:K:92:VAL:O	2.03	0.59
1:D:264:ALA:O	1:D:268:ILE:N	2.25	0.59
1:J:174:VAL:HG12	1:J:177:GLN:HE21	1.67	0.59
1:A:91:THR:O	1:A:92:VAL:HB	2.02	0.59
1:D:174:VAL:O	1:D:177:GLN:CG	2.50	0.59
1:F:221:MET:HE1	1:F:225:LYS:HE2	1.84	0.59
1:G:40:GLU:HB3	1:G:279:LYS:HZ3	1.66	0.59
1:H:264:ALA:O	1:H:268:ILE:HG13	2.03	0.59
1:I:34:LEU:O	1:I:37:GLN:NE2	2.36	0.59
1:I:171:LEU:O	1:I:172:LYS:CB	2.50	0.59
1:G:147:ILE:HG23	1:H:156:LYS:HG3	1.84	0.59
1:E:41:TRP:O	1:E:277:LYS:HG2	2.03	0.59
1:E:258:LEU:HD21	1:E:278:VAL:HG13	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:44:LEU:CD1	1:E:44:LEU:N	2.63	0.59
1:F:186:PHE:CD2	1:F:196:ILE:HD11	2.37	0.59
1:F:122:TYR:O	1:F:260:SER:OG	2.18	0.59
1:L:56:SER:HB3	1:L:63:VAL:HG22	1.84	0.59
1:J:133:THR:HG21	1:J:224:PHE:CE2	2.37	0.59
1:K:283:ASP:CG	1:K:284:ILE:N	2.53	0.59
1:E:12:ILE:HD12	1:E:15:ILE:HD12	1.85	0.59
1:A:41:TRP:O	1:A:42:GLU:CB	2.50	0.59
1:B:84:ARG:HA	1:B:89:GLN:O	2.03	0.59
1:D:186:PHE:CD2	1:D:196:ILE:HD11	2.38	0.59
1:G:81:SER:HB3	1:G:94:ARG:NH2	2.18	0.59
1:H:222:MET:HB3	1:H:227:GLN:CB	2.32	0.59
1:H:222:MET:HB3	1:H:227:GLN:HB2	1.84	0.59
1:H:275:ASN:HB3	1:H:277:LYS:NZ	2.17	0.59
1:G:126:MET:HG2	1:H:55:LYS:NZ	2.18	0.59
1:A:124:ASN:HD21	1:A:128:PHE:HB2	1.68	0.59
1:E:266:GLU:O	1:E:270:GLU:OE2	2.20	0.59
1:E:171:LEU:HD22	1:E:175:TYR:HE1	1.67	0.59
1:A:276:VAL:O	1:A:277:LYS:HG2	2.03	0.59
1:C:248:GLU:OE2	1:D:226:LEU:HG	2.02	0.59
1:C:81:SER:N	1:C:90:ALA:HB1	2.17	0.59
1:B:53:LEU:O	1:B:57:ILE:HG13	2.03	0.59
1:H:275:ASN:O	1:H:277:LYS:HG3	2.03	0.59
1:I:39:PHE:CZ	1:I:257:PHE:HB2	2.38	0.59
1:E:65:PHE:CE2	1:E:268:ILE:HD11	2.37	0.58
1:I:61:GLY:O	1:I:62:TYR:C	2.42	0.58
1:J:84:ARG:HD3	1:J:89:GLN:O	2.02	0.58
1:A:273:GLY:O	1:A:274:LEU:O	2.20	0.58
1:G:41:TRP:O	1:G:42:GLU:HB2	2.03	0.58
1:H:126:MET:HG2	1:H:128:PHE:CZ	2.38	0.58
1:B:103:GLU:CG	1:B:104:PHE:N	2.65	0.58
1:G:37:GLN:O	1:G:281:ARG:NE	2.24	0.58
1:E:62:TYR:HE2	1:E:79:ALA:HA	1.68	0.58
1:J:103:GLU:O	1:J:104:PHE:CB	2.50	0.58
1:H:98:PRO:C	1:H:100:TYR:H	2.04	0.58
1:L:43:ASN:CA	1:L:277:LYS:HE2	2.32	0.58
1:D:284:ILE:CD1	1:D:284:ILE:N	2.65	0.58
1:D:37:GLN:O	1:D:281:ARG:HD2	2.03	0.58
1:B:98:PRO:O	1:B:100:TYR:N	2.35	0.58
1:E:171:LEU:HD22	1:E:175:TYR:CE1	2.39	0.58
1:H:71:ILE:O	1:H:74:ILE:HD11	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:40:GLU:CG	1:A:279:LYS:NZ	2.66	0.58
1:G:275:ASN:O	1:G:277:LYS:HE2	2.03	0.58
1:I:131:THR:O	1:I:135:GLU:HG3	2.03	0.58
1:A:188:HIS:O	1:A:188:HIS:CG	2.56	0.58
1:B:81:SER:O	1:B:82:GLY:O	2.21	0.58
1:G:110:ARG:HG2	1:G:111:ASP:OD1	2.04	0.58
1:B:126:MET:C	1:B:128:PHE:H	2.04	0.58
1:H:201:THR:CG2	1:I:159:VAL:HG11	2.24	0.58
1:D:74:ILE:HG12	1:D:75:ALA:N	2.17	0.58
1:E:52:PHE:HE2	1:E:76:CYS:H	1.51	0.58
1:E:68:ASP:OD2	1:E:70:VAL:N	2.28	0.58
1:D:269:ASN:CB	1:D:274:LEU:HA	2.30	0.58
1:B:91:THR:HG22	1:B:92:VAL:N	2.17	0.58
1:E:20:ARG:HG2	1:E:146:GLU:CG	2.32	0.58
1:B:59:GLN:O	1:B:60:PHE:C	2.41	0.58
1:L:57:ILE:HG12	1:L:63:VAL:CG2	2.32	0.58
1:B:74:ILE:HG12	1:B:75:ALA:N	2.17	0.58
1:D:258:LEU:O	1:D:259:LYS:C	2.41	0.58
1:C:201:THR:HG22	1:D:159:VAL:HG11	1.86	0.58
1:F:261:ARG:N	1:F:261:ARG:HD2	2.13	0.58
1:J:110:ARG:HB2	1:K:46:PRO:HB2	1.84	0.58
1:E:258:LEU:O	1:E:261:ARG:HB2	2.04	0.58
1:J:269:ASN:OD1	1:J:274:LEU:HA	2.04	0.58
1:J:275:ASN:O	1:J:277:LYS:N	2.37	0.58
1:A:123:ASN:OD1	1:A:261:ARG:NH2	2.36	0.58
1:C:249:GLN:HG2	1:D:222:MET:CE	2.24	0.58
1:D:41:TRP:O	1:D:277:LYS:HD2	2.04	0.58
1:D:79:ALA:HB1	1:D:94:ARG:NH2	2.19	0.58
1:B:268:ILE:O	1:B:271:LEU:HB2	2.04	0.58
1:A:90:ALA:HB3	1:A:106:LEU:CD1	2.33	0.58
1:E:20:ARG:NE	1:E:146:GLU:CD	2.57	0.58
1:G:102:LYS:HE3	1:G:102:LYS:HA	1.85	0.58
1:C:50:PRO:O	1:C:51:SER:HB3	2.04	0.58
1:E:74:ILE:HG12	1:E:75:ALA:H	1.66	0.58
1:A:117:MET:CG	1:A:118:GLY:N	2.66	0.58
1:E:81:SER:C	1:E:84:ARG:NH1	2.57	0.58
1:E:42:GLU:O	1:E:277:LYS:HG2	2.04	0.58
1:I:87:TYR:OH	1:J:48:ILE:HA	2.04	0.58
1:A:276:VAL:C	1:A:277:LYS:HG2	2.24	0.58
1:D:186:PHE:HD2	1:D:196:ILE:HD11	1.68	0.58
1:G:275:ASN:ND2	1:G:277:LYS:HD2	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:152:GLN:O	1:B:155:GLN:HG2	2.03	0.58
1:B:137:PHE:HE2	1:B:220:GLU:HB3	1.68	0.58
1:I:38:LEU:O	1:I:39:PHE:HB2	2.04	0.58
1:E:66:TYR:HB2	1:E:104:PHE:HZ	1.64	0.58
1:I:258:LEU:O	1:I:262:GLU:HG3	2.03	0.58
1:J:108:ASN:HD21	1:J:271:LEU:CB	2.17	0.58
1:J:262:GLU:CA	1:J:278:VAL:HG21	2.33	0.58
1:L:44:LEU:HD23	1:L:275:ASN:OD1	2.04	0.58
1:K:247:ASP:O	1:K:250:ILE:HG12	2.04	0.58
1:B:276:VAL:C	1:B:277:LYS:HD3	2.24	0.58
1:A:226:LEU:HA	1:A:250:ILE:CG2	2.34	0.58
1:C:166:ASN:ND2	1:C:170:SER:HA	2.19	0.58
1:J:188:HIS:O	1:J:189:GLU:CB	2.52	0.58
1:L:93:PHE:HB2	1:L:106:LEU:HD11	1.86	0.57
1:L:222:MET:HB3	1:L:227:GLN:CB	2.34	0.57
1:C:109:TYR:CE1	1:D:47:THR:HG23	2.39	0.57
1:G:269:ASN:ND2	1:G:275:ASN:HB3	2.17	0.57
1:A:172:LYS:NZ	1:L:11:SER:HB3	2.19	0.57
1:A:248:GLU:HB3	1:B:282:TYR:CE2	2.39	0.57
1:E:57:ILE:O	1:E:61:GLY:HA2	2.05	0.57
1:F:117:MET:HE1	1:F:271:LEU:HD21	1.85	0.57
1:I:43:ASN:HB3	1:I:277:LYS:HZ1	1.69	0.57
1:K:63:VAL:CG1	1:K:121:ILE:HB	2.33	0.57
1:L:106:LEU:HD23	1:L:118:GLY:O	2.04	0.57
1:B:222:MET:HB3	1:B:227:GLN:HB2	1.86	0.57
1:H:258:LEU:HD22	1:H:280:PHE:CE1	2.39	0.57
1:J:39:PHE:CZ	1:J:257:PHE:HB2	2.38	0.57
1:F:43:ASN:HB2	1:F:277:LYS:HE2	1.85	0.57
1:E:196:ILE:HG22	1:E:197:GLU:N	2.19	0.57
1:A:40:GLU:CG	1:A:279:LYS:HZ3	2.17	0.57
1:K:247:ASP:HA	1:K:250:ILE:HG12	1.85	0.57
1:B:108:ASN:ND2	1:B:267:LYS:C	2.58	0.57
1:B:158:PRO:O	1:B:158:PRO:HG2	2.04	0.57
1:E:164:ASN:HB3	1:E:195:SER:O	2.03	0.57
1:E:263:GLU:O	1:E:267:LYS:HD2	2.04	0.57
1:J:131:THR:HG22	1:J:132:PRO:HD3	1.86	0.57
1:E:38:LEU:O	1:E:39:PHE:CB	2.52	0.57
1:E:71:ILE:HD12	1:E:74:ILE:HD12	1.86	0.57
1:E:196:ILE:CG2	1:E:197:GLU:N	2.67	0.57
1:H:74:ILE:HG22	1:H:75:ALA:H	1.68	0.57
1:L:109:TYR:HB3	1:L:112:MET:HB3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:247:ASP:O	1:B:250:ILE:HG13	2.04	0.57
1:G:105:LYS:HZ2	1:G:105:LYS:HB2	1.69	0.57
1:G:273:GLY:C	1:G:274:LEU:HD23	2.24	0.57
1:K:188:HIS:O	1:K:189:GLU:HB3	2.04	0.57
1:I:205:TYR:CZ	1:I:207:VAL:HB	2.39	0.57
1:F:252:SER:HB2	1:G:37:GLN:OE1	2.04	0.57
1:D:193:SER:O	1:D:194:ASP:HB2	2.03	0.57
1:E:59:GLN:O	1:E:60:PHE:CG	2.58	0.57
1:K:222:MET:HB3	1:K:227:GLN:HB2	1.85	0.57
1:J:126:MET:O	1:J:128:PHE:N	2.35	0.57
1:L:62:TYR:CE2	1:L:80:LEU:HG	2.39	0.57
1:E:87:TYR:O	1:E:88:ASN:HB3	2.04	0.57
1:F:86:VAL:N	1:G:99:VAL:HG11	2.18	0.57
1:G:52:PHE:C	1:G:52:PHE:CD2	2.77	0.57
1:E:249:GLN:CG	1:E:250:ILE:HD12	2.35	0.57
1:F:224:PHE:C	1:F:225:LYS:HD2	2.24	0.57
1:G:86:VAL:HG13	1:G:87:TYR:H	1.69	0.57
1:G:249:GLN:HA	1:G:252:SER:CB	2.31	0.57
1:G:39:PHE:CZ	1:G:257:PHE:HB3	2.40	0.57
1:B:140:GLU:CD	1:C:145:LYS:NZ	2.58	0.57
1:E:143:GLU:OE2	1:F:153:ASN:ND2	2.36	0.57
1:E:124:ASN:HD21	1:E:128:PHE:HD1	1.51	0.57
1:E:262:GLU:C	1:E:264:ALA:H	2.08	0.57
1:I:108:ASN:HD21	1:I:271:LEU:N	2.02	0.57
1:C:117:MET:CE	1:C:271:LEU:HD13	2.34	0.57
1:D:106:LEU:HA	1:D:118:GLY:O	2.05	0.57
1:L:153:ASN:O	1:L:156:LYS:HB2	2.04	0.57
1:J:144:LEU:HD21	1:K:152:GLN:HG2	1.87	0.57
1:E:186:PHE:CD2	1:E:196:ILE:HD11	2.39	0.57
1:H:68:ASP:HB3	1:H:74:ILE:HD13	1.85	0.57
1:J:169:LEU:HB3	1:J:186:PHE:CE1	2.40	0.57
1:J:172:LYS:H	1:J:175:TYR:HD1	1.53	0.57
1:K:23:TRP:CE2	1:K:145:LYS:HE2	2.40	0.57
1:F:67:LYS:HB3	1:F:117:MET:CE	2.35	0.57
1:H:92:VAL:HG12	1:H:93:PHE:H	1.68	0.57
1:D:265:CYS:SG	1:D:276:VAL:CA	2.86	0.57
1:J:170:SER:C	1:J:171:LEU:O	2.41	0.57
1:G:269:ASN:CG	1:G:274:LEU:O	2.43	0.57
1:K:117:MET:HB3	1:K:271:LEU:HD22	1.85	0.57
1:D:179:GLU:HG2	1:D:180:GLY:H	1.69	0.57
1:H:42:GLU:OE1	1:H:279:LYS:HG3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:164:ASN:HB3	1:B:195:SER:HA	1.85	0.57
1:E:53:LEU:HA	1:E:63:VAL:CG2	2.34	0.57
1:F:275:ASN:HA	1:F:277:LYS:CE	2.35	0.57
1:F:47:THR:HB	1:F:73:TYR:HB2	1.85	0.57
1:I:117:MET:SD	1:I:271:LEU:HD13	2.44	0.57
1:H:168:GLN:OE1	1:H:169:LEU:HG	2.05	0.57
1:C:181:ASN:O	1:C:182:ALA:HB2	2.05	0.57
1:G:262:GLU:O	1:G:264:ALA:N	2.33	0.57
1:E:109:TYR:C	1:E:111:ASP:H	2.07	0.57
1:G:84:ARG:HH11	1:G:84:ARG:HG2	1.70	0.57
1:I:49:ASN:HD22	1:I:52:PHE:CB	2.18	0.57
1:H:63:VAL:HG11	1:H:121:ILE:HB	1.87	0.57
1:L:258:LEU:HD22	1:L:262:GLU:HG3	1.87	0.57
1:D:277:LYS:C	1:D:279:LYS:H	2.07	0.57
1:D:72:SER:OG	1:D:73:TYR:N	2.35	0.57
1:D:179:GLU:CG	1:D:180:GLY:H	2.18	0.57
1:H:157:THR:HG21	1:I:178:TYR:HE2	1.70	0.57
1:K:172:LYS:HE3	1:L:179:GLU:CD	2.25	0.57
1:L:271:LEU:O	1:L:272:TYR:CB	2.53	0.56
1:G:89:GLN:HG3	1:G:107:TYR:HE1	1.69	0.56
1:E:165:ASP:HB2	1:E:191:LEU:HD23	1.87	0.56
1:G:109:TYR:H	1:G:112:MET:HB2	1.70	0.56
1:B:284:ILE:O	1:B:284:ILE:HG22	2.04	0.56
1:F:65:PHE:O	1:F:119:VAL:HG23	2.05	0.56
1:G:47:THR:CB	1:G:72:SER:O	2.53	0.56
1:I:42:GLU:O	1:I:43:ASN:CB	2.52	0.56
1:A:108:ASN:HB2	1:A:119:VAL:HG23	1.86	0.56
1:E:249:GLN:HG3	1:E:250:ILE:HD12	1.87	0.56
1:C:143:GLU:O	1:C:147:ILE:HG13	2.05	0.56
1:J:12:ILE:O	1:L:181:ASN:ND2	2.38	0.56
1:J:105:LYS:HD3	1:J:114:GLU:OE2	2.05	0.56
1:E:38:LEU:HD11	1:E:225:LYS:HZ3	1.70	0.56
1:I:43:ASN:HB3	1:I:277:LYS:CE	2.35	0.56
1:J:281:ARG:HH11	1:J:281:ARG:HG3	1.69	0.56
1:J:61:GLY:O	1:J:62:TYR:C	2.43	0.56
1:C:42:GLU:C	1:C:277:LYS:HZ3	2.03	0.56
1:A:261:ARG:HB3	1:A:278:VAL:CG1	2.34	0.56
1:A:269:ASN:N	1:A:269:ASN:ND2	2.54	0.56
1:L:115:GLU:O	1:L:116:ASP:HB2	2.05	0.56
1:D:107:TYR:CD1	1:D:108:ASN:N	2.74	0.56
1:E:201:THR:CG2	1:E:201:THR:O	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:174:VAL:CG1	1:D:177:GLN:NE2	2.64	0.56
1:F:179:GLU:OE2	1:F:181:ASN:HB2	2.04	0.56
1:G:117:MET:HB3	1:G:271:LEU:HD22	1.86	0.56
1:J:110:ARG:HB2	1:K:46:PRO:CB	2.35	0.56
1:B:51:SER:O	1:B:55:LYS:HG3	2.04	0.56
1:E:148:ILE:HG23	1:E:207:VAL:HG13	1.88	0.56
1:J:31:LEU:HD22	1:J:221:MET:HG2	1.87	0.56
1:G:120:VAL:HG23	1:G:120:VAL:O	2.05	0.56
1:I:110:ARG:CB	1:J:46:PRO:HB2	2.36	0.56
1:I:110:ARG:O	1:I:112:MET:N	2.38	0.56
1:J:84:ARG:HB3	1:J:88:ASN:HA	1.86	0.56
1:E:84:ARG:NH1	1:E:90:ALA:HA	2.20	0.56
1:A:56:SER:O	1:A:59:GLN:O	2.23	0.56
1:E:67:LYS:HB2	1:E:117:MET:HG2	1.87	0.56
1:B:248:GLU:HB2	1:C:282:TYR:CE2	2.40	0.56
1:D:269:ASN:ND2	1:D:274:LEU:O	2.38	0.56
1:B:85:ASP:OD2	1:B:89:GLN:HB3	2.05	0.56
1:C:80:LEU:HB3	1:C:90:ALA:CB	2.35	0.56
1:I:124:ASN:HD22	1:I:126:MET:HB2	1.71	0.56
1:G:248:GLU:HG3	1:G:249:GLN:N	2.20	0.56
1:H:161:ILE:HG12	1:H:198:VAL:HG22	1.88	0.56
1:C:13:ASN:ND2	1:C:17:ARG:NE	2.52	0.56
1:F:171:LEU:O	1:F:173:GLN:N	2.37	0.56
1:C:145:LYS:HD2	1:C:145:LYS:O	2.06	0.56
1:H:171:LEU:HD22	1:H:175:TYR:CE1	2.40	0.56
1:H:64:GLY:C	1:H:65:PHE:CD1	2.79	0.56
1:L:274:LEU:CD2	1:L:275:ASN:H	2.18	0.56
1:L:41:TRP:CA	1:L:277:LYS:HB3	2.35	0.56
1:K:269:ASN:HB3	1:K:274:LEU:HD22	1.88	0.56
1:H:11:SER:N	1:J:181:ASN:ND2	2.51	0.56
1:E:90:ALA:O	1:E:106:LEU:HD11	2.06	0.56
1:F:87:TYR:O	1:F:88:ASN:HB2	2.05	0.56
1:A:222:MET:HB3	1:A:227:GLN:CB	2.36	0.56
1:B:151:ASN:O	1:B:154:ALA:HB3	2.05	0.56
1:J:144:LEU:HD21	1:K:152:GLN:CG	2.36	0.56
1:K:68:ASP:OD1	1:K:70:VAL:N	2.38	0.56
1:E:82:GLY:HA3	1:E:92:VAL:HG23	1.87	0.56
1:I:258:LEU:HD22	1:I:262:GLU:CG	2.36	0.56
1:I:97:SER:OG	1:I:98:PRO:HD2	2.06	0.56
1:C:123:ASN:ND2	1:C:261:ARG:NH2	2.54	0.56
1:C:60:PHE:HA	1:C:129:PRO:HG3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:48:ILE:HD11	1:L:73:TYR:C	2.26	0.56
1:L:226:LEU:O	1:L:227:GLN:CD	2.44	0.56
1:D:61:GLY:H	1:D:129:PRO:HG3	1.70	0.56
1:D:164:ASN:HD22	1:D:195:SER:HA	1.71	0.56
1:G:165:ASP:C	1:G:167:ASN:N	2.59	0.56
1:B:144:LEU:HD21	1:C:152:GLN:NE2	2.21	0.56
1:I:151:ASN:OD1	1:I:207:VAL:HG23	2.06	0.56
1:K:197:GLU:OE1	1:K:199:PHE:CZ	2.59	0.56
1:E:34:LEU:O	1:E:37:GLN:NE2	2.38	0.56
1:C:108:ASN:ND2	1:C:108:ASN:H	2.02	0.56
1:C:43:ASN:O	1:C:44:LEU:HG	2.06	0.56
1:G:173:GLN:HA	1:G:176:ASN:HD22	1.70	0.56
1:B:40:GLU:N	1:B:278:VAL:O	2.39	0.56
1:F:222:MET:HB3	1:F:227:GLN:HB3	1.87	0.56
1:D:205:TYR:CZ	1:D:207:VAL:HB	2.41	0.56
1:D:18:GLN:CG	1:D:22:ARG:HH12	2.15	0.56
1:I:222:MET:HB3	1:I:227:GLN:CB	2.36	0.56
1:C:92:VAL:HG13	1:C:104:PHE:O	2.06	0.56
1:I:48:ILE:CD1	1:I:73:TYR:HB3	2.36	0.56
1:J:117:MET:HB3	1:J:271:LEU:HD21	1.87	0.56
1:C:269:ASN:ND2	1:C:276:VAL:CG2	2.68	0.56
1:C:275:ASN:HA	1:C:277:LYS:HE2	1.88	0.56
1:C:41:TRP:C	1:C:277:LYS:HZ2	2.09	0.56
1:C:43:ASN:N	1:C:277:LYS:NZ	2.48	0.56
1:A:108:ASN:O	1:A:109:TYR:O	2.23	0.56
1:K:59:GLN:O	1:K:61:GLY:N	2.39	0.56
1:B:249:GLN:HB2	1:C:222:MET:CE	2.36	0.56
1:B:90:ALA:O	1:B:91:THR:HB	2.06	0.56
1:K:193:SER:O	1:K:194:ASP:CB	2.52	0.56
1:A:11:SER:HB3	1:B:176:ASN:HD21	1.70	0.56
1:K:171:LEU:HD22	1:K:175:TYR:CE1	2.40	0.56
1:F:44:LEU:HD23	1:F:275:ASN:CG	2.26	0.56
1:I:107:TYR:OH	1:I:109:TYR:CZ	2.58	0.56
1:J:117:MET:HE3	1:J:271:LEU:HD22	1.88	0.56
1:J:117:MET:SD	1:J:271:LEU:HD22	2.45	0.56
1:L:104:PHE:CE2	1:L:118:GLY:HA3	2.41	0.56
1:B:274:LEU:CD2	1:B:274:LEU:C	2.72	0.56
1:B:277:LYS:O	1:B:279:LYS:N	2.38	0.56
1:K:275:ASN:CG	1:K:275:ASN:O	2.45	0.56
1:E:106:LEU:HA	1:E:118:GLY:O	2.06	0.56
1:I:222:MET:HB3	1:I:227:GLN:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:16:GLN:NE2	1:E:20:ARG:NH2	2.51	0.56
1:J:205:TYR:CE1	1:J:207:VAL:HB	2.40	0.56
1:I:188:HIS:O	1:I:189:GLU:CB	2.53	0.56
1:J:110:ARG:NE	1:K:46:PRO:HG3	2.20	0.56
1:A:52:PHE:CZ	1:A:77:ASN:ND2	2.74	0.56
1:K:172:LYS:HE3	1:L:179:GLU:OE1	2.06	0.56
1:L:172:LYS:O	1:L:176:ASN:HB2	2.06	0.56
1:J:47:THR:HG21	1:J:72:SER:HB3	1.89	0.55
1:H:171:LEU:O	1:H:174:VAL:N	2.38	0.55
1:L:68:ASP:C	1:L:68:ASP:OD1	2.44	0.55
1:K:275:ASN:ND2	1:K:277:LYS:HE2	2.19	0.55
1:K:159:VAL:HG12	1:L:183:PRO:HB3	1.86	0.55
1:D:177:GLN:NE2	1:D:184:VAL:HG13	2.22	0.55
1:D:179:GLU:OE2	1:D:181:ASN:HB2	2.06	0.55
1:E:109:TYR:HD2	1:E:112:MET:HG3	1.71	0.55
1:D:23:TRP:O	1:D:27:TYR:HD1	1.89	0.55
1:A:124:ASN:HD21	1:A:128:PHE:H	1.53	0.55
1:L:158:PRO:O	1:L:159:VAL:HB	2.06	0.55
1:F:150:VAL:HG11	1:G:156:LYS:HG2	1.88	0.55
1:F:91:THR:O	1:F:106:LEU:HG	2.05	0.55
1:B:259:LYS:O	1:B:263:GLU:HG3	2.05	0.55
1:H:62:TYR:O	1:H:63:VAL:HG12	2.06	0.55
1:L:265:CYS:O	1:L:267:LYS:N	2.40	0.55
1:D:261:ARG:HB3	1:D:278:VAL:CG1	2.36	0.55
1:D:85:ASP:OD2	1:D:89:GLN:N	2.33	0.55
1:G:20:ARG:HD2	1:G:146:GLU:CD	2.27	0.55
1:I:261:ARG:O	1:I:264:ALA:HB3	2.06	0.55
1:A:226:LEU:C	1:A:227:GLN:HG2	2.26	0.55
1:A:16:GLN:C	1:A:18:GLN:H	2.10	0.55
1:J:78:GLY:HA3	1:J:95:ALA:HA	1.88	0.55
1:F:107:TYR:N	1:F:118:GLY:O	2.39	0.55
1:I:44:LEU:CD2	1:I:45:PRO:HD2	2.36	0.55
1:J:89:GLN:NE2	1:J:107:TYR:CZ	2.75	0.55
1:C:265:CYS:HA	1:C:268:ILE:HG12	1.89	0.55
1:F:13:ASN:HD21	1:H:179:GLU:CA	2.11	0.55
1:C:62:TYR:CE1	1:C:127:ALA:HB1	2.42	0.55
1:K:67:LYS:HG3	1:K:67:LYS:O	2.07	0.55
1:D:170:SER:O	1:D:173:GLN:HB3	2.06	0.55
1:C:21:ASN:O	1:C:24:PHE:HB3	2.05	0.55
1:J:144:LEU:HD21	1:K:152:GLN:CD	2.27	0.55
1:F:126:MET:HE3	1:F:126:MET:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:219:ASN:HD22	1:C:219:ASN:N	2.03	0.55
1:K:35:ALA:HA	1:K:38:LEU:CD1	2.37	0.55
1:D:222:MET:HE3	1:D:227:GLN:HB3	1.89	0.55
1:I:123:ASN:ND2	1:I:261:ARG:NH2	2.46	0.55
1:F:38:LEU:O	1:F:39:PHE:CB	2.54	0.55
1:H:278:VAL:HG23	1:H:279:LYS:N	2.21	0.55
1:K:68:ASP:C	1:K:70:VAL:H	2.07	0.55
1:D:17:ARG:O	1:D:21:ASN:ND2	2.40	0.55
1:F:117:MET:CG	1:F:118:GLY:N	2.68	0.55
1:J:40:GLU:N	1:J:280:PHE:O	2.39	0.55
1:C:42:GLU:OE2	1:C:279:LYS:NZ	2.35	0.55
1:B:267:LYS:O	1:B:270:GLU:HB2	2.06	0.55
1:J:162:ARG:NH1	1:J:197:GLU:OE1	2.38	0.55
1:J:162:ARG:NH1	1:K:193:SER:HA	2.22	0.55
1:A:153:ASN:O	1:A:156:LYS:HB2	2.06	0.55
1:G:137:PHE:CD2	1:G:221:MET:HB2	2.42	0.55
1:I:169:LEU:HB3	1:I:186:PHE:HE1	1.71	0.55
1:H:267:LYS:O	1:H:268:ILE:C	2.43	0.55
1:L:97:SER:CB	1:L:98:PRO:HD2	2.36	0.55
1:I:171:LEU:CB	1:J:185:ILE:HD13	2.36	0.55
1:A:37:GLN:NE2	1:A:37:GLN:C	2.59	0.55
1:E:275:ASN:O	1:E:277:LYS:N	2.39	0.55
1:E:66:TYR:O	1:E:73:TYR:HA	2.06	0.55
1:J:227:GLN:O	1:J:228:THR:O	2.25	0.55
1:H:168:GLN:HB3	1:H:188:HIS:NE2	2.21	0.55
1:L:73:TYR:CE2	1:L:271:LEU:HD13	2.36	0.55
1:K:158:PRO:O	1:K:159:VAL:CG2	2.48	0.55
1:K:117:MET:CG	1:K:118:GLY:H	2.20	0.55
1:A:85:ASP:CG	1:A:89:GLN:HB2	2.27	0.55
1:G:271:LEU:C	1:G:272:TYR:HD2	2.10	0.55
1:G:151:ASN:HB3	1:G:207:VAL:HG22	1.89	0.55
1:D:213:GLN:HG3	1:E:207:VAL:CG1	2.37	0.55
1:D:20:ARG:CD	1:D:146:GLU:OE1	2.55	0.55
1:F:41:TRP:CA	1:F:278:VAL:HA	2.26	0.55
1:G:166:ASN:OD1	1:G:170:SER:HA	2.06	0.55
1:F:86:VAL:HG12	1:G:100:TYR:HB2	1.88	0.55
1:H:269:ASN:C	1:H:271:LEU:H	2.09	0.55
1:A:169:LEU:HD21	1:A:174:VAL:CG2	2.37	0.55
1:E:115:GLU:OE1	1:E:116:ASP:N	2.40	0.55
1:E:11:SER:OG	1:E:12:ILE:N	2.38	0.55
1:H:44:LEU:HB3	1:H:45:PRO:CD	2.28	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:188:HIS:CG	1:J:188:HIS:O	2.60	0.55
1:K:66:TYR:HE2	1:K:68:ASP:HA	1.71	0.55
1:J:58:HIS:O	1:J:130:THR:N	2.39	0.55
1:A:200:LYS:HE2	1:A:202:ASP:OD1	2.06	0.55
1:J:256:VAL:HG11	1:K:33:SER:HB2	1.89	0.55
1:F:69:PRO:HG2	1:F:70:VAL:H	1.70	0.55
1:C:265:CYS:HA	1:C:268:ILE:CD1	2.37	0.55
1:G:177:GLN:C	1:G:179:GLU:N	2.60	0.55
1:H:60:PHE:C	1:H:62:TYR:H	2.10	0.55
1:L:274:LEU:CD2	1:L:276:VAL:H	2.14	0.55
1:L:67:LYS:O	1:L:68:ASP:HB3	2.07	0.55
1:D:166:ASN:O	1:D:167:ASN:C	2.45	0.55
1:G:137:PHE:HE2	1:G:220:GLU:HB3	1.71	0.55
1:K:20:ARG:CD	1:K:146:GLU:OE1	2.55	0.55
1:H:144:LEU:O	1:H:148:ILE:HG13	2.07	0.55
1:J:263:GLU:O	1:J:263:GLU:HG2	2.06	0.55
1:E:61:GLY:HA2	1:E:123:ASN:HB2	1.89	0.55
1:H:91:THR:HG22	1:H:92:VAL:CG2	2.37	0.55
1:K:269:ASN:ND2	1:K:274:LEU:HA	2.21	0.55
1:E:250:ILE:H	1:E:250:ILE:HD12	1.72	0.55
1:D:151:ASN:O	1:D:154:ALA:HB3	2.07	0.55
1:A:144:LEU:O	1:A:148:ILE:HG13	2.06	0.55
1:A:205:TYR:CD2	1:L:209:LYS:HD3	2.42	0.55
1:G:187:ALA:O	1:G:188:HIS:HB2	2.07	0.55
1:E:20:ARG:CZ	1:E:146:GLU:OE1	2.55	0.55
1:L:53:LEU:HD23	1:L:63:VAL:HG11	1.88	0.55
1:G:209:LYS:HD3	1:H:205:TYR:CD2	2.42	0.55
1:F:188:HIS:C	1:F:190:ALA:H	2.10	0.55
1:F:42:GLU:O	1:F:43:ASN:HB2	2.07	0.54
1:J:222:MET:CA	1:J:227:GLN:HG3	2.37	0.54
1:J:67:LYS:HE2	1:J:117:MET:HG2	1.88	0.54
1:K:248:GLU:OE1	1:L:226:LEU:HG	2.07	0.54
1:K:43:ASN:CB	1:K:277:LYS:HD2	2.27	0.54
1:F:261:ARG:HG2	1:F:261:ARG:NH1	2.22	0.54
1:G:262:GLU:C	1:G:264:ALA:N	2.60	0.54
1:H:109:TYR:O	1:H:113:LYS:HB2	2.07	0.54
1:J:86:VAL:HA	1:K:99:VAL:CG1	2.36	0.54
1:K:188:HIS:HB3	1:K:191:LEU:CD2	2.37	0.54
1:I:258:LEU:HD22	1:I:262:GLU:HG3	1.87	0.54
1:C:119:VAL:CG1	1:C:268:ILE:HG22	2.33	0.54
1:K:249:GLN:HA	1:K:252:SER:OG	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:43:ASN:N	1:D:277:LYS:CD	2.69	0.54
1:D:169:LEU:HD12	1:D:188:HIS:HB2	1.89	0.54
1:E:85:ASP:O	1:E:86:VAL:C	2.44	0.54
1:F:49:ASN:HD22	1:F:49:ASN:C	2.09	0.54
1:H:86:VAL:CA	1:I:99:VAL:HG11	2.36	0.54
1:I:110:ARG:HB3	1:J:46:PRO:HB2	1.88	0.54
1:B:226:LEU:C	1:B:227:GLN:HG2	2.27	0.54
1:C:63:VAL:HG12	1:C:121:ILE:O	2.07	0.54
1:G:270:GLU:C	1:G:272:TYR:H	2.11	0.54
1:A:164:ASN:ND2	1:B:191:LEU:O	2.40	0.54
1:H:41:TRP:HZ3	1:H:265:CYS:HG	1.54	0.54
1:K:189:GLU:O	1:K:191:LEU:N	2.41	0.54
1:K:71:ILE:O	1:K:72:SER:C	2.44	0.54
1:C:193:SER:O	1:C:194:ASP:HB2	2.07	0.54
1:F:271:LEU:O	1:F:272:TYR:HB2	2.07	0.54
1:G:47:THR:OG1	1:G:72:SER:OG	2.25	0.54
1:J:108:ASN:HD21	1:J:271:LEU:CA	2.20	0.54
1:J:87:TYR:O	1:J:88:ASN:HB2	2.08	0.54
1:C:117:MET:HE1	1:C:271:LEU:HD13	1.89	0.54
1:E:171:LEU:C	1:E:173:GLN:H	2.09	0.54
1:A:117:MET:CE	1:A:271:LEU:HB3	2.37	0.54
1:K:93:PHE:HE2	1:K:95:ALA:HB2	1.72	0.54
1:I:162:ARG:CD	1:I:164:ASN:HD21	2.19	0.54
1:C:177:GLN:O	1:C:178:TYR:C	2.45	0.54
1:H:44:LEU:CB	1:H:45:PRO:HD2	2.35	0.54
1:J:209:LYS:HB3	1:K:205:TYR:CE2	2.43	0.54
1:F:205:TYR:CZ	1:F:207:VAL:HB	2.42	0.54
1:F:42:GLU:O	1:F:277:LYS:HD3	2.08	0.54
1:H:53:LEU:HG	1:H:65:PHE:HZ	1.63	0.54
1:H:98:PRO:C	1:H:100:TYR:N	2.61	0.54
1:D:89:GLN:NE2	1:D:107:TYR:CE2	2.76	0.54
1:C:107:TYR:CD1	1:C:107:TYR:C	2.79	0.54
1:H:13:ASN:HD22	1:J:179:GLU:CG	2.19	0.54
1:G:123:ASN:OD1	1:G:261:ARG:NH2	2.41	0.54
1:L:164:ASN:HB3	1:L:195:SER:CA	2.36	0.54
1:K:67:LYS:CD	1:K:117:MET:HG2	2.37	0.54
1:A:170:SER:C	1:A:171:LEU:O	2.42	0.54
1:H:108:ASN:ND2	1:H:271:LEU:HD11	2.22	0.54
1:K:201:THR:HG23	1:L:159:VAL:HG11	1.88	0.54
1:G:114:GLU:HG2	1:G:115:GLU:N	2.22	0.54
1:F:49:ASN:ND2	1:F:49:ASN:C	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:108:ASN:ND2	1:I:271:LEU:N	2.55	0.54
1:A:271:LEU:O	1:A:272:TYR:HB2	2.06	0.54
1:K:65:PHE:CD1	1:K:121:ILE:HD11	2.41	0.54
1:L:39:PHE:HA	1:L:279:LYS:O	2.08	0.54
1:F:158:PRO:O	1:F:159:VAL:HB	2.08	0.54
1:G:17:ARG:CG	1:G:20:ARG:HH21	2.10	0.54
1:I:121:ILE:HG12	1:I:264:ALA:HB1	1.88	0.54
1:E:164:ASN:O	1:E:166:ASN:N	2.34	0.54
1:C:126:MET:C	1:C:128:PHE:H	2.11	0.54
1:E:153:ASN:O	1:E:156:LYS:HB2	2.06	0.54
1:B:265:CYS:O	1:B:266:GLU:C	2.45	0.54
1:F:44:LEU:HD23	1:F:275:ASN:ND2	2.22	0.54
1:G:177:GLN:C	1:G:179:GLU:H	2.10	0.54
1:A:108:ASN:ND2	1:A:271:LEU:HG	2.22	0.54
1:D:106:LEU:HD23	1:D:118:GLY:O	2.08	0.54
1:F:165:ASP:CG	1:F:195:SER:HB2	2.27	0.54
1:F:177:GLN:O	1:F:179:GLU:N	2.40	0.54
1:F:223:THR:C	1:F:225:LYS:H	2.10	0.54
1:I:124:ASN:O	1:I:126:MET:N	2.40	0.54
1:C:170:SER:C	1:C:171:LEU:O	2.45	0.54
1:F:148:ILE:CG2	1:F:207:VAL:HG13	2.37	0.54
1:D:209:LYS:O	1:D:212:ALA:HB3	2.07	0.54
1:B:31:LEU:HB3	1:B:134:LEU:HD22	1.90	0.54
1:F:275:ASN:HA	1:F:277:LYS:HE3	1.90	0.54
1:C:117:MET:SD	1:C:271:LEU:HD13	2.48	0.54
1:C:42:GLU:N	1:C:277:LYS:NZ	2.56	0.54
1:J:124:ASN:ND2	1:J:128:PHE:HB2	2.08	0.54
1:A:93:PHE:N	1:A:104:PHE:HB2	2.19	0.54
1:G:50:PRO:O	1:G:52:PHE:N	2.38	0.54
1:L:162:ARG:HH21	1:L:164:ASN:HB2	1.73	0.54
1:A:280:PHE:CB	1:A:283:ASP:HB2	2.37	0.54
1:G:89:GLN:HG3	1:G:107:TYR:CE1	2.43	0.54
1:D:152:GLN:O	1:D:155:GLN:HG2	2.08	0.54
1:G:168:GLN:HB3	1:G:188:HIS:CD2	2.43	0.54
1:C:188:HIS:O	1:C:190:ALA:N	2.38	0.54
1:E:268:ILE:HG23	1:E:269:ASN:HD22	1.72	0.54
1:J:30:TYR:O	1:J:34:LEU:HB2	2.08	0.54
1:J:80:LEU:HB3	1:J:90:ALA:CB	2.38	0.54
1:C:268:ILE:CD1	1:C:275:ASN:HB2	2.38	0.54
1:K:260:SER:HA	1:K:263:GLU:CD	2.28	0.54
1:D:83:GLN:O	1:D:83:GLN:HG3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:213:GLN:HG3	1:H:207:VAL:CG1	2.38	0.54
1:L:186:PHE:CD2	1:L:196:ILE:HD11	2.43	0.54
1:J:62:TYR:O	1:J:63:VAL:HG12	2.07	0.54
1:D:265:CYS:SG	1:D:275:ASN:O	2.66	0.54
1:D:60:PHE:HD1	1:D:60:PHE:O	1.91	0.54
1:D:164:ASN:ND2	1:D:165:ASP:OD2	2.40	0.54
1:K:117:MET:HB2	1:K:271:LEU:CD1	2.32	0.54
1:G:87:TYR:O	1:G:88:ASN:HB2	2.07	0.54
1:I:213:GLN:HG3	1:J:207:VAL:CG1	2.38	0.54
1:J:252:SER:HB2	1:K:37:GLN:OE1	2.08	0.54
1:D:96:ALA:O	1:D:97:SER:HB3	2.08	0.54
1:F:34:LEU:O	1:F:37:GLN:NE2	2.41	0.53
1:I:278:VAL:HG12	1:I:279:LYS:H	1.69	0.53
1:H:174:VAL:O	1:H:177:GLN:HB3	2.08	0.53
1:A:111:ASP:N	1:A:111:ASP:OD1	2.41	0.53
1:A:72:SER:OG	1:A:73:TYR:N	2.41	0.53
1:I:123:ASN:HD22	1:I:261:ARG:HH21	1.50	0.53
1:G:85:ASP:OD2	1:G:86:VAL:N	2.40	0.53
1:A:248:GLU:HB3	1:B:282:TYR:CD2	2.43	0.53
1:I:172:LYS:CA	1:I:175:TYR:HB2	2.38	0.53
1:I:259:LYS:HD2	1:J:281:ARG:NH2	2.23	0.53
1:I:49:ASN:HD22	1:I:52:PHE:HB2	1.73	0.53
1:E:118:GLY:O	1:E:119:VAL:HG23	2.09	0.53
1:H:124:ASN:C	1:H:126:MET:N	2.59	0.53
1:C:97:SER:O	1:C:100:TYR:O	2.27	0.53
1:H:55:LYS:HD3	1:H:59:GLN:HE22	1.74	0.53
1:F:110:ARG:HD2	1:G:46:PRO:HG2	1.88	0.53
1:L:133:THR:HG21	1:L:224:PHE:CE2	2.44	0.53
1:A:108:ASN:CG	1:A:271:LEU:HG	2.28	0.53
1:D:119:VAL:HG21	1:D:268:ILE:HG13	1.89	0.53
1:D:47:THR:HG21	1:D:72:SER:HB3	1.90	0.53
1:H:263:GLU:HG2	1:H:263:GLU:O	2.08	0.53
1:K:172:LYS:H	1:K:175:TYR:HD1	1.56	0.53
1:B:97:SER:OG	1:B:98:PRO:CD	2.56	0.53
1:J:200:LYS:HE2	1:J:202:ASP:OD1	2.08	0.53
1:C:137:PHE:HE2	1:C:220:GLU:HB3	1.73	0.53
1:H:192:ASP:O	1:H:195:SER:HB3	2.07	0.53
1:J:226:LEU:HD22	1:J:280:PHE:HE2	1.71	0.53
1:J:45:PRO:O	1:J:47:THR:N	2.41	0.53
1:G:44:LEU:CD2	1:G:277:LYS:NZ	2.72	0.53
1:F:133:THR:HG21	1:F:224:PHE:CE2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:90:ALA:C	1:G:92:VAL:H	2.12	0.53
1:I:124:ASN:ND2	1:I:128:PHE:HB2	2.24	0.53
1:H:222:MET:O	1:H:227:GLN:HG2	2.08	0.53
1:L:59:GLN:O	1:L:60:PHE:O	2.25	0.53
1:C:158:PRO:O	1:C:159:VAL:CB	2.55	0.53
1:A:188:HIS:O	1:A:189:GLU:HB3	2.07	0.53
1:D:213:GLN:HG3	1:E:207:VAL:HG12	1.89	0.53
1:F:169:LEU:CD2	1:F:170:SER:H	2.20	0.53
1:B:97:SER:OG	1:B:98:PRO:HD3	2.07	0.53
1:E:37:GLN:HG2	1:E:281:ARG:CD	2.38	0.53
1:F:106:LEU:HD22	1:F:120:VAL:CG2	2.38	0.53
1:I:277:LYS:O	1:I:278:VAL:HG23	2.08	0.53
1:E:11:SER:N	1:G:181:ASN:ND2	2.51	0.53
1:A:91:THR:O	1:A:92:VAL:CB	2.55	0.53
1:F:225:LYS:O	1:F:226:LEU:O	2.27	0.53
1:L:57:ILE:O	1:L:61:GLY:HA2	2.08	0.53
1:C:93:PHE:HB2	1:C:106:LEU:HD23	1.90	0.53
1:G:125:ASP:O	1:H:55:LYS:NZ	2.41	0.53
1:H:51:SER:O	1:H:55:LYS:HB2	2.08	0.53
1:I:145:LYS:HD2	1:I:145:LYS:O	2.08	0.53
1:C:85:ASP:C	1:C:87:TYR:H	2.12	0.53
1:B:24:PHE:O	1:B:28:LEU:HB2	2.09	0.53
1:E:147:ILE:HG23	1:F:156:LYS:HG3	1.89	0.53
1:E:93:PHE:CB	1:E:104:PHE:HB2	2.32	0.53
1:E:53:LEU:HG	1:E:54:GLU:N	2.23	0.53
1:A:67:LYS:HA	1:A:73:TYR:HA	1.90	0.53
1:D:39:PHE:CE1	1:D:258:LEU:HD12	2.44	0.53
1:D:85:ASP:OD2	1:D:87:TYR:N	2.41	0.53
1:I:11:SER:N	1:K:179:GLU:HB3	2.24	0.53
1:D:171:LEU:O	1:D:173:GLN:N	2.37	0.53
1:G:168:GLN:HB3	1:G:188:HIS:CE1	2.43	0.53
1:D:95:ALA:HB3	1:D:102:LYS:N	2.22	0.53
1:L:179:GLU:HG3	1:L:181:ASN:HB2	1.90	0.53
1:G:24:PHE:CZ	1:G:28:LEU:HD12	2.43	0.53
1:K:188:HIS:HB3	1:K:191:LEU:CG	2.39	0.53
1:G:58:HIS:O	1:G:130:THR:N	2.42	0.53
1:E:66:TYR:HD2	1:E:100:TYR:HH	1.57	0.53
1:E:71:ILE:O	1:E:73:TYR:N	2.41	0.53
1:J:226:LEU:C	1:J:227:GLN:HG2	2.29	0.53
1:C:47:THR:CG2	1:C:72:SER:HB3	2.39	0.53
1:H:74:ILE:CG2	1:H:75:ALA:N	2.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:82:GLY:CA	1:H:91:THR:HB	2.37	0.53
1:K:57:ILE:HG21	1:K:261:ARG:NH1	2.24	0.53
1:K:90:ALA:HB1	1:K:106:LEU:HD12	1.91	0.53
1:C:57:ILE:HA	1:C:62:TYR:O	2.08	0.53
1:I:37:GLN:O	1:I:281:ARG:HD2	2.08	0.53
1:C:93:PHE:HB3	1:C:104:PHE:CE1	2.44	0.53
1:A:14:GLU:HA	1:A:17:ARG:CG	2.38	0.53
1:C:24:PHE:HD1	1:C:138:ALA:O	1.91	0.53
1:K:174:VAL:HG13	1:K:177:GLN:NE2	2.23	0.53
1:F:104:PHE:HD2	1:F:118:GLY:HA2	1.73	0.53
1:I:277:LYS:O	1:I:278:VAL:CB	2.57	0.53
1:B:258:LEU:CD2	1:B:262:GLU:HG3	2.35	0.53
1:H:66:TYR:OH	1:H:102:LYS:HG2	2.09	0.53
1:K:108:ASN:HA	1:K:112:MET:CB	2.38	0.53
1:J:169:LEU:HD22	1:J:170:SER:H	1.73	0.53
1:G:41:TRP:HE3	1:G:277:LYS:HZ1	1.54	0.53
1:K:117:MET:HG3	1:K:118:GLY:H	1.71	0.53
1:E:20:ARG:NE	1:E:146:GLU:OE2	2.42	0.53
1:I:168:GLN:OE1	1:I:169:LEU:HG	2.08	0.53
1:F:110:ARG:HG2	1:F:111:ASP:CG	2.28	0.53
1:I:153:ASN:O	1:I:155:GLN:N	2.42	0.53
1:F:90:ALA:O	1:F:92:VAL:N	2.40	0.53
1:I:271:LEU:C	1:I:273:GLY:N	2.62	0.53
1:J:66:TYR:CE2	1:J:68:ASP:HA	2.43	0.53
1:C:39:PHE:CZ	1:C:257:PHE:HB2	2.44	0.53
1:C:42:GLU:CD	1:C:279:LYS:HZ3	2.13	0.53
1:C:42:GLU:HG3	1:C:279:LYS:HZ3	1.72	0.53
1:D:165:ASP:C	1:D:167:ASN:N	2.61	0.53
1:D:165:ASP:OD1	1:D:195:SER:HB3	2.09	0.53
1:F:226:LEU:O	1:F:227:GLN:CD	2.47	0.53
1:C:170:SER:O	1:C:171:LEU:O	2.27	0.53
1:F:173:GLN:HA	1:F:173:GLN:OE1	2.08	0.53
1:K:76:CYS:SG	1:K:95:ALA:HB2	2.49	0.53
1:L:107:TYR:CE2	1:L:109:TYR:CZ	2.97	0.53
1:C:201:THR:HG21	1:E:183:PRO:HG3	1.90	0.53
1:A:66:TYR:HE2	1:A:68:ASP:HA	1.74	0.53
1:I:123:ASN:HD21	1:I:261:ARG:HH21	1.50	0.53
1:B:157:THR:HG21	1:C:178:TYR:CE2	2.43	0.53
1:G:258:LEU:HD21	1:G:278:VAL:HG13	1.91	0.53
1:A:49:ASN:HB3	1:A:52:PHE:HB3	1.90	0.53
1:G:213:GLN:HG2	1:H:208:ASP:OD1	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:267:LYS:HA	1:B:270:GLU:OE2	2.08	0.52
1:K:159:VAL:HG11	1:L:183:PRO:HB3	1.89	0.52
1:C:177:GLN:HG2	1:C:179:GLU:HG3	1.92	0.52
1:L:20:ARG:HD3	1:L:146:GLU:HG3	1.91	0.52
1:C:66:TYR:OH	1:C:102:LYS:HE2	2.09	0.52
1:H:227:GLN:O	1:H:228:THR:C	2.48	0.52
1:E:109:TYR:CD2	1:E:112:MET:HG3	2.44	0.52
1:C:15:ILE:O	1:C:17:ARG:N	2.42	0.52
1:B:34:LEU:O	1:B:37:GLN:HB3	2.09	0.52
1:H:215:ASN:O	1:H:219:ASN:ND2	2.42	0.52
1:E:282:TYR:CG	1:E:283:ASP:N	2.76	0.52
1:E:99:VAL:HG13	1:E:100:TYR:N	2.14	0.52
1:A:109:TYR:CE2	1:A:111:ASP:HB2	2.43	0.52
1:J:125:ASP:HB3	1:K:55:LYS:CE	2.39	0.52
1:K:57:ILE:CG1	1:K:63:VAL:HG11	2.38	0.52
1:D:113:LYS:HD2	1:D:271:LEU:HD23	1.89	0.52
1:B:227:GLN:O	1:B:228:THR:O	2.27	0.52
1:E:84:ARG:HB3	1:E:88:ASN:CA	2.39	0.52
1:F:84:ARG:NH1	1:F:84:ARG:HG3	2.24	0.52
1:C:20:ARG:NH2	1:C:143:GLU:HG3	2.24	0.52
1:I:221:MET:HE2	1:I:225:LYS:HE3	1.92	0.52
1:H:39:PHE:CZ	1:H:257:PHE:HB2	2.43	0.52
1:B:280:PHE:O	1:B:282:TYR:N	2.35	0.52
1:C:13:ASN:HA	1:C:16:GLN:CB	2.38	0.52
1:G:136:LEU:HG	1:H:23:TRP:CZ2	2.43	0.52
1:C:221:MET:O	1:C:221:MET:HE2	2.09	0.52
1:J:108:ASN:OD1	1:J:271:LEU:N	2.42	0.52
1:C:265:CYS:HA	1:C:268:ILE:HD11	1.91	0.52
1:H:97:SER:CB	1:H:98:PRO:CD	2.78	0.52
1:K:85:ASP:N	1:K:85:ASP:OD2	2.42	0.52
1:C:225:LYS:O	1:C:226:LEU:HB3	2.09	0.52
1:D:261:ARG:CB	1:D:278:VAL:HG11	2.39	0.52
1:B:108:ASN:ND2	1:B:119:VAL:CG2	2.68	0.52
1:L:165:ASP:O	1:L:166:ASN:HB2	2.08	0.52
1:G:272:TYR:CD2	1:G:272:TYR:N	2.77	0.52
1:I:124:ASN:HD21	1:I:128:PHE:HB2	1.74	0.52
1:I:221:MET:CE	1:I:225:LYS:HE3	2.40	0.52
1:I:226:LEU:O	1:I:227:GLN:HG2	2.09	0.52
1:G:258:LEU:HD21	1:G:278:VAL:CG1	2.39	0.52
1:E:222:MET:HB3	1:E:227:GLN:HB2	1.92	0.52
1:E:275:ASN:ND2	1:E:277:LYS:HE2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:280:PHE:O	1:C:281:ARG:HB3	2.09	0.52
1:L:93:PHE:CE1	1:L:120:VAL:HG22	2.45	0.52
1:D:109:TYR:N	1:D:112:MET:HB2	2.25	0.52
1:D:85:ASP:OD1	1:D:89:GLN:HB3	2.09	0.52
1:B:269:ASN:ND2	1:B:275:ASN:H	2.06	0.52
1:K:43:ASN:ND2	1:K:275:ASN:HA	2.23	0.52
1:G:269:ASN:ND2	1:G:269:ASN:N	2.56	0.52
1:D:172:LYS:H	1:D:175:TYR:HD1	1.58	0.52
1:H:124:ASN:O	1:H:126:MET:N	2.39	0.52
1:G:227:GLN:O	1:G:228:THR:C	2.47	0.52
1:A:125:ASP:OD2	1:A:126:MET:HE2	2.09	0.52
1:B:140:GLU:CD	1:C:145:LYS:HZ3	2.11	0.52
1:I:277:LYS:O	1:I:278:VAL:HB	2.09	0.52
1:J:41:TRP:HH2	1:J:121:ILE:HG21	1.74	0.52
1:L:110:ARG:C	1:L:112:MET:N	2.63	0.52
1:D:59:GLN:O	1:D:60:PHE:CD1	2.63	0.52
1:B:117:MET:HG3	1:B:118:GLY:H	1.73	0.52
1:G:44:LEU:HD21	1:G:277:LYS:NZ	2.24	0.52
1:I:266:GLU:HA	1:I:269:ASN:ND2	2.21	0.52
1:L:27:TYR:O	1:L:31:LEU:HG	2.09	0.52
1:D:31:LEU:HD22	1:D:221:MET:HG2	1.92	0.52
1:K:247:ASP:HA	1:K:250:ILE:CG1	2.40	0.52
1:C:284:ILE:N	1:C:284:ILE:HD12	2.25	0.52
1:G:113:LYS:HE3	1:G:271:LEU:HG	1.92	0.52
1:C:168:GLN:CB	1:C:188:HIS:NE2	2.72	0.52
1:G:249:GLN:NE2	1:H:222:MET:HG3	2.25	0.52
1:B:201:THR:O	1:B:201:THR:CG2	2.57	0.52
1:F:126:MET:SD	1:G:33:SER:HB3	2.50	0.52
1:H:20:ARG:HD2	1:H:146:GLU:CD	2.30	0.52
1:B:145:LYS:O	1:B:145:LYS:HD2	2.09	0.52
1:G:133:THR:HG21	1:G:224:PHE:CE2	2.45	0.52
1:L:17:ARG:O	1:L:21:ASN:ND2	2.42	0.52
1:F:108:ASN:O	1:F:109:TYR:CB	2.57	0.52
1:G:47:THR:HB	1:G:72:SER:O	2.08	0.52
1:G:170:SER:C	1:G:171:LEU:O	2.45	0.52
1:K:108:ASN:HA	1:K:112:MET:HB3	1.91	0.52
1:F:84:ARG:NH1	1:F:88:ASN:OD1	2.41	0.52
1:G:255:THR:CG2	1:G:259:LYS:HB2	2.39	0.52
1:H:108:ASN:O	1:H:109:TYR:CB	2.58	0.52
1:H:113:LYS:HD3	1:H:114:GLU:N	2.25	0.52
1:H:41:TRP:CE3	1:H:277:LYS:HB2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:124:ASN:C	1:C:126:MET:H	2.13	0.52
1:H:147:ILE:HG12	1:I:156:LYS:HD3	1.91	0.52
1:J:165:ASP:C	1:J:167:ASN:N	2.63	0.52
1:E:78:GLY:HA3	1:E:95:ALA:CA	2.32	0.52
1:F:105:LYS:NZ	1:F:114:GLU:HB2	2.25	0.52
1:I:277:LYS:HG3	1:I:278:VAL:N	2.20	0.52
1:I:42:GLU:C	1:I:277:LYS:NZ	2.63	0.52
1:J:63:VAL:CG1	1:J:63:VAL:O	2.56	0.52
1:L:117:MET:CG	1:L:271:LEU:HD21	2.35	0.52
1:D:226:LEU:O	1:D:226:LEU:HG	2.09	0.52
1:F:201:THR:CG2	1:F:201:THR:O	2.58	0.52
1:F:197:GLU:HG2	1:F:199:PHE:CZ	2.45	0.52
1:A:38:LEU:O	1:A:39:PHE:HB2	2.10	0.52
1:B:17:ARG:HA	1:B:20:ARG:HD3	1.92	0.52
1:D:97:SER:C	1:D:99:VAL:N	2.63	0.52
1:G:121:ILE:HD11	1:G:268:ILE:CD1	2.39	0.52
1:C:44:LEU:HA	1:C:275:ASN:OD1	2.10	0.52
1:H:73:TYR:C	1:H:74:ILE:HD12	2.30	0.52
1:B:107:TYR:CE2	1:B:109:TYR:HB2	2.45	0.52
1:D:223:THR:HG23	1:D:250:ILE:HG13	1.92	0.52
1:B:188:HIS:O	1:B:189:GLU:CB	2.56	0.52
1:H:67:LYS:N	1:H:117:MET:SD	2.81	0.52
1:I:146:GLU:O	1:I:149:SER:HB3	2.10	0.52
1:H:248:GLU:HB2	1:I:282:TYR:CZ	2.44	0.52
1:I:283:ASP:C	1:I:285:VAL:N	2.63	0.52
1:J:78:GLY:HA3	1:J:94:ARG:O	2.09	0.52
1:G:143:GLU:OE2	1:H:153:ASN:ND2	2.37	0.52
1:E:60:PHE:O	1:E:60:PHE:CD1	2.62	0.52
1:E:60:PHE:O	1:E:62:TYR:N	2.43	0.52
1:J:66:TYR:HB2	1:J:104:PHE:HZ	1.63	0.52
1:C:268:ILE:O	1:C:271:LEU:HD23	2.10	0.52
1:L:41:TRP:HB3	1:L:277:LYS:HE3	1.91	0.52
1:K:76:CYS:HG	1:K:93:PHE:HE2	1.57	0.52
1:C:110:ARG:C	1:C:112:MET:N	2.60	0.52
1:K:67:LYS:HE2	1:K:117:MET:N	2.25	0.52
1:A:27:TYR:O	1:A:31:LEU:HG	2.09	0.52
1:E:73:TYR:OH	1:E:273:GLY:HA2	2.10	0.51
1:I:248:GLU:HG2	1:J:282:TYR:CG	2.45	0.51
1:I:258:LEU:HD21	1:I:278:VAL:CG1	2.34	0.51
1:H:68:ASP:HB3	1:H:74:ILE:CD1	2.40	0.51
1:A:110:ARG:CG	1:A:111:ASP:H	2.22	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:275:ASN:OD1	1:L:277:LYS:HD3	2.09	0.51
1:K:119:VAL:CG1	1:K:120:VAL:H	2.23	0.51
1:C:284:ILE:HG22	1:C:284:ILE:O	2.10	0.51
1:B:87:TYR:HB3	1:C:49:ASN:ND2	2.25	0.51
1:G:44:LEU:HA	1:G:275:ASN:HD21	1.76	0.51
1:G:19:LYS:HG3	1:G:22:ARG:NH1	2.20	0.51
1:A:201:THR:HG22	1:A:201:THR:O	2.10	0.51
1:H:123:ASN:O	1:H:257:PHE:HA	2.09	0.51
1:D:140:GLU:HB3	1:D:217:VAL:HG11	1.92	0.51
1:L:101:GLN:O	1:L:101:GLN:CD	2.48	0.51
1:I:12:ILE:N	1:I:12:ILE:HD12	2.24	0.51
1:E:38:LEU:HD11	1:E:225:LYS:NZ	2.25	0.51
1:I:249:GLN:O	1:I:253:SER:OG	2.26	0.51
1:B:258:LEU:HD13	1:B:262:GLU:OE1	2.09	0.51
1:B:260:SER:HA	1:B:263:GLU:OE2	2.11	0.51
1:C:44:LEU:C	1:C:44:LEU:HD12	2.31	0.51
1:A:109:TYR:HE1	1:B:46:PRO:O	1.93	0.51
1:K:42:GLU:O	1:K:43:ASN:CB	2.57	0.51
1:A:85:ASP:OD2	1:A:89:GLN:HG3	2.11	0.51
1:A:226:LEU:O	1:A:227:GLN:CG	2.59	0.51
1:D:151:ASN:HB3	1:D:207:VAL:HG22	1.92	0.51
1:I:226:LEU:O	1:I:227:GLN:CG	2.58	0.51
1:B:63:VAL:O	1:B:63:VAL:CG1	2.57	0.51
1:B:45:PRO:HG2	1:B:48:ILE:CD1	2.40	0.51
1:A:259:LYS:HD2	1:B:281:ARG:NH1	2.25	0.51
1:A:259:LYS:O	1:A:263:GLU:HB3	2.09	0.51
1:B:203:ALA:O	1:B:204:PRO:C	2.49	0.51
1:F:51:SER:OG	1:F:55:LYS:HE2	2.10	0.51
1:J:38:LEU:HD11	1:J:225:LYS:HD2	1.92	0.51
1:J:54:GLU:OE2	1:J:261:ARG:NH1	2.44	0.51
1:J:68:ASP:HB2	1:J:100:TYR:OH	2.10	0.51
1:A:276:VAL:HG13	1:A:277:LYS:N	2.24	0.51
1:J:147:ILE:HD11	1:K:153:ASN:ND2	2.26	0.51
1:G:104:PHE:HE1	1:G:106:LEU:HD21	1.75	0.51
1:G:19:LYS:CG	1:G:22:ARG:HH12	2.20	0.51
1:D:11:SER:OG	1:F:181:ASN:ND2	2.37	0.51
1:G:85:ASP:C	1:G:85:ASP:OD2	2.48	0.51
1:L:13:ASN:O	1:L:14:GLU:C	2.49	0.51
1:H:137:PHE:CD2	1:H:221:MET:HB2	2.45	0.51
1:F:57:ILE:HG22	1:F:123:ASN:HD22	1.75	0.51
1:A:31:LEU:HD21	1:A:218:TRP:CZ3	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:41:TRP:HE3	1:J:277:LYS:CE	2.21	0.51
1:A:261:ARG:O	1:A:265:CYS:HB2	2.11	0.51
1:K:109:TYR:N	1:K:112:MET:CB	2.58	0.51
1:D:38:LEU:HD12	1:D:39:PHE:CE2	2.44	0.51
1:D:61:GLY:O	1:D:62:TYR:CG	2.64	0.51
1:D:62:TYR:HA	1:D:122:TYR:HA	1.92	0.51
1:D:86:VAL:HG12	1:D:87:TYR:CE1	2.45	0.51
1:D:85:ASP:CB	1:D:89:GLN:HB3	2.40	0.51
1:B:87:TYR:HB3	1:C:49:ASN:HD22	1.74	0.51
1:F:221:MET:HE2	1:F:225:LYS:HE2	1.92	0.51
1:H:273:GLY:O	1:H:274:LEU:HD13	2.09	0.51
1:A:247:ASP:O	1:A:248:GLU:O	2.29	0.51
1:F:200:LYS:HE2	1:F:202:ASP:OD1	2.10	0.51
1:D:248:GLU:HB3	1:E:282:TYR:CE2	2.45	0.51
1:E:78:GLY:H	1:E:93:PHE:HE2	1.59	0.51
1:G:171:LEU:CD2	1:G:175:TYR:HE1	2.23	0.51
1:H:68:ASP:O	1:H:71:ILE:O	2.28	0.51
1:C:49:ASN:ND2	1:C:52:PHE:HB2	2.26	0.51
1:I:193:SER:O	1:I:194:ASP:HB2	2.10	0.51
1:E:84:ARG:HB3	1:E:88:ASN:HA	1.92	0.51
1:A:35:ALA:O	1:A:38:LEU:HG	2.11	0.51
1:B:80:LEU:HD11	1:B:122:TYR:HE2	1.74	0.51
1:A:59:GLN:O	1:A:60:PHE:HB2	2.11	0.51
1:K:171:LEU:O	1:K:172:LYS:CB	2.59	0.51
1:L:23:TRP:CE2	1:L:145:LYS:HE3	2.46	0.51
1:G:136:LEU:HD13	1:H:22:ARG:HD2	1.91	0.51
1:H:21:ASN:O	1:H:25:ILE:HG13	2.10	0.51
1:C:123:ASN:HD22	1:C:261:ARG:HH22	1.57	0.51
1:H:179:GLU:HG3	1:H:180:GLY:N	2.26	0.51
1:D:40:GLU:N	1:D:278:VAL:O	2.44	0.51
1:D:43:ASN:O	1:D:44:LEU:CB	2.55	0.51
1:A:159:VAL:CG2	1:L:202:ASP:O	2.58	0.51
1:D:175:TYR:C	1:D:177:GLN:H	2.14	0.51
1:A:39:PHE:HZ	1:A:257:PHE:HB2	1.76	0.51
1:A:172:LYS:HE3	1:B:179:GLU:OE2	2.11	0.51
1:B:57:ILE:HG12	1:B:63:VAL:CG1	2.41	0.51
1:L:158:PRO:O	1:L:159:VAL:CB	2.59	0.51
1:B:164:ASN:O	1:C:189:GLU:HA	2.11	0.51
1:E:41:TRP:HB3	1:E:277:LYS:NZ	2.26	0.51
1:E:53:LEU:O	1:E:57:ILE:N	2.38	0.51
1:F:74:ILE:HG21	1:F:100:TYR:HE2	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:42:GLU:O	1:C:43:ASN:HB2	2.10	0.51
1:H:167:ASN:OD1	1:H:168:GLN:N	2.44	0.51
1:B:108:ASN:HD21	1:B:119:VAL:CG1	2.18	0.51
1:B:42:GLU:OE2	1:B:277:LYS:HG3	2.10	0.51
1:K:43:ASN:N	1:K:277:LYS:NZ	2.59	0.51
1:I:28:LEU:O	1:I:32:GLN:HG3	2.10	0.51
1:L:124:ASN:C	1:L:126:MET:H	2.13	0.51
1:B:20:ARG:HG2	1:B:146:GLU:OE2	2.11	0.51
1:G:151:ASN:O	1:G:152:GLN:C	2.49	0.51
1:H:123:ASN:ND2	1:H:257:PHE:HD2	2.08	0.51
1:E:164:ASN:ND2	1:E:165:ASP:OD2	2.44	0.51
1:K:157:THR:HG21	1:L:178:TYR:HE2	1.76	0.51
1:L:174:VAL:O	1:L:177:GLN:HB3	2.11	0.51
1:F:57:ILE:O	1:F:61:GLY:HA2	2.11	0.51
1:F:110:ARG:O	1:F:111:ASP:C	2.49	0.51
1:D:192:ASP:O	1:D:194:ASP:N	2.43	0.51
1:E:37:GLN:HG2	1:E:281:ARG:HD3	1.91	0.51
1:F:67:LYS:H	1:F:117:MET:CE	2.24	0.51
1:F:42:GLU:OE2	1:F:279:LYS:NZ	2.42	0.51
1:J:271:LEU:O	1:J:272:TYR:CB	2.59	0.51
1:C:281:ARG:HG3	1:C:281:ARG:O	2.11	0.51
1:G:171:LEU:HB2	1:H:185:ILE:HD13	1.93	0.51
1:A:275:ASN:O	1:A:277:LYS:HE2	2.11	0.51
1:K:257:PHE:HB3	1:K:261:ARG:HH21	1.76	0.51
1:K:35:ALA:O	1:K:38:LEU:HD12	2.11	0.51
1:K:108:ASN:HA	1:K:112:MET:SD	2.51	0.51
1:D:86:VAL:HG12	1:D:87:TYR:CD1	2.46	0.51
1:F:226:LEU:O	1:F:227:GLN:NE2	2.44	0.51
1:A:14:GLU:CA	1:A:17:ARG:HG3	2.38	0.51
1:I:175:TYR:O	1:I:178:TYR:CG	2.64	0.51
1:E:210:LEU:O	1:E:213:GLN:HB2	2.11	0.51
1:I:62:TYR:CE2	1:I:80:LEU:HG	2.46	0.51
1:C:265:CYS:O	1:C:268:ILE:HG12	2.11	0.51
1:A:276:VAL:O	1:A:277:LYS:CG	2.59	0.51
1:D:226:LEU:O	1:D:227:GLN:OE1	2.29	0.51
1:B:39:PHE:HZ	1:B:257:PHE:HB3	1.76	0.51
1:B:89:GLN:CD	1:B:91:THR:H	2.11	0.51
1:D:167:ASN:OD1	1:D:168:GLN:N	2.44	0.51
1:G:274:LEU:O	1:G:275:ASN:CB	2.58	0.51
1:I:124:ASN:HD21	1:I:128:PHE:N	2.00	0.51
1:C:188:HIS:CG	1:C:188:HIS:O	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:39:PHE:HZ	1:H:257:PHE:HB2	1.75	0.51
1:C:125:ASP:O	1:C:126:MET:SD	2.69	0.51
1:C:35:ALA:O	1:C:38:LEU:HG	2.11	0.51
1:F:48:ILE:O	1:F:50:PRO:HD3	2.11	0.51
1:G:175:TYR:C	1:G:177:GLN:N	2.64	0.51
1:A:40:GLU:HB2	1:A:281:ARG:HB2	1.91	0.51
1:K:123:ASN:OD1	1:K:261:ARG:NH2	2.44	0.51
1:B:226:LEU:HD12	1:B:227:GLN:N	2.26	0.51
1:L:168:GLN:HB3	1:L:188:HIS:CE1	2.46	0.51
1:J:158:PRO:O	1:J:159:VAL:CB	2.55	0.51
1:I:218:TRP:O	1:I:221:MET:HB3	2.11	0.51
1:G:226:LEU:O	1:G:227:GLN:HG2	2.11	0.51
1:K:203:ALA:HB1	1:L:158:PRO:HG3	1.93	0.51
1:G:28:LEU:HD23	1:G:28:LEU:O	2.11	0.51
1:B:67:LYS:HG2	1:B:67:LYS:O	2.11	0.51
1:G:60:PHE:O	1:G:62:TYR:N	2.44	0.51
1:E:45:PRO:C	1:E:47:THR:H	2.13	0.50
1:E:177:GLN:HB3	1:E:179:GLU:HG2	1.93	0.50
1:K:262:GLU:CG	1:K:263:GLU:N	2.74	0.50
1:B:275:ASN:C	1:B:277:LYS:HD3	2.32	0.50
1:J:143:GLU:O	1:J:147:ILE:HG13	2.11	0.50
1:D:178:TYR:OH	1:E:182:ALA:HB2	2.11	0.50
1:F:248:GLU:HG3	1:G:282:TYR:CG	2.45	0.50
1:H:249:GLN:HA	1:H:252:SER:OG	2.11	0.50
1:A:124:ASN:C	1:A:126:MET:H	2.13	0.50
1:K:140:GLU:OE2	1:L:145:LYS:HE2	2.11	0.50
1:C:215:ASN:O	1:C:219:ASN:ND2	2.44	0.50
1:B:160:LEU:HD23	1:C:184:VAL:HB	1.92	0.50
1:H:283:ASP:C	1:H:285:VAL:H	2.13	0.50
1:L:82:GLY:O	1:L:83:GLN:O	2.28	0.50
1:E:41:TRP:HB3	1:E:277:LYS:HZ2	1.76	0.50
1:F:45:PRO:O	1:F:47:THR:N	2.41	0.50
1:K:226:LEU:O	1:K:227:GLN:CG	2.59	0.50
1:H:74:ILE:CG2	1:H:75:ALA:H	2.24	0.50
1:J:177:GLN:C	1:J:179:GLU:N	2.64	0.50
1:F:164:ASN:C	1:F:165:ASP:OD2	2.50	0.50
1:A:68:ASP:OD1	1:A:70:VAL:N	2.43	0.50
1:C:175:TYR:O	1:C:178:TYR:CD2	2.64	0.50
1:I:283:ASP:C	1:I:285:VAL:H	2.12	0.50
1:B:54:GLU:HA	1:B:54:GLU:OE1	2.10	0.50
1:E:268:ILE:HG23	1:E:269:ASN:ND2	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:107:TYR:HB3	1:J:119:VAL:HG13	1.92	0.50
1:J:275:ASN:OD1	1:J:277:LYS:HE3	2.11	0.50
1:C:123:ASN:HD22	1:C:261:ARG:NH2	2.08	0.50
1:H:179:GLU:HG3	1:H:181:ASN:H	1.77	0.50
1:E:248:GLU:OE2	1:F:226:LEU:HG	2.11	0.50
1:B:172:LYS:O	1:B:176:ASN:N	2.44	0.50
1:J:11:SER:O	1:J:12:ILE:C	2.50	0.50
1:G:186:PHE:CD2	1:G:196:ILE:HD11	2.46	0.50
1:H:272:TYR:N	1:H:272:TYR:CD2	2.77	0.50
1:J:92:VAL:HG12	1:J:93:PHE:N	2.26	0.50
1:B:126:MET:SD	1:C:55:LYS:HE2	2.52	0.50
1:K:89:GLN:NE2	1:K:107:TYR:HB3	2.26	0.50
1:D:93:PHE:HB2	1:D:106:LEU:HD11	1.94	0.50
1:D:151:ASN:O	1:D:152:GLN:C	2.47	0.50
1:B:177:GLN:O	1:B:178:TYR:C	2.50	0.50
1:B:168:GLN:CD	1:B:169:LEU:N	2.64	0.50
1:D:99:VAL:O	1:D:100:TYR:HB3	2.11	0.50
1:B:67:LYS:HA	1:B:73:TYR:HA	1.94	0.50
1:H:18:GLN:HA	1:H:21:ASN:HD22	1.75	0.50
1:C:203:ALA:O	1:C:204:PRO:C	2.48	0.50
1:E:203:ALA:O	1:E:204:PRO:C	2.50	0.50
1:E:96:ALA:O	1:E:97:SER:CB	2.60	0.50
1:J:108:ASN:O	1:J:112:MET:O	2.29	0.50
1:D:120:VAL:O	1:D:121:ILE:C	2.49	0.50
1:D:258:LEU:CD2	1:D:262:GLU:HG2	2.41	0.50
1:G:108:ASN:OD1	1:G:271:LEU:HD12	2.12	0.50
1:D:19:LYS:O	1:D:22:ARG:N	2.45	0.50
1:C:168:GLN:OE1	1:C:169:LEU:HG	2.10	0.50
1:G:278:VAL:O	1:G:279:LYS:O	2.30	0.50
1:H:278:VAL:CG2	1:H:279:LYS:H	2.20	0.50
1:K:161:ILE:HG12	1:K:198:VAL:HG22	1.93	0.50
1:C:85:ASP:OD2	1:C:85:ASP:N	2.39	0.50
1:L:21:ASN:O	1:L:25:ILE:HG13	2.11	0.50
1:A:83:GLN:OE1	1:A:84:ARG:O	2.29	0.50
1:I:71:ILE:O	1:I:72:SER:HB3	2.11	0.50
1:A:108:ASN:OD1	1:A:271:LEU:HD21	2.12	0.50
1:L:110:ARG:O	1:L:111:ASP:OD1	2.28	0.50
1:L:168:GLN:OE1	1:L:169:LEU:HG	2.11	0.50
1:A:124:ASN:ND2	1:A:128:PHE:H	2.10	0.50
1:C:137:PHE:C	1:C:139:ALA:H	2.15	0.50
1:J:146:GLU:O	1:J:150:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:27:TYR:O	1:C:31:LEU:HG	2.11	0.50
1:I:53:LEU:HD23	1:I:53:LEU:O	2.12	0.50
1:E:99:VAL:HG22	1:E:100:TYR:N	2.27	0.50
1:I:262:GLU:CG	1:I:278:VAL:HG22	2.37	0.50
1:J:271:LEU:O	1:J:272:TYR:CD2	2.64	0.50
1:J:49:ASN:ND2	1:J:51:SER:OG	2.45	0.50
1:H:171:LEU:HB3	1:I:185:ILE:HD13	1.94	0.50
1:H:174:VAL:O	1:H:177:GLN:CB	2.60	0.50
1:C:47:THR:HB	1:C:73:TYR:HB2	1.94	0.50
1:H:98:PRO:O	1:H:100:TYR:N	2.44	0.50
1:J:125:ASP:O	1:K:55:LYS:NZ	2.42	0.50
1:L:119:VAL:HG11	1:L:267:LYS:HB2	1.94	0.50
1:D:62:TYR:C	1:D:62:TYR:CD2	2.85	0.50
1:B:106:LEU:HD23	1:B:118:GLY:O	2.12	0.50
1:L:162:ARG:NH1	1:L:197:GLU:OE1	2.44	0.50
1:B:172:LYS:O	1:B:176:ASN:HB2	2.11	0.50
1:B:17:ARG:HG3	1:B:17:ARG:HH11	1.77	0.50
1:L:98:PRO:O	1:L:100:TYR:N	2.44	0.50
1:F:107:TYR:CD2	1:F:107:TYR:O	2.65	0.50
1:F:98:PRO:O	1:F:100:TYR:N	2.44	0.50
1:J:37:GLN:O	1:J:281:ARG:HG3	2.11	0.50
1:C:268:ILE:HD12	1:C:275:ASN:HB2	1.94	0.50
1:D:283:ASP:CB	1:D:284:ILE:HD12	2.42	0.50
1:J:171:LEU:O	1:J:172:LYS:HB3	2.11	0.50
1:K:101:GLN:O	1:K:102:LYS:HB2	2.12	0.50
1:C:152:GLN:O	1:C:155:GLN:HG2	2.11	0.50
1:E:125:ASP:O	1:E:126:MET:CB	2.59	0.50
1:F:42:GLU:HB3	1:F:277:LYS:CD	2.41	0.50
1:F:70:VAL:HB	1:F:71:ILE:HD12	1.94	0.50
1:H:53:LEU:HD23	1:H:63:VAL:HG21	1.94	0.50
1:K:84:ARG:HB3	1:K:84:ARG:HH11	1.76	0.50
1:C:53:LEU:HD12	1:C:63:VAL:CG2	2.37	0.50
1:H:162:ARG:NH1	1:H:197:GLU:OE1	2.45	0.50
1:I:164:ASN:N	1:I:164:ASN:ND2	2.59	0.50
1:B:71:ILE:O	1:B:72:SER:HB3	2.12	0.50
1:D:16:GLN:HE22	1:D:20:ARG:HH21	1.58	0.50
1:G:209:LYS:O	1:G:212:ALA:HB3	2.11	0.50
1:H:284:ILE:N	1:H:284:ILE:HD12	2.27	0.50
1:J:255:THR:O	1:J:259:LYS:HB3	2.11	0.50
1:F:43:ASN:O	1:F:44:LEU:HB2	2.12	0.49
1:F:96:ALA:O	1:F:97:SER:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:57:ILE:O	1:I:61:GLY:HA2	2.12	0.49
1:I:84:ARG:CD	1:I:90:ALA:HA	2.42	0.49
1:J:45:PRO:HG2	1:J:48:ILE:CD1	2.40	0.49
1:A:42:GLU:O	1:A:43:ASN:HB2	2.12	0.49
1:C:164:ASN:CB	1:C:195:SER:HA	2.29	0.49
1:G:16:GLN:NE2	1:G:16:GLN:HA	2.27	0.49
1:D:21:ASN:O	1:D:24:PHE:HB3	2.12	0.49
1:E:54:GLU:O	1:E:57:ILE:HB	2.12	0.49
1:J:62:TYR:HE2	1:J:79:ALA:HA	1.78	0.49
1:E:169:LEU:HB3	1:E:186:PHE:HE1	1.76	0.49
1:E:11:SER:OG	1:G:181:ASN:ND2	2.45	0.49
1:G:171:LEU:CB	1:H:185:ILE:HD13	2.42	0.49
1:B:87:TYR:CB	1:C:49:ASN:HD22	2.25	0.49
1:A:66:TYR:CE2	1:A:68:ASP:HA	2.46	0.49
1:H:205:TYR:CZ	1:H:207:VAL:HB	2.46	0.49
1:E:280:PHE:C	1:E:282:TYR:H	2.15	0.49
1:J:104:PHE:CE2	1:J:118:GLY:CA	2.95	0.49
1:K:223:THR:O	1:K:223:THR:HG22	2.11	0.49
1:D:222:MET:HA	1:D:227:GLN:HG3	1.94	0.49
1:B:39:PHE:CE2	1:B:257:PHE:HB3	2.48	0.49
1:G:41:TRP:CE3	1:G:277:LYS:HB2	2.48	0.49
1:L:191:LEU:HD22	1:L:195:SER:OG	2.12	0.49
1:B:121:ILE:HG23	1:B:264:ALA:CB	2.43	0.49
1:B:57:ILE:O	1:B:61:GLY:HA2	2.13	0.49
1:L:57:ILE:HA	1:L:61:GLY:O	2.13	0.49
1:F:63:VAL:CG1	1:F:63:VAL:O	2.60	0.49
1:F:105:LYS:HB2	1:F:117:MET:O	2.12	0.49
1:J:269:ASN:HD22	1:J:269:ASN:N	2.10	0.49
1:J:90:ALA:C	1:J:92:VAL:H	2.12	0.49
1:A:109:TYR:HB2	1:A:270:GLU:OE1	2.11	0.49
1:L:110:ARG:O	1:L:112:MET:N	2.45	0.49
1:D:269:ASN:HA	1:D:274:LEU:O	2.12	0.49
1:B:108:ASN:N	1:B:108:ASN:OD1	2.46	0.49
1:A:173:GLN:OE1	1:A:173:GLN:HA	2.11	0.49
1:G:137:PHE:HZ	1:G:220:GLU:OE2	1.95	0.49
1:I:282:TYR:O	1:I:283:ASP:HB2	2.13	0.49
1:C:50:PRO:O	1:C:51:SER:CB	2.61	0.49
1:A:179:GLU:OE2	1:L:172:LYS:HE2	2.12	0.49
1:H:282:TYR:CD2	1:H:283:ASP:N	2.80	0.49
1:H:134:LEU:O	1:H:138:ALA:N	2.38	0.49
1:E:38:LEU:HD11	1:E:225:LYS:HE2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:41:TRP:CE3	1:J:277:LYS:HB2	2.48	0.49
1:H:66:TYR:CE2	1:H:100:TYR:OH	2.63	0.49
1:D:119:VAL:HG12	1:D:120:VAL:N	2.27	0.49
1:D:63:VAL:O	1:D:120:VAL:O	2.31	0.49
1:A:93:PHE:HD2	1:A:104:PHE:CE1	2.31	0.49
1:L:188:HIS:O	1:L:189:GLU:HB3	2.13	0.49
1:I:227:GLN:O	1:I:228:THR:O	2.30	0.49
1:A:259:LYS:HD2	1:B:281:ARG:HH12	1.78	0.49
1:I:151:ASN:O	1:I:155:GLN:HG2	2.12	0.49
1:G:283:ASP:C	1:G:285:VAL:N	2.66	0.49
1:A:199:PHE:CE2	1:B:196:ILE:HG22	2.48	0.49
1:K:282:TYR:O	1:K:283:ASP:C	2.50	0.49
1:A:108:ASN:HB2	1:A:119:VAL:CG2	2.43	0.49
1:B:269:ASN:HD21	1:B:275:ASN:CB	2.25	0.49
1:I:158:PRO:O	1:I:159:VAL:CB	2.58	0.49
1:F:158:PRO:O	1:F:159:VAL:CB	2.58	0.49
1:B:157:THR:HG21	1:C:178:TYR:HE2	1.78	0.49
1:C:188:HIS:C	1:C:190:ALA:H	2.16	0.49
1:L:154:ALA:C	1:L:156:LYS:H	2.15	0.49
1:F:65:PHE:CD2	1:F:268:ILE:HD12	2.47	0.49
1:I:274:LEU:O	1:I:275:ASN:OD1	2.30	0.49
1:J:63:VAL:O	1:J:63:VAL:HG13	2.12	0.49
1:K:85:ASP:C	1:K:87:TYR:N	2.66	0.49
1:K:85:ASP:OD1	1:K:107:TYR:CE1	2.65	0.49
1:G:249:GLN:O	1:G:250:ILE:C	2.49	0.49
1:B:93:PHE:HD2	1:B:104:PHE:CZ	2.30	0.49
1:C:15:ILE:O	1:C:18:GLN:N	2.45	0.49
1:J:12:ILE:HG22	1:J:16:GLN:HB2	1.95	0.49
1:F:56:SER:O	1:F:59:GLN:O	2.31	0.49
1:B:95:ALA:O	1:B:101:GLN:HA	2.13	0.49
1:C:262:GLU:O	1:C:265:CYS:HB2	2.13	0.49
1:H:94:ARG:HA	1:H:103:GLU:HG2	1.94	0.49
1:C:218:TRP:O	1:C:222:MET:HG2	2.12	0.49
1:B:41:TRP:C	1:B:277:LYS:NZ	2.63	0.49
1:K:269:ASN:CG	1:K:275:ASN:H	2.16	0.49
1:A:90:ALA:O	1:A:91:THR:C	2.50	0.49
1:B:158:PRO:O	1:B:158:PRO:CG	2.61	0.49
1:I:269:ASN:HD21	1:I:276:VAL:HA	1.78	0.49
1:H:23:TRP:CE2	1:H:145:LYS:HD3	2.48	0.49
1:D:25:ILE:HG22	1:D:29:ASN:ND2	2.28	0.49
1:I:94:ARG:HA	1:I:103:GLU:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:273:GLY:O	1:E:274:LEU:HB2	2.13	0.49
1:I:62:TYR:HE2	1:I:79:ALA:CA	2.24	0.49
1:G:172:LYS:HE2	1:H:179:GLU:CD	2.32	0.49
1:A:65:PHE:N	1:A:119:VAL:O	2.29	0.49
1:G:50:PRO:O	1:G:51:SER:CB	2.59	0.49
1:L:201:THR:CG2	1:L:201:THR:O	2.53	0.49
1:G:81:SER:HB3	1:G:94:ARG:CZ	2.42	0.49
1:B:179:GLU:HA	1:L:13:ASN:ND2	2.27	0.49
1:H:38:LEU:O	1:H:39:PHE:HB2	2.12	0.49
1:I:20:ARG:CD	1:I:146:GLU:HG3	2.43	0.49
1:L:170:SER:C	1:L:171:LEU:O	2.48	0.49
1:A:168:GLN:C	1:A:168:GLN:HE21	2.15	0.49
1:J:215:ASN:O	1:J:219:ASN:ND2	2.42	0.49
1:E:130:THR:C	1:E:132:PRO:HD2	2.33	0.49
1:F:71:ILE:CD1	1:F:71:ILE:N	2.76	0.49
1:J:87:TYR:HA	1:K:52:PHE:CE1	2.48	0.49
1:C:41:TRP:O	1:C:277:LYS:CB	2.58	0.49
1:E:174:VAL:HG21	1:E:186:PHE:HD1	1.78	0.49
1:C:201:THR:CG2	1:D:161:ILE:HD11	2.42	0.49
1:E:81:SER:CA	1:E:84:ARG:HH12	2.26	0.49
1:G:261:ARG:O	1:G:265:CYS:HB2	2.13	0.49
1:A:175:TYR:O	1:A:178:TYR:CG	2.66	0.49
1:L:69:PRO:C	1:L:70:VAL:HG22	2.32	0.49
1:H:267:LYS:O	1:H:270:GLU:N	2.46	0.49
1:A:142:ALA:O	1:A:146:GLU:HB2	2.13	0.49
1:L:170:SER:OG	1:L:173:GLN:HB2	2.12	0.49
1:B:131:THR:N	1:B:132:PRO:HD2	2.28	0.49
1:F:182:ALA:HB1	1:F:183:PRO:HD2	1.94	0.49
1:E:261:ARG:NH1	1:E:261:ARG:CG	2.65	0.48
1:J:123:ASN:ND2	1:J:261:ARG:NH2	2.60	0.48
1:C:123:ASN:HD21	1:C:261:ARG:HH22	1.60	0.48
1:C:43:ASN:CA	1:C:277:LYS:HZ3	2.25	0.48
1:H:188:HIS:O	1:H:189:GLU:HG2	2.13	0.48
1:A:108:ASN:HD21	1:A:117:MET:CB	2.05	0.48
1:L:255:THR:CG2	1:L:259:LYS:HG3	2.42	0.48
1:L:110:ARG:O	1:L:111:ASP:CG	2.50	0.48
1:D:260:SER:O	1:D:261:ARG:C	2.52	0.48
1:D:274:LEU:CD1	1:D:275:ASN:N	2.76	0.48
1:C:164:ASN:O	1:D:189:GLU:HA	2.13	0.48
1:E:182:ALA:HB1	1:E:183:PRO:CD	2.38	0.48
1:A:226:LEU:HD12	1:A:251:ASP:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:11:SER:C	1:L:12:ILE:HG13	2.33	0.48
1:H:125:ASP:O	1:I:55:LYS:NZ	2.41	0.48
1:D:22:ARG:NH1	1:D:22:ARG:HB2	2.28	0.48
1:H:226:LEU:HB2	1:H:254:GLY:HA3	1.95	0.48
1:K:166:ASN:O	1:K:169:LEU:O	2.31	0.48
1:A:96:ALA:O	1:A:97:SER:CB	2.61	0.48
1:E:258:LEU:HD23	1:E:258:LEU:O	2.13	0.48
1:C:276:VAL:O	1:C:277:LYS:HG3	2.13	0.48
1:A:41:TRP:HE3	1:A:277:LYS:CB	2.26	0.48
1:L:117:MET:HE1	1:L:271:LEU:HG	1.91	0.48
1:D:81:SER:C	1:D:90:ALA:HB1	2.33	0.48
1:B:87:TYR:O	1:B:88:ASN:CB	2.51	0.48
1:G:11:SER:O	1:G:12:ILE:C	2.51	0.48
1:H:126:MET:C	1:H:128:PHE:H	2.16	0.48
1:H:126:MET:HG2	1:H:128:PHE:CE2	2.48	0.48
1:I:225:LYS:HG2	1:I:225:LYS:O	2.13	0.48
1:E:13:ASN:HA	1:E:16:GLN:HB3	1.95	0.48
1:B:168:GLN:HE22	1:B:169:LEU:CD2	2.26	0.48
1:H:269:ASN:O	1:H:273:GLY:N	2.46	0.48
1:I:175:TYR:O	1:I:178:TYR:CD1	2.66	0.48
1:F:170:SER:C	1:F:171:LEU:O	2.48	0.48
1:J:105:LYS:CD	1:J:114:GLU:HB2	2.42	0.48
1:J:20:ARG:CZ	1:J:146:GLU:OE1	2.62	0.48
1:I:92:VAL:HG12	1:I:93:PHE:N	2.28	0.48
1:L:137:PHE:CZ	1:L:220:GLU:HG2	2.48	0.48
1:E:268:ILE:CG2	1:E:269:ASN:N	2.76	0.48
1:E:53:LEU:CG	1:E:54:GLU:N	2.76	0.48
1:I:104:PHE:HD1	1:I:118:GLY:HA3	1.78	0.48
1:J:91:THR:CA	1:J:106:LEU:HD12	2.43	0.48
1:H:168:GLN:CB	1:H:188:HIS:NE2	2.76	0.48
1:K:108:ASN:HA	1:K:112:MET:HG2	1.96	0.48
1:D:40:GLU:O	1:D:278:VAL:C	2.51	0.48
1:B:87:TYR:HD2	1:C:52:PHE:CG	2.30	0.48
1:K:275:ASN:C	1:K:277:LYS:HD3	2.33	0.48
1:J:172:LYS:HB2	1:K:185:ILE:HD12	1.94	0.48
1:G:104:PHE:HD1	1:G:105:LYS:O	1.96	0.48
1:F:87:TYR:HB3	1:G:52:PHE:CD1	2.48	0.48
1:B:62:TYR:CE1	1:B:78:GLY:O	2.67	0.48
1:H:43:ASN:CB	1:H:275:ASN:OD1	2.61	0.48
1:G:280:PHE:O	1:G:281:ARG:CB	2.62	0.48
1:F:146:GLU:O	1:F:150:VAL:HG23	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:219:ASN:O	1:F:220:GLU:C	2.50	0.48
1:K:226:LEU:HD22	1:K:280:PHE:CG	2.49	0.48
1:A:110:ARG:HG2	1:A:111:ASP:N	2.28	0.48
1:A:117:MET:HE1	1:A:271:LEU:HB3	1.94	0.48
1:A:275:ASN:CB	1:A:277:LYS:HE2	2.25	0.48
1:D:43:ASN:CB	1:D:277:LYS:HE2	2.41	0.48
1:H:43:ASN:CB	1:H:277:LYS:NZ	2.75	0.48
1:H:260:SER:HA	1:H:263:GLU:OE1	2.14	0.48
1:A:60:PHE:O	1:A:129:PRO:HG3	2.13	0.48
1:A:125:ASP:OD2	1:B:55:LYS:HE2	2.13	0.48
1:D:143:GLU:O	1:D:146:GLU:HB3	2.13	0.48
1:H:283:ASP:O	1:H:284:ILE:HB	2.12	0.48
1:L:85:ASP:OD1	1:L:86:VAL:N	2.46	0.48
1:F:65:PHE:N	1:F:119:VAL:O	2.45	0.48
1:I:117:MET:HE3	1:I:271:LEU:HD22	1.94	0.48
1:I:62:TYR:O	1:I:63:VAL:HB	2.14	0.48
1:H:86:VAL:HA	1:I:99:VAL:HG11	1.96	0.48
1:J:111:ASP:O	1:J:112:MET:C	2.51	0.48
1:I:87:TYR:CD1	1:J:49:ASN:HB2	2.48	0.48
1:L:42:GLU:O	1:L:277:LYS:NZ	2.27	0.48
1:L:106:LEU:O	1:L:107:TYR:CB	2.61	0.48
1:L:105:LYS:O	1:L:117:MET:O	2.32	0.48
1:L:66:TYR:HA	1:L:117:MET:SD	2.53	0.48
1:D:44:LEU:HA	1:D:275:ASN:ND2	2.23	0.48
1:F:203:ALA:O	1:F:204:PRO:C	2.51	0.48
1:A:81:SER:O	1:A:90:ALA:O	2.30	0.48
1:B:12:ILE:HG22	1:B:13:ASN:N	2.29	0.48
1:C:66:TYR:CE2	1:C:102:LYS:HE2	2.48	0.48
1:K:213:GLN:HG3	1:L:207:VAL:CG1	2.44	0.48
1:B:48:ILE:HD13	1:B:65:PHE:CE1	2.48	0.48
1:H:213:GLN:O	1:H:217:VAL:HG23	2.14	0.48
1:E:66:TYR:HD2	1:E:100:TYR:OH	1.95	0.48
1:E:98:PRO:C	1:E:99:VAL:HG12	2.33	0.48
1:F:109:TYR:CE1	1:G:47:THR:HA	2.49	0.48
1:F:41:TRP:CE3	1:F:278:VAL:HG13	2.48	0.48
1:C:278:VAL:O	1:C:279:LYS:O	2.32	0.48
1:H:60:PHE:N	1:H:60:PHE:CD1	2.82	0.48
1:K:125:ASP:N	1:K:125:ASP:OD1	2.46	0.48
1:C:282:TYR:O	1:C:283:ASP:CB	2.62	0.48
1:D:92:VAL:HG11	1:D:103:GLU:OE1	2.13	0.48
1:D:263:GLU:O	1:D:265:CYS:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:80:LEU:HB3	1:C:90:ALA:HB3	1.94	0.48
1:K:264:ALA:O	1:K:265:CYS:C	2.51	0.48
1:D:83:GLN:O	1:D:84:ARG:C	2.52	0.48
1:I:121:ILE:HG23	1:I:264:ALA:CB	2.44	0.48
1:F:264:ALA:O	1:F:266:GLU:N	2.46	0.48
1:G:85:ASP:HB2	1:G:89:GLN:HB3	1.95	0.48
1:G:218:TRP:O	1:G:222:MET:HG2	2.14	0.48
1:G:249:GLN:HE22	1:H:218:TRP:HE1	1.61	0.48
1:I:20:ARG:CG	1:I:146:GLU:HG3	2.41	0.48
1:B:93:PHE:O	1:B:103:GLU:HG3	2.13	0.48
1:I:171:LEU:HB3	1:J:185:ILE:CD1	2.41	0.48
1:F:171:LEU:HD22	1:F:175:TYR:CE1	2.48	0.48
1:C:23:TRP:O	1:C:27:TYR:HD1	1.97	0.48
1:A:162:ARG:NH1	1:B:193:SER:HA	2.28	0.48
1:H:164:ASN:CG	1:H:164:ASN:O	2.52	0.48
1:E:259:LYS:O	1:E:261:ARG:N	2.47	0.48
1:E:279:LYS:C	1:E:281:ARG:N	2.67	0.48
1:F:119:VAL:CG1	1:F:268:ILE:HB	2.22	0.48
1:I:107:TYR:N	1:I:118:GLY:O	2.45	0.48
1:J:60:PHE:O	1:J:61:GLY:C	2.52	0.48
1:J:63:VAL:HG12	1:J:121:ILE:O	2.13	0.48
1:K:278:VAL:CG2	1:K:279:LYS:H	1.97	0.48
1:A:109:TYR:CZ	1:A:111:ASP:CG	2.87	0.48
1:L:38:LEU:HB2	1:L:39:PHE:CD1	2.49	0.48
1:L:49:ASN:C	1:L:49:ASN:OD1	2.51	0.48
1:D:35:ALA:CB	1:D:225:LYS:HZ3	2.26	0.48
1:D:35:ALA:O	1:D:38:LEU:HG	2.13	0.48
1:B:113:LYS:HD3	1:B:271:LEU:HD23	1.96	0.48
1:G:105:LYS:HZ2	1:G:105:LYS:H	1.60	0.48
1:I:225:LYS:O	1:I:226:LEU:O	2.32	0.48
1:I:223:THR:HG23	1:I:250:ILE:CG1	2.44	0.48
1:G:259:LYS:O	1:G:262:GLU:HB2	2.14	0.48
1:H:158:PRO:O	1:H:159:VAL:CB	2.56	0.48
1:B:45:PRO:HG2	1:B:48:ILE:HD12	1.95	0.48
1:F:124:ASN:OD1	1:F:128:PHE:O	2.31	0.48
1:C:148:ILE:HG23	1:C:207:VAL:HG13	1.95	0.48
1:I:108:ASN:HD21	1:I:271:LEU:CA	2.27	0.48
1:J:226:LEU:O	1:J:227:GLN:HG2	2.12	0.48
1:C:45:PRO:HD2	1:C:275:ASN:OD1	2.14	0.48
1:B:248:GLU:HG2	1:C:227:GLN:O	2.13	0.48
1:D:87:TYR:HH	1:E:48:ILE:HA	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:87:TYR:HA	1:G:52:PHE:CE1	2.49	0.48
1:E:24:PHE:CZ	1:E:28:LEU:HD12	2.49	0.48
1:E:263:GLU:O	1:E:263:GLU:HG2	2.12	0.48
1:B:98:PRO:C	1:B:100:TYR:H	2.16	0.48
1:A:184:VAL:HB	1:L:160:LEU:HD23	1.96	0.48
1:D:30:TYR:CE2	1:D:218:TRP:CH2	3.02	0.48
1:F:105:LYS:O	1:F:118:GLY:HA3	2.14	0.48
1:I:252:SER:O	1:I:256:VAL:HG23	2.13	0.48
1:C:116:ASP:O	1:C:117:MET:O	2.31	0.48
1:C:249:GLN:O	1:C:250:ILE:C	2.51	0.48
1:D:124:ASN:CG	1:D:125:ASP:N	2.66	0.48
1:D:262:GLU:O	1:D:265:CYS:HB3	2.13	0.48
1:K:275:ASN:HB2	1:K:277:LYS:HE2	1.95	0.48
1:H:162:ARG:HH12	1:I:193:SER:HA	1.78	0.48
1:D:83:GLN:HE21	1:D:83:GLN:C	2.17	0.48
1:I:129:PRO:HB2	1:I:132:PRO:CD	2.44	0.48
1:C:169:LEU:O	1:C:170:SER:HB3	2.14	0.48
1:G:227:GLN:O	1:G:228:THR:O	2.32	0.48
1:L:59:GLN:O	1:L:60:PHE:CD1	2.67	0.48
1:C:21:ASN:O	1:C:25:ILE:HG13	2.14	0.48
1:G:63:VAL:HG22	1:G:64:GLY:N	2.26	0.48
1:E:266:GLU:O	1:E:268:ILE:N	2.40	0.48
1:J:126:MET:HE1	1:K:55:LYS:HD3	1.96	0.48
1:K:87:TYR:OH	1:L:48:ILE:HD13	2.14	0.48
1:A:79:ALA:O	1:A:80:LEU:C	2.50	0.48
1:F:223:THR:O	1:F:225:LYS:N	2.47	0.48
1:G:117:MET:HB3	1:G:271:LEU:CD2	2.44	0.48
1:F:284:ILE:CD1	1:F:284:ILE:N	2.75	0.48
1:E:125:ASP:OD1	1:E:126:MET:HG3	2.13	0.47
1:F:66:TYR:CD2	1:F:100:TYR:OH	2.67	0.47
1:I:65:PHE:N	1:I:119:VAL:O	2.36	0.47
1:I:275:ASN:ND2	1:I:275:ASN:O	2.47	0.47
1:I:274:LEU:CD1	1:I:275:ASN:N	2.77	0.47
1:C:265:CYS:HA	1:C:268:ILE:CG1	2.44	0.47
1:H:66:TYR:CE1	1:H:68:ASP:HA	2.49	0.47
1:L:265:CYS:O	1:L:266:GLU:C	2.52	0.47
1:K:41:TRP:O	1:K:42:GLU:HB3	2.13	0.47
1:E:85:ASP:O	1:E:87:TYR:N	2.45	0.47
1:G:16:GLN:HE21	1:G:16:GLN:CA	2.27	0.47
1:L:188:HIS:O	1:L:189:GLU:CB	2.62	0.47
1:G:279:LYS:CB	1:G:279:LYS:HZ2	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:223:THR:O	1:H:225:LYS:N	2.47	0.47
1:H:226:LEU:O	1:H:226:LEU:HD23	2.14	0.47
1:C:125:ASP:CG	1:C:259:LYS:HZ3	2.17	0.47
1:C:98:PRO:O	1:C:99:VAL:CB	2.62	0.47
1:H:30:TYR:O	1:H:34:LEU:HG	2.14	0.47
1:E:78:GLY:N	1:E:93:PHE:CE2	2.82	0.47
1:I:68:ASP:CG	1:I:69:PRO:HD2	2.34	0.47
1:J:93:PHE:HB3	1:J:104:PHE:CG	2.48	0.47
1:J:41:TRP:HB2	1:J:44:LEU:HD12	1.96	0.47
1:G:172:LYS:HE2	1:H:179:GLU:OE1	2.14	0.47
1:B:248:GLU:HB2	1:C:282:TYR:CD2	2.49	0.47
1:D:109:TYR:O	1:D:112:MET:N	2.47	0.47
1:D:130:THR:OG1	1:D:257:PHE:CE2	2.67	0.47
1:E:106:LEU:HD22	1:E:120:VAL:HG23	1.96	0.47
1:G:57:ILE:HG23	1:G:123:ASN:HB2	1.95	0.47
1:D:83:GLN:HE21	1:D:84:ARG:N	2.11	0.47
1:H:227:GLN:O	1:H:228:THR:O	2.32	0.47
1:A:146:GLU:O	1:A:150:VAL:HG23	2.14	0.47
1:F:284:ILE:H	1:F:284:ILE:HD12	1.77	0.47
1:F:124:ASN:ND2	1:F:128:PHE:H	2.12	0.47
1:C:252:SER:O	1:C:256:VAL:HG23	2.14	0.47
1:F:79:ALA:O	1:F:80:LEU:C	2.51	0.47
1:E:71:ILE:HD13	1:E:74:ILE:HD12	1.96	0.47
1:I:85:ASP:OD1	1:I:89:GLN:O	2.32	0.47
1:J:41:TRP:HA	1:J:277:LYS:HB3	1.97	0.47
1:C:274:LEU:HD23	1:C:275:ASN:N	2.30	0.47
1:L:67:LYS:O	1:L:73:TYR:N	2.46	0.47
1:D:275:ASN:O	1:D:277:LYS:HE3	2.14	0.47
1:B:226:LEU:HD22	1:B:251:ASP:OD1	2.15	0.47
1:J:170:SER:O	1:J:171:LEU:O	2.33	0.47
1:L:182:ALA:HB1	1:L:183:PRO:HD2	1.97	0.47
1:E:28:LEU:HD23	1:E:32:GLN:CG	2.44	0.47
1:J:154:ALA:C	1:J:156:LYS:H	2.16	0.47
1:K:213:GLN:O	1:K:216:ALA:HB3	2.13	0.47
1:L:151:ASN:OD1	1:L:207:VAL:HG23	2.14	0.47
1:G:39:PHE:N	1:G:280:PHE:O	2.47	0.47
1:L:22:ARG:HA	1:L:25:ILE:HD12	1.96	0.47
1:B:68:ASP:OD1	1:B:102:LYS:HD2	2.14	0.47
1:K:129:PRO:C	1:K:132:PRO:HD2	2.35	0.47
1:E:266:GLU:O	1:E:270:GLU:HG2	2.14	0.47
1:E:44:LEU:CA	1:E:275:ASN:HD21	2.21	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:67:LYS:CD	1:J:117:MET:SD	3.00	0.47
1:J:89:GLN:NE2	1:J:107:TYR:CE2	2.82	0.47
1:C:42:GLU:CG	1:C:279:LYS:HZ3	2.27	0.47
1:G:162:ARG:NH1	1:H:193:SER:HA	2.29	0.47
1:A:262:GLU:HG2	1:A:278:VAL:CG1	2.44	0.47
1:K:262:GLU:HG3	1:K:263:GLU:N	2.29	0.47
1:B:106:LEU:O	1:B:107:TYR:CB	2.59	0.47
1:G:98:PRO:O	1:G:99:VAL:HB	2.15	0.47
1:G:269:ASN:ND2	1:G:274:LEU:O	2.47	0.47
1:A:282:TYR:O	1:A:283:ASP:C	2.52	0.47
1:I:124:ASN:HD21	1:I:128:PHE:CB	2.28	0.47
1:I:131:THR:N	1:I:132:PRO:HD2	2.30	0.47
1:C:166:ASN:HD21	1:C:170:SER:CB	2.27	0.47
1:C:100:TYR:CZ	1:C:102:LYS:HB2	2.48	0.47
1:I:226:LEU:O	1:I:227:GLN:CD	2.53	0.47
1:F:248:GLU:HG3	1:G:282:TYR:CD2	2.49	0.47
1:E:165:ASP:CB	1:E:191:LEU:HD23	2.44	0.47
1:C:17:ARG:CD	1:C:17:ARG:N	2.77	0.47
1:F:124:ASN:HD21	1:F:128:PHE:H	1.61	0.47
1:A:30:TYR:CE2	1:A:218:TRP:HH2	2.32	0.47
1:E:141:LEU:CD2	1:E:217:VAL:HB	2.45	0.47
1:J:104:PHE:CE2	1:J:118:GLY:HA3	2.49	0.47
1:K:250:ILE:O	1:K:253:SER:HB2	2.14	0.47
1:D:108:ASN:HD21	1:D:270:GLU:HG3	1.79	0.47
1:J:171:LEU:HD22	1:J:175:TYR:CE1	2.49	0.47
1:G:66:TYR:O	1:G:74:ILE:HG22	2.14	0.47
1:G:272:TYR:N	1:G:272:TYR:HD2	2.12	0.47
1:E:66:TYR:CD2	1:E:68:ASP:HB2	2.50	0.47
1:J:266:GLU:O	1:J:270:GLU:HG3	2.14	0.47
1:G:171:LEU:CD2	1:G:175:TYR:CE1	2.97	0.47
1:C:283:ASP:C	1:C:284:ILE:HD12	2.34	0.47
1:I:162:ARG:NE	1:I:164:ASN:ND2	2.61	0.47
1:F:257:PHE:O	1:F:261:ARG:CD	2.63	0.47
1:F:166:ASN:HD22	1:F:166:ASN:N	2.12	0.47
1:L:69:PRO:O	1:L:70:VAL:CG1	2.57	0.47
1:C:158:PRO:O	1:C:158:PRO:HG2	2.14	0.47
1:H:150:VAL:HG11	1:I:156:LYS:CG	2.45	0.47
1:B:213:GLN:NE2	1:C:211:ASN:CG	2.68	0.47
1:L:30:TYR:CE2	1:L:218:TRP:CH2	3.03	0.47
1:H:186:PHE:CD2	1:H:196:ILE:HD11	2.49	0.47
1:F:103:GLU:C	1:F:104:PHE:HD1	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:41:TRP:CH2	1:F:121:ILE:HD13	2.49	0.47
1:J:265:CYS:O	1:J:268:ILE:HB	2.14	0.47
1:B:123:ASN:ND2	1:B:261:ARG:HH21	2.13	0.47
1:A:117:MET:HG3	1:A:118:GLY:N	2.29	0.47
1:A:44:LEU:O	1:A:45:PRO:C	2.52	0.47
1:K:76:CYS:SG	1:K:95:ALA:CB	3.02	0.47
1:K:223:THR:HG23	1:K:250:ILE:HG23	1.95	0.47
1:D:280:PHE:HB2	1:D:283:ASP:CG	2.34	0.47
1:D:60:PHE:CD1	1:D:60:PHE:O	2.67	0.47
1:D:81:SER:N	1:D:92:VAL:O	2.43	0.47
1:B:226:LEU:C	1:B:226:LEU:HD12	2.35	0.47
1:B:38:LEU:O	1:B:39:PHE:HB2	2.14	0.47
1:G:158:PRO:O	1:G:159:VAL:HB	2.14	0.47
1:G:275:ASN:C	1:G:277:LYS:CD	2.83	0.47
1:K:67:LYS:HB3	1:K:117:MET:HE3	1.97	0.47
1:A:39:PHE:HE1	1:A:258:LEU:HG	1.79	0.47
1:B:157:THR:N	1:B:158:PRO:HD3	2.29	0.47
1:H:126:MET:O	1:H:128:PHE:N	2.45	0.47
1:C:166:ASN:ND2	1:C:170:SER:CB	2.78	0.47
1:G:226:LEU:C	1:G:227:GLN:HG2	2.35	0.47
1:G:255:THR:HG23	1:G:259:LYS:HB2	1.97	0.47
1:E:24:PHE:CE1	1:E:28:LEU:HD12	2.50	0.47
1:H:108:ASN:HD21	1:H:117:MET:HB2	1.80	0.47
1:H:260:SER:HA	1:H:263:GLU:HB3	1.95	0.47
1:D:23:TRP:CZ2	1:D:145:LYS:HE3	2.49	0.47
1:B:71:ILE:HG22	1:B:71:ILE:O	2.15	0.47
1:H:148:ILE:HG23	1:H:207:VAL:HG13	1.96	0.47
1:G:283:ASP:O	1:G:285:VAL:N	2.48	0.47
1:B:19:LYS:O	1:B:22:ARG:HB3	2.14	0.47
1:B:15:ILE:O	1:B:15:ILE:HG22	2.15	0.47
1:J:15:ILE:HG22	1:J:15:ILE:O	2.15	0.47
1:F:41:TRP:HZ3	1:F:265:CYS:CB	2.18	0.47
1:I:109:TYR:CG	1:I:110:ARG:N	2.80	0.47
1:I:271:LEU:CG	1:I:271:LEU:O	2.59	0.47
1:E:174:VAL:O	1:E:177:GLN:CG	2.60	0.47
1:H:74:ILE:N	1:H:74:ILE:CD1	2.71	0.47
1:K:62:TYR:O	1:K:121:ILE:O	2.33	0.47
1:L:106:LEU:HA	1:L:118:GLY:O	2.15	0.47
1:B:42:GLU:N	1:B:277:LYS:CB	2.77	0.47
1:D:105:LYS:CE	1:D:105:LYS:N	2.78	0.47
1:G:12:ILE:HG22	1:G:16:GLN:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:16:GLN:HA	1:G:16:GLN:HE21	1.80	0.47
1:K:67:LYS:HE2	1:K:116:ASP:C	2.35	0.47
1:K:117:MET:CG	1:K:118:GLY:N	2.69	0.47
1:B:175:TYR:O	1:B:178:TYR:HD2	1.98	0.47
1:L:20:ARG:HG2	1:L:146:GLU:HG2	1.96	0.47
1:A:133:THR:HG21	1:A:224:PHE:CD2	2.48	0.47
1:C:94:ARG:HG2	1:C:103:GLU:CG	2.44	0.47
1:G:221:MET:HE2	1:G:225:LYS:HE2	1.96	0.47
1:G:249:GLN:CA	1:G:252:SER:HB2	2.39	0.47
1:H:109:TYR:CD1	1:H:110:ARG:N	2.81	0.47
1:H:263:GLU:CG	1:H:263:GLU:O	2.63	0.47
1:K:44:LEU:HD13	1:K:48:ILE:CG2	2.45	0.47
1:K:129:PRO:O	1:K:132:PRO:HD2	2.15	0.47
1:E:141:LEU:HD23	1:E:217:VAL:HB	1.96	0.47
1:E:68:ASP:HB3	1:E:71:ILE:O	2.15	0.47
1:I:117:MET:HE1	1:I:271:LEU:HD22	1.92	0.47
1:J:101:GLN:O	1:J:102:LYS:HB2	2.15	0.47
1:J:269:ASN:CG	1:J:273:GLY:O	2.53	0.47
1:J:275:ASN:CG	1:J:277:LYS:CD	2.83	0.47
1:H:168:GLN:HG3	1:H:188:HIS:CE1	2.50	0.47
1:K:56:SER:O	1:K:59:GLN:O	2.33	0.47
1:L:42:GLU:C	1:L:277:LYS:NZ	2.68	0.47
1:D:157:THR:N	1:D:158:PRO:HD3	2.30	0.47
1:G:86:VAL:CG1	1:G:87:TYR:N	2.78	0.47
1:G:82:GLY:HA3	1:G:92:VAL:HG12	1.97	0.47
1:L:13:ASN:HA	1:L:16:GLN:HB2	1.96	0.47
1:G:152:GLN:O	1:G:155:GLN:HG2	2.15	0.47
1:K:152:GLN:O	1:K:155:GLN:HG2	2.15	0.47
1:C:151:ASN:O	1:C:154:ALA:HB3	2.15	0.47
1:K:165:ASP:HB3	1:K:167:ASN:HD21	1.78	0.47
1:I:153:ASN:C	1:I:155:GLN:N	2.67	0.47
1:F:117:MET:SD	1:F:271:LEU:HD11	2.55	0.47
1:I:117:MET:CE	1:I:119:VAL:HG23	2.45	0.47
1:I:274:LEU:HD12	1:I:275:ASN:OD1	2.15	0.47
1:L:227:GLN:O	1:L:228:THR:O	2.33	0.47
1:C:226:LEU:HA	1:C:250:ILE:HG22	1.97	0.47
1:D:258:LEU:HD13	1:D:280:PHE:CZ	2.49	0.47
1:D:250:ILE:HD12	1:D:250:ILE:N	2.21	0.47
1:B:103:GLU:CG	1:B:104:PHE:H	2.28	0.47
1:B:72:SER:O	1:B:73:TYR:C	2.53	0.47
1:K:31:LEU:HD21	1:K:218:TRP:CZ3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:248:GLU:OE2	1:J:226:LEU:CG	2.63	0.46
1:A:272:TYR:O	1:A:273:GLY:O	2.33	0.46
1:K:258:LEU:HG	1:K:258:LEU:O	2.15	0.46
1:L:40:GLU:O	1:L:278:VAL:O	2.33	0.46
1:L:74:ILE:HG23	1:L:74:ILE:O	2.15	0.46
1:D:124:ASN:HD22	1:D:256:VAL:HG12	1.81	0.46
1:D:274:LEU:O	1:D:275:ASN:CB	2.59	0.46
1:D:79:ALA:HB3	1:D:94:ARG:CZ	2.45	0.46
1:C:53:LEU:O	1:C:57:ILE:HG13	2.16	0.46
1:D:171:LEU:HD22	1:D:175:TYR:HE1	1.75	0.46
1:G:113:LYS:HE2	1:G:272:TYR:HE2	1.79	0.46
1:A:154:ALA:C	1:A:156:LYS:H	2.18	0.46
1:I:124:ASN:ND2	1:I:126:MET:HB2	2.30	0.46
1:J:224:PHE:CE1	1:K:30:TYR:CD1	3.03	0.46
1:I:211:ASN:O	1:I:214:LYS:HB3	2.15	0.46
1:H:27:TYR:CD2	1:H:141:LEU:HD13	2.50	0.46
1:F:265:CYS:SG	1:F:275:ASN:O	2.73	0.46
1:I:278:VAL:CG1	1:I:279:LYS:N	2.64	0.46
1:E:177:GLN:C	1:E:179:GLU:N	2.67	0.46
1:K:57:ILE:HG22	1:K:123:ASN:HB2	1.97	0.46
1:B:42:GLU:N	1:B:277:LYS:HZ2	2.13	0.46
1:F:201:THR:O	1:G:159:VAL:HG21	2.15	0.46
1:G:49:ASN:O	1:G:50:PRO:O	2.33	0.46
1:L:168:GLN:HE22	1:L:169:LEU:CG	2.23	0.46
1:A:39:PHE:HE1	1:A:280:PHE:HE2	1.62	0.46
1:C:13:ASN:HA	1:C:16:GLN:HB3	1.96	0.46
1:K:188:HIS:CD2	1:K:190:ALA:HB3	2.50	0.46
1:K:148:ILE:O	1:K:152:GLN:HB2	2.15	0.46
1:A:168:GLN:NE2	1:A:168:GLN:O	2.48	0.46
1:K:209:LYS:O	1:K:212:ALA:HB3	2.15	0.46
1:J:42:GLU:H	1:J:277:LYS:HA	1.80	0.46
1:K:222:MET:HB3	1:K:227:GLN:HB3	1.96	0.46
1:K:280:PHE:C	1:K:282:TYR:H	2.19	0.46
1:C:262:GLU:HA	1:C:278:VAL:HG21	1.97	0.46
1:L:117:MET:HE2	1:L:118:GLY:N	2.31	0.46
1:C:134:LEU:HD21	1:C:225:LYS:HE2	1.97	0.46
1:D:277:LYS:C	1:D:279:LYS:N	2.69	0.46
1:H:11:SER:O	1:J:179:GLU:OE2	2.34	0.46
1:I:165:ASP:H	1:I:195:SER:HB2	1.79	0.46
1:A:66:TYR:O	1:A:74:ILE:HG22	2.15	0.46
1:G:276:VAL:C	1:G:277:LYS:HD3	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:260:SER:O	1:F:261:ARG:C	2.54	0.46
1:I:201:THR:CG2	1:I:201:THR:O	2.58	0.46
1:L:124:ASN:HD21	1:L:128:PHE:HB2	1.80	0.46
1:H:259:LYS:O	1:H:261:ARG:N	2.48	0.46
1:A:189:GLU:O	1:A:189:GLU:HG2	2.15	0.46
1:K:47:THR:HG21	1:K:73:TYR:O	2.15	0.46
1:B:22:ARG:HA	1:B:25:ILE:HD12	1.97	0.46
1:E:41:TRP:C	1:E:277:LYS:NZ	2.69	0.46
1:F:268:ILE:HG12	1:F:268:ILE:O	2.15	0.46
1:H:66:TYR:HB3	1:H:104:PHE:CE1	2.50	0.46
1:K:87:TYR:OH	1:L:48:ILE:HA	2.15	0.46
1:D:107:TYR:HB2	1:D:267:LYS:NZ	2.30	0.46
1:J:169:LEU:HD23	1:J:169:LEU:HA	1.77	0.46
1:C:20:ARG:HG2	1:C:20:ARG:O	2.14	0.46
1:B:177:GLN:O	1:B:179:GLU:N	2.47	0.46
1:L:60:PHE:HD1	1:L:60:PHE:O	1.98	0.46
1:H:266:GLU:O	1:H:270:GLU:N	2.40	0.46
1:J:188:HIS:ND1	1:J:188:HIS:O	2.49	0.46
1:D:97:SER:O	1:D:99:VAL:N	2.48	0.46
1:K:68:ASP:OD1	1:K:70:VAL:HB	2.16	0.46
1:J:131:THR:HG22	1:J:132:PRO:CD	2.45	0.46
1:L:19:LYS:O	1:L:22:ARG:N	2.48	0.46
1:A:162:ARG:NH1	1:A:197:GLU:OE1	2.48	0.46
1:E:43:ASN:O	1:E:277:LYS:HE2	2.16	0.46
1:F:106:LEU:HD22	1:F:120:VAL:HG22	1.98	0.46
1:I:109:TYR:CE2	1:I:112:MET:SD	3.07	0.46
1:I:47:THR:HG21	1:I:72:SER:O	2.15	0.46
1:J:41:TRP:HB3	1:J:277:LYS:HB3	1.98	0.46
1:B:106:LEU:HD23	1:B:119:VAL:HA	1.96	0.46
1:B:227:GLN:O	1:B:228:THR:C	2.53	0.46
1:I:162:ARG:HH11	1:J:193:SER:HA	1.77	0.46
1:D:84:ARG:HH11	1:D:84:ARG:CB	2.16	0.46
1:A:39:PHE:HE1	1:A:280:PHE:CE2	2.34	0.46
1:B:189:GLU:O	1:B:189:GLU:HG2	2.15	0.46
1:B:151:ASN:HB3	1:B:207:VAL:HG22	1.97	0.46
1:F:188:HIS:O	1:F:190:ALA:N	2.42	0.46
1:G:133:THR:HG21	1:G:224:PHE:CZ	2.50	0.46
1:I:77:ASN:O	1:I:96:ALA:HB3	2.16	0.46
1:C:41:TRP:HB3	1:C:277:LYS:NZ	2.31	0.46
1:H:166:ASN:O	1:H:167:ASN:C	2.54	0.46
1:H:79:ALA:HB3	1:H:94:ARG:NH1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:265:CYS:SG	1:A:277:LYS:HG3	2.55	0.46
1:K:38:LEU:O	1:K:39:PHE:HB2	2.16	0.46
1:L:277:LYS:O	1:L:278:VAL:HB	2.16	0.46
1:B:181:ASN:HD22	1:L:11:SER:N	2.14	0.46
1:E:109:TYR:O	1:E:113:LYS:HG3	2.15	0.46
1:H:248:GLU:HG3	1:H:249:GLN:N	2.30	0.46
1:K:45:PRO:O	1:K:47:THR:N	2.48	0.46
1:F:193:SER:O	1:F:194:ASP:CG	2.54	0.46
1:L:32:GLN:HG3	1:L:134:LEU:HD12	1.98	0.46
1:E:97:SER:CB	1:E:98:PRO:HD2	2.46	0.46
1:F:277:LYS:HZ3	1:F:278:VAL:N	1.99	0.46
1:I:274:LEU:C	1:I:274:LEU:HD12	2.36	0.46
1:A:274:LEU:CD1	1:A:275:ASN:H	2.26	0.46
1:K:57:ILE:HG12	1:K:63:VAL:CG1	2.46	0.46
1:B:269:ASN:C	1:B:271:LEU:H	2.16	0.46
1:G:66:TYR:CD2	1:G:100:TYR:OH	2.69	0.46
1:F:227:GLN:C	1:F:228:THR:O	2.54	0.46
1:I:172:LYS:O	1:I:176:ASN:N	2.49	0.46
1:A:52:PHE:HZ	1:A:77:ASN:ND2	2.13	0.46
1:B:49:ASN:HA	1:B:50:PRO:HD2	1.69	0.46
1:B:99:VAL:CG1	1:B:99:VAL:O	2.62	0.46
1:K:177:GLN:O	1:K:178:TYR:C	2.54	0.46
1:D:14:GLU:O	1:D:15:ILE:C	2.54	0.46
1:K:131:THR:N	1:K:132:PRO:HD2	2.31	0.46
1:K:137:PHE:HZ	1:K:220:GLU:OE2	1.99	0.46
1:A:134:LEU:O	1:A:138:ALA:HB2	2.16	0.46
1:J:44:LEU:O	1:J:45:PRO:C	2.54	0.46
1:B:258:LEU:HD22	1:B:262:GLU:CG	2.41	0.46
1:C:47:THR:CB	1:C:73:TYR:H	2.28	0.46
1:D:261:ARG:O	1:D:262:GLU:C	2.52	0.46
1:D:47:THR:HB	1:D:73:TYR:O	2.16	0.46
1:C:11:SER:N	1:E:181:ASN:HB2	2.30	0.46
1:L:168:GLN:OE1	1:L:169:LEU:N	2.49	0.46
1:K:115:GLU:O	1:K:116:ASP:HB2	2.16	0.46
1:F:218:TRP:O	1:F:221:MET:HB3	2.16	0.46
1:G:90:ALA:C	1:G:92:VAL:N	2.67	0.46
1:B:175:TYR:O	1:B:178:TYR:CD2	2.68	0.46
1:L:124:ASN:O	1:L:126:MET:N	2.39	0.46
1:B:62:TYR:OH	1:B:79:ALA:HA	2.15	0.46
1:H:116:ASP:O	1:H:117:MET:O	2.34	0.46
1:C:93:PHE:HB2	1:C:106:LEU:CD2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:97:SER:HB2	1:L:98:PRO:HD2	1.97	0.46
1:I:15:ILE:O	1:I:18:GLN:HB2	2.15	0.46
1:H:52:PHE:C	1:H:52:PHE:CD2	2.88	0.46
1:I:277:LYS:CG	1:I:278:VAL:H	2.14	0.46
1:D:79:ALA:CB	1:D:94:ARG:NH2	2.79	0.46
1:B:87:TYR:CE2	1:C:49:ASN:HB3	2.51	0.46
1:H:13:ASN:HB2	1:J:179:GLU:HG2	1.97	0.46
1:F:259:LYS:HE2	1:F:263:GLU:OE1	2.16	0.46
1:D:179:GLU:HG3	1:D:180:GLY:N	2.31	0.46
1:B:168:GLN:C	1:B:168:GLN:CD	2.74	0.46
1:I:168:GLN:HB3	1:I:188:HIS:HE1	1.73	0.46
1:A:16:GLN:C	1:A:18:GLN:N	2.69	0.46
1:C:15:ILE:HG23	1:C:18:GLN:HB2	1.98	0.46
1:B:27:TYR:O	1:B:31:LEU:HG	2.16	0.46
1:B:161:ILE:HG12	1:B:198:VAL:HG22	1.98	0.46
1:I:13:ASN:O	1:I:16:GLN:HB3	2.16	0.46
1:D:45:PRO:HG2	1:D:48:ILE:HD12	1.97	0.46
1:E:53:LEU:CD2	1:E:54:GLU:H	2.27	0.46
1:F:40:GLU:O	1:F:278:VAL:O	2.34	0.46
1:J:117:MET:HE3	1:J:271:LEU:HD13	1.97	0.46
1:C:65:PHE:HB3	1:C:119:VAL:HG13	1.98	0.46
1:A:274:LEU:CD1	1:A:275:ASN:N	2.76	0.46
1:D:264:ALA:O	1:D:265:CYS:C	2.54	0.46
1:B:218:TRP:O	1:B:222:MET:HG2	2.16	0.46
1:B:269:ASN:C	1:B:271:LEU:N	2.69	0.46
1:C:109:TYR:CE1	1:D:47:THR:CG2	2.99	0.46
1:F:162:ARG:O	1:F:196:ILE:HA	2.15	0.46
1:G:19:LYS:HA	1:G:22:ARG:NH2	2.31	0.46
1:F:35:ALA:O	1:F:38:LEU:HD23	2.16	0.46
1:G:165:ASP:OD2	1:G:165:ASP:N	2.49	0.46
1:H:107:TYR:CG	1:H:108:ASN:N	2.84	0.46
1:I:282:TYR:CD2	1:I:283:ASP:N	2.83	0.46
1:J:39:PHE:CZ	1:J:257:PHE:CB	2.99	0.46
1:G:283:ASP:C	1:G:285:VAL:H	2.18	0.46
1:E:282:TYR:CD2	1:E:283:ASP:HB2	2.52	0.45
1:E:45:PRO:HG3	1:E:73:TYR:HD1	1.81	0.45
1:J:102:LYS:HG3	1:J:103:GLU:H	1.81	0.45
1:J:265:CYS:O	1:J:268:ILE:N	2.45	0.45
1:L:279:LYS:HG2	1:L:281:ARG:H	1.81	0.45
1:B:269:ASN:HD21	1:B:275:ASN:HB3	1.81	0.45
1:D:66:TYR:HD1	1:D:118:GLY:N	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:203:ALA:HB1	1:G:158:PRO:CG	2.45	0.45
1:E:84:ARG:CD	1:E:90:ALA:HA	2.46	0.45
1:A:20:ARG:CG	1:A:146:GLU:HG3	2.44	0.45
1:C:25:ILE:O	1:C:26:HIS:C	2.53	0.45
1:K:172:LYS:O	1:K:176:ASN:OD1	2.34	0.45
1:G:213:GLN:HE22	1:H:211:ASN:CG	2.18	0.45
1:B:66:TYR:CD2	1:B:100:TYR:OH	2.68	0.45
1:I:107:TYR:CG	1:I:107:TYR:O	2.69	0.45
1:H:47:THR:HG21	1:H:72:SER:OG	2.16	0.45
1:C:226:LEU:O	1:C:227:GLN:CD	2.55	0.45
1:D:280:PHE:C	1:D:282:TYR:H	2.19	0.45
1:A:39:PHE:CE1	1:A:258:LEU:HG	2.50	0.45
1:B:176:ASN:C	1:B:178:TYR:N	2.66	0.45
1:G:225:LYS:O	1:G:226:LEU:HB3	2.15	0.45
1:F:111:ASP:O	1:F:112:MET:HB2	2.16	0.45
1:G:83:GLN:NE2	1:G:84:ARG:N	2.65	0.45
1:L:221:MET:O	1:L:224:PHE:HB3	2.16	0.45
1:H:145:LYS:O	1:H:145:LYS:HE2	2.16	0.45
1:G:283:ASP:HB3	1:G:284:ILE:H	1.59	0.45
1:H:209:LYS:O	1:H:212:ALA:HB3	2.15	0.45
1:E:37:GLN:NE2	1:E:38:LEU:N	2.64	0.45
1:E:92:VAL:HG13	1:E:104:PHE:O	2.16	0.45
1:H:65:PHE:N	1:H:65:PHE:CD1	2.84	0.45
1:C:248:GLU:HG3	1:D:282:TYR:CG	2.52	0.45
1:A:282:TYR:O	1:A:284:ILE:N	2.49	0.45
1:B:172:LYS:HA	1:B:175:TYR:HB2	1.98	0.45
1:B:80:LEU:HD21	1:B:120:VAL:HG21	1.97	0.45
1:H:113:LYS:HE3	1:H:271:LEU:HD21	1.99	0.45
1:A:13:ASN:O	1:A:17:ARG:CG	2.63	0.45
1:F:23:TRP:O	1:F:24:PHE:C	2.54	0.45
1:A:63:VAL:HG12	1:A:121:ILE:HB	1.98	0.45
1:I:258:LEU:HD22	1:I:262:GLU:CD	2.37	0.45
1:J:41:TRP:CH2	1:J:121:ILE:HG21	2.50	0.45
1:K:222:MET:O	1:K:227:GLN:HG3	2.17	0.45
1:A:47:THR:OG1	1:A:73:TYR:HB2	2.17	0.45
1:B:112:MET:O	1:B:112:MET:SD	2.74	0.45
1:I:264:ALA:O	1:I:265:CYS:C	2.54	0.45
1:G:89:GLN:HG2	1:G:90:ALA:N	2.31	0.45
1:I:59:GLN:HB3	1:I:60:PHE:H	1.50	0.45
1:C:172:LYS:O	1:C:172:LYS:HG3	2.16	0.45
1:C:83:GLN:O	1:C:83:GLN:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:14:GLU:H	1:F:14:GLU:CD	2.17	0.45
1:E:224:PHE:CD2	1:E:224:PHE:O	2.70	0.45
1:J:117:MET:HB3	1:J:271:LEU:CD2	2.46	0.45
1:B:126:MET:C	1:B:128:PHE:N	2.66	0.45
1:E:171:LEU:O	1:E:172:LYS:HB3	2.17	0.45
1:L:43:ASN:CB	1:L:277:LYS:HE2	2.47	0.45
1:K:93:PHE:CE2	1:K:95:ALA:HB2	2.51	0.45
1:B:89:GLN:OE1	1:B:90:ALA:N	2.49	0.45
1:C:163:ALA:HB3	1:D:187:ALA:CA	2.46	0.45
1:B:178:TYR:HE2	1:C:181:ASN:O	1.99	0.45
1:B:12:ILE:O	1:D:181:ASN:ND2	2.46	0.45
1:G:249:GLN:O	1:G:253:SER:N	2.28	0.45
1:D:199:PHE:N	1:D:199:PHE:CD1	2.85	0.45
1:I:169:LEU:HB3	1:I:186:PHE:CE1	2.48	0.45
1:L:60:PHE:O	1:L:61:GLY:C	2.55	0.45
1:I:38:LEU:O	1:I:39:PHE:CB	2.65	0.45
1:F:188:HIS:O	1:F:188:HIS:CG	2.69	0.45
1:B:130:THR:HG22	1:B:134:LEU:HG	1.99	0.45
1:D:45:PRO:CG	1:D:48:ILE:HD12	2.46	0.45
1:E:93:PHE:HB3	1:E:104:PHE:HB3	1.91	0.45
1:F:65:PHE:CG	1:F:268:ILE:HD12	2.51	0.45
1:E:177:GLN:O	1:E:178:TYR:C	2.55	0.45
1:D:119:VAL:CG1	1:D:120:VAL:N	2.79	0.45
1:D:264:ALA:O	1:D:267:LYS:HB3	2.17	0.45
1:D:38:LEU:HB2	1:D:39:PHE:CD2	2.52	0.45
1:H:201:THR:CG2	1:J:183:PRO:HG3	2.44	0.45
1:C:162:ARG:HG3	1:D:196:ILE:HD13	1.98	0.45
1:G:74:ILE:HD13	1:G:100:TYR:CE2	2.51	0.45
1:H:124:ASN:HA	1:H:256:VAL:O	2.17	0.45
1:G:221:MET:HG3	1:G:225:LYS:HE2	1.98	0.45
1:G:30:TYR:CE2	1:G:218:TRP:HH2	2.34	0.45
1:E:13:ASN:O	1:E:17:ARG:HB2	2.16	0.45
1:H:110:ARG:O	1:H:111:ASP:CB	2.64	0.45
1:I:146:GLU:OE2	1:J:156:LYS:NZ	2.37	0.45
1:K:171:LEU:O	1:K:172:LYS:HB3	2.16	0.45
1:J:140:GLU:OE2	1:K:145:LYS:NZ	2.50	0.45
1:I:87:TYR:O	1:I:88:ASN:CB	2.62	0.45
1:C:34:LEU:O	1:C:37:GLN:NE2	2.49	0.45
1:H:57:ILE:HD11	1:H:121:ILE:HB	1.98	0.45
1:A:274:LEU:HD12	1:A:274:LEU:N	2.31	0.45
1:L:269:ASN:OD1	1:L:274:LEU:CA	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:107:TYR:HB2	1:D:267:LYS:CD	2.37	0.45
1:G:51:SER:N	1:G:54:GLU:OE1	2.41	0.45
1:C:175:TYR:O	1:C:178:TYR:N	2.45	0.45
1:I:168:GLN:C	1:I:168:GLN:CD	2.76	0.45
1:C:126:MET:C	1:C:128:PHE:N	2.69	0.45
1:A:14:GLU:C	1:A:16:GLN:H	2.19	0.45
1:G:109:TYR:HB2	1:G:112:MET:CB	2.42	0.45
1:K:188:HIS:O	1:K:189:GLU:HB2	2.15	0.45
1:K:188:HIS:HB3	1:K:191:LEU:HG	1.98	0.45
1:H:145:LYS:HB2	1:H:214:LYS:HZ2	1.81	0.45
1:I:92:VAL:CG1	1:I:93:PHE:N	2.80	0.45
1:E:221:MET:O	1:E:224:PHE:HB3	2.17	0.45
1:E:265:CYS:SG	1:E:276:VAL:HA	2.57	0.45
1:I:66:TYR:CE2	1:I:68:ASP:HA	2.52	0.45
1:J:62:TYR:HB3	1:J:63:VAL:H	1.45	0.45
1:K:59:GLN:O	1:K:60:PHE:C	2.55	0.45
1:D:265:CYS:O	1:D:266:GLU:C	2.55	0.45
1:D:60:PHE:O	1:D:61:GLY:O	2.34	0.45
1:E:106:LEU:HD12	1:E:107:TYR:HB2	1.98	0.45
1:K:265:CYS:SG	1:K:276:VAL:CA	2.93	0.45
1:B:16:GLN:O	1:B:20:ARG:HG3	2.17	0.45
1:I:150:VAL:HG11	1:J:156:LYS:CG	2.43	0.45
1:G:126:MET:SD	1:H:55:LYS:HE3	2.57	0.45
1:A:52:PHE:C	1:A:52:PHE:CD2	2.90	0.45
1:E:115:GLU:OE1	1:E:116:ASP:OD2	2.33	0.45
1:E:136:LEU:HD13	1:F:22:ARG:HD2	1.97	0.45
1:F:140:GLU:HG3	1:G:23:TRP:CZ2	2.52	0.45
1:L:77:ASN:ND2	1:L:77:ASN:H	2.15	0.45
1:F:105:LYS:HZ1	1:F:114:GLU:HB2	1.81	0.45
1:J:104:PHE:CD2	1:J:118:GLY:HA3	2.52	0.45
1:J:63:VAL:CG1	1:J:121:ILE:HB	2.46	0.45
1:J:67:LYS:NZ	1:J:271:LEU:HD21	2.27	0.45
1:C:281:ARG:CG	1:C:281:ARG:O	2.65	0.45
1:E:172:LYS:HB2	1:F:185:ILE:CD1	2.44	0.45
1:A:44:LEU:HD13	1:A:48:ILE:CG2	2.47	0.45
1:K:35:ALA:HA	1:K:38:LEU:HD12	1.98	0.45
1:K:84:ARG:NH1	1:K:88:ASN:O	2.49	0.45
1:D:130:THR:OG1	1:D:257:PHE:HE2	2.00	0.45
1:D:226:LEU:O	1:D:227:GLN:CD	2.54	0.45
1:K:164:ASN:HB3	1:K:195:SER:HA	1.99	0.45
1:D:170:SER:C	1:D:171:LEU:O	2.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:264:ALA:C	1:F:266:GLU:H	2.20	0.45
1:G:85:ASP:CG	1:G:89:GLN:HB3	2.37	0.45
1:C:68:ASP:OD1	1:C:70:VAL:N	2.33	0.45
1:K:74:ILE:HD12	1:K:75:ALA:H	1.80	0.45
1:I:148:ILE:HG22	1:I:148:ILE:O	2.17	0.45
1:F:65:PHE:CB	1:F:119:VAL:HB	2.45	0.45
1:J:108:ASN:O	1:J:109:TYR:CB	2.65	0.45
1:H:189:GLU:C	1:H:191:LEU:H	2.19	0.45
1:A:262:GLU:HG2	1:A:278:VAL:HG11	1.99	0.45
1:K:249:GLN:HB3	1:L:222:MET:CE	2.47	0.45
1:C:228:THR:HB	1:C:250:ILE:HG13	1.99	0.45
1:D:41:TRP:C	1:D:277:LYS:HD2	2.36	0.45
1:D:277:LYS:O	1:D:279:LYS:N	2.43	0.45
1:H:162:ARG:NH1	1:I:193:SER:HA	2.32	0.45
1:E:163:ALA:HB3	1:F:187:ALA:CB	2.33	0.45
1:I:30:TYR:CE2	1:I:218:TRP:CH2	3.05	0.45
1:G:201:THR:HG22	1:H:198:VAL:HG11	1.99	0.45
1:A:248:GLU:HB3	1:B:282:TYR:CZ	2.51	0.45
1:A:168:GLN:NE2	1:A:168:GLN:CA	2.78	0.45
1:E:222:MET:HB3	1:E:227:GLN:CB	2.46	0.44
1:E:268:ILE:CG2	1:E:269:ASN:ND2	2.79	0.44
1:J:108:ASN:OD1	1:J:271:LEU:HB2	2.16	0.44
1:J:60:PHE:O	1:J:61:GLY:O	2.35	0.44
1:H:81:SER:OG	1:H:92:VAL:HB	2.16	0.44
1:A:269:ASN:C	1:A:271:LEU:H	2.20	0.44
1:A:274:LEU:O	1:A:275:ASN:CB	2.55	0.44
1:A:110:ARG:NH2	1:B:46:PRO:HG2	2.33	0.44
1:B:108:ASN:ND2	1:B:268:ILE:N	2.64	0.44
1:A:187:ALA:HA	1:L:163:ALA:O	2.17	0.44
1:E:248:GLU:HB3	1:F:282:TYR:CG	2.53	0.44
1:F:223:THR:C	1:F:225:LYS:N	2.70	0.44
1:F:57:ILE:CG2	1:F:123:ASN:HA	2.47	0.44
1:L:23:TRP:HE3	1:L:27:TYR:CE1	2.35	0.44
1:A:37:GLN:HE21	1:A:37:GLN:C	2.21	0.44
1:E:258:LEU:HD12	1:E:280:PHE:CZ	2.53	0.44
1:E:97:SER:HB2	1:E:98:PRO:HD2	1.99	0.44
1:G:72:SER:O	1:G:73:TYR:HB2	2.16	0.44
1:A:110:ARG:CG	1:A:111:ASP:N	2.80	0.44
1:K:63:VAL:HG12	1:K:121:ILE:O	2.17	0.44
1:L:66:TYR:HE1	1:L:117:MET:N	2.15	0.44
1:C:228:THR:HB	1:C:250:ILE:CD1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:81:SER:N	1:G:90:ALA:HB1	2.32	0.44
1:H:269:ASN:O	1:H:271:LEU:N	2.40	0.44
1:J:156:LYS:O	1:J:157:THR:CG2	2.63	0.44
1:C:125:ASP:OD2	1:C:259:LYS:NZ	2.50	0.44
1:E:109:TYR:C	1:E:111:ASP:N	2.69	0.44
1:B:66:TYR:CE2	1:B:100:TYR:OH	2.71	0.44
1:G:263:GLU:OE1	1:H:50:PRO:HG2	2.17	0.44
1:A:255:THR:HG22	1:A:255:THR:O	2.17	0.44
1:F:106:LEU:HA	1:F:118:GLY:CA	2.46	0.44
1:C:117:MET:HG3	1:C:118:GLY:N	2.33	0.44
1:G:171:LEU:HD22	1:G:175:TYR:HE1	1.82	0.44
1:H:82:GLY:HA3	1:H:91:THR:CB	2.43	0.44
1:H:82:GLY:HA3	1:H:92:VAL:HG23	2.00	0.44
1:B:247:ASP:CA	1:B:250:ILE:HG13	2.47	0.44
1:D:41:TRP:O	1:D:277:LYS:NZ	2.47	0.44
1:B:42:GLU:N	1:B:277:LYS:NZ	2.65	0.44
1:F:261:ARG:HA	1:F:264:ALA:HB3	1.98	0.44
1:C:209:LYS:HB3	1:D:205:TYR:CE2	2.53	0.44
1:C:171:LEU:HD23	1:C:186:PHE:CD1	2.52	0.44
1:E:110:ARG:O	1:E:111:ASP:HB3	2.17	0.44
1:E:113:LYS:O	1:E:114:GLU:CG	2.65	0.44
1:E:148:ILE:HG22	1:E:152:GLN:HG3	1.99	0.44
1:C:83:GLN:HE21	1:C:83:GLN:CA	2.30	0.44
1:D:16:GLN:NE2	1:D:20:ARG:HE	2.15	0.44
1:J:260:SER:O	1:J:263:GLU:HB3	2.18	0.44
1:E:224:PHE:CG	1:E:224:PHE:O	2.71	0.44
1:I:248:GLU:O	1:I:252:SER:HB3	2.18	0.44
1:C:39:PHE:HZ	1:C:257:PHE:HB2	1.82	0.44
1:G:164:ASN:O	1:G:166:ASN:N	2.48	0.44
1:L:121:ILE:HG12	1:L:264:ALA:HB1	1.99	0.44
1:C:283:ASP:O	1:C:284:ILE:HB	2.17	0.44
1:G:85:ASP:HB3	1:G:88:ASN:C	2.38	0.44
1:K:94:ARG:NE	1:K:103:GLU:OE1	2.51	0.44
1:A:171:LEU:O	1:A:173:GLN:N	2.50	0.44
1:G:167:ASN:ND2	1:G:190:ALA:HB1	2.31	0.44
1:C:13:ASN:HD21	1:C:17:ARG:HE	1.63	0.44
1:E:205:TYR:CE2	1:E:207:VAL:HB	2.52	0.44
1:F:24:PHE:CE2	1:F:28:LEU:HD12	2.52	0.44
1:F:94:ARG:CB	1:F:103:GLU:OE1	2.65	0.44
1:F:65:PHE:CD2	1:F:268:ILE:CD1	3.00	0.44
1:J:92:VAL:HA	1:J:104:PHE:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:163:ALA:O	1:H:187:ALA:HA	2.17	0.44
1:G:164:ASN:OD1	1:H:191:LEU:O	2.34	0.44
1:H:188:HIS:C	1:H:190:ALA:H	2.18	0.44
1:L:226:LEU:C	1:L:227:GLN:HG2	2.38	0.44
1:C:248:GLU:HG3	1:D:282:TYR:CD2	2.52	0.44
1:D:71:ILE:O	1:D:72:SER:HB3	2.18	0.44
1:I:199:PHE:CZ	1:J:196:ILE:HG22	2.53	0.44
1:D:11:SER:O	1:D:13:ASN:N	2.50	0.44
1:K:182:ALA:HB1	1:K:183:PRO:HD2	1.98	0.44
1:G:271:LEU:HD23	1:G:271:LEU:O	2.17	0.44
1:D:203:ALA:O	1:D:204:PRO:C	2.54	0.44
1:A:151:ASN:OD1	1:A:207:VAL:HG23	2.18	0.44
1:H:109:TYR:OH	1:I:46:PRO:CB	2.63	0.44
1:A:124:ASN:HD21	1:A:128:PHE:N	2.16	0.44
1:I:101:GLN:OE1	1:I:101:GLN:O	2.35	0.44
1:E:45:PRO:C	1:E:47:THR:N	2.71	0.44
1:F:66:TYR:O	1:F:68:ASP:OD2	2.36	0.44
1:I:110:ARG:HG3	1:I:111:ASP:N	2.32	0.44
1:B:258:LEU:O	1:B:259:LYS:C	2.56	0.44
1:G:166:ASN:HD21	1:G:170:SER:HB2	1.82	0.44
1:L:40:GLU:HB2	1:L:281:ARG:HE	1.82	0.44
1:C:226:LEU:C	1:C:227:GLN:HG2	2.38	0.44
1:C:107:TYR:O	1:C:112:MET:SD	2.75	0.44
1:J:172:LYS:CE	1:K:179:GLU:OE2	2.60	0.44
1:G:41:TRP:HE3	1:G:277:LYS:NZ	2.16	0.44
1:G:79:ALA:HB3	1:G:94:ARG:HD2	1.98	0.44
1:G:85:ASP:O	1:G:86:VAL:C	2.56	0.44
1:B:60:PHE:C	1:B:62:TYR:N	2.68	0.44
1:L:97:SER:CB	1:L:98:PRO:CD	2.95	0.44
1:C:158:PRO:CG	1:C:158:PRO:O	2.66	0.44
1:C:15:ILE:C	1:C:17:ARG:N	2.71	0.44
1:H:23:TRP:O	1:H:26:HIS:HB3	2.18	0.44
1:A:137:PHE:HE2	1:A:220:GLU:HB3	1.83	0.44
1:A:98:PRO:C	1:A:99:VAL:HG23	2.38	0.44
1:E:137:PHE:HZ	1:E:220:GLU:OE2	2.01	0.44
1:C:39:PHE:HE1	1:C:280:PHE:CE2	2.35	0.44
1:C:60:PHE:HA	1:C:129:PRO:CG	2.46	0.44
1:B:278:VAL:O	1:B:279:LYS:O	2.35	0.44
1:K:43:ASN:N	1:K:277:LYS:HZ3	2.14	0.44
1:A:80:LEU:HD11	1:A:122:TYR:HE2	1.82	0.44
1:D:153:ASN:O	1:D:155:GLN:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:100:TYR:CZ	1:D:102:LYS:HB2	2.53	0.44
1:C:13:ASN:HA	1:C:16:GLN:HB2	1.99	0.44
1:J:16:GLN:O	1:J:16:GLN:HG2	2.17	0.44
1:B:48:ILE:O	1:B:50:PRO:HD3	2.17	0.44
1:F:283:ASP:HB3	1:F:284:ILE:H	1.54	0.44
1:G:213:GLN:O	1:G:217:VAL:HG23	2.18	0.44
1:K:129:PRO:HB2	1:K:132:PRO:HD3	1.99	0.44
1:J:115:GLU:O	1:J:116:ASP:HB2	2.17	0.44
1:E:41:TRP:C	1:E:277:LYS:HZ2	2.21	0.44
1:F:117:MET:SD	1:F:271:LEU:HD21	2.57	0.44
1:I:89:GLN:OE1	1:I:107:TYR:CE2	2.71	0.44
1:J:269:ASN:C	1:J:271:LEU:N	2.71	0.44
1:B:256:VAL:HG11	1:C:33:SER:OG	2.17	0.44
1:C:44:LEU:O	1:C:44:LEU:HD12	2.17	0.44
1:H:62:TYR:HE2	1:H:79:ALA:CA	2.19	0.44
1:L:41:TRP:HB3	1:L:277:LYS:HG3	2.00	0.44
1:L:49:ASN:OD1	1:L:52:PHE:N	2.37	0.44
1:B:247:ASP:C	1:B:249:GLN:H	2.20	0.44
1:B:163:ALA:O	1:C:187:ALA:CB	2.66	0.44
1:G:20:ARG:CD	1:G:146:GLU:CD	2.86	0.44
1:A:173:GLN:HA	1:A:176:ASN:ND2	2.29	0.44
1:D:250:ILE:H	1:D:250:ILE:CD1	2.21	0.44
1:F:170:SER:O	1:F:171:LEU:O	2.36	0.44
1:K:167:ASN:HB3	1:K:168:GLN:H	1.59	0.44
1:C:85:ASP:C	1:C:87:TYR:N	2.71	0.44
1:H:20:ARG:HD2	1:H:146:GLU:OE1	2.17	0.44
1:K:129:PRO:HB2	1:K:132:PRO:CD	2.47	0.44
1:C:32:GLN:HG2	1:C:36:TYR:CZ	2.53	0.44
1:A:62:TYR:C	1:A:62:TYR:CD2	2.91	0.44
1:I:277:LYS:O	1:I:278:VAL:CG2	2.66	0.44
1:J:123:ASN:HD21	1:J:261:ARG:NH2	2.15	0.44
1:C:108:ASN:OD1	1:C:270:GLU:OE1	2.36	0.44
1:E:174:VAL:CG1	1:E:177:GLN:NE2	2.68	0.44
1:A:117:MET:HE2	1:A:271:LEU:HD12	1.99	0.44
1:L:40:GLU:CG	1:L:281:ARG:HH21	2.30	0.44
1:D:277:LYS:C	1:D:278:VAL:HG23	2.37	0.44
1:E:250:ILE:N	1:E:250:ILE:HD12	2.33	0.44
1:D:153:ASN:C	1:D:155:GLN:N	2.71	0.44
1:K:86:VAL:CG1	1:L:100:TYR:HB2	2.47	0.44
1:H:155:GLN:O	1:H:158:PRO:HD3	2.18	0.44
1:B:151:ASN:O	1:B:152:GLN:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:213:GLN:HG3	1:I:207:VAL:CG1	2.48	0.44
1:A:30:TYR:CE2	1:A:218:TRP:CH2	3.06	0.44
1:C:130:THR:C	1:C:132:PRO:HD2	2.37	0.44
1:I:57:ILE:N	1:I:63:VAL:HG21	2.33	0.43
1:I:109:TYR:CE1	1:J:46:PRO:O	2.70	0.43
1:J:67:LYS:HZ3	1:J:117:MET:HB3	1.83	0.43
1:G:173:GLN:HA	1:G:176:ASN:ND2	2.31	0.43
1:A:109:TYR:CZ	1:A:111:ASP:HB2	2.53	0.43
1:L:42:GLU:C	1:L:277:LYS:CE	2.86	0.43
1:D:62:TYR:CD2	1:D:80:LEU:HD21	2.53	0.43
1:B:108:ASN:HB2	1:B:109:TYR:H	1.43	0.43
1:G:49:ASN:HA	1:G:50:PRO:HD2	1.78	0.43
1:G:66:TYR:O	1:G:74:ILE:N	2.50	0.43
1:E:20:ARG:CZ	1:E:146:GLU:CD	2.86	0.43
1:C:151:ASN:HB3	1:C:207:VAL:HG22	2.00	0.43
1:G:153:ASN:O	1:G:156:LYS:HB2	2.18	0.43
1:E:39:PHE:HD1	1:E:261:ARG:HH22	1.61	0.43
1:J:84:ARG:HH11	1:J:84:ARG:HG3	1.82	0.43
1:J:85:ASP:CG	1:J:89:GLN:HB3	2.39	0.43
1:K:40:GLU:O	1:K:279:LYS:HB2	2.17	0.43
1:H:66:TYR:HE2	1:H:100:TYR:HH	1.64	0.43
1:D:113:LYS:HE3	1:D:270:GLU:O	2.18	0.43
1:J:171:LEU:HB3	1:K:185:ILE:HD13	2.00	0.43
1:A:222:MET:HB3	1:A:227:GLN:HG3	2.00	0.43
1:B:213:GLN:O	1:B:216:ALA:N	2.51	0.43
1:B:140:GLU:OE2	1:B:143:GLU:OE1	2.36	0.43
1:C:192:ASP:O	1:C:194:ASP:N	2.51	0.43
1:L:30:TYR:CE2	1:L:218:TRP:HH2	2.36	0.43
1:H:140:GLU:OE2	1:I:145:LYS:NZ	2.49	0.43
1:E:257:PHE:O	1:E:259:LYS:N	2.52	0.43
1:E:93:PHE:HB3	1:E:104:PHE:CG	2.53	0.43
1:F:47:THR:CG2	1:F:73:TYR:H	2.26	0.43
1:F:98:PRO:C	1:F:100:TYR:N	2.70	0.43
1:C:260:SER:O	1:C:261:ARG:C	2.57	0.43
1:C:261:ARG:HD2	1:C:278:VAL:HG13	2.00	0.43
1:G:172:LYS:HA	1:G:175:TYR:HB2	2.01	0.43
1:H:89:GLN:NE2	1:H:90:ALA:O	2.51	0.43
1:K:90:ALA:CB	1:K:106:LEU:HD12	2.48	0.43
1:L:48:ILE:HD11	1:L:74:ILE:N	2.33	0.43
1:K:247:ASP:CA	1:K:250:ILE:HG12	2.48	0.43
1:C:162:ARG:NH1	1:C:197:GLU:OE1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:76:CYS:HG	1:G:100:TYR:HE2	1.62	0.43
1:D:177:GLN:HE22	1:D:184:VAL:CG1	2.31	0.43
1:G:80:LEU:N	1:G:80:LEU:HD23	2.33	0.43
1:H:256:VAL:CG1	1:I:33:SER:HB3	2.41	0.43
1:C:169:LEU:HB3	1:C:186:PHE:CE1	2.54	0.43
1:H:225:LYS:HB2	1:H:225:LYS:HE3	1.72	0.43
1:A:185:ILE:HD13	1:L:171:LEU:HB3	2.00	0.43
1:G:34:LEU:O	1:G:37:GLN:NE2	2.51	0.43
1:H:27:TYR:O	1:H:31:LEU:HG	2.18	0.43
1:H:49:ASN:OD1	1:H:52:PHE:HB3	2.17	0.43
1:E:124:ASN:OD1	1:E:128:PHE:HB2	2.17	0.43
1:I:248:GLU:O	1:I:252:SER:CB	2.66	0.43
1:I:88:ASN:O	1:I:89:GLN:C	2.57	0.43
1:E:169:LEU:HD12	1:E:187:ALA:O	2.19	0.43
1:F:13:ASN:O	1:F:16:GLN:HB3	2.18	0.43
1:D:125:ASP:O	1:D:126:MET:O	2.36	0.43
1:D:274:LEU:CD1	1:D:275:ASN:H	2.31	0.43
1:D:62:TYR:CE2	1:D:80:LEU:HD21	2.53	0.43
1:B:226:LEU:O	1:B:226:LEU:HG	2.18	0.43
1:D:105:LYS:CD	1:D:105:LYS:N	2.81	0.43
1:J:179:GLU:HB3	1:J:181:ASN:ND2	2.33	0.43
1:K:115:GLU:O	1:K:116:ASP:CB	2.65	0.43
1:K:163:ALA:HB3	1:L:187:ALA:CB	2.36	0.43
1:G:128:PHE:HA	1:G:129:PRO:HD3	1.75	0.43
1:D:131:THR:N	1:D:132:PRO:HD2	2.33	0.43
1:G:203:ALA:O	1:G:204:PRO:C	2.56	0.43
1:F:102:LYS:O	1:F:103:GLU:OE2	2.36	0.43
1:C:260:SER:O	1:C:263:GLU:N	2.51	0.43
1:C:276:VAL:C	1:C:277:LYS:HD3	2.39	0.43
1:C:43:ASN:HB3	1:C:44:LEU:H	1.60	0.43
1:E:177:GLN:O	1:E:179:GLU:N	2.51	0.43
1:H:90:ALA:HB3	1:H:106:LEU:HD12	1.99	0.43
1:F:15:ILE:O	1:F:18:GLN:N	2.48	0.43
1:L:66:TYR:HD1	1:L:117:MET:SD	2.41	0.43
1:D:42:GLU:HB3	1:D:277:LYS:HD2	1.98	0.43
1:B:179:GLU:CB	1:L:11:SER:HA	2.44	0.43
1:G:249:GLN:O	1:G:252:SER:HB2	2.19	0.43
1:E:20:ARG:CG	1:E:146:GLU:HG3	2.47	0.43
1:I:167:ASN:OD1	1:I:168:GLN:N	2.52	0.43
1:L:60:PHE:O	1:L:61:GLY:O	2.37	0.43
1:H:266:GLU:O	1:H:270:GLU:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:66:TYR:O	1:K:74:ILE:HG22	2.18	0.43
1:C:137:PHE:C	1:C:139:ALA:N	2.71	0.43
1:E:131:THR:N	1:E:132:PRO:HD2	2.33	0.43
1:L:134:LEU:O	1:L:138:ALA:HB2	2.18	0.43
1:I:56:SER:HB3	1:I:63:VAL:HG21	1.99	0.43
1:C:269:ASN:OD1	1:C:274:LEU:HA	2.19	0.43
1:H:62:TYR:O	1:H:63:VAL:CB	2.66	0.43
1:K:57:ILE:HG12	1:K:63:VAL:HG11	2.00	0.43
1:L:40:GLU:HB2	1:L:281:ARG:HB2	2.00	0.43
1:L:226:LEU:HD13	1:L:251:ASP:OD1	2.19	0.43
1:B:108:ASN:CB	1:B:267:LYS:O	2.66	0.43
1:B:275:ASN:O	1:B:275:ASN:OD1	2.37	0.43
1:B:39:PHE:HZ	1:B:257:PHE:CB	2.31	0.43
1:J:177:GLN:C	1:J:179:GLU:H	2.20	0.43
1:G:269:ASN:ND2	1:G:275:ASN:CB	2.80	0.43
1:G:16:GLN:NE2	1:G:20:ARG:CG	2.80	0.43
1:D:174:VAL:C	1:D:176:ASN:N	2.71	0.43
1:A:222:MET:CA	1:A:227:GLN:HG3	2.48	0.43
1:A:38:LEU:O	1:A:39:PHE:CB	2.66	0.43
1:C:168:GLN:CD	1:C:169:LEU:N	2.72	0.43
1:H:113:LYS:HD3	1:H:114:GLU:O	2.18	0.43
1:H:145:LYS:HB2	1:H:214:LYS:NZ	2.33	0.43
1:E:261:ARG:O	1:E:264:ALA:N	2.52	0.43
1:E:98:PRO:O	1:E:99:VAL:CB	2.66	0.43
1:I:52:PHE:O	1:I:56:SER:HB2	2.19	0.43
1:I:80:LEU:HB3	1:I:90:ALA:CB	2.48	0.43
1:J:91:THR:N	1:J:106:LEU:HD12	2.33	0.43
1:C:268:ILE:HB	1:C:271:LEU:CD2	2.45	0.43
1:H:53:LEU:CD2	1:H:53:LEU:C	2.87	0.43
1:L:39:PHE:O	1:L:54:GLU:OE2	2.37	0.43
1:D:128:PHE:HA	1:D:129:PRO:HD3	1.66	0.43
1:D:265:CYS:O	1:D:269:ASN:N	2.36	0.43
1:D:39:PHE:CD1	1:D:258:LEU:HD12	2.54	0.43
1:D:57:ILE:O	1:D:61:GLY:HA2	2.19	0.43
1:B:109:TYR:HA	1:B:270:GLU:CD	2.39	0.43
1:J:182:ALA:HB1	1:J:183:PRO:HD2	2.01	0.43
1:G:52:PHE:O	1:G:56:SER:OG	2.36	0.43
1:I:269:ASN:CG	1:I:276:VAL:HG22	2.38	0.43
1:I:223:THR:HG23	1:I:250:ILE:HG13	2.01	0.43
1:H:115:GLU:O	1:H:117:MET:N	2.44	0.43
1:H:43:ASN:CG	1:H:275:ASN:OD1	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:18:GLN:O	1:A:18:GLN:HG2	2.18	0.43
1:K:150:VAL:HG11	1:L:156:LYS:HG2	2.01	0.43
1:K:201:THR:O	1:K:201:THR:CG2	2.67	0.43
1:B:215:ASN:O	1:B:219:ASN:OD1	2.37	0.43
1:E:257:PHE:O	1:E:258:LEU:C	2.57	0.43
1:E:259:LYS:NZ	1:F:281:ARG:NH1	2.66	0.43
1:E:63:VAL:CG1	1:E:63:VAL:O	2.67	0.43
1:I:268:ILE:O	1:I:271:LEU:HB3	2.18	0.43
1:J:223:THR:C	1:J:225:LYS:H	2.22	0.43
1:C:43:ASN:HB2	1:C:277:LYS:CE	2.48	0.43
1:C:60:PHE:N	1:C:129:PRO:HB3	2.33	0.43
1:H:177:GLN:C	1:H:179:GLU:N	2.71	0.43
1:H:63:VAL:HG13	1:H:65:PHE:HE1	1.84	0.43
1:A:40:GLU:CD	1:A:279:LYS:HZ3	2.22	0.43
1:K:62:TYR:CE1	1:K:127:ALA:HB1	2.54	0.43
1:D:85:ASP:OD2	1:D:85:ASP:C	2.57	0.43
1:K:275:ASN:ND2	1:K:277:LYS:CE	2.80	0.43
1:L:168:GLN:CD	1:L:169:LEU:HG	2.39	0.43
1:D:171:LEU:O	1:D:172:LYS:CB	2.66	0.43
1:G:113:LYS:HE3	1:G:271:LEU:HA	2.01	0.43
1:C:168:GLN:CD	1:C:168:GLN:C	2.77	0.43
1:G:38:LEU:HD11	1:G:225:LYS:CB	2.42	0.43
1:E:109:TYR:O	1:E:111:ASP:N	2.45	0.43
1:D:216:ALA:O	1:D:217:VAL:C	2.58	0.43
1:B:35:ALA:C	1:B:37:GLN:N	2.72	0.43
1:D:14:GLU:O	1:D:17:ARG:N	2.47	0.43
1:H:18:GLN:O	1:H:21:ASN:HB2	2.18	0.43
1:E:129:PRO:O	1:E:132:PRO:HD2	2.19	0.43
1:I:136:LEU:HD13	1:J:22:ARG:HD2	2.00	0.43
1:F:44:LEU:HB3	1:F:48:ILE:HD11	2.00	0.43
1:A:123:ASN:ND2	1:A:130:THR:OG1	2.50	0.43
1:L:62:TYR:O	1:L:121:ILE:O	2.36	0.43
1:G:105:LYS:CE	1:G:105:LYS:H	2.32	0.43
1:I:226:LEU:C	1:I:227:GLN:HG2	2.39	0.43
1:I:168:GLN:HE22	1:I:169:LEU:CD2	2.32	0.43
1:C:259:LYS:HG3	1:D:281:ARG:HH21	1.78	0.43
1:C:106:LEU:CD2	1:C:120:VAL:HG13	2.43	0.43
1:E:148:ILE:O	1:E:152:GLN:HG3	2.19	0.43
1:F:24:PHE:CZ	1:F:28:LEU:HD12	2.53	0.43
1:D:248:GLU:HB3	1:E:282:TYR:CD2	2.54	0.43
1:E:44:LEU:O	1:E:45:PRO:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:47:THR:HB	1:E:73:TYR:O	2.19	0.43
1:F:271:LEU:O	1:F:272:TYR:CB	2.67	0.43
1:I:90:ALA:O	1:I:106:LEU:HD12	2.19	0.43
1:H:71:ILE:C	1:H:74:ILE:HD11	2.39	0.43
1:B:108:ASN:HD21	1:B:119:VAL:HG21	1.79	0.43
1:K:273:GLY:O	1:K:274:LEU:O	2.37	0.43
1:K:43:ASN:HB3	1:K:277:LYS:CE	2.48	0.43
1:A:74:ILE:HG12	1:A:75:ALA:H	1.82	0.43
1:E:86:VAL:CG1	1:E:87:TYR:N	2.73	0.43
1:A:158:PRO:O	1:A:159:VAL:CB	2.57	0.43
1:F:38:LEU:HD11	1:F:225:LYS:HB2	1.99	0.43
1:G:107:TYR:O	1:G:108:ASN:HB3	2.19	0.43
1:I:266:GLU:CA	1:I:269:ASN:HD22	2.23	0.43
1:B:58:HIS:C	1:B:59:GLN:O	2.57	0.43
1:H:151:ASN:O	1:H:155:GLN:NE2	2.42	0.43
1:K:191:LEU:HD23	1:K:191:LEU:N	2.33	0.43
1:D:16:GLN:O	1:D:20:ARG:HG3	2.18	0.43
1:C:252:SER:C	1:C:254:GLY:N	2.72	0.43
1:I:14:GLU:C	1:I:16:GLN:N	2.71	0.43
1:L:103:GLU:O	1:L:103:GLU:HG3	2.18	0.43
1:E:38:LEU:HD11	1:E:225:LYS:CE	2.48	0.42
1:E:39:PHE:CD1	1:E:261:ARG:NH1	2.83	0.42
1:E:66:TYR:HD2	1:E:68:ASP:HB2	1.84	0.42
1:E:125:ASP:OD2	1:F:55:LYS:HD3	2.19	0.42
1:F:67:LYS:HB3	1:F:117:MET:HE1	2.01	0.42
1:I:110:ARG:HG2	1:J:46:PRO:CG	2.48	0.42
1:E:171:LEU:C	1:E:173:GLN:N	2.72	0.42
1:E:179:GLU:HG3	1:E:180:GLY:N	2.34	0.42
1:A:109:TYR:CG	1:A:110:ARG:N	2.87	0.42
1:L:66:TYR:OH	1:L:116:ASP:HA	2.19	0.42
1:D:271:LEU:HA	1:D:271:LEU:HD23	1.79	0.42
1:D:87:TYR:O	1:D:88:ASN:HB3	2.19	0.42
1:B:225:LYS:HB3	1:B:257:PHE:HE1	1.83	0.42
1:B:87:TYR:CZ	1:C:49:ASN:HB3	2.53	0.42
1:D:164:ASN:O	1:D:164:ASN:CG	2.57	0.42
1:D:169:LEU:HA	1:D:169:LEU:HD23	1.80	0.42
1:E:84:ARG:O	1:E:85:ASP:C	2.56	0.42
1:G:142:ALA:O	1:G:146:GLU:HB2	2.19	0.42
1:B:53:LEU:HD11	1:B:121:ILE:CD1	2.42	0.42
1:H:43:ASN:C	1:H:277:LYS:HZ1	2.22	0.42
1:K:210:LEU:CD2	1:L:205:TYR:HE1	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:177:GLN:O	1:L:178:TYR:O	2.37	0.42
1:K:74:ILE:HG13	1:K:75:ALA:N	2.33	0.42
1:A:162:ARG:CZ	1:B:193:SER:HA	2.49	0.42
1:I:25:ILE:HG22	1:I:29:ASN:ND2	2.34	0.42
1:F:68:ASP:HB3	1:F:69:PRO:CD	2.43	0.42
1:I:112:MET:O	1:I:113:LYS:CB	2.54	0.42
1:J:226:LEU:O	1:J:227:GLN:CG	2.66	0.42
1:J:248:GLU:O	1:J:250:ILE:N	2.53	0.42
1:J:41:TRP:CH2	1:J:261:ARG:HB3	2.54	0.42
1:J:57:ILE:HG12	1:J:63:VAL:HG11	2.00	0.42
1:J:87:TYR:O	1:J:88:ASN:CB	2.68	0.42
1:C:279:LYS:HD2	1:C:281:ARG:H	1.85	0.42
1:C:30:TYR:CZ	1:C:34:LEU:HD11	2.53	0.42
1:H:68:ASP:HA	1:H:69:PRO:HD2	1.85	0.42
1:A:44:LEU:HD13	1:A:48:ILE:HG22	2.01	0.42
1:K:124:ASN:N	1:K:260:SER:OG	2.51	0.42
1:L:258:LEU:O	1:L:259:LYS:C	2.58	0.42
1:D:35:ALA:HB2	1:D:225:LYS:NZ	2.32	0.42
1:B:269:ASN:HD21	1:B:275:ASN:H	1.60	0.42
1:B:87:TYR:CD2	1:C:49:ASN:HB3	2.54	0.42
1:C:57:ILE:HG12	1:C:63:VAL:HB	2.02	0.42
1:J:173:GLN:O	1:J:176:ASN:HB2	2.19	0.42
1:F:159:VAL:HA	1:F:199:PHE:O	2.20	0.42
1:F:257:PHE:O	1:F:261:ARG:HD2	2.19	0.42
1:A:280:PHE:HB3	1:A:283:ASP:HB2	2.01	0.42
1:G:86:VAL:HG13	1:G:87:TYR:CD1	2.54	0.42
1:A:151:ASN:O	1:A:155:GLN:NE2	2.36	0.42
1:A:15:ILE:HG22	1:A:15:ILE:O	2.19	0.42
1:C:171:LEU:C	1:C:173:GLN:N	2.59	0.42
1:B:62:TYR:CZ	1:B:79:ALA:HA	2.53	0.42
1:G:278:VAL:HG12	1:G:279:LYS:N	2.34	0.42
1:H:259:LYS:O	1:H:260:SER:C	2.56	0.42
1:B:134:LEU:O	1:B:138:ALA:HB2	2.19	0.42
1:E:63:VAL:HG12	1:E:121:ILE:HB	2.00	0.42
1:E:98:PRO:O	1:E:99:VAL:HB	2.19	0.42
1:I:104:PHE:CD1	1:I:118:GLY:HA3	2.54	0.42
1:J:281:ARG:NH1	1:J:281:ARG:HG3	2.33	0.42
1:J:47:THR:HG21	1:J:72:SER:CB	2.48	0.42
1:E:168:GLN:HB3	1:E:188:HIS:CG	2.54	0.42
1:F:172:LYS:NZ	1:G:179:GLU:OE1	2.46	0.42
1:K:120:VAL:HG11	1:K:122:TYR:CZ	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:67:LYS:N	1:L:117:MET:SD	2.86	0.42
1:C:109:TYR:O	1:C:112:MET:HG3	2.19	0.42
1:F:158:PRO:HG2	1:F:158:PRO:O	2.20	0.42
1:A:222:MET:CB	1:A:227:GLN:HG3	2.49	0.42
1:C:172:LYS:HB2	1:D:185:ILE:HD12	2.02	0.42
1:H:109:TYR:CZ	1:I:46:PRO:HB2	2.53	0.42
1:B:151:ASN:OD1	1:B:207:VAL:HG23	2.19	0.42
1:E:144:LEU:O	1:E:148:ILE:HG13	2.18	0.42
1:F:168:GLN:CD	1:F:169:LEU:N	2.72	0.42
1:B:35:ALA:O	1:B:37:GLN:N	2.52	0.42
1:G:132:PRO:O	1:G:133:THR:C	2.57	0.42
1:C:23:TRP:O	1:C:27:TYR:CD1	2.72	0.42
1:E:264:ALA:O	1:E:265:CYS:C	2.57	0.42
1:E:75:ALA:O	1:E:76:CYS:O	2.37	0.42
1:G:48:ILE:N	1:G:48:ILE:HD13	2.34	0.42
1:I:44:LEU:HD13	1:I:48:ILE:HG21	2.01	0.42
1:I:98:PRO:O	1:I:99:VAL:CB	2.67	0.42
1:J:41:TRP:HE3	1:J:277:LYS:HE2	1.84	0.42
1:B:124:ASN:ND2	1:B:125:ASP:O	2.53	0.42
1:C:274:LEU:CD2	1:C:276:VAL:H	2.06	0.42
1:L:66:TYR:CD2	1:L:104:PHE:CD1	3.07	0.42
1:L:66:TYR:HB2	1:L:104:PHE:CE2	2.54	0.42
1:C:227:GLN:C	1:C:228:THR:O	2.56	0.42
1:C:109:TYR:CE1	1:D:47:THR:HA	2.55	0.42
1:G:52:PHE:C	1:G:52:PHE:HD2	2.23	0.42
1:G:44:LEU:HD23	1:G:275:ASN:OD1	2.19	0.42
1:K:164:ASN:O	1:L:189:GLU:HA	2.19	0.42
1:D:170:SER:HB3	1:D:173:GLN:HB3	2.01	0.42
1:I:224:PHE:HB3	1:I:225:LYS:HD2	2.00	0.42
1:H:265:CYS:HA	1:H:268:ILE:CD1	2.48	0.42
1:A:14:GLU:C	1:A:16:GLN:N	2.72	0.42
1:K:213:GLN:HG2	1:L:208:ASP:OD1	2.19	0.42
1:I:39:PHE:O	1:I:54:GLU:OE2	2.38	0.42
1:J:203:ALA:O	1:J:204:PRO:C	2.55	0.42
1:F:209:LYS:O	1:F:212:ALA:HB3	2.19	0.42
1:H:276:VAL:O	1:H:276:VAL:HG23	2.19	0.42
1:F:48:ILE:HG22	1:F:74:ILE:CA	2.49	0.42
1:H:87:TYR:CE1	1:I:49:ASN:HB2	2.54	0.42
1:J:87:TYR:CD1	1:K:49:ASN:HB3	2.54	0.42
1:J:89:GLN:HG3	1:J:90:ALA:N	2.24	0.42
1:F:172:LYS:HA	1:F:172:LYS:HD2	1.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:ARG:HE	1:A:111:ASP:H	1.68	0.42
1:D:169:LEU:CD1	1:D:187:ALA:O	2.68	0.42
1:G:56:SER:O	1:G:57:ILE:HG13	2.20	0.42
1:G:41:TRP:O	1:G:277:LYS:CG	2.67	0.42
1:F:264:ALA:C	1:F:266:GLU:N	2.73	0.42
1:F:35:ALA:O	1:F:38:LEU:CD2	2.67	0.42
1:A:20:ARG:NE	1:A:146:GLU:CD	2.72	0.42
1:L:213:GLN:O	1:L:216:ALA:HB3	2.18	0.42
1:F:62:TYR:CD1	1:F:62:TYR:N	2.87	0.42
1:D:49:ASN:HA	1:D:50:PRO:HD2	1.56	0.42
1:L:50:PRO:O	1:L:51:SER:C	2.57	0.42
1:E:253:SER:HA	1:E:256:VAL:HG23	2.01	0.42
1:F:269:ASN:ND2	1:F:274:LEU:O	2.53	0.42
1:I:273:GLY:O	1:I:274:LEU:CG	2.64	0.42
1:J:264:ALA:O	1:J:265:CYS:C	2.56	0.42
1:C:48:ILE:CD1	1:C:65:PHE:CE1	3.03	0.42
1:H:93:PHE:HB2	1:H:106:LEU:CD2	2.35	0.42
1:L:117:MET:HG2	1:L:271:LEU:HD23	1.98	0.42
1:B:248:GLU:OE2	1:C:226:LEU:HG	2.20	0.42
1:D:107:TYR:HA	1:D:267:LYS:HD3	2.01	0.42
1:D:125:ASP:O	1:D:126:MET:C	2.55	0.42
1:D:42:GLU:CB	1:D:277:LYS:CD	2.95	0.42
1:D:104:PHE:HA	1:D:105:LYS:NZ	2.34	0.42
1:K:41:TRP:HB3	1:K:277:LYS:HZ2	1.84	0.42
1:J:186:PHE:CD2	1:J:196:ILE:HD11	2.54	0.42
1:G:66:TYR:CD1	1:G:104:PHE:CD2	3.07	0.42
1:G:16:GLN:NE2	1:G:16:GLN:CA	2.83	0.42
1:K:164:ASN:OD1	1:L:191:LEU:O	2.37	0.42
1:C:172:LYS:O	1:C:176:ASN:OD1	2.36	0.42
1:I:247:ASP:O	1:I:251:ASP:HB2	2.20	0.42
1:G:249:GLN:HE21	1:H:222:MET:CE	2.33	0.42
1:H:225:LYS:O	1:H:226:LEU:HB3	2.19	0.42
1:F:93:PHE:HB3	1:F:104:PHE:CZ	2.55	0.42
1:F:107:TYR:HD1	1:F:267:LYS:HD3	1.85	0.42
1:I:113:LYS:O	1:I:114:GLU:HB3	2.20	0.42
1:I:66:TYR:OH	1:I:69:PRO:HD3	2.20	0.42
1:E:162:ARG:NH1	1:E:197:GLU:OE1	2.53	0.42
1:A:43:ASN:HD21	1:A:276:VAL:HG12	1.84	0.42
1:K:255:THR:O	1:K:259:LYS:HB2	2.20	0.42
1:K:107:TYR:CD2	1:K:107:TYR:N	2.87	0.42
1:K:92:VAL:HG13	1:K:93:PHE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:66:TYR:CD1	1:L:117:MET:SD	3.12	0.42
1:C:53:LEU:HD11	1:C:121:ILE:CD1	2.46	0.42
1:D:165:ASP:O	1:D:166:ASN:C	2.58	0.42
1:G:277:LYS:N	1:G:277:LYS:CD	2.81	0.42
1:G:16:GLN:HG3	1:G:20:ARG:CD	2.48	0.42
1:F:178:TYR:O	1:F:179:GLU:C	2.56	0.42
1:K:192:ASP:O	1:K:194:ASP:N	2.53	0.42
1:A:152:GLN:C	1:A:154:ALA:N	2.73	0.42
1:H:262:GLU:HB3	1:H:278:VAL:HG12	2.02	0.42
1:K:97:SER:OG	1:K:98:PRO:HD2	2.19	0.42
1:J:12:ILE:O	1:J:13:ASN:ND2	2.53	0.42
1:B:47:THR:CG2	1:B:73:TYR:HB2	2.49	0.42
1:K:68:ASP:O	1:K:70:VAL:N	2.53	0.42
1:I:35:ALA:O	1:I:38:LEU:HG	2.20	0.42
1:H:283:ASP:OD2	1:H:284:ILE:HD12	2.19	0.42
1:A:196:ILE:HG22	1:L:199:PHE:CE2	2.54	0.42
1:E:252:SER:C	1:E:254:GLY:H	2.22	0.42
1:J:145:LYS:O	1:J:145:LYS:HD2	2.20	0.42
1:F:265:CYS:HB2	1:F:275:ASN:O	2.20	0.42
1:B:125:ASP:O	1:B:126:MET:CB	2.63	0.42
1:H:166:ASN:O	1:H:168:GLN:N	2.53	0.42
1:D:89:GLN:HG2	1:D:90:ALA:O	2.18	0.42
1:D:168:GLN:OE1	1:D:169:LEU:HG	2.19	0.42
1:F:224:PHE:CD2	1:F:225:LYS:NZ	2.88	0.42
1:B:158:PRO:O	1:B:159:VAL:HG23	2.19	0.42
1:L:20:ARG:HD3	1:L:146:GLU:CG	2.50	0.42
1:I:188:HIS:HD2	1:I:190:ALA:HB3	1.85	0.42
1:K:66:TYR:CD1	1:K:104:PHE:CD1	3.08	0.42
1:K:45:PRO:HB3	1:K:73:TYR:CD1	2.55	0.42
1:G:150:VAL:HG21	1:H:156:LYS:HG2	2.02	0.42
1:B:252:SER:C	1:B:254:GLY:H	2.23	0.42
1:K:123:ASN:O	1:K:124:ASN:CG	2.59	0.42
1:K:263:GLU:HG3	1:K:263:GLU:H	1.58	0.42
1:L:278:VAL:CG1	1:L:279:LYS:H	2.01	0.42
1:D:79:ALA:CB	1:D:94:ARG:CZ	2.97	0.42
1:F:30:TYR:CD2	1:F:218:TRP:HH2	2.37	0.42
1:A:171:LEU:O	1:A:172:LYS:HB3	2.20	0.42
1:G:226:LEU:O	1:G:227:GLN:CG	2.67	0.42
1:B:62:TYR:HB3	1:B:63:VAL:H	1.26	0.42
1:H:275:ASN:HA	1:H:275:ASN:HD22	1.59	0.42
1:C:259:LYS:HG3	1:D:281:ARG:CZ	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:213:GLN:NE2	1:L:211:ASN:CG	2.66	0.42
1:J:209:LYS:O	1:J:212:ALA:HB3	2.19	0.42
1:K:68:ASP:C	1:K:70:VAL:N	2.73	0.42
1:G:62:TYR:CE2	1:G:78:GLY:O	2.73	0.42
1:J:96:ALA:O	1:J:97:SER:CB	2.68	0.42
1:F:107:TYR:OH	1:F:109:TYR:CE1	2.68	0.42
1:F:277:LYS:O	1:F:278:VAL:HG23	2.19	0.42
1:I:248:GLU:O	1:I:252:SER:OG	2.33	0.42
1:I:274:LEU:HD13	1:I:275:ASN:HB3	1.99	0.42
1:J:102:LYS:HG3	1:J:103:GLU:N	2.35	0.42
1:J:84:ARG:HD3	1:J:84:ARG:HA	1.89	0.42
1:J:85:ASP:H	1:J:89:GLN:N	2.18	0.42
1:H:187:ALA:O	1:H:188:HIS:HB2	2.20	0.42
1:K:39:PHE:CE2	1:K:257:PHE:HB3	2.55	0.42
1:D:258:LEU:HD21	1:D:262:GLU:CG	2.47	0.42
1:D:89:GLN:HG2	1:D:90:ALA:C	2.40	0.42
1:D:89:GLN:CG	1:D:90:ALA:N	2.78	0.42
1:B:43:ASN:HB2	1:B:277:LYS:CE	2.50	0.42
1:B:42:GLU:O	1:B:277:LYS:HG2	2.19	0.42
1:C:52:PHE:O	1:C:56:SER:N	2.49	0.42
1:I:162:ARG:HA	1:J:186:PHE:O	2.20	0.42
1:D:178:TYR:HE1	1:E:181:ASN:ND2	2.17	0.42
1:E:84:ARG:NH1	1:E:90:ALA:CB	2.82	0.42
1:G:20:ARG:HG2	1:G:146:GLU:CG	2.49	0.42
1:A:11:SER:O	1:A:12:ILE:C	2.58	0.42
1:B:179:GLU:OE2	1:L:11:SER:N	2.53	0.42
1:G:124:ASN:HD22	1:G:128:PHE:H	1.68	0.42
1:D:140:GLU:CB	1:D:217:VAL:HG11	2.50	0.42
1:E:31:LEU:HD21	1:E:218:TRP:CZ3	2.55	0.42
1:D:20:ARG:CZ	1:D:146:GLU:CD	2.88	0.42
1:E:38:LEU:HD21	1:E:227:GLN:NE2	2.34	0.41
1:H:86:VAL:HG23	1:H:87:TYR:H	1.85	0.41
1:H:53:LEU:HG	1:H:65:PHE:CE2	2.51	0.41
1:L:278:VAL:CG1	1:L:279:LYS:N	2.70	0.41
1:D:114:GLU:O	1:D:115:GLU:C	2.59	0.41
1:H:13:ASN:HA	1:H:16:GLN:CB	2.50	0.41
1:H:16:GLN:OE1	1:J:179:GLU:O	2.38	0.41
1:F:85:ASP:C	1:F:87:TYR:H	2.23	0.41
1:D:13:ASN:OD1	1:F:179:GLU:HA	2.19	0.41
1:C:175:TYR:HB3	1:D:182:ALA:HB2	2.02	0.41
1:C:66:TYR:CZ	1:C:68:ASP:HA	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:62:TYR:O	1:B:121:ILE:O	2.38	0.41
1:G:255:THR:HG22	1:G:259:LYS:HB2	2.02	0.41
1:H:117:MET:SD	1:H:118:GLY:N	2.93	0.41
1:H:269:ASN:HA	1:H:273:GLY:CA	2.49	0.41
1:A:124:ASN:C	1:A:126:MET:N	2.73	0.41
1:E:129:PRO:C	1:E:132:PRO:HD2	2.41	0.41
1:H:27:TYR:O	1:H:28:LEU:C	2.59	0.41
1:A:64:GLY:HA2	1:A:120:VAL:HA	2.02	0.41
1:G:193:SER:C	1:G:195:SER:H	2.22	0.41
1:E:65:PHE:CG	1:E:268:ILE:HD11	2.54	0.41
1:E:62:TYR:HB3	1:E:63:VAL:H	1.49	0.41
1:E:62:TYR:CE2	1:E:79:ALA:HA	2.53	0.41
1:J:265:CYS:SG	1:J:278:VAL:HG23	2.60	0.41
1:J:274:LEU:HD12	1:J:275:ASN:H	1.85	0.41
1:J:280:PHE:HB3	1:J:281:ARG:H	1.57	0.41
1:J:44:LEU:HA	1:J:45:PRO:HD2	1.92	0.41
1:A:40:GLU:HB2	1:A:281:ARG:CB	2.50	0.41
1:L:275:ASN:O	1:L:275:ASN:OD1	2.37	0.41
1:L:42:GLU:O	1:L:43:ASN:CB	2.55	0.41
1:D:41:TRP:HB3	1:D:44:LEU:HG	2.02	0.41
1:F:158:PRO:C	1:F:159:VAL:HG23	2.39	0.41
1:J:201:THR:CG2	1:J:201:THR:O	2.60	0.41
1:A:85:ASP:OD1	1:A:89:GLN:CB	2.55	0.41
1:D:172:LYS:HB2	1:E:185:ILE:CD1	2.43	0.41
1:G:80:LEU:O	1:G:94:ARG:NE	2.53	0.41
1:G:260:SER:O	1:G:264:ALA:HB3	2.19	0.41
1:F:28:LEU:HD11	1:F:135:GLU:CD	2.40	0.41
1:A:193:SER:HB3	1:L:194:ASP:OD1	2.19	0.41
1:I:21:ASN:O	1:I:22:ARG:C	2.59	0.41
1:E:137:PHE:CD1	1:E:221:MET:SD	3.13	0.41
1:F:91:THR:N	1:F:106:LEU:HD12	2.35	0.41
1:F:108:ASN:O	1:F:109:TYR:HB3	2.19	0.41
1:J:103:GLU:HG2	1:J:104:PHE:H	1.84	0.41
1:C:30:TYR:O	1:C:33:SER:HB3	2.21	0.41
1:A:67:LYS:HG3	1:A:73:TYR:CD2	2.55	0.41
1:L:43:ASN:C	1:L:277:LYS:HE2	2.40	0.41
1:C:227:GLN:O	1:C:228:THR:O	2.38	0.41
1:D:124:ASN:ND2	1:D:125:ASP:CG	2.74	0.41
1:J:161:ILE:HG21	1:J:171:LEU:CD1	2.50	0.41
1:A:66:TYR:HB2	1:A:104:PHE:CE2	2.51	0.41
1:E:118:GLY:O	1:E:119:VAL:CG2	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:41:TRP:O	1:G:42:GLU:CB	2.65	0.41
1:F:35:ALA:HA	1:F:38:LEU:HD21	2.02	0.41
1:D:154:ALA:HB1	1:D:203:ALA:CB	2.50	0.41
1:A:152:GLN:HE22	1:L:144:LEU:HD11	1.85	0.41
1:I:150:VAL:CG1	1:J:156:LYS:HG3	2.48	0.41
1:B:148:ILE:HG22	1:B:152:GLN:HE21	1.85	0.41
1:K:201:THR:HG22	1:K:201:THR:O	2.19	0.41
1:J:213:GLN:HG2	1:K:207:VAL:HG12	2.01	0.41
1:B:136:LEU:CD1	1:C:22:ARG:HD2	2.50	0.41
1:B:97:SER:CB	1:B:98:PRO:CD	2.98	0.41
1:J:137:PHE:HE2	1:J:220:GLU:HB3	1.86	0.41
1:E:275:ASN:HD22	1:E:275:ASN:HA	1.64	0.41
1:E:280:PHE:O	1:E:282:TYR:N	2.53	0.41
1:E:78:GLY:N	1:E:93:PHE:HE2	2.17	0.41
1:F:103:GLU:O	1:F:104:PHE:HB3	2.20	0.41
1:F:48:ILE:HG12	1:F:65:PHE:CZ	2.55	0.41
1:I:277:LYS:HE2	1:I:277:LYS:HB3	1.80	0.41
1:C:115:GLU:O	1:C:116:ASP:CB	2.68	0.41
1:J:128:PHE:HA	1:J:129:PRO:HD3	1.77	0.41
1:B:271:LEU:O	1:B:272:TYR:O	2.38	0.41
1:I:159:VAL:HA	1:I:199:PHE:O	2.20	0.41
1:J:173:GLN:OE1	1:J:176:ASN:ND2	2.53	0.41
1:D:168:GLN:HB3	1:D:188:HIS:CE1	2.54	0.41
1:F:201:THR:CG2	1:H:183:PRO:HG3	2.50	0.41
1:F:85:ASP:C	1:G:99:VAL:HG11	2.40	0.41
1:A:156:LYS:O	1:A:157:THR:HG23	2.21	0.41
1:A:201:THR:HG21	1:C:183:PRO:HG3	2.03	0.41
1:H:262:GLU:OE2	1:H:278:VAL:CG1	2.69	0.41
1:H:123:ASN:ND2	1:H:257:PHE:CD2	2.88	0.41
1:A:248:GLU:O	1:A:249:GLN:CB	2.60	0.41
1:K:148:ILE:HG23	1:K:207:VAL:HG13	2.02	0.41
1:B:221:MET:HE2	1:B:221:MET:O	2.20	0.41
1:C:207:VAL:O	1:C:207:VAL:HG12	2.20	0.41
1:J:34:LEU:HD22	1:J:225:LYS:NZ	2.35	0.41
1:K:109:TYR:HD2	1:K:112:MET:HB2	1.79	0.41
1:D:227:GLN:O	1:D:228:THR:O	2.38	0.41
1:D:269:ASN:N	1:D:269:ASN:HD22	2.17	0.41
1:B:109:TYR:HB3	1:B:110:ARG:H	1.65	0.41
1:G:16:GLN:O	1:G:19:LYS:N	2.54	0.41
1:F:261:ARG:O	1:F:264:ALA:HB3	2.20	0.41
1:B:167:ASN:HB3	1:B:188:HIS:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:108:ASN:ND2	1:H:271:LEU:CD1	2.83	0.41
1:C:159:VAL:HG13	1:C:198:VAL:CG1	2.50	0.41
1:B:105:LYS:NZ	1:B:114:GLU:OE1	2.53	0.41
1:J:192:ASP:O	1:J:194:ASP:N	2.51	0.41
1:E:39:PHE:CG	1:E:261:ARG:NH1	2.83	0.41
1:I:262:GLU:OE2	1:I:278:VAL:CG2	2.69	0.41
1:E:179:GLU:HG3	1:E:180:GLY:H	1.85	0.41
1:H:92:VAL:CG1	1:H:93:PHE:N	2.82	0.41
1:L:43:ASN:HB2	1:L:277:LYS:HZ1	1.85	0.41
1:L:226:LEU:O	1:L:227:GLN:CG	2.68	0.41
1:B:247:ASP:C	1:B:249:GLN:N	2.74	0.41
1:D:107:TYR:CA	1:D:267:LYS:HD3	2.50	0.41
1:D:284:ILE:O	1:D:285:VAL:HG22	2.21	0.41
1:G:104:PHE:CD1	1:G:104:PHE:C	2.93	0.41
1:A:282:TYR:CE2	1:L:248:GLU:HG2	2.55	0.41
1:G:80:LEU:O	1:G:81:SER:HB3	2.21	0.41
1:G:85:ASP:HB3	1:G:89:GLN:CA	2.50	0.41
1:H:114:GLU:HB3	1:H:115:GLU:H	1.59	0.41
1:G:109:TYR:CB	1:G:112:MET:HB2	2.45	0.41
1:L:158:PRO:C	1:L:159:VAL:HG23	2.41	0.41
1:E:116:ASP:O	1:E:117:MET:O	2.38	0.41
1:K:68:ASP:HB3	1:K:71:ILE:HB	2.03	0.41
1:K:48:ILE:CD1	1:K:73:TYR:HB3	2.48	0.41
1:I:152:GLN:O	1:I:155:GLN:HG2	2.20	0.41
1:F:23:TRP:O	1:F:26:HIS:HB3	2.20	0.41
1:E:37:GLN:HG2	1:E:281:ARG:HD2	2.03	0.41
1:F:67:LYS:HD3	1:F:73:TYR:OH	2.20	0.41
1:J:277:LYS:C	1:J:278:VAL:HG23	2.41	0.41
1:C:274:LEU:CD2	1:C:276:VAL:HG23	2.51	0.41
1:H:83:GLN:O	1:H:91:THR:OG1	2.26	0.41
1:K:107:TYR:HD2	1:K:107:TYR:N	2.19	0.41
1:B:108:ASN:HB3	1:B:271:LEU:CD1	2.51	0.41
1:C:109:TYR:HE1	1:D:47:THR:CG2	2.34	0.41
1:E:84:ARG:HD2	1:E:90:ALA:HA	2.02	0.41
1:F:87:TYR:HA	1:G:52:PHE:HE1	1.86	0.41
1:A:282:TYR:CD2	1:L:248:GLU:HG2	2.56	0.41
1:B:177:GLN:CG	1:B:178:TYR:N	2.84	0.41
1:H:221:MET:HE3	1:H:221:MET:HA	2.02	0.41
1:H:259:LYS:C	1:H:261:ARG:N	2.74	0.41
1:I:100:TYR:HH	1:I:102:LYS:HD2	1.83	0.41
1:C:124:ASN:ND2	1:C:126:MET:O	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:124:ASN:ND2	1:C:128:PHE:HB2	2.29	0.41
1:L:154:ALA:C	1:L:156:LYS:N	2.74	0.41
1:A:128:PHE:HA	1:A:129:PRO:HD3	1.96	0.41
1:K:161:ILE:HG21	1:K:171:LEU:HD11	2.02	0.41
1:F:56:SER:O	1:F:57:ILE:C	2.58	0.41
1:G:130:THR:HG22	1:G:134:LEU:HG	2.02	0.41
1:J:21:ASN:O	1:J:22:ARG:C	2.59	0.41
1:J:64:GLY:O	1:J:75:ALA:HA	2.21	0.41
1:B:32:GLN:HB3	1:B:36:TYR:CE2	2.56	0.41
1:E:126:MET:O	1:E:127:ALA:C	2.59	0.41
1:B:125:ASP:HB2	1:B:126:MET:HE1	2.02	0.41
1:K:248:GLU:O	1:K:252:SER:CB	2.69	0.41
1:D:108:ASN:HB2	1:D:112:MET:O	2.20	0.41
1:D:120:VAL:CG2	1:D:122:TYR:CE1	3.01	0.41
1:D:81:SER:O	1:D:90:ALA:HB1	2.21	0.41
1:E:80:LEU:HD22	1:E:90:ALA:CB	2.45	0.41
1:G:275:ASN:O	1:G:277:LYS:CE	2.69	0.41
1:G:86:VAL:CG1	1:G:87:TYR:H	2.32	0.41
1:K:101:GLN:CD	1:K:101:GLN:C	2.79	0.41
1:G:137:PHE:O	1:G:141:LEU:HG	2.20	0.41
1:L:53:LEU:O	1:L:57:ILE:HG13	2.20	0.41
1:L:56:SER:CB	1:L:63:VAL:HG22	2.50	0.41
1:H:223:THR:HG23	1:H:250:ILE:HD13	2.02	0.41
1:K:203:ALA:O	1:K:204:PRO:C	2.57	0.41
1:J:105:LYS:HD2	1:J:114:GLU:HB2	2.02	0.41
1:G:62:TYR:HE2	1:G:78:GLY:O	2.03	0.41
1:J:20:ARG:HG2	1:J:146:GLU:HG3	2.02	0.41
1:H:49:ASN:OD1	1:H:49:ASN:O	2.39	0.41
1:C:213:GLN:O	1:C:216:ALA:HB3	2.21	0.41
1:I:130:THR:O	1:I:134:LEU:HG	2.20	0.41
1:J:141:LEU:O	1:J:214:LYS:HE3	2.21	0.41
1:I:203:ALA:O	1:I:204:PRO:C	2.57	0.41
1:E:62:TYR:HE2	1:E:79:ALA:CA	2.34	0.41
1:E:56:SER:O	1:E:59:GLN:O	2.39	0.41
1:F:45:PRO:HA	1:F:46:PRO:HD2	1.89	0.41
1:I:108:ASN:OD1	1:I:117:MET:HB2	2.21	0.41
1:J:87:TYR:CE1	1:K:49:ASN:HB3	2.56	0.41
1:I:49:ASN:HD22	1:I:52:PHE:H	1.69	0.41
1:C:268:ILE:C	1:C:270:GLU:N	2.71	0.41
1:C:47:THR:HG21	1:C:72:SER:HB3	2.01	0.41
1:A:110:ARG:O	1:A:112:MET:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:107:TYR:CZ	1:A:109:TYR:CE1	3.09	0.41
1:K:57:ILE:HD11	1:K:121:ILE:CG2	2.51	0.41
1:K:60:PHE:O	1:K:61:GLY:C	2.59	0.41
1:L:121:ILE:HD11	1:L:268:ILE:HD11	2.02	0.41
1:K:87:TYR:CD1	1:L:49:ASN:HB3	2.56	0.41
1:D:263:GLU:O	1:D:266:GLU:N	2.54	0.41
1:D:274:LEU:N	1:D:274:LEU:HD12	2.36	0.41
1:D:283:ASP:HB2	1:D:284:ILE:CD1	2.47	0.41
1:B:89:GLN:OE1	1:B:91:THR:N	2.37	0.41
1:J:174:VAL:C	1:J:176:ASN:N	2.73	0.41
1:J:177:GLN:O	1:J:178:TYR:C	2.59	0.41
1:F:201:THR:HG21	1:H:183:PRO:HG3	2.03	0.41
1:A:80:LEU:HD22	1:A:90:ALA:HB2	2.02	0.41
1:G:74:ILE:HD13	1:G:100:TYR:CZ	2.56	0.41
1:G:274:LEU:HG	1:G:275:ASN:N	2.36	0.41
1:G:15:ILE:O	1:G:19:LYS:N	2.48	0.41
1:L:164:ASN:HB3	1:L:195:SER:C	2.41	0.41
1:D:174:VAL:C	1:D:176:ASN:H	2.24	0.41
1:D:172:LYS:HA	1:D:175:TYR:HB2	2.02	0.41
1:G:270:GLU:C	1:G:272:TYR:N	2.74	0.41
1:G:85:ASP:OD1	1:G:89:GLN:HB3	2.21	0.41
1:C:147:ILE:HD13	1:D:152:GLN:HB3	2.03	0.41
1:I:128:PHE:HA	1:I:129:PRO:HD3	1.95	0.41
1:D:249:GLN:NE2	1:E:228:THR:HG23	2.36	0.41
1:C:166:ASN:HD21	1:C:170:SER:HA	1.84	0.41
1:E:111:ASP:C	1:E:112:MET:HG2	2.42	0.41
1:L:171:LEU:HD22	1:L:175:TYR:CD1	2.55	0.41
1:G:28:LEU:HD23	1:G:28:LEU:C	2.41	0.41
1:J:144:LEU:CD2	1:K:152:GLN:HG2	2.49	0.41
1:F:144:LEU:O	1:F:148:ILE:HG13	2.21	0.41
1:K:47:THR:HB	1:K:48:ILE:H	1.58	0.41
1:G:120:VAL:HG23	1:G:122:TYR:CE1	2.56	0.41
1:E:147:ILE:HG23	1:F:156:LYS:CG	2.51	0.41
1:G:23:TRP:O	1:G:26:HIS:HB3	2.21	0.41
1:E:252:SER:C	1:E:254:GLY:N	2.74	0.41
1:C:101:GLN:O	1:C:101:GLN:CD	2.59	0.41
1:F:131:THR:N	1:F:132:PRO:HD2	2.36	0.41
1:F:67:LYS:CB	1:F:117:MET:HE1	2.51	0.41
1:J:48:ILE:O	1:J:50:PRO:HD3	2.20	0.41
1:J:67:LYS:HE2	1:J:117:MET:CG	2.50	0.41
1:L:78:GLY:N	1:L:93:PHE:HE2	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:225:LYS:O	1:L:226:LEU:O	2.39	0.41
1:D:108:ASN:OD1	1:D:267:LYS:HG2	2.21	0.41
1:C:62:TYR:O	1:C:63:VAL:HB	2.21	0.41
1:A:93:PHE:HB3	1:A:104:PHE:CB	2.50	0.41
1:E:158:PRO:CB	1:E:200:LYS:NZ	2.79	0.41
1:A:284:ILE:HD12	1:A:284:ILE:HA	1.83	0.41
1:H:269:ASN:C	1:H:271:LEU:N	2.75	0.41
1:K:14:GLU:O	1:K:16:GLN:N	2.54	0.41
1:K:15:ILE:HA	1:K:18:GLN:HB2	2.02	0.41
1:F:82:GLY:O	1:F:83:GLN:O	2.39	0.41
1:E:221:MET:HE3	1:E:224:PHE:HB3	2.02	0.40
1:I:108:ASN:ND2	1:I:270:GLU:C	2.74	0.40
1:I:62:TYR:CE2	1:I:79:ALA:HA	2.42	0.40
1:E:171:LEU:O	1:E:172:LYS:CB	2.69	0.40
1:H:68:ASP:CB	1:H:74:ILE:HD13	2.49	0.40
1:B:250:ILE:H	1:B:250:ILE:HG13	1.72	0.40
1:C:222:MET:HB3	1:C:227:GLN:HB3	2.00	0.40
1:D:109:TYR:O	1:D:110:ARG:C	2.58	0.40
1:D:113:LYS:HD2	1:D:271:LEU:CD2	2.51	0.40
1:B:44:LEU:HD23	1:B:275:ASN:CG	2.41	0.40
1:C:109:TYR:HE1	1:D:47:THR:O	2.03	0.40
1:J:169:LEU:HD13	1:J:186:PHE:CE1	2.55	0.40
1:D:169:LEU:CD1	1:D:188:HIS:HB2	2.51	0.40
1:G:16:GLN:CD	1:G:20:ARG:HD3	2.41	0.40
1:D:172:LYS:C	1:D:174:VAL:N	2.73	0.40
1:F:224:PHE:O	1:F:225:LYS:HB3	2.21	0.40
1:C:147:ILE:HG12	1:D:156:LYS:HD2	2.03	0.40
1:A:172:LYS:NZ	1:B:179:GLU:CD	2.75	0.40
1:L:59:GLN:O	1:L:60:PHE:C	2.59	0.40
1:C:12:ILE:O	1:C:16:GLN:HB2	2.21	0.40
1:D:210:LEU:CD2	1:E:205:TYR:HE1	2.33	0.40
1:D:213:GLN:O	1:D:217:VAL:HG23	2.21	0.40
1:G:183:PRO:O	1:G:185:ILE:HG13	2.21	0.40
1:C:82:GLY:O	1:C:83:GLN:C	2.59	0.40
1:C:151:ASN:O	1:C:152:GLN:C	2.60	0.40
1:F:258:LEU:HD11	1:F:262:GLU:OE2	2.21	0.40
1:E:42:GLU:O	1:E:277:LYS:NZ	2.36	0.40
1:E:45:PRO:HG3	1:E:73:TYR:CD1	2.56	0.40
1:F:117:MET:HG3	1:F:118:GLY:H	1.75	0.40
1:I:106:LEU:CD2	1:I:120:VAL:HG23	2.45	0.40
1:J:248:GLU:HA	1:K:282:TYR:CE1	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:175:TYR:C	1:E:177:GLN:N	2.72	0.40
1:E:188:HIS:O	1:E:189:GLU:HB3	2.22	0.40
1:D:124:ASN:O	1:D:125:ASP:O	2.40	0.40
1:B:85:ASP:OD1	1:B:89:GLN:HB3	2.21	0.40
1:J:147:ILE:HD11	1:K:153:ASN:CG	2.41	0.40
1:K:266:GLU:O	1:K:267:LYS:C	2.60	0.40
1:K:266:GLU:O	1:K:269:ASN:N	2.54	0.40
1:J:169:LEU:HD13	1:J:186:PHE:CD1	2.56	0.40
1:D:177:GLN:HE22	1:D:184:VAL:HG13	1.87	0.40
1:G:85:ASP:OD1	1:G:89:GLN:OE1	2.39	0.40
1:I:188:HIS:O	1:I:189:GLU:HB3	2.20	0.40
1:C:16:GLN:C	1:C:17:ARG:HD2	2.41	0.40
1:I:39:PHE:HZ	1:I:257:PHE:HB2	1.81	0.40
1:E:54:GLU:OE1	1:E:54:GLU:HA	2.21	0.40
1:E:59:GLN:O	1:E:60:PHE:CD1	2.74	0.40
1:I:85:ASP:OD1	1:I:85:ASP:N	2.54	0.40
1:H:65:PHE:CE2	1:H:75:ALA:CB	3.05	0.40
1:A:41:TRP:CZ3	1:A:278:VAL:HG22	2.57	0.40
1:K:62:TYR:N	1:K:62:TYR:CD1	2.90	0.40
1:K:89:GLN:CD	1:K:90:ALA:N	2.74	0.40
1:L:110:ARG:C	1:L:112:MET:H	2.24	0.40
1:L:93:PHE:CD1	1:L:120:VAL:HG22	2.56	0.40
1:D:66:TYR:HB2	1:D:104:PHE:CE1	2.56	0.40
1:D:68:ASP:HB3	1:D:71:ILE:HG12	2.03	0.40
1:G:41:TRP:O	1:G:277:LYS:HG3	2.21	0.40
1:F:222:MET:O	1:F:227:GLN:HG2	2.21	0.40
1:G:89:GLN:CD	1:G:107:TYR:OH	2.60	0.40
1:I:213:GLN:HG3	1:J:207:VAL:HG11	2.03	0.40
1:E:134:LEU:O	1:E:138:ALA:N	2.45	0.40
1:E:113:LYS:O	1:E:114:GLU:HG2	2.21	0.40
1:G:201:THR:HB	1:H:159:VAL:HG11	2.03	0.40
1:L:158:PRO:O	1:L:158:PRO:HG2	2.21	0.40
1:D:150:VAL:HG21	1:E:156:LYS:HG2	2.04	0.40
1:L:218:TRP:O	1:L:221:MET:HB3	2.21	0.40
1:H:23:TRP:CG	1:H:145:LYS:HG2	2.56	0.40
1:I:144:LEU:HD13	1:I:214:LYS:HA	2.04	0.40
1:I:25:ILE:O	1:I:26:HIS:C	2.58	0.40
1:L:167:ASN:N	1:L:167:ASN:HD22	2.19	0.40
1:A:113:LYS:HD2	1:A:113:LYS:HA	1.86	0.40
1:E:36:TYR:CG	1:E:55:LYS:HD3	2.57	0.40
1:E:42:GLU:OE2	1:E:279:LYS:HE3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:103:GLU:C	1:F:104:PHE:CD1	2.95	0.40
1:J:41:TRP:CB	1:J:277:LYS:HB3	2.52	0.40
1:G:175:TYR:O	1:G:178:TYR:HD2	2.03	0.40
1:A:110:ARG:O	1:A:111:ASP:C	2.59	0.40
1:A:271:LEU:O	1:A:272:TYR:CB	2.69	0.40
1:L:258:LEU:O	1:L:261:ARG:N	2.55	0.40
1:L:104:PHE:CD1	1:L:104:PHE:N	2.81	0.40
1:D:107:TYR:HA	1:D:119:VAL:HG22	2.03	0.40
1:B:117:MET:HB2	1:B:271:LEU:CD1	2.36	0.40
1:D:105:LYS:HE2	1:D:116:ASP:HB3	2.04	0.40
1:H:13:ASN:ND2	1:J:179:GLU:HG2	2.24	0.40
1:A:173:GLN:O	1:A:176:ASN:HB2	2.22	0.40
1:K:97:SER:OG	1:K:99:VAL:CG1	2.67	0.40
1:B:98:PRO:C	1:B:100:TYR:N	2.75	0.40
1:A:162:ARG:NH2	1:A:197:GLU:OE1	2.53	0.40
1:A:253:SER:O	1:A:254:GLY:C	2.59	0.40
1:A:114:GLU:O	1:A:114:GLU:CG	2.69	0.40
1:E:100:TYR:CE2	1:E:102:LYS:HB2	2.56	0.40
1:H:48:ILE:HD13	1:H:65:PHE:CD2	2.57	0.40
1:A:281:ARG:HD3	1:L:255:THR:HG21	2.04	0.40
1:D:227:GLN:OE1	1:D:227:GLN:HA	2.20	0.40
1:B:107:TYR:CD2	1:B:112:MET:SD	3.14	0.40
1:A:68:ASP:HB2	1:A:100:TYR:OH	2.21	0.40
1:E:80:LEU:HB3	1:E:90:ALA:CB	2.51	0.40
1:L:165:ASP:CG	1:L:195:SER:HB2	2.41	0.40
1:H:274:LEU:N	1:H:274:LEU:HD22	2.36	0.40
1:A:125:ASP:O	1:B:55:LYS:NZ	2.46	0.40
1:F:284:ILE:CD1	1:F:284:ILE:H	2.34	0.40
1:J:166:ASN:O	1:J:167:ASN:C	2.59	0.40
1:B:97:SER:CB	1:B:98:PRO:HD3	2.52	0.40
1:F:188:HIS:C	1:F:190:ALA:N	2.75	0.40
1:E:255:THR:O	1:E:256:VAL:C	2.60	0.40
1:D:65:PHE:CD1	1:D:65:PHE:C	2.94	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	253/309 (82%)	170 (67%)	48 (19%)	35 (14%)	0	1
1	B	253/309 (82%)	160 (63%)	49 (19%)	44 (17%)	0	0
1	C	253/309 (82%)	172 (68%)	45 (18%)	36 (14%)	0	1
1	D	253/309 (82%)	150 (59%)	60 (24%)	43 (17%)	0	1
1	E	253/309 (82%)	151 (60%)	50 (20%)	52 (21%)	0	0
1	F	253/309 (82%)	166 (66%)	47 (19%)	40 (16%)	0	1
1	G	253/309 (82%)	160 (63%)	53 (21%)	40 (16%)	0	1
1	H	253/309 (82%)	176 (70%)	41 (16%)	36 (14%)	0	1
1	I	253/309 (82%)	187 (74%)	34 (13%)	32 (13%)	0	2
1	J	253/309 (82%)	175 (69%)	39 (15%)	39 (15%)	0	1
1	K	253/309 (82%)	169 (67%)	46 (18%)	38 (15%)	0	1
1	L	253/309 (82%)	163 (64%)	46 (18%)	44 (17%)	0	0
All	All	3036/3708 (82%)	1999 (66%)	558 (18%)	479 (16%)	0	1

All (479) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	12	ILE
1	A	42	GLU
1	A	92	VAL
1	A	97	SER
1	A	105	LYS
1	A	109	TYR
1	A	110	ARG
1	A	111	ASP
1	A	117	MET
1	A	167	ASN
1	A	194	ASP
1	A	248	GLU

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Mol	Chain	Res	Type
1	A	273	GLY
1	A	274	LEU
1	A	283	ASP
1	A	284	ILE
1	B	43	ASN
1	B	82	GLY
1	B	88	ASN
1	B	97	SER
1	B	99	VAL
1	B	107	TYR
1	B	117	MET
1	B	182	ALA
1	B	226	LEU
1	B	259	LYS
1	B	271	LEU
1	B	272	TYR
1	B	279	LYS
1	C	43	ASN
1	C	63	VAL
1	C	99	VAL
1	C	110	ARG
1	C	111	ASP
1	C	117	MET
1	C	167	ASN
1	C	171	LEU
1	C	172	LYS
1	C	194	ASP
1	C	279	LYS
1	C	283	ASP
1	D	39	PHE
1	D	42	GLU
1	D	61	GLY
1	D	117	MET
1	D	126	MET
1	D	159	VAL
1	D	167	ASN
1	D	194	ASP
1	D	260	SER
1	D	261	ARG
1	D	263	GLU
1	D	274	LEU
1	D	275	ASN

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Mol	Chain	Res	Type
1	D	279	LYS
1	D	284	ILE
1	E	61	GLY
1	E	72	SER
1	E	76	CYS
1	E	86	VAL
1	E	88	ASN
1	E	97	SER
1	E	99	VAL
1	E	102	LYS
1	E	111	ASP
1	E	117	MET
1	E	127	ALA
1	E	165	ASP
1	E	248	GLU
1	E	259	LYS
1	E	275	ASN
1	E	276	VAL
1	F	43	ASN
1	F	51	SER
1	F	60	PHE
1	F	99	VAL
1	F	107	TYR
1	F	112	MET
1	F	171	LEU
1	F	178	TYR
1	F	226	LEU
1	F	278	VAL
1	G	12	ILE
1	G	50	PRO
1	G	88	ASN
1	G	91	THR
1	G	117	MET
1	G	167	ASN
1	G	178	TYR
1	G	189	GLU
1	G	274	LEU
1	G	275	ASN
1	G	278	VAL
1	G	279	LYS
1	H	61	GLY
1	H	97	SER

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Mol	Chain	Res	Type
1	H	117	MET
1	H	167	ASN
1	H	178	TYR
1	H	189	GLU
1	H	209	LYS
1	H	284	ILE
1	I	14	GLU
1	I	43	ASN
1	I	59	GLN
1	I	85	ASP
1	I	95	ALA
1	I	97	SER
1	I	98	PRO
1	I	107	TYR
1	I	109	TYR
1	I	113	LYS
1	I	117	MET
1	I	172	LYS
1	I	194	ASP
1	I	226	LEU
1	I	273	GLY
1	I	278	VAL
1	I	279	LYS
1	J	46	PRO
1	J	61	GLY
1	J	99	VAL
1	J	104	PHE
1	J	107	TYR
1	J	108	ASN
1	J	117	MET
1	J	167	ASN
1	J	171	LEU
1	J	178	TYR
1	J	194	ASP
1	J	248	GLU
1	J	272	TYR
1	J	280	PHE
1	J	284	ILE
1	K	14	GLU
1	K	43	ASN
1	K	60	PHE
1	K	72	SER

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Mol	Chain	Res	Type
1	K	89	GLN
1	K	99	VAL
1	K	158	PRO
1	K	159	VAL
1	K	189	GLU
1	K	193	SER
1	K	194	ASP
1	K	226	LEU
1	K	274	LEU
1	K	278	VAL
1	K	283	ASP
1	L	43	ASN
1	L	60	PHE
1	L	70	VAL
1	L	83	GLN
1	L	109	TYR
1	L	114	GLU
1	L	117	MET
1	L	166	ASN
1	L	178	TYR
1	L	179	GLU
1	L	194	ASP
1	L	226	LEU
1	L	248	GLU
1	L	249	GLN
1	L	272	TYR
1	L	278	VAL
1	L	283	ASP
1	A	41	TRP
1	A	89	GLN
1	A	227	GLN
1	A	249	GLN
1	A	275	ASN
1	B	13	ASN
1	B	26	HIS
1	B	61	GLY
1	B	62	TYR
1	B	124	ASN
1	B	127	ALA
1	B	152	GLN
1	B	159	VAL
1	B	172	LYS

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Mol	Chain	Res	Type
1	B	178	TYR
1	B	189	GLU
1	B	190	ALA
1	B	270	GLU
1	C	16	GLN
1	C	62	TYR
1	C	116	ASP
1	C	129	PRO
1	C	159	VAL
1	C	193	SER
1	C	273	GLY
1	C	278	VAL
1	D	14	GLU
1	D	60	PHE
1	D	107	TYR
1	D	118	GLY
1	D	125	ASP
1	D	181	ASN
1	D	189	GLU
1	D	264	ALA
1	D	265	CYS
1	E	39	PHE
1	E	60	PHE
1	E	68	ASP
1	E	94	ARG
1	E	96	ALA
1	E	101	GLN
1	E	124	ASN
1	E	159	VAL
1	E	188	HIS
1	E	225	LYS
1	E	226	LEU
1	E	249	GLN
1	E	258	LEU
1	E	260	SER
1	E	267	LYS
1	E	268	ILE
1	E	273	GLY
1	E	279	LYS
1	F	39	PHE
1	F	63	VAL
1	F	83	GLN

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Mol	Chain	Res	Type
1	F	193	SER
1	F	224	PHE
1	F	225	LYS
1	F	260	SER
1	G	39	PHE
1	G	57	ILE
1	G	61	GLY
1	G	72	SER
1	G	89	GLN
1	G	108	ASN
1	G	188	HIS
1	G	272	TYR
1	G	281	ARG
1	H	42	GLU
1	H	51	SER
1	H	63	VAL
1	H	88	ASN
1	H	111	ASP
1	H	181	ASN
1	H	188	HIS
1	H	259	LYS
1	H	275	ASN
1	H	278	VAL
1	H	279	LYS
1	I	73	TYR
1	I	125	ASP
1	I	154	ALA
1	I	227	GLN
1	J	13	ASN
1	J	51	SER
1	J	60	PHE
1	J	63	VAL
1	J	82	GLY
1	J	112	MET
1	J	114	GLU
1	J	225	LYS
1	J	249	GLN
1	J	279	LYS
1	K	48	ILE
1	K	61	GLY
1	K	63	VAL
1	K	107	TYR

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Mol	Chain	Res	Type
1	K	116	ASP
1	K	124	ASN
1	K	271	LEU
1	K	279	LYS
1	K	284	ILE
1	L	26	HIS
1	L	39	PHE
1	L	61	GLY
1	L	62	TYR
1	L	63	VAL
1	L	71	ILE
1	L	99	VAL
1	L	102	LYS
1	L	125	ASP
1	L	202	ASP
1	L	266	GLU
1	L	274	LEU
1	L	277	LYS
1	A	43	ASN
1	A	159	VAL
1	A	171	LEU
1	A	277	LYS
1	B	44	LEU
1	B	59	GLN
1	B	153	ASN
1	B	227	GLN
1	B	258	LEU
1	C	42	GLU
1	C	170	SER
1	C	178	TYR
1	C	255	THR
1	C	274	LEU
1	D	44	LEU
1	D	72	SER
1	D	84	ARG
1	D	158	PRO
1	D	193	SER
1	D	226	LEU
1	D	272	TYR
1	E	42	GLU
1	E	166	ASN
1	E	178	TYR

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Mol	Chain	Res	Type
1	E	181	ASN
1	E	281	ARG
1	F	42	GLU
1	F	57	ILE
1	F	67	LYS
1	F	86	VAL
1	F	89	GLN
1	F	108	ASN
1	F	188	HIS
1	F	265	CYS
1	F	279	LYS
1	G	59	GLN
1	G	104	PHE
1	G	116	ASP
1	G	171	LEU
1	G	259	LYS
1	G	263	GLU
1	G	264	ALA
1	H	62	TYR
1	H	94	ARG
1	H	96	ALA
1	H	99	VAL
1	H	109	TYR
1	H	159	VAL
1	H	171	LEU
1	H	172	LYS
1	H	224	PHE
1	H	270	GLU
1	I	46	PRO
1	I	63	VAL
1	I	99	VAL
1	I	189	GLU
1	I	272	TYR
1	I	277	LYS
1	J	39	PHE
1	J	62	TYR
1	J	88	ASN
1	J	193	SER
1	J	275	ASN
1	K	94	ARG
1	K	113	LYS
1	K	125	ASP

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Mol	Chain	Res	Type
1	K	209	LYS
1	L	97	SER
1	L	159	VAL
1	L	279	LYS
1	A	44	LEU
1	A	226	LEU
1	A	272	TYR
1	B	126	MET
1	B	158	PRO
1	B	168	GLN
1	C	83	GLN
1	C	88	ASN
1	C	125	ASP
1	C	227	GLN
1	C	277	LYS
1	D	62	TYR
1	D	121	ILE
1	E	63	VAL
1	E	171	LEU
1	E	195	SER
1	E	263	GLU
1	F	41	TRP
1	F	56	SER
1	F	109	TYR
1	F	159	VAL
1	F	194	ASP
1	G	101	GLN
1	G	159	VAL
1	G	194	ASP
1	H	125	ASP
1	H	127	ALA
1	I	159	VAL
1	I	193	SER
1	J	101	GLN
1	J	159	VAL
1	J	226	LEU
1	J	278	VAL
1	J	283	ASP
1	K	42	GLU
1	K	102	LYS
1	K	227	GLN
1	L	73	TYR

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Mol	Chain	Res	Type
1	L	98	PRO
1	A	99	VAL
1	A	108	ASN
1	A	116	ASP
1	A	255	THR
1	B	39	PHE
1	B	63	VAL
1	B	98	PRO
1	B	108	ASN
1	C	182	ALA
1	C	276	VAL
1	D	26	HIS
1	D	97	SER
1	D	124	ASN
1	D	154	ALA
1	D	258	LEU
1	D	277	LYS
1	E	79	ALA
1	E	107	TYR
1	E	193	SER
1	E	224	PHE
1	E	274	LEU
1	F	49	ASN
1	F	272	TYR
1	G	127	ALA
1	G	165	ASP
1	G	226	LEU
1	G	227	GLN
1	H	39	PHE
1	H	260	SER
1	I	284	ILE
1	J	53	LEU
1	J	97	SER
1	J	281	ARG
1	K	16	GLN
1	K	46	PRO
1	K	127	ALA
1	K	190	ALA
1	L	107	TYR
1	L	111	ASP
1	L	193	SER
1	L	204	PRO

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Mol	Chain	Res	Type
1	L	225	LYS
1	L	265	CYS
1	A	80	LEU
1	A	278	VAL
1	B	260	SER
1	C	226	LEU
1	D	69	PRO
1	E	204	PRO
1	F	46	PRO
1	F	204	PRO
1	G	164	ASN
1	G	193	SER
1	H	226	LEU
1	H	250	ILE
1	I	72	SER
1	K	39	PHE
1	K	47	THR
1	L	68	ASP
1	A	276	VAL
1	B	15	ILE
1	C	284	ILE
1	E	284	ILE
1	G	284	ILE
1	I	158	PRO
1	K	69	PRO
1	L	276	VAL
1	D	15	ILE
1	F	69	PRO
1	H	268	ILE
1	J	12	ILE
1	L	12	ILE
1	B	118	GLY
1	B	129	PRO
1	B	204	PRO
1	C	250	ILE
1	D	12	ILE
1	D	98	PRO
1	E	45	PRO
1	F	97	SER
1	F	158	PRO
1	G	158	PRO
1	C	131	THR

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Mol	Chain	Res	Type
1	E	78	GLY
1	F	98	PRO
1	G	97	SER
1	B	278	VAL
1	F	82	GLY

### 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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	230/278 (83%)	198 (86%)	32 (14%)	4	20
1	B	230/278 (83%)	201 (87%)	29 (13%)	5	26
1	C	230/278 (83%)	199 (86%)	31 (14%)	5	22
1	D	230/278 (83%)	201 (87%)	29 (13%)	5	26
1	E	230/278 (83%)	209 (91%)	21 (9%)	12	42
1	F	230/278 (83%)	196 (85%)	34 (15%)	4	18
1	G	230/278 (83%)	200 (87%)	30 (13%)	5	24
1	H	230/278 (83%)	203 (88%)	27 (12%)	7	30
1	I	230/278 (83%)	202 (88%)	28 (12%)	6	27
1	J	230/278 (83%)	197 (86%)	33 (14%)	4	19
1	K	230/278 (83%)	200 (87%)	30 (13%)	5	24
1	L	230/278 (83%)	203 (88%)	27 (12%)	7	30
All	All	2760/3336 (83%)	2409 (87%)	351 (13%)	5	25

All (351) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	14	GLU
1	A	37	GLN
1	A	51	SER
1	A	53	LEU
1	A	56	SER

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Mol	Chain	Res	Type
1	A	62	TYR
1	A	83	GLN
1	A	84	ARG
1	A	97	SER
1	A	107	TYR
1	A	109	TYR
1	A	111	ASP
1	A	115	GLU
1	A	117	MET
1	A	124	ASN
1	A	131	THR
1	A	143	GLU
1	A	149	SER
1	A	160	LEU
1	A	164	ASN
1	A	166	ASN
1	A	168	GLN
1	A	169	LEU
1	A	173	GLN
1	A	178	TYR
1	A	194	ASP
1	A	213	GLN
1	A	247	ASP
1	A	261	ARG
1	A	274	LEU
1	A	277	LYS
1	A	279	LYS
1	B	28	LEU
1	B	37	GLN
1	B	42	GLU
1	B	60	PHE
1	B	63	VAL
1	B	84	ARG
1	B	88	ASN
1	B	89	GLN
1	B	91	THR
1	B	105	LYS
1	B	108	ASN
1	B	112	MET
1	B	123	ASN
1	B	125	ASP
1	B	160	LEU

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Mol	Chain	Res	Type
1	B	168	GLN
1	B	178	TYR
1	B	179	GLU
1	B	194	ASP
1	B	226	LEU
1	B	247	ASP
1	B	248	GLU
1	B	249	GLN
1	B	250	ILE
1	B	258	LEU
1	B	272	TYR
1	B	277	LYS
1	B	279	LYS
1	B	280	PHE
1	C	13	ASN
1	C	17	ARG
1	C	20	ARG
1	C	28	LEU
1	C	32	GLN
1	C	37	GLN
1	C	44	LEU
1	C	47	THR
1	C	81	SER
1	C	83	GLN
1	C	89	GLN
1	C	105	LYS
1	C	106	LEU
1	C	108	ASN
1	C	111	ASP
1	C	114	GLU
1	C	120	VAL
1	C	124	ASN
1	C	131	THR
1	C	146	GLU
1	C	149	SER
1	C	160	LEU
1	C	166	ASN
1	C	173	GLN
1	C	178	TYR
1	C	213	GLN
1	C	214	LYS
1	C	253	SER

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Mol	Chain	Res	Type
1	C	271	LEU
1	C	277	LYS
1	C	279	LYS
1	D	17	ARG
1	D	28	LEU
1	D	37	GLN
1	D	38	LEU
1	D	42	GLU
1	D	65	PHE
1	D	83	GLN
1	D	84	ARG
1	D	85	ASP
1	D	91	THR
1	D	105	LYS
1	D	107	TYR
1	D	116	ASP
1	D	124	ASN
1	D	125	ASP
1	D	143	GLU
1	D	149	SER
1	D	151	ASN
1	D	158	PRO
1	D	160	LEU
1	D	164	ASN
1	D	200	LYS
1	D	228	THR
1	D	251	ASP
1	D	255	THR
1	D	274	LEU
1	D	276	VAL
1	D	279	LYS
1	D	284	ILE
1	E	37	GLN
1	E	44	LEU
1	E	49	ASN
1	E	63	VAL
1	E	76	CYS
1	E	97	SER
1	E	104	PHE
1	E	105	LYS
1	E	115	GLU
1	E	160	LEU

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Mol	Chain	Res	Type
1	E	173	GLN
1	E	176	ASN
1	E	178	TYR
1	E	181	ASN
1	E	202	ASP
1	E	219	ASN
1	E	225	LYS
1	E	251	ASP
1	E	275	ASN
1	E	277	LYS
1	E	280	PHE
1	F	14	GLU
1	F	17	ARG
1	F	28	LEU
1	F	37	GLN
1	F	38	LEU
1	F	49	ASN
1	F	60	PHE
1	F	62	TYR
1	F	63	VAL
1	F	83	GLN
1	F	101	GLN
1	F	107	TYR
1	F	109	TYR
1	F	111	ASP
1	F	112	MET
1	F	113	LYS
1	F	125	ASP
1	F	126	MET
1	F	160	LEU
1	F	166	ASN
1	F	169	LEU
1	F	173	GLN
1	F	179	GLU
1	F	193	SER
1	F	213	GLN
1	F	225	LYS
1	F	226	LEU
1	F	251	ASP
1	F	261	ARG
1	F	275	ASN
1	F	276	VAL

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Mol	Chain	Res	Type
1	F	277	LYS
1	F	278	VAL
1	F	279	LYS
1	G	16	GLN
1	G	21	ASN
1	G	37	GLN
1	G	52	PHE
1	G	60	PHE
1	G	84	ARG
1	G	85	ASP
1	G	89	GLN
1	G	94	ARG
1	G	97	SER
1	G	102	LYS
1	G	105	LYS
1	G	116	ASP
1	G	133	THR
1	G	146	GLU
1	G	149	SER
1	G	151	ASN
1	G	160	LEU
1	G	165	ASP
1	G	171	LEU
1	G	173	GLN
1	G	179	GLU
1	G	208	ASP
1	G	209	LYS
1	G	226	LEU
1	G	269	ASN
1	G	272	TYR
1	G	275	ASN
1	G	277	LYS
1	G	283	ASP
1	H	12	ILE
1	H	28	LEU
1	H	37	GLN
1	H	43	ASN
1	H	47	THR
1	H	53	LEU
1	H	55	LYS
1	H	60	PHE
1	H	63	VAL

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Mol	Chain	Res	Type
1	H	70	VAL
1	H	101	GLN
1	H	102	LYS
1	H	115	GLU
1	H	117	MET
1	H	123	ASN
1	H	124	ASN
1	H	145	LYS
1	H	146	GLU
1	H	165	ASP
1	H	172	LYS
1	H	173	GLN
1	H	178	TYR
1	H	248	GLU
1	H	249	GLN
1	H	275	ASN
1	H	278	VAL
1	H	281	ARG
1	I	37	GLN
1	I	47	THR
1	I	56	SER
1	I	60	PHE
1	I	85	ASP
1	I	88	ASN
1	I	98	PRO
1	I	101	GLN
1	I	107	TYR
1	I	108	ASN
1	I	109	TYR
1	I	123	ASN
1	I	146	GLU
1	I	160	LEU
1	I	168	GLN
1	I	173	GLN
1	I	178	TYR
1	I	192	ASP
1	I	213	GLN
1	I	225	LYS
1	I	228	THR
1	I	248	GLU
1	I	250	ILE
1	I	251	ASP

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Mol	Chain	Res	Type
1	I	258	LEU
1	I	263	GLU
1	I	272	TYR
1	I	274	LEU
1	J	28	LEU
1	J	32	GLN
1	J	37	GLN
1	J	44	LEU
1	J	49	ASN
1	J	60	PHE
1	J	77	ASN
1	J	85	ASP
1	J	89	GLN
1	J	97	SER
1	J	101	GLN
1	J	104	PHE
1	J	115	GLU
1	J	120	VAL
1	J	123	ASN
1	J	126	MET
1	J	131	THR
1	J	149	SER
1	J	160	LEU
1	J	164	ASN
1	J	168	GLN
1	J	169	LEU
1	J	173	GLN
1	J	194	ASP
1	J	202	ASP
1	J	213	GLN
1	J	226	LEU
1	J	251	ASP
1	J	260	SER
1	J	266	GLU
1	J	269	ASN
1	J	280	PHE
1	J	281	ARG
1	K	13	ASN
1	K	37	GLN
1	K	53	LEU
1	K	60	PHE
1	K	63	VAL

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Mol	Chain	Res	Type
1	K	84	ARG
1	K	85	ASP
1	K	86	VAL
1	K	92	VAL
1	K	107	TYR
1	K	108	ASN
1	K	115	GLU
1	K	125	ASP
1	K	131	THR
1	K	149	SER
1	K	152	GLN
1	K	158	PRO
1	K	160	LEU
1	K	168	GLN
1	K	169	LEU
1	K	173	GLN
1	K	196	ILE
1	K	214	LYS
1	K	228	THR
1	K	250	ILE
1	K	263	GLU
1	K	271	LEU
1	K	274	LEU
1	K	277	LYS
1	K	279	LYS
1	L	28	LEU
1	L	37	GLN
1	L	38	LEU
1	L	42	GLU
1	L	49	ASN
1	L	53	LEU
1	L	68	ASP
1	L	74	ILE
1	L	77	ASN
1	L	84	ARG
1	L	97	SER
1	L	107	TYR
1	L	112	MET
1	L	123	ASN
1	L	160	LEU
1	L	171	LEU
1	L	173	GLN

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Mol	Chain	Res	Type
1	L	176	ASN
1	L	178	TYR
1	L	179	GLU
1	L	183	PRO
1	L	202	ASP
1	L	213	GLN
1	L	249	GLN
1	L	258	LEU
1	L	272	TYR
1	L	277	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (154) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	18	GLN
1	A	32	GLN
1	A	37	GLN
1	A	43	ASN
1	A	59	GLN
1	A	83	GLN
1	A	89	GLN
1	A	124	ASN
1	A	152	GLN
1	A	164	ASN
1	A	166	ASN
1	A	168	GLN
1	A	181	ASN
1	A	269	ASN
1	B	13	ASN
1	B	16	GLN
1	B	29	ASN
1	B	32	GLN
1	B	37	GLN
1	B	88	ASN
1	B	108	ASN
1	B	123	ASN
1	B	152	GLN
1	B	166	ASN
1	B	167	ASN
1	B	176	ASN
1	B	177	GLN
1	B	213	GLN

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Mol	Chain	Res	Type
1	B	249	GLN
1	B	269	ASN
1	B	275	ASN
1	C	13	ASN
1	C	16	GLN
1	C	18	GLN
1	C	32	GLN
1	C	37	GLN
1	C	49	ASN
1	C	83	GLN
1	C	108	ASN
1	C	123	ASN
1	C	152	GLN
1	C	166	ASN
1	C	167	ASN
1	C	219	ASN
1	D	16	GLN
1	D	18	GLN
1	D	29	ASN
1	D	32	GLN
1	D	37	GLN
1	D	59	GLN
1	D	83	GLN
1	D	124	ASN
1	D	164	ASN
1	D	166	ASN
1	D	177	GLN
1	D	213	GLN
1	D	249	GLN
1	D	269	ASN
1	E	16	GLN
1	E	26	HIS
1	E	37	GLN
1	E	108	ASN
1	E	164	ASN
1	E	177	GLN
1	E	181	ASN
1	E	249	GLN
1	E	269	ASN
1	E	275	ASN
1	F	13	ASN
1	F	16	GLN

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Mol	Chain	Res	Type
1	F	18	GLN
1	F	32	GLN
1	F	37	GLN
1	F	49	ASN
1	F	59	GLN
1	F	101	GLN
1	F	108	ASN
1	F	123	ASN
1	F	152	GLN
1	F	166	ASN
1	G	13	ASN
1	G	16	GLN
1	G	26	HIS
1	G	32	GLN
1	G	59	GLN
1	G	152	GLN
1	G	176	ASN
1	G	181	ASN
1	G	213	GLN
1	G	249	GLN
1	G	269	ASN
1	H	13	ASN
1	H	16	GLN
1	H	21	ASN
1	H	32	GLN
1	H	43	ASN
1	H	59	GLN
1	H	89	GLN
1	H	108	ASN
1	H	123	ASN
1	H	177	GLN
1	H	213	GLN
1	H	219	ASN
1	H	269	ASN
1	I	13	ASN
1	I	26	HIS
1	I	29	ASN
1	I	37	GLN
1	I	49	ASN
1	I	58	HIS
1	I	59	GLN
1	I	89	GLN

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Mol	Chain	Res	Type
1	I	101	GLN
1	I	123	ASN
1	I	124	ASN
1	I	164	ASN
1	I	269	ASN
1	J	16	GLN
1	J	32	GLN
1	J	37	GLN
1	J	49	ASN
1	J	77	ASN
1	J	89	GLN
1	J	123	ASN
1	J	153	ASN
1	J	164	ASN
1	J	177	GLN
1	J	213	GLN
1	J	227	GLN
1	K	32	GLN
1	K	37	GLN
1	K	43	ASN
1	K	59	GLN
1	K	83	GLN
1	K	124	ASN
1	K	167	ASN
1	K	168	GLN
1	K	213	GLN
1	K	269	ASN
1	K	275	ASN
1	L	16	GLN
1	L	18	GLN
1	L	21	ASN
1	L	29	ASN
1	L	32	GLN
1	L	37	GLN
1	L	43	ASN
1	L	59	GLN
1	L	77	ASN
1	L	88	ASN
1	L	123	ASN
1	L	153	ASN
1	L	164	ASN
1	L	188	HIS

### 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 [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	257/309 (83%)	0.03	10 (3%) 43 28	1, 7, 33, 38	0
1	B	257/309 (83%)	0.21	13 (5%) 32 18	1, 13, 32, 46	0
1	C	257/309 (83%)	0.31	16 (6%) 24 13	1, 13, 32, 39	0
1	D	257/309 (83%)	0.09	8 (3%) 52 38	1, 16, 35, 43	0
1	E	257/309 (83%)	0.60	35 (13%) 4 2	1, 21, 35, 42	0
1	F	257/309 (83%)	0.25	18 (7%) 19 11	1, 16, 35, 40	0
1	G	257/309 (83%)	0.26	17 (6%) 22 12	1, 14, 36, 51	0
1	H	257/309 (83%)	0.45	24 (9%) 11 6	1, 16, 34, 41	0
1	I	257/309 (83%)	0.03	7 (2%) 58 44	1, 9, 32, 43	0
1	J	257/309 (83%)	0.02	7 (2%) 58 44	1, 9, 30, 43	0
1	K	257/309 (83%)	0.25	12 (4%) 35 22	1, 13, 33, 47	0
1	L	257/309 (83%)	0.04	9 (3%) 48 32	1, 11, 32, 41	0
All	All	3084/3708 (83%)	0.21	176 (5%) 27 15	1, 13, 34, 51	0

All (176) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	H	11	SER	7.6
1	A	11	SER	6.4
1	B	108	ASN	6.2
1	C	11	SER	5.8
1	H	12	ILE	5.6
1	G	11	SER	5.1
1	H	99	VAL	5.1
1	J	11	SER	4.9
1	K	12	ILE	4.8
1	A	12	ILE	4.7
1	C	12	ILE	4.5

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Mol	Chain	Res	Type	RSRZ
1	E	272	TYR	4.4
1	B	12	ILE	4.3
1	B	11	SER	4.3
1	E	275	ASN	4.3
1	F	72	SER	4.2
1	B	109	TYR	4.2
1	J	12	ILE	4.1
1	D	12	ILE	4.1
1	K	11	SER	4.1
1	F	11	SER	4.0
1	L	12	ILE	3.9
1	G	12	ILE	3.9
1	H	283	ASP	3.8
1	J	108	ASN	3.8
1	H	111	ASP	3.8
1	E	118	GLY	3.8
1	E	108	ASN	3.8
1	H	117	MET	3.8
1	H	98	PRO	3.7
1	I	97	SER	3.7
1	E	11	SER	3.6
1	K	247	ASP	3.6
1	C	275	ASN	3.5
1	C	168	GLN	3.5
1	D	42	GLU	3.5
1	E	96	ALA	3.4
1	L	168	GLN	3.4
1	E	71	ILE	3.4
1	H	118	GLY	3.4
1	E	109	TYR	3.4
1	G	167	ASN	3.4
1	D	168	GLN	3.4
1	H	109	TYR	3.4
1	F	99	VAL	3.3
1	E	110	ARG	3.3
1	B	99	VAL	3.3
1	H	65	PHE	3.3
1	I	111	ASP	3.3
1	E	122	TYR	3.3
1	A	109	TYR	3.2
1	K	272	TYR	3.2
1	I	109	TYR	3.2

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Mol	Chain	Res	Type	RSRZ
1	A	167	ASN	3.2
1	H	272	TYR	3.2
1	A	283	ASP	3.1
1	E	111	ASP	3.1
1	E	168	GLN	3.1
1	C	109	TYR	3.1
1	I	13	ASN	3.1
1	H	94	ARG	3.0
1	L	11	SER	3.0
1	F	96	ALA	3.0
1	F	95	ALA	3.0
1	C	97	SER	3.0
1	E	72	SER	3.0
1	E	107	TYR	2.9
1	B	168	GLN	2.9
1	A	108	ASN	2.9
1	E	120	VAL	2.9
1	H	276	VAL	2.9
1	K	168	GLN	2.9
1	I	11	SER	2.9
1	I	168	GLN	2.9
1	K	111	ASP	2.8
1	B	275	ASN	2.8
1	F	12	ILE	2.8
1	G	111	ASP	2.8
1	G	89	GLN	2.7
1	G	178	TYR	2.7
1	L	272	TYR	2.7
1	E	112	MET	2.7
1	F	110	ARG	2.7
1	H	273	GLY	2.6
1	F	13	ASN	2.6
1	G	168	GLN	2.6
1	E	86	VAL	2.6
1	G	85	ASP	2.6
1	B	13	ASN	2.6
1	E	119	VAL	2.6
1	F	169	LEU	2.6
1	G	275	ASN	2.6
1	J	272	TYR	2.6
1	F	168	GLN	2.6
1	C	98	PRO	2.5

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Mol	Chain	Res	Type	RSRZ
1	G	283	ASP	2.5
1	K	13	ASN	2.5
1	E	178	TYR	2.5
1	I	117	MET	2.5
1	D	178	TYR	2.5
1	L	117	MET	2.5
1	C	228	THR	2.5
1	E	42	GLU	2.5
1	E	43	ASN	2.5
1	C	72	SER	2.5
1	D	283	ASP	2.5
1	F	117	MET	2.5
1	F	275	ASN	2.5
1	H	96	ALA	2.4
1	F	62	TYR	2.4
1	C	118	GLY	2.4
1	A	105	LYS	2.4
1	E	65	PHE	2.4
1	F	112	MET	2.4
1	E	64	GLY	2.4
1	C	16	GLN	2.4
1	J	109	TYR	2.4
1	F	108	ASN	2.4
1	A	90	ALA	2.3
1	K	99	VAL	2.3
1	E	45	PRO	2.3
1	G	13	ASN	2.3
1	E	273	GLY	2.3
1	H	86	VAL	2.3
1	K	116	ASP	2.3
1	E	74	ILE	2.3
1	B	251	ASP	2.3
1	E	106	LEU	2.3
1	E	285	VAL	2.3
1	J	110	ARG	2.3
1	L	99	VAL	2.3
1	H	269	ASN	2.3
1	G	248	GLU	2.2
1	K	276	VAL	2.2
1	E	274	LEU	2.2
1	K	62	TYR	2.2
1	G	18	GLN	2.2

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Mol	Chain	Res	Type	RSRZ
1	G	110	ARG	2.2
1	B	276	VAL	2.2
1	G	14	GLU	2.2
1	E	77	ASN	2.2
1	J	276	VAL	2.2
1	F	111	ASP	2.2
1	H	90	ALA	2.2
1	F	167	ASN	2.2
1	H	108	ASN	2.2
1	E	18	GLN	2.1
1	C	69	PRO	2.1
1	B	167	ASN	2.1
1	C	111	ASP	2.1
1	D	169	LEU	2.1
1	D	83	GLN	2.1
1	K	121	ILE	2.1
1	H	116	ASP	2.1
1	L	13	ASN	2.1
1	C	95	ALA	2.1
1	E	105	LYS	2.1
1	C	78	GLY	2.1
1	C	13	ASN	2.1
1	G	86	VAL	2.1
1	B	117	MET	2.1
1	E	278	VAL	2.1
1	H	278	VAL	2.1
1	H	13	ASN	2.1
1	E	47	THR	2.0
1	F	41	TRP	2.0
1	L	100	TYR	2.0
1	E	117	MET	2.0
1	B	226	LEU	2.0
1	G	97	SER	2.0
1	L	193	SER	2.0
1	H	275	ASN	2.0
1	H	119	VAL	2.0
1	A	247	ASP	2.0
1	A	178	TYR	2.0
1	D	47	THR	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

There are no ligands in this entry.

## 6.5 Other polymers [i](#)

There are no such residues in this entry.