



## Full wwPDB EM Validation Report ⓘ

Nov 9, 2022 – 06:20 AM JST

PDB ID : 6IRF  
EMDB ID : EMD-9715  
Title : Structure of the human GluN1/GluN2A NMDA receptor in the glutamate/glycine-bound state at pH 6.3, Class I  
Authors : Zhang, J.; Chang, S.; Zhang, X.; Zhu, S.  
Deposited on : 2018-11-12  
Resolution : 5.10 Å (reported)  
Based on initial models : 4PE5, 5TQ0, 5H8F

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

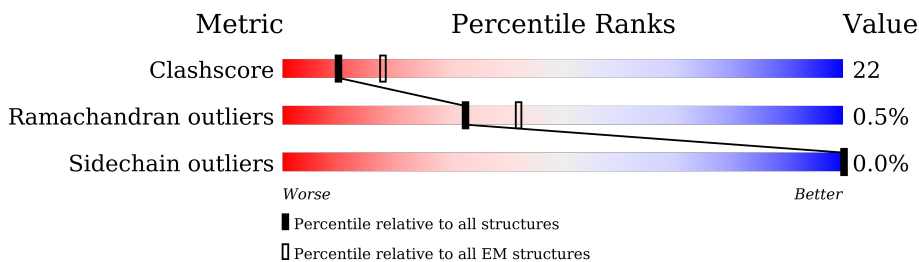
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 5.10 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	847	
1	C	847	
2	B	841	
2	D	841	

## 2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 23912 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Glutamate receptor ionotropic, NMDA 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	787	Total	C	N	O	S	1	0
			6168	3931	1070	1132	35		
1	C	787	Total	C	N	O	S	1	0
			6168	3931	1070	1132	35		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	612	ARG	GLY	engineered mutation	UNP Q05586
C	612	ARG	GLY	engineered mutation	UNP Q05586

- Molecule 2 is a protein called Glutamate receptor ionotropic, NMDA 2A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	752	Total	C	N	O	S	1	0
			5788	3740	950	1062	36		
2	D	752	Total	C	N	O	S	1	0
			5788	3740	950	1062	36		

There are 4 discrepancies between the modelled and reference sequences:

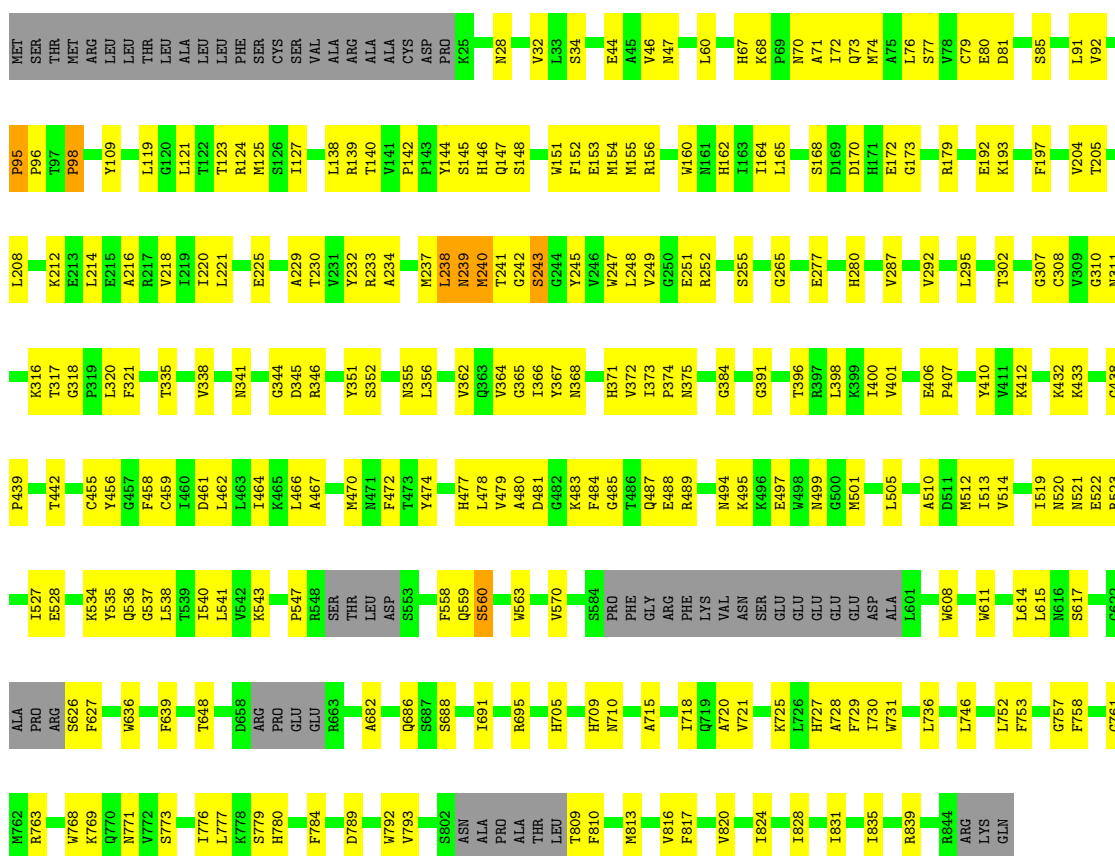
Chain	Residue	Modelled	Actual	Comment	Reference
B	656	ARG	GLU	engineered mutation	UNP Q12879
B	657	ARG	GLU	engineered mutation	UNP Q12879
D	656	ARG	GLU	engineered mutation	UNP Q12879
D	657	ARG	GLU	engineered mutation	UNP Q12879

### 3 Residue-property plots

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

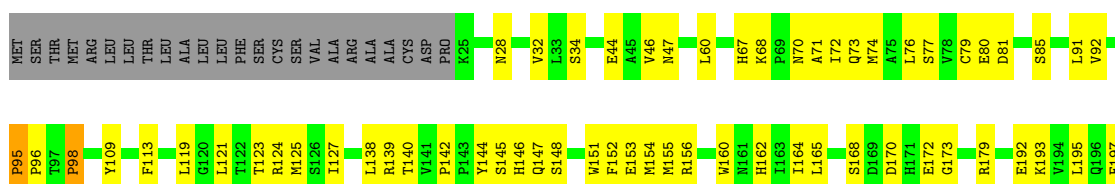
- Molecule 1: Glutamate receptor ionotropic, NMDA 1

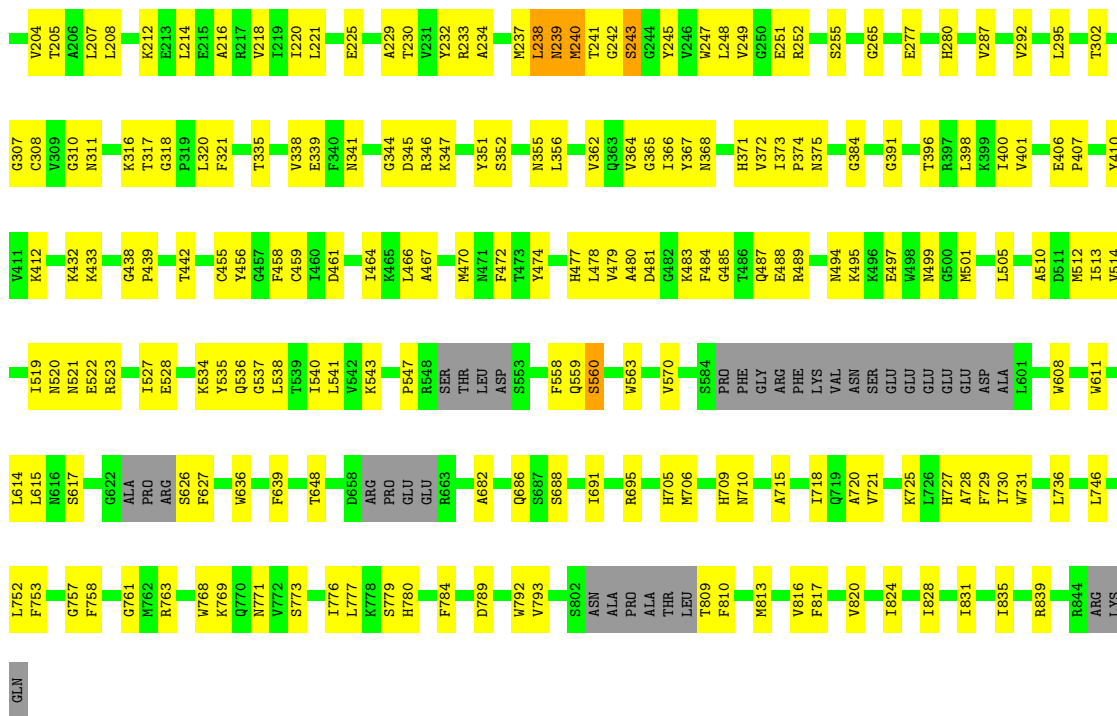
Chain A: 



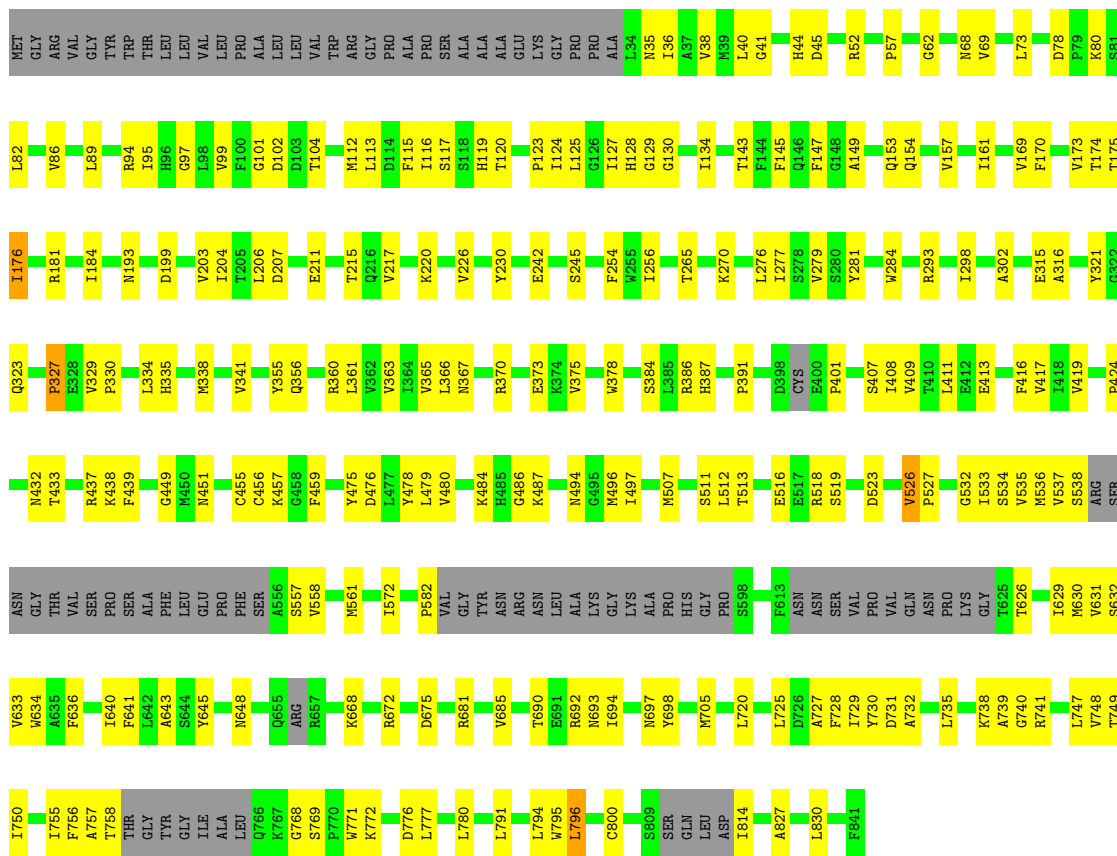
- Molecule 1: Glutamate receptor ionotropic, NMDA 1

Chain C: 





• Molecule 2: Glutamate receptor ionotropic, NMDA 2A



● Molecule 2: Glutamate receptor ionotropic, NMDA 2A

Chain D:  63% 26% 11%

MET	GLY	ARG	VAL	GLY	TYR	TRP	THR	LEU	LEU	VAL	VAL	TRP	ARG	GLY	PRO	ALA	PRO	ALA	ALA	ALA	ALA	GLU	GLY	LYS	GLY	PRO	PRO	ALA	L34	N35	I36	A37	V38	M39	L40	C41	H44	D45	R52	P57	G62	N68	V69	L73	D78	P79	K80	S81						
L82	Y86	L89	R94	R95	H96	G97	L98	V99	F100	G101	D102	D103	T104	M112	L113	D114	F115	I116	S117	S118	H119	P123	I124	L125	G126	I127	H128	G129	G130	I134	T143	F144	F145	Q146	F147	G148	A149	Q153	Q154	V157	I161	V169	F170	V173	T174	K175	I176							
Y180	R181	E182	F183	I184	M193	D199	V203	L204	T205	L206	D207	E211	T215	Q216	V217	K220	V226	Y230	F254	W255	I256	T265	G129	K270	L276	I277	S278	V279	S280	Y281	W284	R293	L298	A302	E315	A316	A317	Y321	G322	Q323	P327													
E328	V329	P330	L334	H335	M338	V341	Y355	L204	Q356	R360	L361	V362	I364	V365	L366	N367	R370	E373	K374	V375	W378	S384	L385	R386	H387	P391	D398	CYS	E400	P401	S407	I408	V409	L411	E412	E413	A414	P415	F416	V417	I418	V419	A424	M432										
T433	R437	K438	F439	G449	M450	M451	C456	K457	G458	F459	Y475	D476	L477	Y478	L479	V480	K484	H485	G486	K487	M494	G495	M496	I497	M507	S511	L512	T513	E516	E517	R518	S519	D523	V526	P527	G532	I533	S534	V535	M536	V537	S538	SER	ASN	GLY	THR								
VAL	SER	PRO	SER	ALA	PHE	LEU	GLU	PRO	PHE	SER	A556	S557	V558	M561	I572	P582	VAL	GLY	TYR	ASN	ARG	ASN	LEU	ALA	LYS	GLY	LYS	ALA	PRO	HIS	GLY	PRO	S598	F613	ASN	ASN	SER	VAL	PRO	VAL	GLN	ASN	PRO	LYS	GLY	T625	T626	I629	M630	V631	S632	V633	W634	A635
F636	I640	F641	I642	A643	S644	Y645	N648	G655	ARG	R657	K668	R672	D675	R681	V685	T690	E691	R692	M693	I694	M697	Y698	L720	L725	D726	A727	F728	I729	Y730	D731	A732	L735	K738	A739	G740	R741	L747	V748	T749	I755	F756	A757	T758											
THR	GLY	TYR	GLY	ILE	ALA	LEU	Q766	K767	G768	S769	P770	H771	K772	D776	L777	L780	Q781	F782	G786	L791	L794	W795	L796	C800	S809	SER	GLN	LEU	ASP	I814	A827	L830	I833	F841																				

## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	193878	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	56	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.33	0/6297	0.60	6/8519 (0.1%)
1	C	0.33	0/6297	0.59	5/8519 (0.1%)
2	B	0.32	0/5918	0.59	9/8033 (0.1%)
2	D	0.32	0/5918	0.59	9/8033 (0.1%)
All	All	0.32	0/24430	0.59	29/33104 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	C	0	1
2	B	0	4
2	D	0	4
All	All	0	10

There are no bond length outliers.

All (29) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	95	PRO	N-CA-CB	8.20	113.14	103.30
1	A	95	PRO	N-CA-CB	8.20	113.14	103.30
2	D	526	VAL	C-N-CD	7.89	144.97	128.40
2	B	526	VAL	C-N-CD	7.75	144.68	128.40
2	D	327	PRO	N-CA-CB	6.56	111.17	103.30
2	B	327	PRO	N-CA-CB	6.55	111.16	103.30
2	D	391	PRO	N-CA-CB	6.28	110.84	103.30
2	D	424	PRO	N-CA-CB	6.28	110.84	103.30
2	B	424	PRO	N-CA-CB	6.28	110.83	103.30
2	B	391	PRO	N-CA-CB	6.24	110.79	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	547	PRO	N-CA-CB	6.07	110.58	103.30
1	C	98	PRO	N-CA-CB	6.06	110.57	103.30
1	C	547	PRO	N-CA-CB	6.06	110.57	103.30
1	A	98	PRO	N-CA-CB	6.05	110.56	103.30
2	D	401	PRO	N-CA-CB	5.99	110.49	103.30
2	B	401	PRO	N-CA-CB	5.96	110.45	103.30
1	A	96	PRO	N-CA-CB	5.79	110.24	103.30
1	C	96	PRO	N-CA-CB	5.77	110.22	103.30
2	D	330	PRO	N-CA-CB	5.63	110.05	103.30
2	B	330	PRO	N-CA-CB	5.61	110.03	103.30
2	B	57	PRO	N-CA-CB	5.57	109.98	103.30
2	D	57	PRO	N-CA-CB	5.56	109.97	103.30
2	B	796	LEU	CA-CB-CG	5.40	127.73	115.30
2	D	796	LEU	CA-CB-CG	5.40	127.72	115.30
1	A	243	SER	C-N-CA	5.19	133.20	122.30
2	B	176	ILE	CG1-CB-CG2	-5.09	100.20	111.40
2	D	176	ILE	CG1-CB-CG2	-5.09	100.20	111.40
1	A	238	LEU	C-N-CA	5.07	134.37	121.70
1	C	238	LEU	C-N-CA	5.06	134.35	121.70

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	232	TYR	Mainchain
2	B	170	PHE	Peptide
2	B	44	HIS	Peptide
2	B	62	GLY	Peptide
2	B	796	LEU	Peptide
1	C	232	TYR	Mainchain
2	D	170	PHE	Peptide
2	D	44	HIS	Peptide
2	D	62	GLY	Peptide
2	D	796	LEU	Peptide

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	6168	0	6120	296	0
1	C	6168	0	6119	307	0
2	B	5788	0	5594	360	0
2	D	5788	0	5594	356	0
All	All	23912	0	23427	1034	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 22.

All (1034) 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)
2:D:537:VAL:CG1	2:D:727:ALA:HB2	1.35	1.52
2:B:537:VAL:CG1	2:B:727:ALA:HB2	1.35	1.51
2:B:537:VAL:HG12	2:B:727:ALA:CB	1.39	1.51
2:D:537:VAL:HG12	2:D:727:ALA:CB	1.39	1.49
2:B:561:MET:HB3	1:C:817:PHE:CZ	1.47	1.49
1:A:817:PHE:CZ	2:D:561:MET:HB3	1.48	1.48
2:B:534:SER:CB	2:B:732:ALA:CB	1.95	1.44
1:A:611:TRP:CB	2:D:629:ILE:HG23	1.45	1.43
2:D:534:SER:CB	2:D:732:ALA:CB	1.95	1.43
2:B:629:ILE:HG23	1:C:611:TRP:CB	1.44	1.42
1:A:608:TRP:CZ2	2:D:626:THR:O	1.72	1.42
2:D:534:SER:HB2	2:D:732:ALA:CB	1.51	1.41
1:A:521:ASN:CA	2:D:780:LEU:HD13	1.52	1.39
2:B:626:THR:O	1:C:608:TRP:CZ2	1.76	1.39
2:D:537:VAL:CG1	2:D:727:ALA:CB	1.98	1.38
2:B:534:SER:HB2	2:B:732:ALA:CB	1.51	1.37
1:A:817:PHE:CZ	2:D:561:MET:HE2	1.57	1.36
2:B:630:MET:O	2:B:634:TRP:CE3	1.80	1.35
2:B:780:LEU:HD13	1:C:521:ASN:CA	1.53	1.34
2:D:630:MET:O	2:D:634:TRP:CE3	1.79	1.34
2:B:780:LEU:CD1	1:C:521:ASN:HA	1.60	1.32
2:B:534:SER:CB	2:B:732:ALA:HB2	1.56	1.32
1:A:521:ASN:HA	2:D:780:LEU:CD1	1.58	1.31
2:B:537:VAL:CG1	2:B:727:ALA:CB	1.98	1.31
2:B:582:PRO:HG3	1:C:839:ARG:CZ	1.60	1.30
2:B:629:ILE:HD11	1:C:608:TRP:CG	1.40	1.29
2:B:534:SER:OG	2:B:732:ALA:CB	1.81	1.28
2:B:626:THR:O	1:C:608:TRP:CH2	1.85	1.27
2:D:534:SER:OG	2:D:732:ALA:CB	1.81	1.26
2:D:534:SER:CB	2:D:732:ALA:HB2	1.56	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:535:VAL:HA	2:B:728:PHE:O	1.33	1.25
2:B:561:MET:HE3	1:C:817:PHE:CE1	1.70	1.25
1:C:233:ARG:O	1:C:237:MET:HG2	1.11	1.25
1:A:608:TRP:CH2	2:D:626:THR:O	1.90	1.25
1:A:817:PHE:CE2	2:D:561:MET:HE2	1.72	1.24
1:A:233:ARG:O	1:A:237:MET:HG2	1.11	1.24
2:B:632:SER:OG	1:C:615:LEU:HD12	1.39	1.22
1:C:243:SER:OG	1:C:384:GLY:N	1.70	1.22
2:B:558:VAL:N	1:C:809:THR:CG2	2.03	1.22
2:D:535:VAL:HA	2:D:728:PHE:O	1.33	1.21
2:B:561:MET:HE2	1:C:817:PHE:CE2	1.75	1.21
2:B:534:SER:CB	2:B:732:ALA:HB1	1.65	1.20
2:B:537:VAL:CG2	2:B:748:VAL:O	1.90	1.19
1:A:839:ARG:CZ	2:D:582:PRO:HG3	1.71	1.19
2:D:537:VAL:CG2	2:D:748:VAL:O	1.90	1.19
2:B:537:VAL:O	2:B:748:VAL:N	1.74	1.19
2:D:537:VAL:O	2:D:748:VAL:N	1.74	1.19
2:D:534:SER:CB	2:D:732:ALA:HB1	1.65	1.17
2:B:629:ILE:CG2	1:C:611:TRP:CB	2.22	1.16
1:A:611:TRP:CB	2:D:629:ILE:CG2	2.24	1.15
1:A:817:PHE:CE1	2:D:561:MET:HE2	1.83	1.14
1:A:615:LEU:HD12	2:D:632:SER:OG	1.47	1.13
1:A:809:THR:CG2	2:D:558:VAL:N	2.12	1.13
1:A:817:PHE:HZ	2:D:561:MET:CB	1.61	1.13
1:A:817:PHE:CZ	2:D:561:MET:CB	2.32	1.12
2:B:629:ILE:CD1	1:C:608:TRP:CG	2.12	1.11
2:D:538:SER:HA	2:D:747:LEU:HA	1.29	1.11
2:B:561:MET:CB	1:C:817:PHE:HZ	1.63	1.11
2:B:630:MET:O	2:B:634:TRP:CZ3	2.04	1.10
2:D:630:MET:O	2:D:634:TRP:CZ3	2.04	1.10
1:A:521:ASN:OD1	2:D:777:LEU:HD22	1.51	1.09
1:C:208:LEU:HB3	1:C:238:LEU:HD11	1.11	1.09
2:D:536:MET:HA	2:D:749:THR:HA	1.12	1.09
2:B:582:PRO:CG	1:C:839:ARG:NH2	2.16	1.08
2:B:536:MET:HA	2:B:749:THR:HA	1.12	1.08
2:B:561:MET:CB	1:C:817:PHE:CZ	2.35	1.08
1:A:615:LEU:HD13	2:D:632:SER:C	1.74	1.08
2:B:538:SER:HA	2:B:747:LEU:HA	1.29	1.08
2:B:536:MET:HA	2:B:749:THR:CA	1.83	1.08
2:B:629:ILE:HD11	1:C:608:TRP:CB	1.83	1.07
1:A:243:SER:HB3	1:A:384:GLY:N	1.69	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:534:SER:OG	2:B:732:ALA:HB1	1.48	1.07
2:B:535:VAL:HG22	2:B:729:ILE:HG12	1.32	1.07
2:B:629:ILE:CG2	1:C:611:TRP:CG	2.38	1.07
2:D:533:ILE:HG12	2:D:690:THR:HG22	1.35	1.07
2:D:536:MET:HA	2:D:749:THR:CA	1.83	1.07
2:B:536:MET:HG3	2:B:749:THR:HG22	1.37	1.06
1:A:817:PHE:CE1	2:D:561:MET:CE	2.37	1.06
1:A:243:SER:HB3	1:A:384:GLY:H	0.89	1.06
1:A:535:TYR:CE1	2:D:527:PRO:HG3	1.91	1.06
2:B:641:PHE:HE1	1:C:813:MET:SD	1.79	1.06
2:D:535:VAL:HG22	2:D:729:ILE:HG12	1.32	1.06
1:A:208:LEU:HB3	1:A:238:LEU:HD11	1.10	1.05
2:D:536:MET:HG3	2:D:749:THR:HG22	1.37	1.05
1:A:777:LEU:HB3	2:D:516:GLU:HB2	1.37	1.04
1:A:233:ARG:O	1:A:237:MET:CG	2.06	1.04
2:B:780:LEU:HB3	1:C:521:ASN:HB2	1.35	1.04
2:B:533:ILE:HG12	2:B:690:THR:HG22	1.35	1.04
2:B:632:SER:C	1:C:615:LEU:HD13	1.76	1.04
2:D:537:VAL:N	2:D:748:VAL:O	1.91	1.04
1:A:611:TRP:HB3	2:D:629:ILE:HG23	1.06	1.03
2:B:629:ILE:HD11	1:C:608:TRP:CA	1.88	1.03
1:A:615:LEU:HD13	2:D:633:VAL:N	1.72	1.03
2:B:582:PRO:CG	1:C:839:ARG:CZ	2.36	1.03
2:B:536:MET:O	2:B:727:ALA:CA	2.08	1.02
2:B:537:VAL:N	2:B:748:VAL:O	1.91	1.02
2:B:641:PHE:CE1	1:C:813:MET:SD	2.52	1.02
2:D:537:VAL:HG13	2:D:727:ALA:CB	1.88	1.02
1:A:611:TRP:CG	2:D:629:ILE:CG2	2.42	1.02
2:B:516:GLU:HB2	1:C:777:LEU:HB3	1.41	1.02
1:A:521:ASN:HB2	2:D:780:LEU:HB3	1.39	1.02
2:B:526:VAL:HG23	2:B:776:ASP:OD1	1.59	1.02
2:B:537:VAL:HG13	2:B:727:ALA:CB	1.88	1.02
2:D:536:MET:O	2:D:727:ALA:CA	2.07	1.02
2:B:633:VAL:N	1:C:615:LEU:HD13	1.75	1.02
1:C:233:ARG:O	1:C:237:MET:CG	2.06	1.02
2:D:526:VAL:HG23	2:D:776:ASP:OD1	1.61	1.01
2:B:536:MET:O	2:B:727:ALA:HB1	1.62	1.00
2:D:537:VAL:HG22	2:D:748:VAL:O	1.60	1.00
2:B:537:VAL:HG22	2:B:748:VAL:O	1.60	0.99
2:B:561:MET:CE	1:C:817:PHE:CZ	2.45	0.99
2:B:561:MET:HE2	1:C:817:PHE:CD2	1.95	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:534:SER:OG	2:D:732:ALA:HB1	1.48	0.99
2:B:561:MET:CE	1:C:817:PHE:CE1	2.45	0.99
2:B:632:SER:OG	1:C:615:LEU:CD1	2.09	0.99
2:B:516:GLU:HA	1:C:777:LEU:HD13	1.02	0.99
1:A:817:PHE:CZ	2:D:561:MET:CE	2.45	0.98
2:B:536:MET:CA	2:B:749:THR:HA	1.92	0.98
2:B:516:GLU:CA	1:C:777:LEU:HD13	1.92	0.98
2:B:561:MET:HE3	1:C:817:PHE:CD1	1.97	0.98
2:D:536:MET:O	2:D:727:ALA:HB1	1.62	0.98
1:A:777:LEU:HD13	2:D:516:GLU:CA	1.93	0.98
2:D:536:MET:CA	2:D:749:THR:HA	1.92	0.97
2:B:536:MET:O	2:B:727:ALA:CB	2.13	0.97
2:B:777:LEU:HD22	1:C:521:ASN:OD1	1.64	0.97
1:A:535:TYR:HE1	2:D:527:PRO:HG3	1.26	0.97
2:B:629:ILE:HG21	1:C:611:TRP:CG	2.00	0.97
2:B:629:ILE:HD11	1:C:608:TRP:HA	1.47	0.96
1:A:608:TRP:HA	2:D:629:ILE:CD1	1.95	0.96
1:A:816:VAL:HG11	2:D:641:PHE:CZ	2.00	0.96
2:D:537:VAL:CA	2:D:748:VAL:O	2.14	0.96
1:A:777:LEU:HD13	2:D:516:GLU:HA	1.00	0.96
2:B:537:VAL:CA	2:B:748:VAL:O	2.14	0.96
2:B:629:ILE:HG23	1:C:611:TRP:HB3	0.98	0.96
2:B:220:LYS:NZ	2:D:217:VAL:HG22	1.81	0.95
2:B:629:ILE:CD1	1:C:608:TRP:HA	1.96	0.95
1:A:839:ARG:CZ	2:D:582:PRO:CG	2.44	0.95
2:B:626:THR:O	1:C:608:TRP:HZ2	1.38	0.95
2:D:536:MET:O	2:D:727:ALA:CB	2.13	0.95
1:A:817:PHE:CD1	2:D:561:MET:CE	2.50	0.95
2:B:536:MET:CG	2:B:749:THR:HG22	1.96	0.95
2:B:533:ILE:CG2	2:B:729:ILE:HG23	1.97	0.94
2:D:533:ILE:CG2	2:D:729:ILE:HG23	1.97	0.94
1:A:839:ARG:NH2	2:D:582:PRO:CG	2.30	0.94
2:D:536:MET:CG	2:D:749:THR:HG22	1.96	0.94
2:B:558:VAL:H	1:C:809:THR:HG21	1.33	0.93
1:A:234:ALA:O	1:A:237:MET:HB2	1.67	0.93
1:C:234:ALA:O	1:C:237:MET:HB2	1.67	0.93
2:B:631:VAL:HA	2:B:634:TRP:HE3	1.34	0.93
1:A:608:TRP:HZ2	2:D:626:THR:O	1.31	0.93
1:A:777:LEU:CD1	2:D:519:SER:OG	2.16	0.93
2:B:536:MET:O	2:B:727:ALA:HA	1.67	0.93
1:A:813:MET:SD	2:D:641:PHE:HE1	1.92	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:631:VAL:HA	2:D:634:TRP:HE3	1.34	0.92
2:D:536:MET:O	2:D:727:ALA:HA	1.67	0.92
1:A:611:TRP:HB2	2:D:629:ILE:HG23	1.47	0.91
2:B:561:MET:HE2	1:C:817:PHE:CZ	2.03	0.91
2:B:641:PHE:CZ	1:C:816:VAL:HG11	2.06	0.91
2:D:630:MET:C	2:D:634:TRP:CZ3	2.44	0.91
2:B:630:MET:C	2:B:634:TRP:CZ3	2.44	0.91
2:B:527:PRO:HG3	1:C:535:TYR:CE1	2.05	0.90
2:B:533:ILE:HG12	2:B:690:THR:CG2	2.02	0.90
1:C:466:LEU:O	1:C:470:MET:HB2	1.71	0.90
1:A:608:TRP:CA	2:D:629:ILE:HD11	1.86	0.90
2:B:217:VAL:HG22	2:D:220:LYS:NZ	1.86	0.90
1:A:466:LEU:O	1:A:470:MET:HB2	1.71	0.89
1:A:611:TRP:CG	2:D:629:ILE:HG21	2.08	0.89
1:A:813:MET:SD	2:D:641:PHE:CE1	2.65	0.89
2:D:533:ILE:HG12	2:D:690:THR:CG2	2.02	0.89
2:D:537:VAL:HG13	2:D:727:ALA:HB1	1.55	0.89
1:A:608:TRP:HA	2:D:629:ILE:HD11	1.53	0.88
1:A:615:LEU:CD1	2:D:632:SER:OG	2.21	0.88
2:B:626:THR:C	1:C:608:TRP:CZ2	2.47	0.88
1:A:817:PHE:CD2	2:D:561:MET:HE2	2.08	0.88
2:B:433:THR:HA	2:B:456:CYS:O	1.74	0.88
2:B:629:ILE:CG2	1:C:611:TRP:HB3	1.92	0.87
2:B:527:PRO:HG3	1:C:535:TYR:HE1	1.39	0.87
1:A:777:LEU:HD11	2:D:519:SER:OG	1.72	0.87
2:D:526:VAL:CG2	2:D:776:ASP:OD1	2.21	0.87
2:D:433:THR:HA	2:D:456:CYS:O	1.74	0.87
1:A:243:SER:CB	1:A:384:GLY:H	1.83	0.87
2:B:629:ILE:HG23	1:C:611:TRP:HB2	1.55	0.86
2:D:537:VAL:HG23	2:D:748:VAL:O	1.75	0.86
1:A:817:PHE:CE1	2:D:561:MET:HB3	2.11	0.86
2:B:537:VAL:HG13	2:B:727:ALA:HB1	1.55	0.86
1:A:608:TRP:CZ2	2:D:626:THR:C	2.49	0.85
2:B:582:PRO:HG3	1:C:839:ARG:NH2	1.85	0.85
2:B:561:MET:CE	1:C:817:PHE:CD1	2.59	0.85
2:D:534:SER:HB2	2:D:732:ALA:HB1	1.37	0.85
1:A:809:THR:HG21	2:D:558:VAL:H	1.42	0.85
2:B:526:VAL:CG2	2:B:776:ASP:OD1	2.23	0.85
2:D:630:MET:O	2:D:634:TRP:HE3	1.59	0.85
1:A:521:ASN:HA	2:D:780:LEU:HD13	0.85	0.85
2:D:535:VAL:CA	2:D:728:PHE:O	2.23	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:533:ILE:HD12	2:B:757:ALA:HB2	1.59	0.84
2:B:534:SER:N	2:B:732:ALA:HB2	1.92	0.84
2:B:537:VAL:C	2:B:748:VAL:O	2.17	0.84
1:A:164:ILE:HB	1:A:218:VAL:O	1.78	0.83
1:A:777:LEU:CD1	2:D:516:GLU:HA	1.96	0.83
2:B:534:SER:CA	2:B:732:ALA:HB2	2.08	0.83
2:B:535:VAL:CA	2:B:728:PHE:O	2.23	0.83
2:D:534:SER:N	2:D:732:ALA:HB2	1.92	0.83
2:D:534:SER:CA	2:D:732:ALA:HB2	2.08	0.83
2:D:537:VAL:C	2:D:748:VAL:O	2.17	0.83
1:A:521:ASN:OD1	2:D:777:LEU:CD2	2.26	0.83
1:C:164:ILE:HB	1:C:218:VAL:O	1.78	0.83
1:C:230:THR:HA	1:C:233:ARG:HD2	1.61	0.83
2:D:537:VAL:O	2:D:748:VAL:O	1.97	0.83
2:B:537:VAL:HG23	2:B:748:VAL:O	1.75	0.82
2:B:626:THR:O	1:C:608:TRP:HH2	1.54	0.82
2:B:533:ILE:CG2	2:B:729:ILE:CG2	2.58	0.82
2:B:533:ILE:HD12	2:B:757:ALA:CB	2.08	0.82
2:B:516:GLU:HA	1:C:777:LEU:CD1	1.98	0.82
2:B:537:VAL:O	2:B:748:VAL:O	1.97	0.82
2:B:630:MET:O	2:B:634:TRP:HE3	1.59	0.82
1:A:817:PHE:CE1	2:D:561:MET:HE3	2.13	0.82
2:B:629:ILE:HG21	1:C:611:TRP:CD1	2.15	0.82
1:A:230:THR:HA	1:A:233:ARG:HD2	1.60	0.82
1:A:611:TRP:HB3	2:D:629:ILE:CG2	1.98	0.82
1:A:817:PHE:CD1	2:D:561:MET:HE3	2.13	0.82
2:D:533:ILE:HD12	2:D:757:ALA:HB2	1.59	0.82
2:D:533:ILE:CG2	2:D:729:ILE:CG2	2.58	0.82
2:B:220:LYS:HZ3	2:D:217:VAL:HG22	1.38	0.82
2:B:629:ILE:HG23	1:C:611:TRP:CG	2.11	0.82
2:D:533:ILE:HD12	2:D:757:ALA:CB	2.08	0.82
2:B:561:MET:HB3	1:C:817:PHE:HZ	0.84	0.81
2:B:629:ILE:HD12	1:C:608:TRP:CE2	1.82	0.81
2:B:536:MET:CB	2:B:749:THR:HG22	2.11	0.81
2:D:536:MET:CB	2:D:749:THR:HG22	2.11	0.81
1:A:535:TYR:HE1	2:D:527:PRO:CG	1.93	0.81
2:D:631:VAL:HA	2:D:634:TRP:CE3	2.16	0.80
2:D:534:SER:O	2:D:729:ILE:HA	1.81	0.80
1:A:611:TRP:CD1	2:D:629:ILE:HG21	2.17	0.80
2:B:536:MET:HG3	2:B:749:THR:CG2	2.12	0.80
1:A:828:ILE:HD11	2:D:572:ILE:CD1	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:536:MET:HG3	2:D:749:THR:CG2	2.12	0.79
2:B:582:PRO:CD	1:C:839:ARG:NH2	2.45	0.79
2:B:631:VAL:HA	2:B:634:TRP:CE3	2.16	0.79
2:B:534:SER:O	2:B:729:ILE:HA	1.81	0.79
2:B:558:VAL:N	1:C:809:THR:HG22	1.96	0.79
1:A:608:TRP:HH2	2:D:626:THR:O	1.63	0.79
1:A:535:TYR:CE1	2:D:527:PRO:CG	2.66	0.79
1:A:242:GLY:N	1:A:245:TYR:CD2	2.52	0.78
2:B:519:SER:OG	1:C:777:LEU:CD1	2.32	0.78
1:A:809:THR:N	2:D:558:VAL:HG22	1.96	0.78
1:C:239:ASN:O	1:C:241:THR:N	2.16	0.78
1:C:243:SER:CB	1:C:384:GLY:H	1.95	0.78
1:A:521:ASN:HB2	2:D:780:LEU:CB	2.14	0.78
2:B:780:LEU:HD13	1:C:521:ASN:HA	0.80	0.78
1:A:828:ILE:HD11	2:D:572:ILE:HD13	1.67	0.77
2:B:780:LEU:CB	1:C:521:ASN:HB2	2.14	0.77
2:D:533:ILE:CG1	2:D:690:THR:HG22	2.13	0.77
2:B:519:SER:OG	1:C:777:LEU:HD11	1.85	0.77
1:C:233:ARG:C	1:C:237:MET:HG2	2.03	0.76
2:D:438:LYS:O	2:D:451:ASN:HA	1.85	0.76
2:D:537:VAL:O	2:D:748:VAL:C	2.24	0.76
1:A:611:TRP:HB2	2:D:629:ILE:CG2	2.10	0.76
1:A:816:VAL:HG11	2:D:641:PHE:HZ	1.49	0.76
1:A:817:PHE:CD1	2:D:561:MET:HE2	2.18	0.76
2:D:536:MET:HA	2:D:749:THR:CB	2.14	0.76
1:A:233:ARG:C	1:A:237:MET:HG2	2.02	0.76
1:A:242:GLY:N	1:A:245:TYR:HD2	1.83	0.76
2:B:758:THR:O	1:C:780:HIS:HB3	1.85	0.76
1:C:240:MET:CE	1:C:245:TYR:CE1	2.69	0.76
2:B:533:ILE:CG1	2:B:690:THR:HG22	2.13	0.76
1:A:608:TRP:CH2	2:D:629:ILE:HB	2.18	0.76
2:B:537:VAL:O	2:B:748:VAL:C	2.24	0.76
2:D:535:VAL:HG22	2:D:729:ILE:CG1	2.15	0.76
2:B:535:VAL:HG22	2:B:729:ILE:CG1	2.15	0.75
2:B:536:MET:HA	2:B:749:THR:CB	2.14	0.75
2:B:630:MET:C	2:B:634:TRP:CE3	2.59	0.75
1:A:240:MET:CE	1:A:245:TYR:CE1	2.70	0.75
2:B:533:ILE:HA	2:B:730:TYR:O	1.86	0.75
1:C:208:LEU:HB3	1:C:238:LEU:CD1	2.06	0.75
2:D:630:MET:C	2:D:634:TRP:CE3	2.59	0.75
2:B:438:LYS:O	2:B:451:ASN:HA	1.85	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:208:LEU:CB	1:C:238:LEU:HD11	2.06	0.74
2:B:777:LEU:CD2	1:C:521:ASN:OD1	2.36	0.74
2:D:533:ILE:HA	2:D:730:TYR:O	1.86	0.74
2:B:534:SER:HB2	2:B:732:ALA:CA	2.18	0.74
2:B:561:MET:CE	1:C:817:PHE:CE2	2.61	0.74
1:A:519:ILE:HG22	2:D:780:LEU:HD21	1.70	0.74
2:B:561:MET:HB3	1:C:817:PHE:CE1	2.19	0.74
2:B:780:LEU:HD13	1:C:521:ASN:CB	2.18	0.74
1:A:208:LEU:HB3	1:A:238:LEU:CD1	2.05	0.73
1:C:72:ILE:HG13	2:D:323:GLN:HE21	1.54	0.73
1:A:208:LEU:CB	1:A:238:LEU:HD11	2.05	0.73
2:B:536:MET:HB2	2:B:735:LEU:HD22	1.70	0.73
1:A:240:MET:HE3	1:A:245:TYR:CE1	2.23	0.73
2:D:536:MET:HB2	2:D:735:LEU:HD22	1.70	0.73
1:A:240:MET:CE	1:A:245:TYR:HE1	2.02	0.73
2:D:534:SER:HB2	2:D:732:ALA:CA	2.17	0.73
2:B:630:MET:HB3	2:B:634:TRP:CZ3	2.23	0.73
2:D:630:MET:HB3	2:D:634:TRP:CZ3	2.23	0.73
2:B:558:VAL:HG22	1:C:809:THR:N	1.98	0.72
1:A:828:ILE:HD11	2:D:572:ILE:CG1	2.19	0.72
2:D:630:MET:C	2:D:634:TRP:HZ3	1.91	0.72
1:C:240:MET:CE	1:C:245:TYR:HE1	2.01	0.72
1:A:72:ILE:HG13	2:B:323:GLN:HE21	1.54	0.72
2:B:629:ILE:CG2	1:C:611:TRP:HB2	2.14	0.71
2:B:217:VAL:HG22	2:D:220:LYS:HZ3	1.54	0.71
1:A:809:THR:HG22	2:D:558:VAL:N	2.05	0.71
2:B:534:SER:HB2	2:B:732:ALA:HB1	1.38	0.71
2:B:572:ILE:CD1	1:C:824:ILE:CG2	2.68	0.71
2:B:641:PHE:HZ	1:C:816:VAL:HG11	1.55	0.71
1:A:839:ARG:NH2	2:D:582:PRO:CD	2.53	0.71
1:C:144:TYR:O	1:C:147:GLN:HB2	1.91	0.71
2:B:537:VAL:O	2:B:747:LEU:C	2.29	0.71
2:D:537:VAL:O	2:D:747:LEU:C	2.29	0.71
1:A:777:LEU:HB3	2:D:516:GLU:CB	2.16	0.71
1:A:144:TYR:O	1:A:147:GLN:HB2	1.90	0.71
2:B:533:ILE:HG22	2:B:729:ILE:HG23	1.73	0.71
2:D:533:ILE:HG22	2:D:729:ILE:HG23	1.73	0.71
1:A:410:TYR:HB2	1:A:456:TYR:HB2	1.73	0.70
1:A:828:ILE:HD11	2:D:572:ILE:HG12	1.73	0.70
1:A:230:THR:HG22	1:A:233:ARG:NH1	2.06	0.70
1:C:410:TYR:HB2	1:C:456:TYR:HB2	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:533:ILE:O	2:B:756:PHE:N	2.25	0.70
2:B:630:MET:C	2:B:634:TRP:HZ3	1.91	0.70
1:A:521:ASN:CB	2:D:780:LEU:HD13	2.20	0.70
2:B:217:VAL:HG22	2:D:220:LYS:HZ1	1.53	0.70
1:C:240:MET:HE3	1:C:245:TYR:CE1	2.26	0.70
1:C:240:MET:HE1	1:C:245:TYR:HE1	1.56	0.70
1:A:817:PHE:CE2	2:D:561:MET:CE	2.66	0.69
2:B:534:SER:HB2	2:B:732:ALA:HB2	1.32	0.69
2:B:626:THR:C	1:C:608:TRP:CH2	2.62	0.69
1:A:817:PHE:CG	2:D:561:MET:CE	2.75	0.69
1:A:406:GLU:HG2	1:A:410:TYR:HA	1.74	0.69
2:B:561:MET:CE	1:C:817:PHE:CD2	2.74	0.69
1:C:230:THR:HG22	1:C:233:ARG:NH1	2.07	0.69
2:B:572:ILE:HG12	1:C:828:ILE:HD11	1.74	0.69
1:A:615:LEU:CD1	2:D:633:VAL:N	2.54	0.68
2:B:527:PRO:CG	1:C:535:TYR:HE1	2.06	0.68
1:A:809:THR:HG22	2:D:557:SER:OG	1.93	0.68
2:B:572:ILE:CD1	1:C:828:ILE:HD11	2.23	0.68
2:B:536:MET:C	2:B:727:ALA:HB1	2.14	0.68
2:B:572:ILE:CG1	1:C:828:ILE:HD11	2.23	0.68
1:A:817:PHE:HZ	2:D:561:MET:HB3	0.89	0.68
2:B:626:THR:HA	1:C:608:TRP:CZ2	2.28	0.68
2:B:538:SER:C	2:B:748:VAL:H	1.97	0.67
2:D:538:SER:C	2:D:748:VAL:H	1.97	0.67
2:B:634:TRP:CZ2	1:C:824:ILE:HG12	2.29	0.67
1:C:406:GLU:HG2	1:C:410:TYR:HA	1.75	0.67
1:A:780:HIS:HB3	2:D:758:THR:O	1.95	0.67
2:D:536:MET:C	2:D:727:ALA:HB1	2.14	0.67
1:A:240:MET:HE1	1:A:245:TYR:HE1	1.60	0.67
2:D:533:ILE:O	2:D:756:PHE:N	2.25	0.67
2:D:537:VAL:CB	2:D:727:ALA:HB2	2.23	0.67
1:A:817:PHE:CD2	2:D:561:MET:CE	2.77	0.67
2:B:220:LYS:HZ1	2:D:217:VAL:HG22	1.59	0.67
2:D:537:VAL:CB	2:D:748:VAL:O	2.43	0.67
2:D:534:SER:HB2	2:D:732:ALA:HB2	1.32	0.67
1:A:828:ILE:CD1	2:D:572:ILE:HG12	2.24	0.67
1:C:243:SER:OG	1:C:384:GLY:CA	2.43	0.66
1:C:540:ILE:HA	1:C:729:PHE:O	1.95	0.66
2:B:52:ARG:HA	2:B:293:ARG:HH21	1.61	0.66
2:B:630:MET:HB3	2:B:634:TRP:HZ3	1.60	0.66
1:C:242:GLY:O	1:C:245:TYR:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:537:VAL:O	2:D:748:VAL:CA	2.43	0.66
1:A:817:PHE:CZ	2:D:561:MET:CG	2.79	0.66
2:B:537:VAL:CB	2:B:748:VAL:O	2.43	0.66
2:B:582:PRO:HG2	1:C:839:ARG:NH2	2.08	0.66
1:A:221:LEU:HD12	1:A:249:VAL:HG22	1.78	0.66
1:A:608:TRP:CH2	2:D:626:THR:C	2.69	0.66
2:B:537:VAL:O	2:B:748:VAL:CA	2.43	0.66
2:B:572:ILE:HD13	1:C:824:ILE:CG2	2.25	0.66
1:A:560:SER:HA	1:A:563:TRP:HD1	1.61	0.65
2:B:572:ILE:CD1	1:C:824:ILE:HG21	2.27	0.65
2:B:572:ILE:HG12	1:C:828:ILE:CD1	2.26	0.65
2:D:630:MET:HB3	2:D:634:TRP:HZ3	1.60	0.65
2:B:641:PHE:CD1	1:C:813:MET:SD	2.88	0.65
2:B:561:MET:CE	1:C:817:PHE:CG	2.79	0.65
1:C:221:LEU:HD12	1:C:249:VAL:HG22	1.78	0.65
1:A:824:ILE:HG12	2:D:634:TRP:CZ2	2.32	0.65
1:C:560:SER:HA	1:C:563:TRP:HD1	1.61	0.65
2:D:52:ARG:HA	2:D:293:ARG:HH21	1.61	0.65
2:B:125:LEU:HA	2:B:145:PHE:O	1.97	0.65
2:B:572:ILE:HD13	1:C:828:ILE:HD11	1.78	0.65
2:D:537:VAL:H	2:D:748:VAL:C	1.99	0.65
1:A:824:ILE:CG2	2:D:572:ILE:CD1	2.75	0.65
2:B:35:ASN:HA	2:B:68:ASN:O	1.97	0.65
2:B:537:VAL:H	2:B:748:VAL:C	1.99	0.65
1:A:540:ILE:HA	1:A:729:PHE:O	1.95	0.64
2:B:516:GLU:CB	1:C:777:LEU:HB3	2.24	0.64
2:B:537:VAL:CB	2:B:727:ALA:HB2	2.23	0.64
2:B:572:ILE:HD13	1:C:824:ILE:HG23	1.80	0.64
1:C:242:GLY:N	1:C:245:TYR:CD2	2.65	0.64
2:D:35:ASN:HA	2:D:68:ASN:O	1.97	0.64
2:D:115:PHE:O	2:D:119:HIS:HB2	1.98	0.64
2:B:735:LEU:O	2:B:739:ALA:HB2	1.98	0.64
2:D:533:ILE:N	2:D:756:PHE:O	2.27	0.64
1:A:817:PHE:CG	2:D:561:MET:HE2	2.33	0.64
2:D:735:LEU:O	2:D:739:ALA:HB2	1.98	0.64
2:B:631:VAL:CA	2:B:634:TRP:HE3	2.10	0.64
1:C:77:SER:O	1:C:81:ASP:HB2	1.98	0.64
2:D:125:LEU:HA	2:D:145:PHE:O	1.97	0.63
1:A:77:SER:O	1:A:81:ASP:HB2	1.98	0.63
2:B:527:PRO:CG	1:C:535:TYR:CE1	2.80	0.63
2:B:641:PHE:CE1	1:C:813:MET:CE	2.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:626:THR:CA	1:C:608:TRP:CZ2	2.81	0.62
1:C:439:PRO:HG2	1:C:442:THR:HG22	1.81	0.62
2:B:629:ILE:HB	1:C:608:TRP:CH2	2.28	0.62
1:A:125:MET:SD	1:A:252:ARG:NH2	2.72	0.62
2:B:634:TRP:HE1	1:C:820:VAL:HG13	1.65	0.62
1:A:510:ALA:O	1:A:763:ARG:NH2	2.32	0.62
2:B:115:PHE:O	2:B:119:HIS:HB2	1.98	0.62
1:C:510:ALA:O	1:C:763:ARG:NH2	2.32	0.62
1:A:439:PRO:HG2	1:A:442:THR:HG22	1.81	0.62
2:B:537:VAL:HG12	2:B:727:ALA:HB3	1.71	0.62
1:A:152:PHE:O	1:A:155:MET:HB2	2.00	0.62
2:B:536:MET:O	2:B:728:PHE:N	2.33	0.62
2:B:780:LEU:HD21	1:C:519:ILE:HG22	1.81	0.62
1:A:234:ALA:C	1:A:237:MET:HB2	2.20	0.62
2:B:557:SER:OG	1:C:809:THR:HG22	2.00	0.62
2:B:561:MET:HE3	1:C:817:PHE:CZ	2.17	0.61
1:C:125:MET:SD	1:C:252:ARG:NH2	2.72	0.61
2:B:645:TYR:HH	1:C:810:PHE:HE2	1.47	0.61
1:C:152:PHE:O	1:C:155:MET:HB2	2.00	0.61
2:B:634:TRP:HZ2	1:C:824:ILE:HG12	1.65	0.61
2:D:38:VAL:HG22	2:D:99:VAL:HB	1.82	0.61
1:C:234:ALA:C	1:C:237:MET:HB2	2.20	0.61
2:B:633:VAL:N	1:C:615:LEU:CD1	2.59	0.60
2:D:536:MET:O	2:D:728:PHE:N	2.33	0.60
1:A:242:GLY:O	1:A:245:TYR:HD2	1.83	0.60
2:B:38:VAL:HG22	2:B:99:VAL:HB	1.82	0.60
2:D:630:MET:CB	2:D:634:TRP:HZ3	2.14	0.60
2:B:630:MET:CB	2:B:634:TRP:HZ3	2.14	0.60
1:A:521:ASN:N	2:D:780:LEU:HD13	2.14	0.60
2:D:631:VAL:CA	2:D:634:TRP:HE3	2.10	0.60
2:D:537:VAL:N	2:D:749:THR:HA	2.17	0.60
1:C:351:TYR:HB2	1:C:367:TYR:HB2	1.84	0.60
2:D:175:THR:HG22	2:D:206:LEU:HB2	1.84	0.60
2:B:36:ILE:HB	2:B:69:VAL:HG22	1.84	0.59
2:B:496:MET:HG3	2:B:512:LEU:HD21	1.84	0.59
1:A:538:LEU:HB2	1:A:753:PHE:HB2	1.84	0.59
1:A:372:VAL:HG12	1:A:374:PRO:HD3	1.84	0.59
2:B:533:ILE:N	2:B:756:PHE:O	2.27	0.59
2:D:36:ILE:HB	2:D:69:VAL:HG22	1.85	0.59
1:A:608:TRP:HA	2:D:629:ILE:HD13	1.84	0.59
1:C:366:ILE:HB	1:C:373:ILE:HB	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:372:VAL:HG12	1:C:374:PRO:HD3	1.84	0.59
2:D:537:VAL:HG12	2:D:727:ALA:HB3	1.70	0.59
1:A:648:THR:HG22	2:D:643:ALA:CB	2.32	0.59
2:B:537:VAL:N	2:B:749:THR:HA	2.17	0.59
2:D:532:GLY:O	2:D:731:ASP:HA	2.03	0.59
1:A:366:ILE:HB	1:A:373:ILE:HB	1.85	0.59
1:A:351:TYR:HB2	1:A:367:TYR:HB2	1.84	0.59
2:B:407:SER:HA	2:B:476:ASP:HB2	1.84	0.59
2:D:537:VAL:H	2:D:749:THR:HA	1.68	0.58
1:A:615:LEU:HD11	2:D:633:VAL:HG23	1.85	0.58
2:B:582:PRO:HG3	1:C:839:ARG:NH1	2.13	0.58
2:B:582:PRO:HD2	1:C:839:ARG:NH2	2.19	0.58
1:A:125:MET:O	1:A:139:ARG:NH2	2.36	0.58
2:B:157:VAL:HG21	2:B:361:LEU:HD13	1.85	0.58
2:D:496:MET:HG3	2:D:512:LEU:HD21	1.84	0.58
2:B:175:THR:HG22	2:B:206:LEU:HB2	1.84	0.58
2:B:532:GLY:O	2:B:731:ASP:HA	2.03	0.58
1:C:212:LYS:O	1:C:212:LYS:HG2	2.04	0.58
2:B:561:MET:CG	1:C:817:PHE:CZ	2.86	0.58
2:D:407:SER:HA	2:D:476:ASP:HB2	1.84	0.58
1:C:538:LEU:HB2	1:C:753:PHE:HB2	1.84	0.58
2:D:416:PHE:HA	2:D:459:PHE:HB2	1.86	0.58
1:C:239:ASN:O	1:C:241:THR:OG1	2.15	0.58
2:B:537:VAL:H	2:B:749:THR:HA	1.68	0.58
2:B:633:VAL:HG23	1:C:615:LEU:HD11	1.85	0.58
1:C:119:LEU:HA	1:C:138:LEU:O	2.04	0.58
2:B:643:ALA:CB	1:C:648:THR:HG22	2.33	0.57
2:B:534:SER:OG	2:B:732:ALA:HB2	1.76	0.57
1:A:824:ILE:HG12	2:D:634:TRP:HZ2	1.66	0.57
1:A:824:ILE:HG23	2:D:572:ILE:HD13	1.86	0.57
2:D:486:GLY:HA3	2:D:497:ILE:HD12	1.87	0.57
2:B:211:GLU:HB2	2:B:215:THR:HG23	1.87	0.57
2:B:533:ILE:HD12	2:B:757:ALA:HB3	1.85	0.57
2:B:486:GLY:HA3	2:B:497:ILE:HD12	1.87	0.57
1:A:144:TYR:HE1	1:A:251:GLU:HB2	1.70	0.57
1:A:608:TRP:CZ2	2:D:626:THR:HA	2.40	0.57
2:B:416:PHE:HA	2:B:459:PHE:HB2	1.85	0.57
1:A:212:LYS:O	1:A:212:LYS:HG2	2.04	0.57
1:C:125:MET:O	1:C:139:ARG:NH2	2.36	0.57
1:A:28:ASN:ND2	1:A:85:SER:O	2.31	0.56
2:D:211:GLU:HB2	2:D:215:THR:HG23	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:270:LYS:O	2:D:370:ARG:NH1	2.38	0.56
2:D:533:ILE:HD12	2:D:757:ALA:HB3	1.85	0.56
2:D:102:ASP:HB2	2:D:129:GLY:HA3	1.87	0.56
2:D:409:VAL:HG22	2:D:478:TYR:HB2	1.87	0.56
2:B:45:ASP:HA	2:B:73:LEU:HD11	1.87	0.56
2:B:523:ASP:OD2	2:B:772:LYS:NZ	2.39	0.56
1:C:810:PHE:H	1:C:813:MET:HB2	1.71	0.56
2:D:157:VAL:HG21	2:D:361:LEU:HD13	1.85	0.56
1:A:119:LEU:HA	1:A:138:LEU:O	2.04	0.56
2:B:532:GLY:HA3	2:B:755:ILE:CG2	2.36	0.56
2:D:45:ASP:HA	2:D:73:LEU:HD11	1.87	0.56
2:D:532:GLY:HA3	2:D:755:ILE:CG2	2.36	0.56
2:B:270:LYS:O	2:B:370:ARG:NH1	2.38	0.56
2:B:413:GLU:H	2:B:417:VAL:HB	1.70	0.56
2:B:486:GLY:O	2:B:692:ARG:NH2	2.39	0.56
2:D:413:GLU:H	2:D:417:VAL:HB	1.70	0.56
2:B:89:LEU:HB3	2:B:95:ILE:HD12	1.87	0.56
2:B:533:ILE:HG23	2:B:729:ILE:CG2	2.36	0.56
2:B:533:ILE:HG21	2:B:729:ILE:CG2	2.35	0.56
1:A:810:PHE:H	1:A:813:MET:HB2	1.71	0.56
1:A:813:MET:CE	2:D:641:PHE:CE1	2.88	0.56
2:B:409:VAL:HG22	2:B:478:TYR:HB2	1.87	0.56
1:C:70:ASN:ND2	2:D:321:TYR:O	2.39	0.56
1:A:70:ASN:ND2	2:B:321:TYR:O	2.39	0.56
2:B:265:THR:HG21	2:B:284:TRP:HE1	1.71	0.56
2:D:265:THR:HG21	2:D:284:TRP:HE1	1.71	0.56
1:C:144:TYR:HE1	1:C:251:GLU:HB2	1.70	0.55
1:A:615:LEU:HD11	2:D:633:VAL:CG2	2.36	0.55
1:A:813:MET:SD	2:D:641:PHE:CD1	2.99	0.55
1:A:824:ILE:CG2	2:D:572:ILE:HD13	2.36	0.55
2:D:486:GLY:O	2:D:692:ARG:NH2	2.39	0.55
1:A:142:PRO:HB3	1:A:345:ASP:HB3	1.89	0.55
2:B:102:ASP:HB2	2:B:129:GLY:HA3	1.87	0.55
1:C:142:PRO:HB3	1:C:345:ASP:HB3	1.89	0.55
2:D:533:ILE:HG23	2:D:729:ILE:CG2	2.36	0.55
1:C:467:ALA:HB2	1:C:474:TYR:HE2	1.72	0.55
2:D:279:VAL:HG22	2:D:363:VAL:HG22	1.89	0.55
2:D:523:ASP:OD2	2:D:772:LYS:NZ	2.39	0.55
1:A:816:VAL:CG1	2:D:641:PHE:HZ	2.17	0.55
1:A:824:ILE:HG21	2:D:572:ILE:CD1	2.37	0.55
1:C:138:LEU:HD22	1:C:344:GLY:HA3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:169:VAL:HA	2:D:199:ASP:HB2	1.88	0.55
1:A:138:LEU:HD22	1:A:344:GLY:HA3	1.88	0.55
1:A:467:ALA:HB2	1:A:474:TYR:HE2	1.72	0.55
1:A:839:ARG:NH2	2:D:582:PRO:HG2	2.21	0.55
1:C:28:ASN:ND2	1:C:85:SER:O	2.31	0.55
1:C:124:ARG:NH1	1:C:251:GLU:OE1	2.40	0.55
2:B:279:VAL:HG22	2:B:363:VAL:HG22	1.89	0.55
2:B:123:PRO:HG3	2:B:334:LEU:HD12	1.89	0.54
1:C:145:SER:OG	1:C:179:ARG:NH1	2.40	0.54
1:C:505:LEU:HD12	1:C:527:ILE:HD13	1.90	0.54
2:D:94:ARG:NH1	2:D:315:GLU:OE1	2.40	0.54
2:D:533:ILE:HG21	2:D:729:ILE:CG2	2.35	0.54
1:A:124:ARG:NH1	1:A:251:GLU:OE1	2.40	0.54
1:A:520:ASN:HD22	1:A:523:ARG:HD2	1.73	0.54
2:B:169:VAL:HA	2:B:199:ASP:HB2	1.88	0.54
1:C:234:ALA:HA	1:C:237:MET:HB2	1.90	0.54
2:D:89:LEU:HB3	2:D:95:ILE:HD12	1.87	0.54
1:A:145:SER:OG	1:A:179:ARG:NH1	2.40	0.54
2:B:94:ARG:NH1	2:B:315:GLU:OE1	2.40	0.54
1:C:79:CYS:HB3	2:D:80:LYS:HE3	1.89	0.54
2:D:184:ILE:HG12	2:D:203:VAL:HG11	1.90	0.54
1:A:519:ILE:CG2	2:D:780:LEU:HD21	2.37	0.54
1:A:234:ALA:HA	1:A:237:MET:HB2	1.90	0.54
2:D:768:GLY:H	2:D:772:LYS:HZ2	1.56	0.54
1:C:242:GLY:N	1:C:245:TYR:HD2	2.04	0.54
1:A:242:GLY:O	1:A:245:TYR:CD2	2.61	0.54
1:A:239:ASN:O	1:A:241:THR:N	2.41	0.54
1:C:145:SER:O	1:C:148:SER:OG	2.22	0.54
1:C:520:ASN:HD22	1:C:523:ARG:HD2	1.73	0.53
1:C:831:ILE:HG23	1:C:835:ILE:HD12	1.89	0.53
2:D:123:PRO:HG3	2:D:334:LEU:HD12	1.89	0.53
1:A:839:ARG:NH2	2:D:582:PRO:HD2	2.22	0.53
1:A:79:CYS:HB3	2:B:80:LYS:HE3	1.89	0.53
1:A:127:ILE:HG13	1:A:172:GLU:HG3	1.91	0.53
1:A:505:LEU:HD12	1:A:527:ILE:HD13	1.90	0.53
1:A:489:ARG:HA	1:A:495:LYS:O	2.09	0.53
1:A:731:TRP:HB2	1:A:736:LEU:HD11	1.90	0.53
2:B:361:LEU:HB2	2:B:378:TRP:HB2	1.91	0.53
2:B:537:VAL:HG12	2:B:727:ALA:HB2	0.59	0.53
2:D:361:LEU:HB2	2:D:378:TRP:HB2	1.91	0.53
2:D:537:VAL:HG12	2:D:727:ALA:HB2	0.59	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:608:TRP:CZ2	2:D:626:THR:CA	2.91	0.53
2:B:184:ILE:HG12	2:B:203:VAL:HG11	1.90	0.53
1:A:831:ILE:HG23	1:A:835:ILE:HD12	1.89	0.53
2:B:533:ILE:CD1	2:B:757:ALA:CB	2.84	0.53
2:B:641:PHE:CE2	1:C:816:VAL:HG11	2.43	0.53
1:C:127:ILE:HG13	1:C:172:GLU:HG3	1.91	0.53
1:C:731:TRP:HB2	1:C:736:LEU:HD11	1.90	0.53
2:D:117:SER:HB2	2:D:143:THR:H	1.73	0.53
1:A:608:TRP:CA	2:D:629:ILE:CD1	2.60	0.53
1:A:682:ALA:HB1	1:A:710:ASN:HA	1.91	0.53
1:A:810:PHE:HE2	2:D:645:TYR:HH	1.55	0.53
1:A:71:ALA:HB3	2:B:323:GLN:HE22	1.74	0.52
2:B:432:ASN:HB2	2:B:457:LYS:HE2	1.91	0.52
1:C:71:ALA:HB3	2:D:323:GLN:HE22	1.74	0.52
1:C:682:ALA:HB1	1:C:710:ASN:HA	1.91	0.52
1:A:488:GLU:HB2	1:A:499:ASN:HD21	1.75	0.52
2:B:768:GLY:H	2:B:772:LYS:HZ2	1.58	0.52
2:D:533:ILE:CD1	2:D:757:ALA:CB	2.84	0.52
1:A:432:LYS:HD3	1:A:464:ILE:HD12	1.91	0.52
1:A:335:THR:OG1	1:A:346:ARG:NH1	2.42	0.52
2:D:173:VAL:HG22	2:D:204:ILE:HB	1.92	0.52
1:A:148:SER:HA	1:A:151:TRP:HD1	1.75	0.52
2:B:173:VAL:HG22	2:B:204:ILE:HB	1.92	0.52
1:C:489:ARG:HA	1:C:495:LYS:O	2.09	0.52
1:A:520:ASN:HD21	1:A:688:SER:HB2	1.75	0.52
2:B:117:SER:HB2	2:B:143:THR:H	1.73	0.52
1:A:121:LEU:O	1:A:140:THR:OG1	2.28	0.52
1:C:148:SER:HA	1:C:151:TRP:HD1	1.75	0.52
1:C:520:ASN:HD21	1:C:688:SER:HB2	1.75	0.52
1:A:410:TYR:O	1:A:455:CYS:HA	2.10	0.52
2:B:277:ILE:HG12	2:B:365:VAL:HG22	1.91	0.52
1:C:335:THR:OG1	1:C:346:ARG:NH1	2.42	0.52
2:D:432:ASN:HB2	2:D:457:LYS:HE2	1.91	0.52
2:B:557:SER:C	1:C:809:THR:HG22	2.30	0.51
1:C:242:GLY:O	1:C:245:TYR:CD2	2.60	0.51
1:C:302:THR:HG21	1:C:316:LYS:HB2	1.91	0.51
1:A:302:THR:HG21	1:A:316:LYS:HB2	1.91	0.51
1:A:308:CYS:HB2	2:B:80:LYS:HG3	1.93	0.51
1:C:488:GLU:HB2	1:C:499:ASN:HD21	1.75	0.51
2:D:277:ILE:HG12	2:D:365:VAL:HG22	1.91	0.51
1:A:816:VAL:HG11	2:D:641:PHE:CE2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:410:TYR:O	1:C:455:CYS:HA	2.11	0.51
2:B:256:ILE:HG12	2:B:277:ILE:HD12	1.93	0.51
2:B:302:ALA:HB1	2:B:334:LEU:HD22	1.93	0.51
2:B:101:GLY:HA2	2:B:128:HIS:H	1.76	0.51
2:B:694:ILE:O	2:B:698:TYR:N	2.37	0.51
2:D:298:ILE:HG12	2:D:341:VAL:HG11	1.93	0.51
2:B:641:PHE:HZ	1:C:816:VAL:CG1	2.22	0.51
1:C:277:GLU:HA	1:C:280:HIS:HD2	1.76	0.51
1:C:432:LYS:HD3	1:C:464:ILE:HD12	1.91	0.51
1:A:521:ASN:CB	2:D:780:LEU:CD1	2.86	0.51
1:C:484:PHE:O	1:C:501:MET:N	2.41	0.51
2:B:791:LEU:HD23	2:B:794:LEU:HD12	1.93	0.51
1:C:398:LEU:HB3	1:C:512:MET:HG3	1.93	0.51
1:C:536:GLN:HB2	1:C:758:PHE:HE2	1.75	0.51
1:A:536:GLN:HB2	1:A:758:PHE:HE2	1.75	0.51
1:C:541:LEU:O	1:C:728:ALA:HA	2.10	0.51
2:D:82:LEU:O	2:D:86:VAL:HB	2.12	0.51
1:A:487:GLN:HA	1:A:497:GLU:O	2.11	0.50
1:A:541:LEU:O	1:A:728:ALA:HA	2.10	0.50
1:C:121:LEU:O	1:C:140:THR:OG1	2.28	0.50
1:C:483:LYS:HD3	1:C:686:GLN:HB2	1.92	0.50
2:D:101:GLY:HA2	2:D:128:HIS:H	1.76	0.50
1:A:559:GLN:NE2	2:B:814:ILE:O	2.44	0.50
2:B:533:ILE:CD1	2:B:757:ALA:HB3	2.41	0.50
1:C:559:GLN:NE2	2:D:814:ILE:O	2.44	0.50
1:C:308:CYS:HB2	2:D:80:LYS:HG3	1.93	0.50
1:C:310:GLY:N	2:D:78:ASP:OD2	2.44	0.50
2:D:256:ILE:HG12	2:D:277:ILE:HD12	1.93	0.50
1:C:91:LEU:HB3	1:C:121:LEU:HD21	1.94	0.50
1:A:540:ILE:HG12	1:A:730:ILE:HG12	1.92	0.50
2:D:153:GLN:NE2	2:D:356:GLN:O	2.36	0.50
2:D:720:LEU:HB3	2:D:747:LEU:HD22	1.93	0.50
1:A:91:LEU:HB3	1:A:121:LEU:HD21	1.94	0.50
1:A:151:TRP:O	1:A:154:MET:HB2	2.11	0.50
2:B:634:TRP:HZ2	1:C:824:ILE:CG1	2.24	0.50
1:C:151:TRP:O	1:C:154:MET:HB2	2.11	0.50
1:C:540:ILE:HG12	1:C:730:ILE:HG12	1.92	0.50
1:A:839:ARG:NH1	2:D:582:PRO:HG3	2.21	0.50
2:B:413:GLU:OE1	2:B:511:SER:N	2.43	0.50
2:B:633:VAL:CG2	1:C:615:LEU:HD11	2.42	0.50
2:D:533:ILE:CD1	2:D:757:ALA:HB3	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:668:LYS:HD3	2:D:672:ARG:HD2	1.94	0.50
1:A:277:GLU:HA	1:A:280:HIS:HD2	1.76	0.50
1:A:648:THR:HG22	2:D:643:ALA:HB1	1.92	0.50
2:B:82:LEU:O	2:B:86:VAL:HB	2.11	0.50
1:C:487:GLN:HA	1:C:497:GLU:O	2.11	0.50
1:A:483:LYS:HD3	1:A:686:GLN:HB2	1.92	0.50
2:B:334:LEU:HB3	2:B:338:MET:HG2	1.94	0.50
2:B:720:LEU:HB3	2:B:747:LEU:HD22	1.93	0.50
1:A:777:LEU:HD11	2:D:519:SER:CB	2.42	0.49
1:C:543:LYS:HG2	1:C:721:VAL:HG13	1.94	0.49
2:D:827:ALA:O	2:D:830:LEU:HB2	2.12	0.49
1:A:310:GLY:N	2:B:78:ASP:OD2	2.44	0.49
1:A:617:SER:HB3	2:D:632:SER:HB2	1.94	0.49
2:B:668:LYS:HD3	2:B:672:ARG:HD2	1.94	0.49
2:B:769:SER:HB2	2:B:771:TRP:HD1	1.77	0.49
1:C:438:GLY:HA3	1:C:478:LEU:HB2	1.95	0.49
1:C:570:VAL:HG22	1:C:614:LEU:HD13	1.94	0.49
2:D:302:ALA:HB1	2:D:334:LEU:HD22	1.93	0.49
2:D:769:SER:HB2	2:D:771:TRP:HD1	1.77	0.49
2:B:298:ILE:HG12	2:B:341:VAL:HG11	1.93	0.49
1:A:398:LEU:HB3	1:A:512:MET:HG3	1.93	0.49
1:C:46:VAL:HG13	1:C:60:LEU:HD13	1.94	0.49
1:C:170:ASP:HB2	1:C:173:GLY:H	1.78	0.49
2:D:791:LEU:HD23	2:D:794:LEU:HD12	1.93	0.49
1:A:570:VAL:HG22	1:A:614:LEU:HD13	1.94	0.49
2:B:281:TYR:HE1	2:B:360:ARG:H	1.60	0.49
2:B:827:ALA:O	2:B:830:LEU:HB2	2.12	0.49
1:C:307:GLY:O	1:C:311:ASN:ND2	2.37	0.49
1:A:193:LYS:HE3	1:A:214:LEU:HD21	1.95	0.49
1:A:234:ALA:HA	1:A:237:MET:CG	2.43	0.49
1:A:715:ALA:HA	1:A:718:ILE:HD12	1.95	0.49
1:A:809:THR:CG2	2:D:558:VAL:H	1.94	0.49
1:C:162:HIS:ND1	1:C:192:GLU:OE2	2.46	0.49
2:D:35:ASN:O	2:D:97:GLY:N	2.46	0.49
1:A:364:VAL:HA	1:A:375:ASN:HB2	1.94	0.49
2:B:408:ILE:HD12	2:B:475:TYR:HB3	1.95	0.49
2:D:513:THR:OG1	2:D:518:ARG:NH1	2.46	0.49
1:A:162:HIS:ND1	1:A:192:GLU:OE2	2.46	0.48
1:A:341:ASN:HD22	1:A:345:ASP:HB2	1.78	0.48
2:B:632:SER:HB2	1:C:617:SER:HB3	1.95	0.48
1:A:46:VAL:HG13	1:A:60:LEU:HD13	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:461:ASP:OD2	1:A:792:TRP:NE1	2.40	0.48
2:B:127:ILE:HA	2:B:147:PHE:HB2	1.95	0.48
2:B:645:TYR:OH	1:C:810:PHE:HE2	1.96	0.48
1:A:820:VAL:HG13	2:D:634:TRP:HE1	1.78	0.48
2:B:35:ASN:O	2:B:97:GLY:N	2.46	0.48
2:B:582:PRO:HG2	1:C:839:ARG:CZ	2.38	0.48
1:C:146:HIS:NE2	1:C:345:ASP:OD2	2.43	0.48
1:C:193:LYS:HE3	1:C:214:LEU:HD21	1.95	0.48
2:D:276:LEU:HB2	2:D:366:LEU:HD12	1.94	0.48
2:D:281:TYR:HE1	2:D:360:ARG:H	1.60	0.48
2:D:334:LEU:HB3	2:D:338:MET:HG2	1.94	0.48
2:B:367:ASN:ND2	2:B:373:GLU:OE1	2.46	0.48
2:B:411:LEU:HD21	2:B:484:LYS:HA	1.95	0.48
2:B:741:ARG:NH2	2:B:795:TRP:O	2.41	0.48
1:C:521:ASN:H	1:C:695:ARG:HH12	1.62	0.48
1:C:720:ALA:O	1:C:725:LYS:N	2.46	0.48
2:D:367:ASN:ND2	2:D:373:GLU:OE1	2.46	0.48
2:D:408:ILE:HD12	2:D:475:TYR:HB3	1.95	0.48
2:D:413:GLU:OE1	2:D:511:SER:N	2.43	0.48
2:D:534:SER:OG	2:D:732:ALA:HB2	1.76	0.48
2:D:741:ARG:NH2	2:D:795:TRP:O	2.41	0.48
1:A:229:ALA:O	1:A:233:ARG:HG3	2.12	0.48
1:A:543:LYS:HG2	1:A:721:VAL:HG13	1.95	0.48
2:B:276:LEU:HB2	2:B:366:LEU:HD12	1.94	0.48
1:C:292:VAL:HA	1:C:295:LEU:HD12	1.96	0.48
1:C:317:THR:HG22	1:C:320:LEU:HD12	1.95	0.48
1:C:396:THR:HB	1:C:472:PHE:HA	1.96	0.48
1:C:461:ASP:OD2	1:C:792:TRP:NE1	2.40	0.48
2:D:41:GLY:H	2:D:102:ASP:HA	1.79	0.48
1:A:32:VAL:HB	1:A:92:VAL:HA	1.96	0.48
1:A:438:GLY:HA3	1:A:478:LEU:HB2	1.95	0.48
2:B:634:TRP:CZ2	1:C:824:ILE:CG1	2.97	0.48
1:C:229:ALA:O	1:C:233:ARG:HG3	2.13	0.48
1:C:352:SER:HA	1:C:365:GLY:O	2.13	0.48
1:C:715:ALA:HA	1:C:718:ILE:HD12	1.95	0.48
1:A:292:VAL:HA	1:A:295:LEU:HD12	1.96	0.48
1:A:317:THR:HG22	1:A:320:LEU:HD12	1.95	0.48
2:B:174:THR:HG22	2:B:230:TYR:HB2	1.95	0.48
2:B:513:THR:OG1	2:B:518:ARG:NH1	2.46	0.48
2:B:41:GLY:H	2:B:102:ASP:HA	1.79	0.48
1:C:234:ALA:HA	1:C:237:MET:CG	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:364:VAL:HA	1:C:375:ASN:HB2	1.94	0.48
2:D:681:ARG:HB3	2:D:725:LEU:HD23	1.95	0.48
1:A:145:SER:O	1:A:148:SER:OG	2.22	0.48
1:A:146:HIS:NE2	1:A:345:ASP:OD2	2.43	0.48
2:D:127:ILE:HA	2:D:147:PHE:HB2	1.95	0.48
2:D:174:THR:HG22	2:D:230:TYR:HB2	1.95	0.48
2:D:536:MET:HA	2:D:749:THR:HG22	1.96	0.48
1:A:396:THR:HB	1:A:472:PHE:HA	1.96	0.47
1:A:521:ASN:CA	2:D:780:LEU:CD1	2.42	0.47
1:A:720:ALA:O	1:A:725:LYS:N	2.46	0.47
2:B:777:LEU:HD23	2:B:780:LEU:HD12	1.96	0.47
1:A:519:ILE:HG22	2:D:780:LEU:CD2	2.41	0.47
2:B:536:MET:HA	2:B:749:THR:CG2	2.44	0.47
2:D:78:ASP:O	2:D:81:SER:OG	2.28	0.47
2:D:694:ILE:HA	2:D:697:ASN:HB2	1.96	0.47
1:A:352:SER:HA	1:A:365:GLY:O	2.13	0.47
2:B:643:ALA:HB2	1:C:648:THR:HG22	1.95	0.47
2:B:780:LEU:HB2	1:C:521:ASN:ND2	2.29	0.47
1:C:32:VAL:HB	1:C:92:VAL:HA	1.96	0.47
2:B:536:MET:HA	2:B:749:THR:HG22	1.96	0.47
2:B:536:MET:N	2:B:728:PHE:O	2.47	0.47
2:B:636:PHE:CE2	2:B:640:ILE:HD11	2.49	0.47
2:D:534:SER:OG	2:D:732:ALA:HB3	2.02	0.47
2:D:636:PHE:CE2	2:D:640:ILE:HD11	2.50	0.47
1:A:521:ASN:H	1:A:695:ARG:HH12	1.62	0.47
1:A:170:ASP:HB2	1:A:173:GLY:H	1.78	0.47
1:A:234:ALA:CA	1:A:237:MET:HB2	2.45	0.47
1:A:626:SER:OG	1:A:627:PHE:N	2.48	0.47
1:A:705:HIS:HA	1:A:709:HIS:HD2	1.79	0.47
2:B:36:ILE:HG12	2:B:97:GLY:HA3	1.96	0.47
1:C:234:ALA:CA	1:C:237:MET:HB2	2.45	0.47
1:C:341:ASN:HD22	1:C:345:ASP:HB2	1.78	0.47
1:C:626:SER:OG	1:C:627:PHE:N	2.48	0.47
2:D:411:LEU:HD21	2:D:484:LYS:HA	1.95	0.47
2:D:777:LEU:HD23	2:D:780:LEU:HD12	1.96	0.47
2:B:437:ARG:HD3	2:B:451:ASN:HB3	1.97	0.47
2:D:35:ASN:HB3	2:D:95:ILE:HG23	1.97	0.47
2:D:536:MET:CA	2:D:749:THR:HG22	2.45	0.47
1:A:513:ILE:HB	1:A:761:GLY:HA3	1.96	0.47
2:B:116:ILE:O	2:B:120:THR:OG1	2.24	0.47
2:B:161:ILE:HA	2:B:386:ARG:HH22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:740:GLY:HA2	2:B:800:CYS:H	1.80	0.47
1:C:513:ILE:HB	1:C:761:GLY:HA3	1.96	0.47
1:A:485:GLY:HA2	1:A:686:GLN:HB3	1.96	0.47
2:B:681:ARG:HB3	2:B:725:LEU:HD23	1.95	0.47
1:C:317:THR:O	1:C:321:PHE:N	2.41	0.47
2:D:36:ILE:HG12	2:D:97:GLY:HA3	1.96	0.47
2:D:536:MET:HA	2:D:749:THR:CG2	2.44	0.47
2:D:685:VAL:H	2:D:730:TYR:HE1	1.63	0.47
1:C:705:HIS:HA	1:C:709:HIS:HD2	1.79	0.46
2:D:437:ARG:HD3	2:D:451:ASN:HB3	1.97	0.46
2:D:532:GLY:HA3	2:D:755:ILE:HG21	1.97	0.46
2:D:740:GLY:HA2	2:D:800:CYS:H	1.80	0.46
1:A:162:HIS:HB3	1:A:216:ALA:HB2	1.97	0.46
1:A:317:THR:O	1:A:321:PHE:N	2.41	0.46
1:A:813:MET:HE3	2:D:641:PHE:CE1	2.50	0.46
2:B:104:THR:OG1	2:B:130:GLY:N	2.44	0.46
1:C:485:GLY:HA2	1:C:686:GLN:HB3	1.96	0.46
1:C:558:PHE:HA	2:D:814:ILE:HG13	1.96	0.46
2:D:536:MET:C	2:D:749:THR:HA	2.36	0.46
2:D:536:MET:N	2:D:728:PHE:O	2.47	0.46
2:B:298:ILE:HG23	2:B:341:VAL:HG21	1.97	0.46
2:B:685:VAL:H	2:B:730:TYR:HE1	1.63	0.46
2:D:298:ILE:HG23	2:D:341:VAL:HG21	1.97	0.46
2:B:536:MET:CA	2:B:749:THR:HG22	2.45	0.46
2:B:645:TYR:HA	2:B:648:ASN:HB2	1.97	0.46
2:D:672:ARG:HB3	2:D:675:ASP:HB2	1.97	0.46
2:B:694:ILE:HA	2:B:697:ASN:HB2	1.96	0.46
1:A:773:SER:HA	1:A:776[A]:ILE:HD12	1.98	0.46
2:B:35:ASN:HB3	2:B:95:ILE:HG23	1.97	0.46
2:B:780:LEU:HD21	1:C:519:ILE:CG2	2.46	0.46
1:C:34:SER:HB3	1:C:67:HIS:HD2	1.81	0.46
1:C:773:SER:HA	1:C:776[A]:ILE:HD12	1.98	0.46
2:B:780:LEU:CD1	1:C:521:ASN:CB	2.87	0.46
1:C:401:VAL:HG22	1:C:477:HIS:HB2	1.98	0.46
2:D:533:ILE:HG23	2:D:729:ILE:HG23	1.92	0.46
1:A:558:PHE:HA	2:B:814:ILE:HG13	1.96	0.46
1:C:534:LYS:O	1:C:757:GLY:HA2	2.16	0.46
1:A:76:LEU:O	1:A:80:GLU:HB2	2.16	0.46
1:A:172:GLU:OE1	1:A:252:ARG:NH1	2.43	0.46
1:A:439:PRO:HG3	1:A:480:ALA:HA	1.98	0.46
2:B:572:ILE:HD11	1:C:824:ILE:CG2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:629:ILE:HD13	1:C:608:TRP:HA	1.90	0.46
1:C:76:LEU:O	1:C:80:GLU:HB2	2.16	0.46
1:C:636:TRP:HA	1:C:639:PHE:HD2	1.81	0.46
2:D:161:ILE:HA	2:D:386:ARG:HH22	1.79	0.45
2:D:536:MET:O	2:D:727:ALA:C	2.53	0.45
1:A:34:SER:HB3	1:A:67:HIS:HD2	1.81	0.45
1:A:534:LYS:O	1:A:757:GLY:HA2	2.16	0.45
2:B:94:ARG:HB3	2:B:316:ALA:HB3	1.99	0.45
2:B:532:GLY:HA3	2:B:755:ILE:HG21	1.97	0.45
1:C:162:HIS:HB3	1:C:216:ALA:HB2	1.97	0.45
2:B:537:VAL:HG23	2:B:748:VAL:HB	1.99	0.45
2:D:537:VAL:HG23	2:D:748:VAL:HB	1.98	0.45
2:B:633:VAL:HA	1:C:615:LEU:HD22	1.97	0.45
2:D:645:TYR:HA	2:D:648:ASN:HB2	1.97	0.45
1:A:68:LYS:HD2	1:A:74:MET:HA	1.99	0.45
1:A:479:VAL:HG12	1:A:481:ASP:H	1.82	0.45
1:A:494:ASN:HB3	2:B:193:ASN:HB3	1.99	0.45
2:B:536:MET:C	2:B:749:THR:HA	2.36	0.45
2:B:672:ARG:HB3	2:B:675:ASP:HB2	1.97	0.45
1:A:636:TRP:HA	1:A:639:PHE:HD2	1.81	0.45
2:B:536:MET:O	2:B:727:ALA:C	2.53	0.45
2:D:411:LEU:HD23	2:D:480:VAL:HB	1.99	0.45
2:D:538:SER:CA	2:D:748:VAL:H	2.30	0.45
2:B:176:ILE:HD12	2:B:207:ASP:HA	1.99	0.45
1:C:789:ASP:HA	1:C:793:VAL:HB	1.98	0.45
1:A:220:ILE:HA	1:A:248:LEU:HB2	1.99	0.45
1:A:341:ASN:N	1:A:345:ASP:O	2.42	0.44
2:B:437:ARG:HB3	2:B:451:ASN:HB3	2.00	0.44
1:C:234:ALA:O	1:C:238:LEU:N	2.50	0.44
2:D:94:ARG:HB3	2:D:316:ALA:HB3	1.99	0.44
2:D:738:LYS:HA	2:D:741:ARG:HB2	1.98	0.44
2:D:113:LEU:HD13	2:D:124:ILE:HG21	2.00	0.44
2:B:536:MET:CB	2:B:735:LEU:HD22	2.44	0.44
1:C:494:ASN:HB3	2:D:193:ASN:HB3	1.99	0.44
2:D:226:VAL:HG22	2:D:254:PHE:HB2	2.00	0.44
1:A:401:VAL:HG22	1:A:477:HIS:HB2	1.98	0.44
2:B:780:LEU:HD13	1:C:521:ASN:N	2.24	0.44
1:C:220:ILE:HA	1:C:248:LEU:HB2	1.98	0.44
1:A:234:ALA:O	1:A:238:LEU:N	2.50	0.44
1:A:484:PHE:O	1:A:501:MET:N	2.41	0.44
1:A:789:ASP:HA	1:A:793:VAL:HB	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:40:LEU:HB2	2:D:73:LEU:HD23	2.00	0.44
2:B:411:LEU:HD23	2:B:480:VAL:HB	1.99	0.44
2:B:780:LEU:CB	1:C:521:ASN:CB	2.92	0.44
1:C:439:PRO:HG3	1:C:480:ALA:HA	1.98	0.44
2:D:437:ARG:HB3	2:D:451:ASN:HB3	2.00	0.44
1:A:287:VAL:HG21	1:A:338:VAL:HG11	2.00	0.44
2:B:40:LEU:HB2	2:B:73:LEU:HD23	2.00	0.44
2:B:634:TRP:NE1	1:C:820:VAL:HG13	2.32	0.44
2:B:735:LEU:O	2:B:739:ALA:CB	2.65	0.44
1:C:68:LYS:HD2	1:C:74:MET:HA	1.99	0.44
2:B:533:ILE:HD11	2:B:693:ASN:HD22	1.83	0.44
1:C:287:VAL:HG21	1:C:338:VAL:HG11	2.00	0.44
1:C:479:VAL:HG12	1:C:481:ASP:H	1.82	0.44
2:D:694:ILE:O	2:D:698:TYR:N	2.37	0.44
1:A:160:TRP:HZ3	1:A:391:GLY:H	1.66	0.44
1:A:307:GLY:O	1:A:311:ASN:ND2	2.37	0.44
2:B:535:VAL:H	2:B:750:ILE:HB	1.22	0.44
2:B:643:ALA:HB1	1:C:648:THR:HG22	1.99	0.44
2:B:153:GLN:NE2	2:B:356:GLN:O	2.36	0.43
2:B:226:VAL:HG22	2:B:254:PHE:HB2	2.00	0.43
2:B:439:PHE:HB3	2:B:449:GLY:HA3	2.00	0.43
2:B:641:PHE:CE1	1:C:813:MET:HE3	2.53	0.43
1:A:168:SER:HA	1:A:197:PHE:HB2	2.00	0.43
1:A:396:THR:HA	1:A:472:PHE:HD1	1.83	0.43
2:B:738:LYS:HA	2:B:741:ARG:HB2	1.98	0.43
1:C:528:GLU:OE1	1:C:769:LYS:NZ	2.51	0.43
2:D:176:ILE:HD12	2:D:207:ASP:HA	1.99	0.43
1:A:824:ILE:CG1	2:D:634:TRP:HZ2	2.31	0.43
2:B:533:ILE:CG1	2:B:757:ALA:HB3	2.49	0.43
2:B:632:SER:OG	1:C:615:LEU:HD13	2.11	0.43
1:C:225:GLU:OE2	1:C:255:SER:OG	2.36	0.43
1:C:240:MET:HE1	1:C:245:TYR:CE1	2.41	0.43
1:A:522:GLU:H	1:A:695:ARG:NH2	2.16	0.43
1:A:615:LEU:HD22	2:D:633:VAL:HA	1.99	0.43
2:B:408:ILE:HG12	2:B:507:MET:HB2	2.01	0.43
2:B:538:SER:CA	2:B:748:VAL:H	2.30	0.43
2:D:384:SER:HB2	2:D:386:ARG:HE	1.84	0.43
1:C:168:SER:HA	1:C:197:PHE:HB2	2.00	0.43
2:D:533:ILE:HD11	2:D:693:ASN:HD22	1.83	0.43
2:D:143:THR:HA	2:D:335:HIS:CE1	2.54	0.43
2:B:113:LEU:HD13	2:B:124:ILE:HG21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:265:GLY:N	1:C:356:LEU:O	2.36	0.43
1:A:768:TRP:HZ3	1:A:771:ASN:HD22	1.66	0.43
2:B:181:ARG:HA	2:B:184:ILE:HD12	2.01	0.43
2:B:582:PRO:CG	1:C:839:ARG:NE	2.78	0.43
1:A:153:GLU:HA	1:A:156:ARG:HE	1.84	0.43
1:A:528:GLU:OE1	1:A:769:LYS:NZ	2.51	0.43
1:A:648:THR:HG22	2:D:643:ALA:HB2	1.99	0.43
1:C:221:LEU:HD11	1:C:247:TRP:HE3	1.84	0.43
1:C:505:LEU:O	1:C:763:ARG:NH2	2.52	0.43
1:C:779:SER:HA	1:C:784:PHE:HD2	1.84	0.43
1:A:225:GLU:OE2	1:A:255:SER:OG	2.36	0.43
1:A:777:LEU:HD13	2:D:519:SER:OG	2.09	0.43
2:B:487:LYS:HD2	2:B:494:ASN:HD22	1.84	0.43
1:C:153:GLU:HA	1:C:156:ARG:HE	1.84	0.43
1:C:541:LEU:HD22	1:C:746:LEU:HD22	2.01	0.43
2:D:181:ARG:HA	2:D:184:ILE:HD12	2.01	0.43
1:A:205:THR:HA	1:A:208:LEU:HD12	2.01	0.42
1:A:241:THR:C	1:A:245:TYR:CD2	2.92	0.42
2:B:134:ILE:HG21	2:B:355:TYR:HE1	1.83	0.42
1:C:172:GLU:OE1	1:C:252:ARG:NH1	2.43	0.42
1:C:339:GLU:O	1:C:347:LYS:N	2.40	0.42
1:C:368:ASN:HD22	1:C:371:HIS:CD2	2.37	0.42
1:C:522:GLU:H	1:C:695:ARG:NH2	2.16	0.42
2:D:408:ILE:HG12	2:D:507:MET:HB2	2.01	0.42
2:D:533:ILE:HG13	2:D:757:ALA:HB3	2.02	0.42
1:A:204:VAL:HG12	1:A:208:LEU:HG	2.01	0.42
2:D:134:ILE:HG21	2:D:355:TYR:HE1	1.83	0.42
1:A:308:CYS:O	2:B:78:ASP:HB3	2.19	0.42
1:A:541:LEU:HD22	1:A:746:LEU:HD22	2.01	0.42
2:B:384:SER:HB2	2:B:386:ARG:HE	1.84	0.42
1:C:153:GLU:O	1:C:156:ARG:HG2	2.19	0.42
1:C:308:CYS:O	2:D:78:ASP:HB3	2.19	0.42
1:C:396:THR:HA	1:C:472:PHE:HD1	1.83	0.42
1:A:265:GLY:N	1:A:356:LEU:O	2.36	0.42
1:A:839:ARG:CZ	2:D:582:PRO:HG2	2.45	0.42
2:B:632:SER:CB	1:C:615:LEU:CD1	2.95	0.42
2:D:439:PHE:HB3	2:D:449:GLY:HA3	2.01	0.42
2:D:533:ILE:CG1	2:D:757:ALA:HB3	2.49	0.42
1:A:153:GLU:O	1:A:156:ARG:HG2	2.19	0.42
1:A:824:ILE:CG2	2:D:572:ILE:HD11	2.49	0.42
1:C:160:TRP:HZ3	1:C:391:GLY:H	1.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:516:GLU:HG2	1:C:777:LEU:HD12	2.02	0.42
2:D:537:VAL:CG1	2:D:727:ALA:HB1	2.09	0.42
1:A:543:LYS:HE3	1:A:727:HIS:HA	2.02	0.42
2:B:143:THR:HA	2:B:335:HIS:CE1	2.54	0.42
1:C:407:PRO:HG2	1:C:458:PHE:HE2	1.84	0.42
1:C:543:LYS:HE3	1:C:727:HIS:HA	2.02	0.42
1:A:433:LYS:HE2	1:A:456:TYR:HE1	1.85	0.42
1:A:505:LEU:O	1:A:763:ARG:NH2	2.52	0.42
1:A:839:ARG:NE	2:D:582:PRO:HG3	2.27	0.42
1:C:44:GLU:HA	1:C:47:ASN:HD22	1.85	0.42
1:C:768:TRP:HZ3	1:C:771:ASN:HD22	1.66	0.42
2:D:433:THR:HB	2:D:456:CYS:H	1.84	0.42
1:A:355:ASN:H	1:A:362:VAL:H	1.68	0.42
2:B:433:THR:HB	2:B:456:CYS:H	1.84	0.42
1:C:123:THR:OG1	1:C:139:ARG:NE	2.53	0.42
1:C:153:GLU:HA	1:C:156:ARG:NE	2.35	0.42
1:C:318:GLY:HA2	1:C:321:PHE:HD2	1.85	0.42
1:A:400:ILE:HG12	1:A:512:MET:HB2	2.02	0.42
2:B:242:GLU:O	2:B:245:SER:OG	2.30	0.42
2:B:533:ILE:HG13	2:B:757:ALA:HB3	2.01	0.42
1:A:123:THR:OG1	1:A:139:ARG:NE	2.53	0.41
1:A:318:GLY:HA2	1:A:321:PHE:HD2	1.85	0.41
1:A:368:ASN:HD22	1:A:371:HIS:CD2	2.37	0.41
1:A:400:ILE:HD12	1:A:474:TYR:HB3	2.01	0.41
2:B:433:THR:HG22	2:B:457:LYS:HG3	2.03	0.41
2:B:630:MET:CB	2:B:634:TRP:CZ3	2.95	0.41
1:C:438:GLY:HA3	1:C:478:LEU:HD12	2.02	0.41
2:D:536:MET:HB2	2:D:749:THR:HG22	1.97	0.41
1:A:212:LYS:O	1:A:212:LYS:CG	2.69	0.41
1:A:234:ALA:HA	1:A:237:MET:HG3	2.02	0.41
1:A:407:PRO:HG2	1:A:458:PHE:HE2	1.84	0.41
1:C:234:ALA:HA	1:C:237:MET:HG3	2.02	0.41
1:C:400:ILE:HD12	1:C:474:TYR:HB3	2.01	0.41
2:D:149:ALA:HB1	2:D:154:GLN:HE21	1.85	0.41
2:D:735:LEU:O	2:D:739:ALA:CB	2.65	0.41
1:A:221:LEU:HD11	1:A:247:TRP:HE3	1.84	0.41
2:B:149:ALA:HB1	2:B:154:GLN:HE21	1.85	0.41
2:B:629:ILE:CD1	1:C:608:TRP:CA	2.66	0.41
1:C:205:THR:HA	1:C:208:LEU:HD12	2.01	0.41
1:C:355:ASN:H	1:C:362:VAL:H	1.68	0.41
1:C:433:LYS:HE2	1:C:456:TYR:HE1	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:533:ILE:HB	2:D:756:PHE:O	2.20	0.41
1:A:153:GLU:HA	1:A:156:ARG:NE	2.35	0.41
1:A:438:GLY:HA3	1:A:478:LEU:HD12	2.02	0.41
1:C:109:TYR:HB3	2:D:112:MET:SD	2.60	0.41
2:D:487:LYS:HD2	2:D:494:ASN:HD22	1.84	0.41
1:C:204:VAL:HG12	1:C:208:LEU:HG	2.01	0.41
1:C:341:ASN:N	1:C:345:ASP:O	2.42	0.41
1:C:400:ILE:HG12	1:C:512:MET:HB2	2.02	0.41
1:C:459:CYS:HB3	1:C:514:VAL:HG12	2.02	0.41
1:A:68:LYS:HZ3	1:A:76:LEU:HB2	1.86	0.41
1:A:809:THR:HG22	2:D:557:SER:C	2.39	0.41
1:C:688:SER:HA	1:C:691:ILE:HD12	2.02	0.41
2:D:256:ILE:HA	2:D:277:ILE:HB	2.02	0.41
1:A:44:GLU:HA	1:A:47:ASN:HD22	1.85	0.41
1:A:109:TYR:HB3	2:B:112:MET:SD	2.60	0.41
1:A:459:CYS:HB3	1:A:514:VAL:HG12	2.02	0.41
1:A:688:SER:HA	1:A:691:ILE:HD12	2.02	0.41
2:B:533:ILE:HB	2:B:756:PHE:O	2.20	0.41
1:C:537:GLY:H	1:C:752:LEU:HD22	1.86	0.41
2:D:526:VAL:HG22	2:D:776:ASP:OD1	2.16	0.41
2:D:535:VAL:CG2	2:D:729:ILE:HG12	2.24	0.41
2:D:536:MET:CB	2:D:735:LEU:HD22	2.44	0.41
1:A:367:TYR:HE1	1:A:372:VAL:HG22	1.86	0.41
1:A:412:LYS:HB2	1:A:456:TYR:HE2	1.86	0.41
1:A:459:CYS:HA	1:A:462:LEU:HD12	2.03	0.41
1:A:537:GLY:H	1:A:752:LEU:HD22	1.86	0.41
1:A:779:SER:HA	1:A:784:PHE:HD2	1.84	0.41
2:B:536:MET:HB2	2:B:749:THR:HG22	1.97	0.41
1:C:195:LEU:HD13	1:C:207:LEU:HB3	2.03	0.41
2:D:375:VAL:HA	2:D:387:HIS:CD2	2.56	0.41
2:D:690:THR:HA	2:D:693:ASN:HD22	1.86	0.41
2:B:281:TYR:CD1	2:B:360:ARG:HB2	2.56	0.41
2:B:375:VAL:HA	2:B:387:HIS:CD2	2.56	0.41
1:C:165:LEU:HD23	1:C:220:ILE:HB	2.03	0.41
2:D:104:THR:OG1	2:D:130:GLY:N	2.44	0.41
2:D:419:VAL:HG21	2:D:479:LEU:HD11	2.03	0.41
2:D:433:THR:HG22	2:D:457:LYS:HG3	2.03	0.41
1:C:706:MET:O	1:C:710:ASN:ND2	2.47	0.40
2:D:180:TYR:HA	2:D:183:PHE:HD2	1.86	0.40
1:A:72:ILE:HG23	2:B:119:HIS:HB3	2.03	0.40
2:B:690:THR:HA	2:B:693:ASN:HD22	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:782:PHE:O	2:D:786:GLY:N	2.55	0.40
2:D:830:LEU:HD23	2:D:833:ILE:HD12	2.04	0.40
2:B:256:ILE:HA	2:B:277:ILE:HB	2.02	0.40
2:B:419:VAL:HG21	2:B:479:LEU:HD11	2.03	0.40
1:C:341:ASN:HA	1:C:347:LYS:HE3	2.04	0.40
2:D:415:PRO:HG3	2:D:741:ARG:HH22	1.86	0.40
2:D:534:SER:HB2	2:D:732:ALA:HA	1.99	0.40
1:A:824:ILE:HD11	2:D:634:TRP:NE1	2.36	0.40
2:B:534:SER:HB2	2:B:732:ALA:HA	1.99	0.40
2:B:572:ILE:HD11	1:C:824:ILE:HG21	2.01	0.40
1:C:113:PHE:CE2	2:D:112:MET:HE2	2.57	0.40
1:C:234:ALA:HA	1:C:237:MET:CB	2.52	0.40
1:C:277:GLU:HA	1:C:280:HIS:CD2	2.56	0.40
1:C:367:TYR:HE1	1:C:372:VAL:HG22	1.86	0.40
1:A:165:LEU:HD23	1:A:220:ILE:HB	2.03	0.40
2:B:433:THR:HG21	2:B:455:CYS:HB3	2.04	0.40
2:B:533:ILE:HG23	2:B:729:ILE:HG23	1.92	0.40
1:C:412:LYS:HB2	1:C:456:TYR:HE2	1.86	0.40
2:D:630:MET:HB3	2:D:634:TRP:CH2	2.57	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	776/847 (92%)	702 (90%)	68 (9%)	6 (1%)	19	60
1	C	776/847 (92%)	703 (91%)	67 (9%)	6 (1%)	19	60
2	B	737/841 (88%)	659 (89%)	76 (10%)	2 (0%)	41	76
2	D	737/841 (88%)	659 (89%)	76 (10%)	2 (0%)	41	76
All	All	3026/3376 (90%)	2723 (90%)	287 (10%)	16 (0%)	32	68

All (16) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	95	PRO
1	A	98	PRO
1	A	240	MET
2	B	329	VAL
1	C	95	PRO
1	C	98	PRO
1	C	240	MET
2	D	329	VAL
1	A	239	ASN
1	C	239	ASN
2	B	327	PRO
2	D	327	PRO
1	A	73	GLN
1	A	560	SER
1	C	73	GLN
1	C	560	SER

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

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	661/731 (90%)	661 (100%)	0	100	100
1	C	661/731 (90%)	660 (100%)	1 (0%)	93	96
2	B	609/729 (84%)	609 (100%)	0	100	100
2	D	609/729 (84%)	609 (100%)	0	100	100
All	All	2540/2920 (87%)	2539 (100%)	1 (0%)	100	100

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	C	243	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (36) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	47	ASN
1	A	70	ASN
1	A	73	GLN
1	A	280	HIS
1	A	341	ASN
1	A	371	HIS
1	A	499	ASN
1	A	520	ASN
1	A	705	HIS
1	A	709	HIS
2	B	42	HIS
2	B	96	HIS
2	B	323	GLN
2	B	358	HIS
2	B	367	ASN
2	B	494	ASN
2	B	693	ASN
2	B	766	GLN
1	C	47	ASN
1	C	70	ASN
1	C	73	GLN
1	C	280	HIS
1	C	341	ASN
1	C	371	HIS
1	C	499	ASN
1	C	520	ASN
1	C	705	HIS
1	C	709	HIS
2	D	42	HIS
2	D	96	HIS
2	D	323	GLN
2	D	358	HIS
2	D	367	ASN
2	D	494	ASN
2	D	693	ASN
2	D	766	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no monosaccharides 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 Map visualisation

This section contains visualisations of the EMDB entry EMD-9715. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections

This section was not generated.

### 6.2 Central slices

This section was not generated.

### 6.3 Largest variance slices

This section was not generated.

### 6.4 Orthogonal surface views

This section was not generated.

### 6.5 Mask visualisation

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

## 7 Map analysis

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

### 7.1 Map-value distribution

This section was not generated.

### 7.2 Volume estimate versus contour level

This section was not generated.

### 7.3 Rotationally averaged power spectrum

This section was not generated. The rotationally averaged power spectrum had issues being displayed.



## 8 Fourier-Shell correlation

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

## 9 Map-model fit

This section was not generated.