



Full wwPDB EM Validation Report ⓘ

Sep 7, 2026 – 10:07 PM JST

PDB ID : 9XTJ / pdb_00009xtj
EMDB ID : EMD-67234
Title : Overall structure of the human UBR4-KCMF1-Calmodulin complex
Authors : Hu, Z.; Yan, R.
Deposited on : 2025-11-22
Resolution : 3.89 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

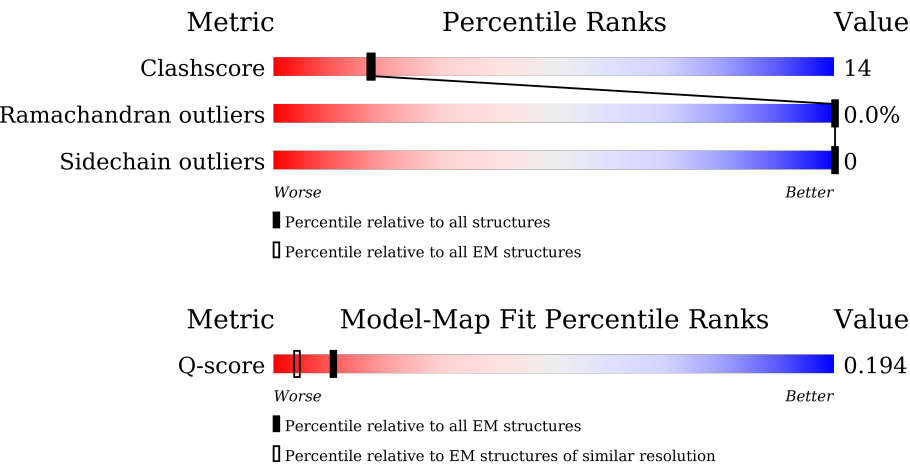
EMDB validation analysis : 0.0.1.dev133
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.50

1 Overall quality at a glance i

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

The reported resolution of this entry is 3.89 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	8712 (3.39 - 4.39)

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

Mol	Chain	Length	Quality of chain
1	A	5203	8% 56% 23% 20%
1	B	5203	9% 57% 23% 20%
2	C	381	23% 45% 17% 38%
2	E	381	24% 46% 17% 38%

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Mol	Chain	Length	Quality of chain
3	D	149	11% 70% 30%
3	F	149	11% 73% 27%

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 70941 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 E3 ubiquitin-protein ligase UBR4.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4140	Total	C	N	O	S	0	0
			32437	20537	5537	6156	207		
1	B	4144	Total	C	N	O	S	0	0
			32464	20552	5543	6161	208		

There are 42 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-19	MET	-	initiating methionine	UNP Q5T4S7
A	-18	ALA	-	expression tag	UNP Q5T4S7
A	-17	ASP	-	expression tag	UNP Q5T4S7
A	-16	TYR	-	expression tag	UNP Q5T4S7
A	-15	LYS	-	expression tag	UNP Q5T4S7
A	-14	ASP	-	expression tag	UNP Q5T4S7
A	-13	ASP	-	expression tag	UNP Q5T4S7
A	-12	ASP	-	expression tag	UNP Q5T4S7
A	-11	ASP	-	expression tag	UNP Q5T4S7
A	-10	LYS	-	expression tag	UNP Q5T4S7
A	-9	SER	-	expression tag	UNP Q5T4S7
A	-8	GLY	-	expression tag	UNP Q5T4S7
A	-7	PRO	-	expression tag	UNP Q5T4S7
A	-6	ASP	-	expression tag	UNP Q5T4S7
A	-5	GLU	-	expression tag	UNP Q5T4S7
A	-4	VAL	-	expression tag	UNP Q5T4S7
A	-3	ASP	-	expression tag	UNP Q5T4S7
A	-2	ALA	-	expression tag	UNP Q5T4S7
A	-1	SER	-	expression tag	UNP Q5T4S7
A	0	GLY	-	expression tag	UNP Q5T4S7
A	1	ARG	-	expression tag	UNP Q5T4S7
B	-19	MET	-	initiating methionine	UNP Q5T4S7
B	-18	ALA	-	expression tag	UNP Q5T4S7
B	-17	ASP	-	expression tag	UNP Q5T4S7
B	-16	TYR	-	expression tag	UNP Q5T4S7
B	-15	LYS	-	expression tag	UNP Q5T4S7

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Chain	Residue	Modelled	Actual	Comment	Reference
B	-14	ASP	-	expression tag	UNP Q5T4S7
B	-13	ASP	-	expression tag	UNP Q5T4S7
B	-12	ASP	-	expression tag	UNP Q5T4S7
B	-11	ASP	-	expression tag	UNP Q5T4S7
B	-10	LYS	-	expression tag	UNP Q5T4S7
B	-9	SER	-	expression tag	UNP Q5T4S7
B	-8	GLY	-	expression tag	UNP Q5T4S7
B	-7	PRO	-	expression tag	UNP Q5T4S7
B	-6	ASP	-	expression tag	UNP Q5T4S7
B	-5	GLU	-	expression tag	UNP Q5T4S7
B	-4	VAL	-	expression tag	UNP Q5T4S7
B	-3	ASP	-	expression tag	UNP Q5T4S7
B	-2	ALA	-	expression tag	UNP Q5T4S7
B	-1	SER	-	expression tag	UNP Q5T4S7
B	0	GLY	-	expression tag	UNP Q5T4S7
B	1	ARG	-	expression tag	UNP Q5T4S7

- Molecule 2 is a protein called E3 ubiquitin-protein ligase KCMF1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	237	Total	C	N	O	S	0	0
			1844	1122	320	382	20		
2	E	237	Total	C	N	O	S	0	0
			1844	1122	320	382	20		

- Molecule 3 is a protein called Calmodulin-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	D	149	Total	C	N	O	S	0	0
			1174	719	189	256	10		
3	F	149	Total	C	N	O	S	0	0
			1174	719	189	256	10		

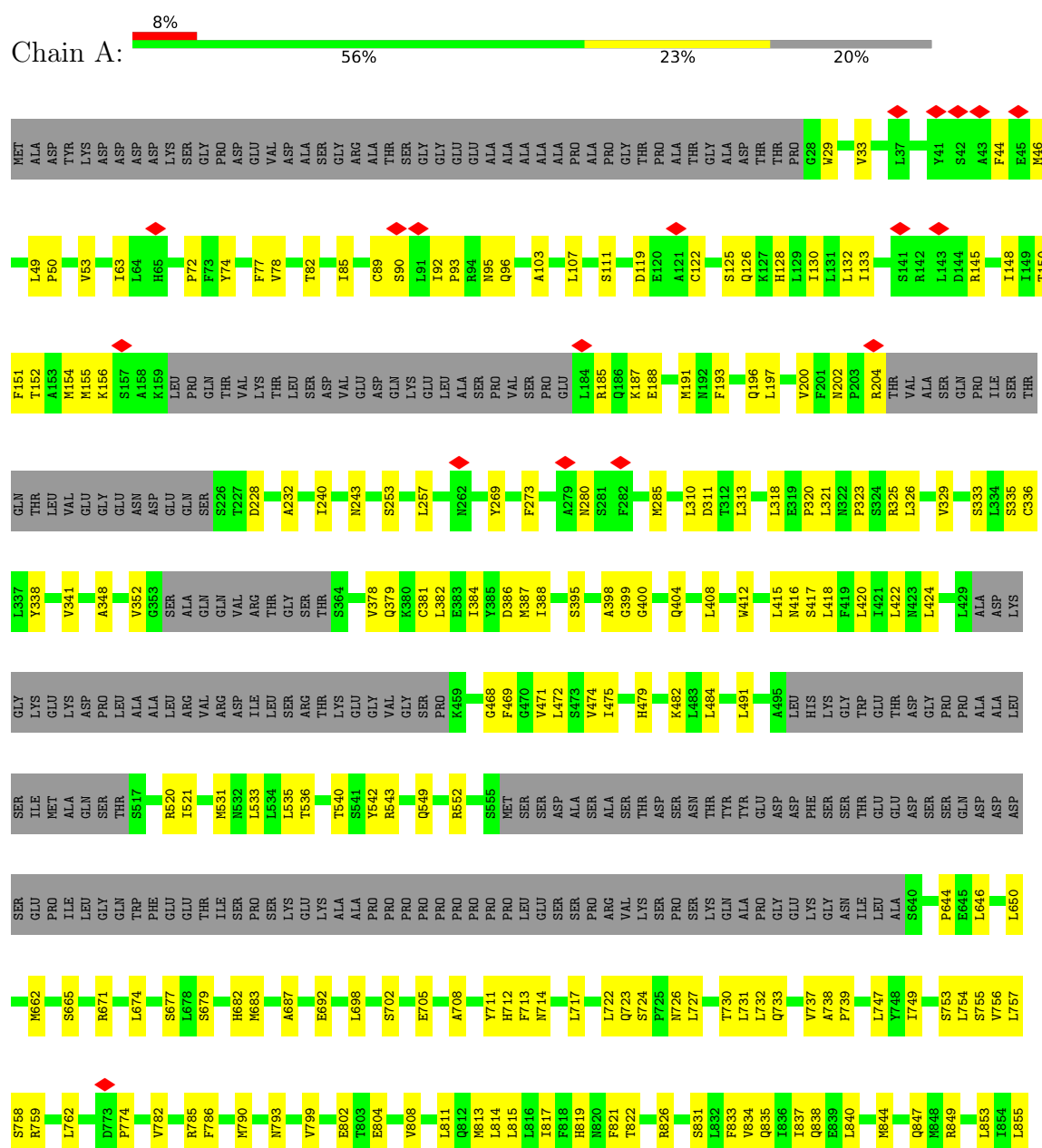
- Molecule 4 is CALCIUM ION (CCD ID: CA) (formula: Ca).

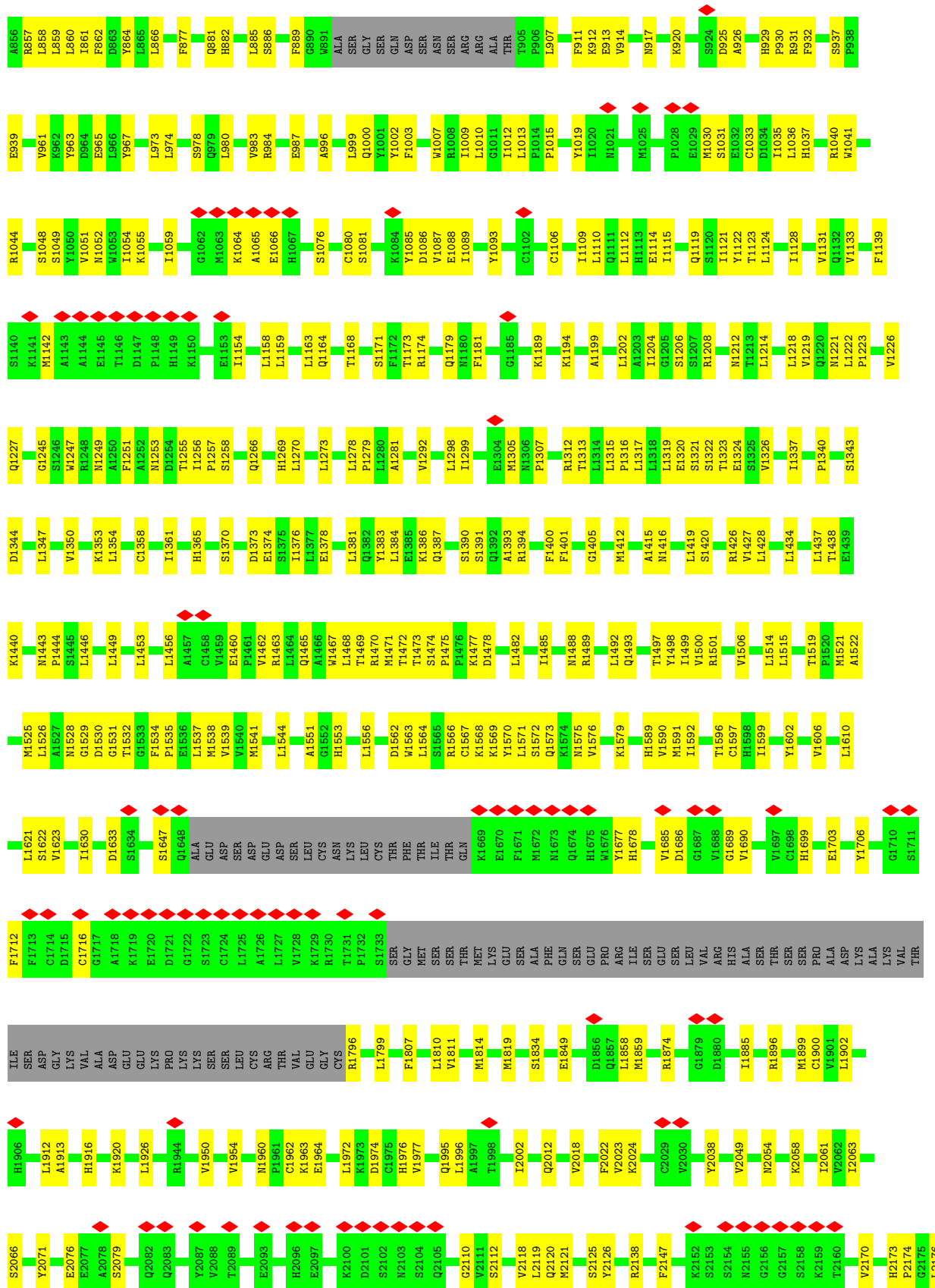
Mol	Chain	Residues	Atoms		AltConf
4	D	2	Total	Ca	0
			2	2	
4	F	2	Total	Ca	0
			2	2	

3 Residue-property plots

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

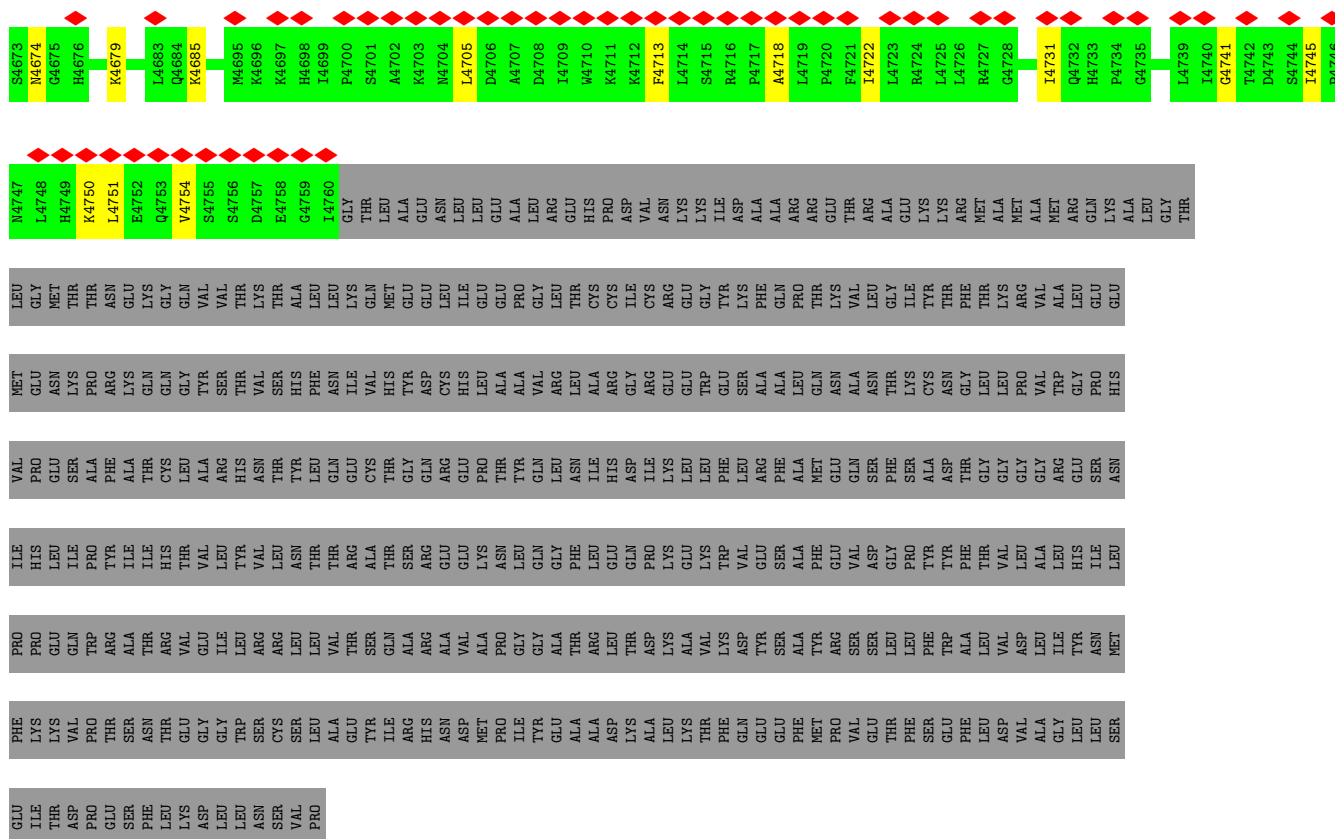
• Molecule 1: E3 ubiquitin-protein ligase UBR4



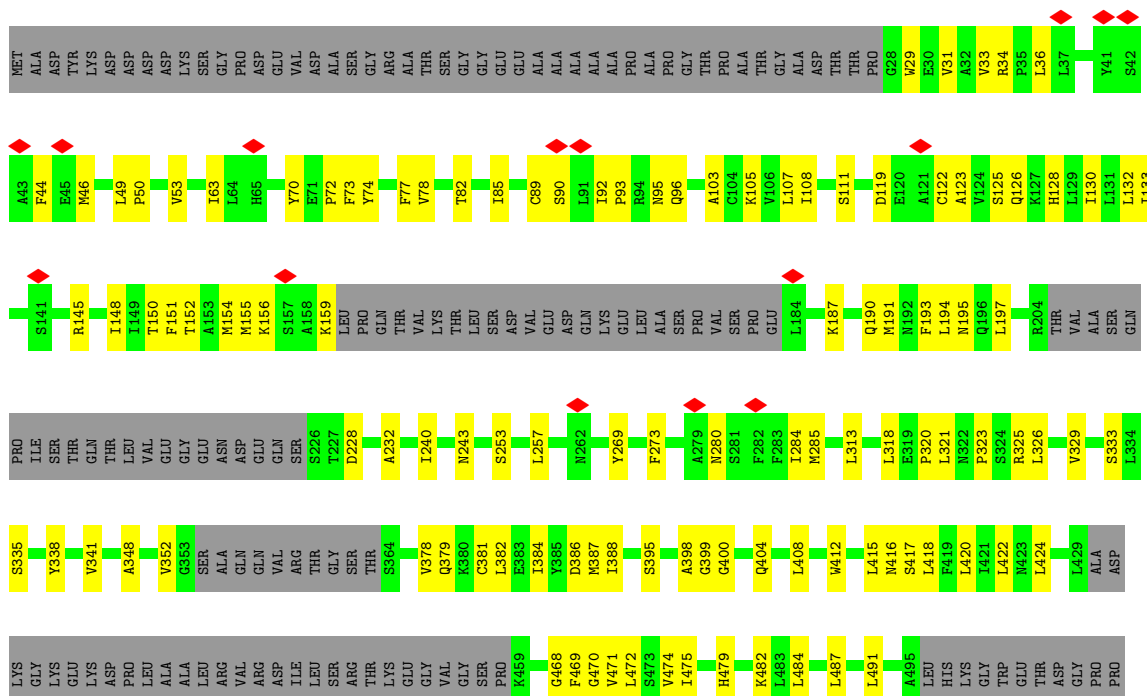


A3345	L3244	Y3156	G3012	GLY	HIS	T2677	H2590	PRO	R2383	V2180	
S3346	E3245	T3157	K3018	ASP	ILE	A2678	F2591	THR	W2384	Q2181	
S3347	I3249	Q3158	SER	GLU	ARG	K2679	T2592	THR	F2385		
S3348	F3250	L3159	SER	MET	GLN	K2680	E2593	THR	D2386		
S3349			SER	VAL	GLU	I2681	L2594	SER	F2387	T2184	
A3350	V3256	M3163	THR	GLU	GLN	Y2682	L2595	THR	L2395	P2187	
P3351	T3257	V3164	LEU	LEU	GLU	L2686	Q2396	V2474	Q2396	L2188	
V3352	A3258	I3171	ALA	ALA	GLN	L2687	A2397	R2477	L2298	V2189	
A3353	K3172	K3172	SER	ILE	SER	F2695	R2477	R2477	T2299	W2190	
A3354	L3264	K3173	ALA	ALA	GLU	K2698	V2479	V2479	D2300	M2191	
A3355	T3268	L3174	LEU	LEU	VAL		V2480	V2480	L3309		
S3356		T3175	ASP	ASP	ASP	L2701	GLY	GLY	Y2312	I2199	
S3357	L3272	T3177	LEU	LEU	HIS	I2702	MET	I2496	N2313	Q2200	
Q3358	M3273	SER	GLN	GLN	GLY	R2703	ASP	T2496	E2201	E2201	
Q3359	M3273	HIS	ASP	PHE	ASP	V2704	GLY	R2500	A2314	ILE	
A3360	C3279	GLU	GLN	GLN	GLU	L2705	GLY	R2500	Q2315	LYS	
A3361	E3280	ASP	GLN	MET	MET	L2706	LYS	L2508	Q2316	THR	
T3360	I3282	GLY	GLY	VAL	VAL		GLU	L2512	V2414	LEU	
T3361		GLY	SER	SER	SER	R2712	PRO	L2515	N2322	PRO	
Q3362	Q3285	GLU	SER	SER	GLU	HIS	LYS	L2515	S2323	ALA	
S3363	R3286	GLY	SER	SER	GLU	VAL	GLN	V2420	T2324	LYS	
S3364	T3287	GLY	ALA	ALA	VAL		LEU	K2421	G2325	A2209	
S3365	W3290	GLY	LEU	LEU	LEU		GLU	S2520	D2213		
S3366	Q3291	GLY	GLY	GLY	LEU	R2712	ASP	Q2524	T2331	R2218	
T3367	K3292	GLY	GLY	THR	THR	THR	ASP	L2529	G2336	H2219	
S3368	I3295	ALA	GLN	GLN	ALA	SER	C2618	H2533	N2343	R2227	
K3369	Y3197	VAL	LEU	LEU	GLU	ARG	S2620	R2536	S2344	T2228	
S3370	L3198	VAL	GLY	GLY	VAL	SER	F2621	R2536	N2345	T2229	
K3371	Q3201	ASP	ASP	LEU	ASN	ASN	I2622	ASN	T2346	M2330	
K3372	Q3207	VAL	VAL	GLY	ASN	THR	T2623	ASN	M2352	E2235	
E3373	R3208	ALA	ALA	GLN	ASN	PRO	Q2624	H2541	R2353	Y2242	
E3374	L3213	GLY	GLY	PRO	PRO	GLY	H2628	H2542	I2354	Q2254	
K3375	L3214	HIS	SER	SER	LEU	LYS	P2637	L2548	Q2355	Q2255	
E3376	S3220	VAL	SER	SER	ALA	ASP	K2638	S2549	I2356	S2256	
E3377	Y3224	GLY	SER	SER	LEU	ASP	N2639	K2551	G2357	L2257	
E3378	R3225	ARG	ASP	LEU	LEU	ASP	P2648	V2552	A2360	Q2258	
D3380	R3228	SER	ALA	ASP	ALA	ASP	Q2649	Q2553	I2361	F2268	
G3381	D3229	SER	THR	THR	GLY	ASP	L2650	C2554	E2362	V2269	
E3382	L3230	TYR	GLY	GLY	ALA	ASP	T2653	N2556	R2363	R2270	
E3383	D3232	GLY	GLY	ASP	GLY	GLU	T2656	D2564	Y2367	K2271	
L3391	H3231	P2998	ASP	ASP	PHE	LYS	V2657	LEU	I2368	R2272	
V3396	T3232	Y2999	ALA	THR	PRO	MET	H2658	R2578	E2369	K2273	
N3397	L3233	M3000	ALA	THR	PRO	GLN	A2659	S2579	I2370	T2274	
Q3398	D3234	Q3001	GLU	ALA	LEU	SER	L2660	I2580	F2371	A2275	
K3401	H3236	V3002	GLY	ALA	ASP	GLY	V2661	M2583	G2372	T2276	
K3405	V3237	I3003	HIS	PRO	ILE	ILE	D2662	R2584	R2373	T2277	
L3408	G3238	L3004	PRO	ALA	PRO	PRO	C2670	GLY	T2374	T2278	
T3409	I3240	M3005	ALA	SER	ASP	GLY	E2671	ASP	Q2376	T2278	
Q3410	L3243	T3008	PRO	ASP	ALA	GLY	L2672	V2589	N2377	T2281	
F3415									N2378	S2282	
L3416									L2379	S2283	
L3417									R2380	Q2284	
S3421									S2382		

K4582	G4583	M4584	L4585	L4586	L4587	T4588	D4599	M4602	F4605	V4606	R4607	V4612	L4613	L4616	L4617	I4620	P4621	Y4622	G4626	E4627	K4630	V4635	E4636	R4637	C4642	M4643	F4644	D4645	K4646	Y4647	D4648	E4649	D4650	H4651	S4652	G4653	D4654	D4655	V4656	P4577	L4578	S4579	E4580	G4668	I4669	K4670	N4671	N4672										
R4502	L4505	T4506	V4507	L4508	L4509	F4512	K4517	V4518	K4519	R4522	L4525	V4526	M4530	M4531	T4532	L4533	M4534	V4535	M4536	T4539	L4540	L4544	E4547	Q4548	E4549	D4552	G4555	A4556	Q4561	V4562	L4563	S4564	T4565	M4566	T4569	L4570	E4572	S4573	M4574	P4577	L4578	S4579	E4580	G4668	I4669	K4670	N4671	N4672										
K4427	V4428	M4429	C4430	T4431	T4432	N4433	E4434	G4435	E4436	P4437	M4438	R4439	I4440	V4441	Y4442	R4443	M4444	R4445	G4446	L4447	L4448	G4449	D4450	A4451	T4452	E4453	E4454	F4455	I4456	E4457	S4458	L4459	D4460	S4461	T4462	T4463	D4464	E4465	E4466	E4469	E4470	M4475	M4479	L4485	M4488	L4489	N4490	R4491	L4492	G4494	I4495	R4496						
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Q4288	L4291	M4294	L4295	M4298	T4299	E4303	K4307	M4310	A4311	V4312	C4313	T4316	A4317	K4318	R4319	Y4320	N4321	L4322	D4323	D4324	Y4325	R4326	T4327	P4328	I4331	I4339	N4344	E4345	V4346	T4347	E4348	F4349	F4350	V4351	T4352	L4353	E4354	K4355	D4356	P4357	Q4358	Q4359	E4360	D4361	F4362	L4363	Q4364	G4365	R4366									
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A3762	G3763	G3764	I3765	T3768	S3791	N3792	N3793	R3794	Y3795	I3796	L3797	Q3798	L3799	A3800	T3817	F3821	V3822	R3825	K3826	E3827	E3830	L3831	L3832	D3833	Q3834	E3837	K3841	S3842	T3845	S3846	P3849	T3850	F3851	A3853	Y3856	R3857	VAL	LEU	GLY	CYS	GLY	HIS	S3869															
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E3982	D3983	S3984	C3985	M3986	E3987	L3988	R3989	L3990	R3991	C3992	L3996	V4001	K4004	T4005	P4006	V4007	I4012	L4017	K4018	L4019	K4022	L4023	I4024	P4027	K4032	K4033	N4034	K4035	E4040	A4041	L4042	T4043	T4044	V4045	K4046	P4047	I4052	W4071	L4075	P4076	I4077	R4078	D4081	G4082	N4083													
G4084	K4085	A4086	L4092	R4093	L4097	Y4101	R4104	W4105	K4106	L4109	K4114	L4121	W4128	L4129	R4130	Q4131	V4132	T4135	Q4139	C4146	L4152	A4153	R4158	Q4161	V4162	L4165	L4166	D4171	E4172	E4182	Y4183	L4186	I4191	T4192	S4193	A4194	W4195	K4197	V4198																			
Y4199	L4200	A4201	A4202	R4203	G4204	V4205	L4206	Y4208	L4212	E4216	L4217	E4224	T4230	D4231	L4232	L4238	S4247	F4248	V4249	S4253	L4254	K4255	R4256	F4257	K4258	E4259	S4260	R4261	L4262	V4263	G4264	T4265	V4266	L4267	N4268	G4269	C4272	L4273	R4274	K4275	L4276	V4277	Q4278	R4280	T4281	K4282	L4283	L4284										
Q4288	L4291	M4294	L4295	M4298	T4299	E4303	K4307	M4310	A4311	V4312	C4313	T4316	A4317	K4318	R4319	Y4320	N4321	L4322	D4323	D4324	Y4325	R4326	T4327	P4328	I4331	I4339	N4344	E4345	V4346	T4347	E4348	F4349	F4350	V4351	T4352	L4353	E4354	K4355	D4356	P4357	Q4358	Q4359	E4360	D4361	F4362	L4363	Q4364	G4365	R4366									
M4367	P4368	G4369	N4370	P4371	Y4372	S4373	S4374	N4375	E4376	P4377	G4378	T4379	G4380	P4381	L4382	M4383	R4384	D4385	T4386	K4387	N4388	K4389	I4390	C4391	Q4392	D4393	C4394	D4395	L4396	V4397	L4398	L4399	L4400	E4401	D4402	D4403	S4404	G4405	M4406	E4407	L4408	L4409	V4410	N4411	N4412	K4413	T4414	L4415	S4416	L4417	D4418	L4419	P4420	V4421	A4422	E4423	V4424	Y4425
K4427	V4428	M4429	C4430	T4431	T4432	N4433	E4434	G4435	E4436	P4437	M4438	R4439	I4440	V4441	Y4442	R4443	M4444	R4445	G4446	L4447	L4448	G4449	D4450	A4451	T4452	E4453	E4454	F4455	I4456	E4457	S4458	L4459	D4460	S4461	T4462	T4463	D4464	E4465	E4466	E4469	E4470	M4475	M4479	L4485	M4488	L4489	N4490	R4491	L4492	G4494	I4495	R4496						
R4502	L4505	T4506	V4507	L4508	L4509	F4512	K4517	V4518	K4519	R4522	L4525	V4526	M4530	M4531	T4532	L4533	M4534	V4535	M4536	T4539	L4540	L4544	E4547	Q4548	E4549	D4552	G4555	A4556	Q4561	V4562	L4563	S4564	T4565	M4566	T4569	L4570	E4572	S4573	M4574	P4577	L4578	S4579	E4580	G4668	I4669	K4670	N4671	N4672										
K4582	G4583	M4584	L4585	L4586	L4587	T4588	D4599	M4602	F4605	V4606	R4607	V4612	L4613	L4616	L4617	I4620	P4621	Y4622	G4626	E4627	K4630	V4635	E4636	R4637	C4642	M4643	F4644	D4645	K4646	Y4647	D4648	E4649	D4650	H4651	S4652	G4653	D4654	D4655	V4656	P4577	L4578	S4579	E4580	G4668	I4669	K4670	N4671	N4672										



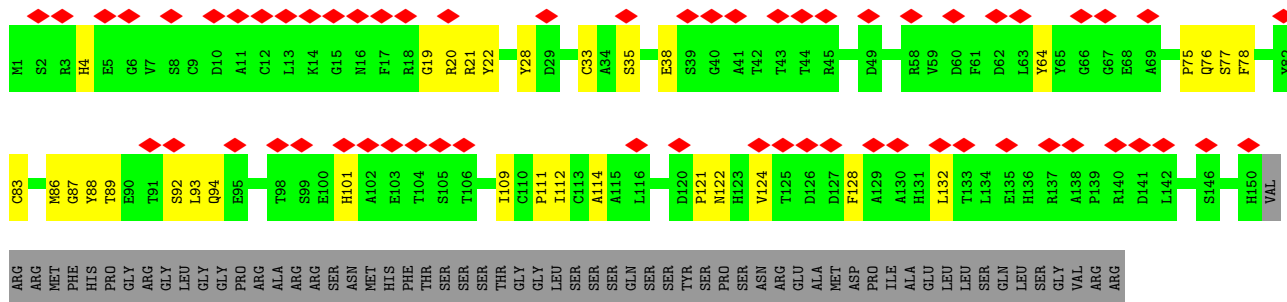
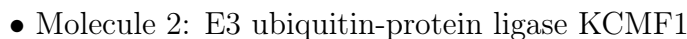
- Molecule 1: E3 ubiquitin-protein ligase UBR4



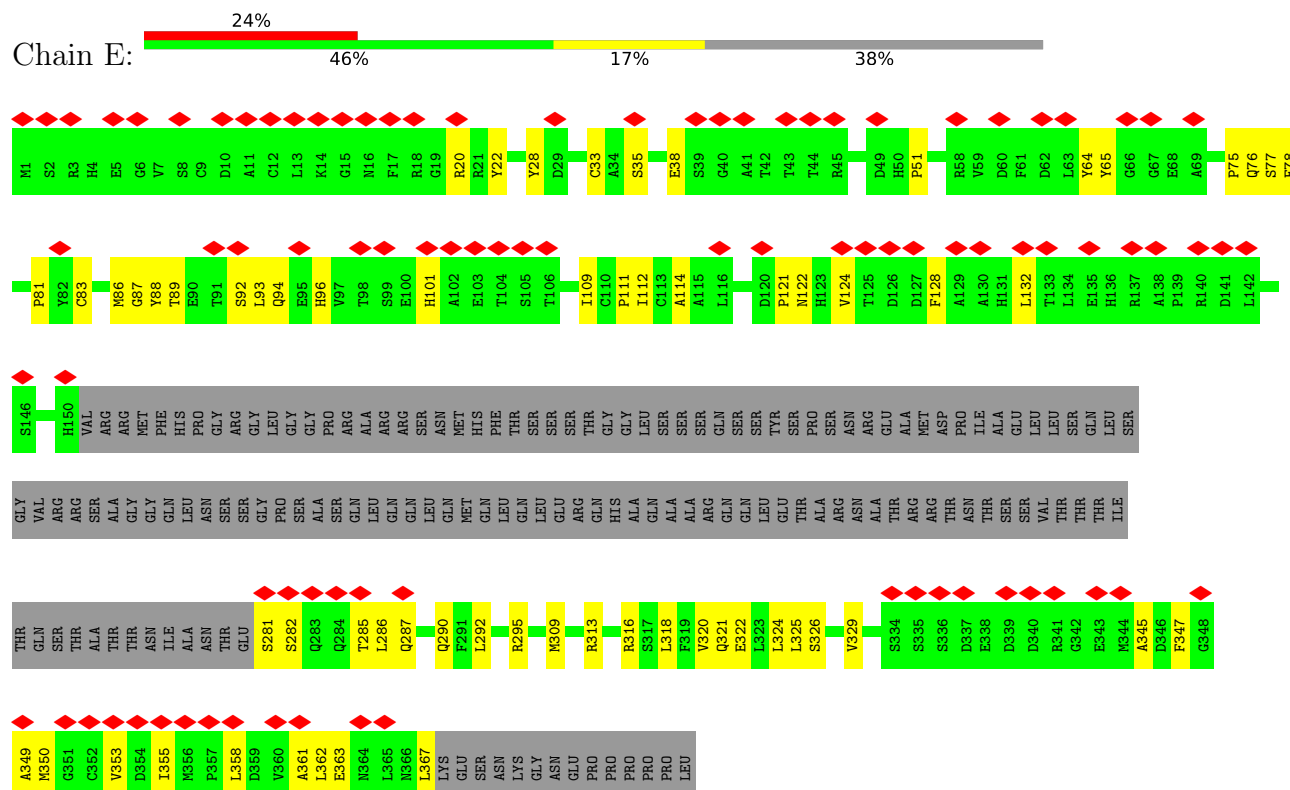




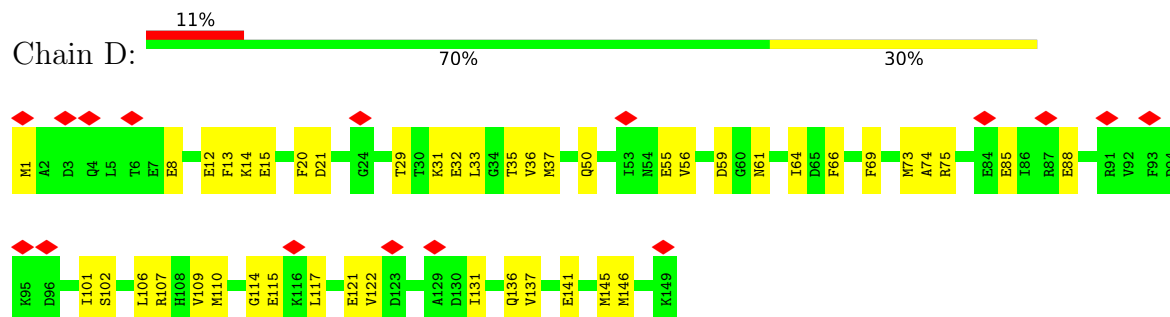




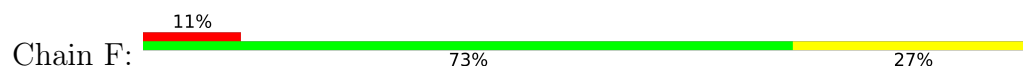
- Molecule 2: E3 ubiquitin-protein ligase KCMF1

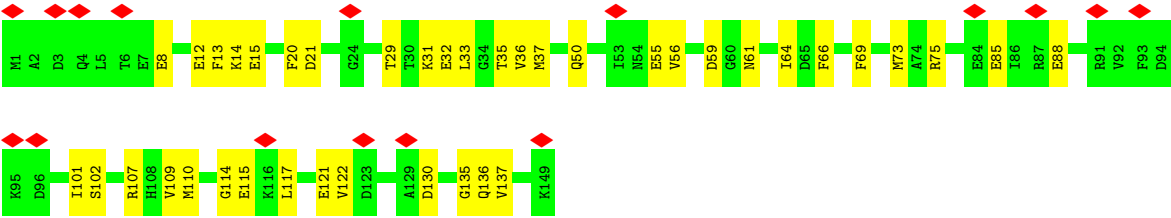


- Molecule 3: Calmodulin-1



- Molecule 3: Calmodulin-1





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	244291	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	1.5625	Depositor
Minimum defocus (nm)	1400	Depositor
Maximum defocus (nm)	1800	Depositor
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	1.777	Depositor
Minimum map value	-1.068	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.032	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	430.04, 430.04, 430.04	wwPDB
Map dimensions	520, 520, 520	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.827, 0.827, 0.827	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: CA

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	0.15	0/33028	0.35	0/44742
1	B	0.15	0/33056	0.35	1/44780 (0.0%)
2	C	0.25	2/1876 (0.1%)	0.35	0/2536
2	E	0.15	0/1876	0.34	0/2536
3	D	0.13	0/1186	0.34	0/1590
3	F	0.11	0/1186	0.31	0/1590
All	All	0.15	2/72208 (0.0%)	0.35	1/97774 (0.0%)

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	364	ASN	C-N	-6.73	1.24	1.33
2	C	365	LEU	C-N	5.79	1.41	1.33

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	911	PHE	N-CA-C	-6.98	99.97	110.24

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	32437	0	32730	934	0
1	B	32464	0	32752	937	0
2	C	1844	0	1728	70	0
2	E	1844	0	1728	72	0
3	D	1174	0	1105	41	0
3	F	1174	0	1105	32	0
4	D	2	0	0	0	0
4	F	2	0	0	0	0
All	All	70941	0	71148	1941	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 14.

All (1941) 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:A:3821:VAL:HG12	1:A:3825:ARG:HH12	1.25	1.02
1:B:4187:TYR:HH	1:B:4248:PHE:HZ	1.10	0.93
2:C:345:ALA:HA	2:C:350:MET:HE2	1.50	0.93
1:A:911:PHE:HD1	1:A:914:VAL:HG22	1.32	0.92
1:A:3233:LEU:HD21	1:A:3282:ILE:HG21	1.51	0.91
1:B:3233:LEU:HD21	1:B:3282:ILE:HG21	1.51	0.91
1:B:531:MET:HE1	1:B:674:LEU:HA	1.53	0.90
1:B:2480:VAL:HG13	1:B:2524:GLN:HG3	1.54	0.90
2:E:345:ALA:HA	2:E:350:MET:HE2	1.52	0.90
1:A:531:MET:HE1	1:A:674:LEU:HA	1.53	0.89
1:A:2480:VAL:HG13	1:A:2524:GLN:HG3	1.55	0.88
1:B:408:LEU:HD22	1:B:520:ARG:HG2	1.54	0.88
1:A:4249:VAL:HG11	1:A:4294:MET:HE1	1.56	0.88
1:A:408:LEU:HD22	1:A:520:ARG:HG2	1.54	0.88
1:B:3586:MET:HB2	1:B:3648:TYR:HB2	1.55	0.86
1:A:4268:ASN:HD21	2:C:362:LEU:HD23	1.40	0.85
1:A:3586:MET:HB2	1:A:3648:TYR:HB2	1.55	0.85
1:B:4268:ASN:HD21	2:E:362:LEU:HD23	1.39	0.85
1:B:4607:ARG:HH11	1:B:4657:VAL:HG23	1.41	0.84
1:A:3234:ASP:OD2	1:A:3238:ARG:NH2	2.10	0.84
1:B:3234:ASP:OD2	1:B:3238:ARG:NH2	2.10	0.84
1:B:4249:VAL:HG11	1:B:4294:MET:HE1	1.59	0.84
1:B:1030:MET:HE1	1:B:1089:ILE:HD11	1.59	0.83
1:A:1566:ARG:HB3	1:A:1570:TYR:CE1	2.12	0.83
1:A:4607:ARG:HH11	1:A:4657:VAL:HG23	1.43	0.83
1:B:3739:ILE:HD11	1:B:3824:SER:HB2	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4278:VAL:HG13	1:B:3825:ARG:HD2	1.61	0.82
1:B:4536:MET:HE2	1:B:4566:MET:HG2	1.60	0.82
1:A:2702:ILE:HG12	1:A:3005:MET:HG3	1.62	0.81
1:A:4277:VAL:HG23	1:A:4278:VAL:HG23	1.62	0.81
1:B:4071:TRP:NE1	2:E:322:GLU:OE1	2.13	0.81
1:B:3583:ARG:HA	1:B:3586:MET:HE2	1.62	0.80
1:A:3583:ARG:HA	1:A:3586:MET:HE2	1.62	0.80
1:A:4316:THR:HB	2:C:362:LEU:HD22	1.63	0.80
1:B:3507:HIS:NE2	1:B:3871:LYS:O	2.14	0.79
1:A:3562:VAL:HG22	1:A:3641:MET:HE1	1.65	0.79
1:A:914:VAL:HG23	1:A:932:PHE:HB3	1.62	0.79
1:B:802:GLU:HG2	1:B:931:ARG:NH2	1.98	0.79
1:A:4101:TYR:CD2	3:D:146:MET:HE3	2.17	0.79
1:B:4322:LEU:HA	1:B:4491:ARG:HH12	1.48	0.79
1:B:3562:VAL:HG22	1:B:3641:MET:HE1	1.65	0.79
1:A:1515:LEU:HD21	1:A:1556:LEU:HG	1.65	0.78
1:B:3057:ARG:HA	1:B:3163:MET:HE2	1.64	0.78
1:A:737:VAL:HG21	1:A:757:LEU:HD21	1.66	0.78
1:B:4469:GLU:HB3	1:B:4517:LYS:HB3	1.66	0.78
1:A:400:GLY:H	1:B:399:GLY:HA2	1.49	0.78
1:B:4319:ARG:H	2:E:367:LEU:HB2	1.49	0.78
1:A:399:GLY:HA2	1:B:400:GLY:H	1.50	0.77
1:A:4322:LEU:HA	1:A:4491:ARG:HH12	1.49	0.77
1:A:1900:CYS:HB3	1:A:1913:ALA:HB3	1.67	0.77
1:A:4319:ARG:H	2:C:367:LEU:HB2	1.50	0.77
1:B:4316:THR:HB	2:E:362:LEU:HD22	1.66	0.77
1:A:474:VAL:HG13	1:A:650:LEU:HD12	1.66	0.77
1:A:687:ALA:HB2	1:A:731:LEU:HD13	1.66	0.77
1:A:4469:GLU:HB3	1:A:4517:LYS:HB3	1.66	0.77
1:A:885:LEU:HD21	1:B:197:LEU:HD23	1.67	0.76
1:A:1566:ARG:HB3	1:A:1570:TYR:HE1	1.48	0.76
1:A:3915:ARG:O	1:A:3922:ARG:NH1	2.18	0.75
1:B:474:VAL:HG13	1:B:650:LEU:HD12	1.68	0.75
1:B:687:ALA:HB2	1:B:731:LEU:HD13	1.66	0.75
1:B:1119:GLN:HA	1:B:1122:TYR:CE1	2.22	0.74
1:A:92:ILE:HG23	1:A:96:GLN:HE21	1.52	0.74
1:B:1900:CYS:HB3	1:B:1913:ALA:HB3	1.67	0.74
1:B:3915:ARG:O	1:B:3922:ARG:NH1	2.19	0.74
1:A:911:PHE:CD1	1:A:914:VAL:HG22	2.19	0.74
1:A:1896:ARG:HH21	1:A:1954:VAL:HB	1.53	0.74
1:B:1515:LEU:HD21	1:B:1556:LEU:HG	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1896:ARG:HH21	1:B:1954:VAL:HB	1.53	0.74
1:A:1119:GLN:HA	1:A:1122:TYR:CE1	2.22	0.74
1:A:4101:TYR:HD2	3:D:146:MET:HE3	1.53	0.74
1:A:3769:GLU:O	1:B:3922:ARG:NH2	2.22	0.73
3:D:20:PHE:HE2	3:D:36:VAL:HA	1.54	0.73
1:A:3507:HIS:NE2	1:A:3871:LYS:O	2.20	0.73
1:B:3331:LYS:NZ	1:B:3388:GLU:OE2	2.20	0.73
1:B:92:ILE:HG23	1:B:96:GLN:HE21	1.52	0.73
1:A:877:PHE:O	1:A:881:GLN:HG2	1.88	0.72
1:B:802:GLU:HG2	1:B:931:ARG:HH22	1.51	0.72
1:B:4547:GLU:HG2	1:B:4605:PHE:CZ	2.24	0.72
1:A:4547:GLU:HG2	1:A:4605:PHE:CZ	2.24	0.72
1:B:3425:ARG:NE	1:B:3467:GLN:OE1	2.19	0.72
1:B:3745:LYS:HG3	1:B:3748:ARG:HH12	1.54	0.72
1:A:3922:ARG:NH2	1:B:3769:GLU:O	2.23	0.71
1:A:3745:LYS:HG3	1:A:3748:ARG:HH12	1.56	0.71
1:A:1482:LEU:HA	1:A:1485:ILE:HD12	1.73	0.71
1:B:4349:PHE:HD2	1:B:4438:MET:HE1	1.55	0.71
1:B:737:VAL:HG21	1:B:757:LEU:HD21	1.73	0.71
3:D:1:MET:HE1	3:D:75:ARG:HG3	1.73	0.71
1:A:3295:ILE:HD13	1:A:3391:LEU:HD22	1.73	0.70
1:A:3950:LYS:NZ	1:A:3967:SER:OG	2.24	0.70
1:B:4259:LYS:HB2	1:B:4298:MET:SD	2.32	0.70
1:B:2583:MET:SD	1:B:2584:ARG:NH2	2.65	0.70
1:A:4379:ILE:HG13	1:A:4389:LYS:HD3	1.74	0.70
1:B:1394:ARG:HH22	1:B:1444:PRO:HD2	1.56	0.70
1:A:3821:VAL:HG12	1:A:3825:ARG:NH1	2.05	0.70
1:B:1902:LEU:HB3	1:B:1964:GLU:HB2	1.74	0.70
1:A:1179:GLN:O	1:A:1189:LYS:NZ	2.25	0.70
1:A:2583:MET:SD	1:A:2584:ARG:NH2	2.65	0.69
1:B:2218:ARG:NH1	1:B:2228:THR:OG1	2.25	0.69
1:B:1819:MET:HE1	1:B:2515:LEU:HD11	1.73	0.69
1:B:4379:ILE:HG13	1:B:4389:LYS:HD3	1.74	0.69
1:A:732:LEU:HD23	1:A:739:PRO:HD3	1.74	0.69
1:A:4259:LYS:HB2	1:A:4298:MET:SD	2.32	0.69
1:B:191:MET:O	1:B:195:ASN:ND2	2.25	0.69
1:A:1087:VAL:HG11	1:A:1154:ILE:HG12	1.74	0.69
1:B:1179:GLN:O	1:B:1189:LYS:NZ	2.24	0.69
1:A:1902:LEU:HB3	1:A:1964:GLU:HB2	1.74	0.69
1:A:1819:MET:HE1	1:A:2515:LEU:HD11	1.75	0.69
1:A:4563:LEU:HA	1:A:4566:MET:HE2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1394:ARG:HH22	1:A:1444:PRO:HD2	1.57	0.69
1:A:2218:ARG:NH1	1:A:2228:THR:OG1	2.25	0.69
1:B:732:LEU:HD23	1:B:739:PRO:HD3	1.74	0.68
1:B:1482:LEU:HA	1:B:1485:ILE:HD12	1.73	0.68
1:A:1251:PHE:HA	1:A:1257:PRO:HB3	1.74	0.68
1:A:4001:VAL:HG11	1:A:4128:TRP:HB2	1.76	0.68
1:B:2512:LEU:HD13	1:B:2515:LEU:HD12	1.75	0.68
1:A:90:SER:HB3	1:A:232:ALA:HB2	1.76	0.68
1:B:3593:TYR:HB2	1:B:3641:MET:HB2	1.75	0.68
1:A:313:LEU:HD12	1:A:384:ILE:HD11	1.74	0.68
1:A:1562:ASP:O	1:A:1566:ARG:HG2	1.93	0.68
1:A:3987:GLU:OE2	1:A:3991:ARG:NH2	2.27	0.68
1:B:1453:LEU:HD22	1:B:1506:VAL:HG23	1.75	0.68
1:B:2335:GLY:HA3	1:B:2405:ILE:O	1.93	0.68
1:B:3295:ILE:HD13	1:B:3391:LEU:HD22	1.74	0.68
1:B:3987:GLU:OE2	1:B:3991:ARG:NH2	2.27	0.68
1:B:313:LEU:HD12	1:B:384:ILE:HD11	1.76	0.68
1:B:2698:LYS:HE2	1:B:3001:GLN:OE1	1.92	0.68
1:A:1453:LEU:HD22	1:A:1506:VAL:HG23	1.75	0.68
1:A:665:SER:O	1:A:671:ARG:NH2	2.26	0.68
1:B:911:PHE:CD1	1:B:914:VAL:HG22	2.28	0.68
1:B:1251:PHE:HA	1:B:1257:PRO:HB3	1.75	0.68
1:B:4130:ARG:NH1	1:B:4172:GLU:OE2	2.27	0.68
1:A:1796:ARG:HA	1:A:1799:LEU:HD12	1.77	0.67
1:B:1139:PHE:HA	1:B:1142:MET:HE2	1.76	0.67
1:A:4130:ARG:NH1	1:A:4172:GLU:OE2	2.28	0.67
1:A:4616:LEU:O	1:A:4620:ILE:HG13	1.94	0.67
1:B:2702:ILE:HA	1:B:3005:MET:HE3	1.77	0.67
1:A:2335:GLY:HA3	1:A:2405:ILE:O	1.94	0.67
1:A:2698:LYS:HE2	1:A:3001:GLN:OE1	1.95	0.67
1:A:3425:ARG:NE	1:A:3467:GLN:OE1	2.19	0.67
1:B:665:SER:O	1:B:671:ARG:NH2	2.27	0.67
1:B:1796:ARG:HA	1:B:1799:LEU:HD12	1.77	0.67
1:A:3456:PRO:HA	1:A:3496:ILE:HD11	1.76	0.67
1:A:3593:TYR:HB2	1:A:3641:MET:HB2	1.75	0.67
1:B:1438:THR:HA	1:B:1446:LEU:HD13	1.75	0.67
1:B:4502:ARG:NH1	1:B:4506:THR:OG1	2.28	0.67
1:A:273:PHE:CZ	1:A:338:TYR:HB3	2.30	0.67
1:A:2997:ILE:HG21	1:A:3136:MET:HG3	1.77	0.67
1:B:1960:ASN:HD21	1:B:2012:GLN:HG2	1.60	0.67
1:A:1438:THR:HA	1:A:1446:LEU:HD13	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3950:LYS:NZ	1:A:3967:SER:HG	1.93	0.66
1:A:4502:ARG:NH1	1:A:4506:THR:OG1	2.28	0.66
1:B:273:PHE:CZ	1:B:338:TYR:HB3	2.30	0.66
1:A:2512:LEU:HD13	1:A:2515:LEU:HD12	1.76	0.66
1:B:914:VAL:HG23	1:B:932:PHE:HB3	1.75	0.66
1:A:3292:LYS:HA	1:A:3295:ILE:HD12	1.77	0.66
1:A:3532:CYS:HG	1:A:3869:SER:HG	1.43	0.66
1:B:1087:VAL:HG11	1:B:1154:ILE:HG12	1.76	0.66
1:A:967:TYR:HH	1:A:1037:HIS:HE2	1.41	0.66
1:A:3950:LYS:HZ1	1:A:3967:SER:HG	1.40	0.66
1:B:3456:PRO:HA	1:B:3496:ILE:HD11	1.76	0.66
1:B:90:SER:HB3	1:B:232:ALA:HB2	1.76	0.66
1:B:3950:LYS:NZ	1:B:3967:SER:OG	2.24	0.66
1:A:78:VAL:HG22	1:A:107:LEU:HD13	1.77	0.66
1:A:1139:PHE:HA	1:A:1142:MET:HE2	1.76	0.66
1:A:1912:LEU:HD13	1:A:1926:LEU:HD22	1.78	0.66
1:B:911:PHE:O	1:B:915:GLU:HG2	1.96	0.66
1:A:3788:THR:O	1:A:3791:SER:OG	2.13	0.65
1:B:834:VAL:HG11	1:B:961:VAL:HG13	1.78	0.65
1:B:1051:VAL:HG12	1:B:1055:LYS:NZ	2.11	0.65
1:A:1960:ASN:HD21	1:A:2012:GLN:HG2	1.61	0.65
1:A:3501:ASN:ND2	1:A:3913:ASN:OD1	2.27	0.65
1:B:1912:LEU:HD13	1:B:1926:LEU:HD22	1.76	0.65
1:B:4001:VAL:HG11	1:B:4128:TRP:HB2	1.77	0.65
1:B:4556:ALA:HB2	1:B:4605:PHE:HZ	1.61	0.65
2:E:347:PHE:HA	2:E:350:MET:HB2	1.78	0.65
1:A:4556:ALA:HB2	1:A:4605:PHE:HZ	1.62	0.65
2:E:287:GLN:HA	2:E:295:ARG:HG3	1.78	0.65
1:A:834:VAL:HG11	1:A:961:VAL:HG13	1.79	0.65
1:A:474:VAL:HG11	1:A:646:LEU:HD21	1.77	0.65
1:B:3501:ASN:ND2	1:B:3913:ASN:OD1	2.27	0.65
1:B:4230:THR:OG1	1:B:4279:GLN:OE1	2.14	0.65
1:A:1678:HIS:NE2	1:A:1686:ASP:O	2.29	0.65
1:A:4496:ARG:NE	1:B:3842:SER:OG	2.30	0.65
1:B:474:VAL:HG11	1:B:646:LEU:HD21	1.79	0.65
1:B:78:VAL:HG22	1:B:107:LEU:HD13	1.77	0.65
1:A:2624:GLN:O	1:A:2628:HIS:ND1	2.28	0.65
1:A:3348:SER:HA	2:C:285:THR:HG21	1.79	0.64
1:B:285:MET:HE1	1:B:420:LEU:HD13	1.79	0.64
1:B:1025:MET:HE3	1:B:1027:SER:HB3	1.78	0.64
1:B:4648:ASP:OD2	1:B:4694:TYR:OH	2.16	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4713:PHE:HE2	1:B:4751:LEU:HD21	1.62	0.64
1:A:1568:LYS:HE2	1:A:1810:LEU:HB3	1.78	0.64
1:B:1568:LYS:HE2	1:B:1810:LEU:HB3	1.79	0.64
1:B:3174:ILE:O	1:B:3177:THR:OG1	2.14	0.64
1:B:3292:LYS:HA	1:B:3295:ILE:HD12	1.77	0.64
1:A:542:TYR:HE2	1:A:692:GLU:HG3	1.62	0.64
1:A:4607:ARG:NH1	1:A:4657:VAL:HG23	2.12	0.64
1:B:2997:ILE:HG21	1:B:3136:MET:HG3	1.78	0.64
1:A:285:MET:HE1	1:A:420:LEU:HD13	1.80	0.64
1:A:2982:LEU:HA	1:A:2985:LEU:HD23	1.79	0.64
1:B:3348:SER:HA	2:E:285:THR:HG21	1.79	0.64
1:B:3244:LEU:HD12	1:B:3249:ILE:HG13	1.79	0.64
1:B:1174:ARG:HG3	1:B:1202:LEU:HD22	1.80	0.64
1:A:1174:ARG:HG3	1:A:1202:LEU:HD22	1.80	0.64
1:A:3244:LEU:HD12	1:A:3249:ILE:HG13	1.80	0.64
1:B:542:TYR:HE2	1:B:692:GLU:HG3	1.63	0.64
1:A:4713:PHE:HE2	1:A:4751:LEU:HD21	1.62	0.63
1:B:2705:LEU:HB2	1:B:3005:MET:HE1	1.80	0.63
1:A:3842:SER:OG	1:B:4496:ARG:NE	2.30	0.63
1:B:4045:VAL:HB	1:B:4075:LEU:HD23	1.80	0.63
1:B:3244:LEU:HB3	1:B:3249:ILE:HB	1.81	0.63
1:A:1630:ILE:HD12	1:A:2269:VAL:H	1.63	0.63
1:A:4045:VAL:HB	1:A:4075:LEU:HD23	1.81	0.63
1:A:3851:PHE:HB2	1:A:3856:TYR:HB2	1.80	0.63
1:B:2982:LEU:HA	1:B:2985:LEU:HD23	1.81	0.63
1:A:202:ASN:OD1	1:A:204:ARG:HG2	1.99	0.63
1:B:2352:MET:SD	1:B:2354:ILE:HG23	2.39	0.63
2:C:287:GLN:HA	2:C:295:ARG:HG3	1.79	0.63
3:D:20:PHE:CD2	3:D:36:VAL:HG22	2.34	0.63
3:F:107:ARG:HD3	3:F:122:VAL:HG11	1.81	0.63
1:A:1622:SER:O	1:A:2536:ARG:NH2	2.32	0.62
1:A:3198:LEU:O	1:A:3207:ARG:NH1	2.32	0.62
1:A:4024:ILE:HG12	2:C:320:VAL:HG23	1.80	0.62
1:B:1630:ILE:HD12	1:B:2269:VAL:H	1.62	0.62
1:B:3198:LEU:O	1:B:3207:ARG:NH1	2.32	0.62
1:A:1498:TYR:O	1:A:1501:ARG:NH1	2.32	0.62
1:A:4533:LEU:HD13	1:A:4587:LEU:HD22	1.80	0.62
1:B:4607:ARG:NH1	1:B:4657:VAL:HG23	2.13	0.62
1:B:1498:TYR:O	1:B:1501:ARG:NH1	2.32	0.62
3:D:33:LEU:HG	3:D:37:MET:HE3	1.82	0.62
1:A:1471:MET:HG3	1:A:1492:LEU:HD11	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3001:GLN:HG3	1:A:3139:PHE:HE2	1.65	0.62
1:A:4679:LYS:NZ	1:A:4731:ILE:O	2.33	0.62
1:B:1678:HIS:NE2	1:B:1686:ASP:O	2.29	0.62
1:B:3001:GLN:HG3	1:B:3139:PHE:HE2	1.64	0.62
1:B:4024:ILE:HG12	2:E:320:VAL:HG23	1.81	0.62
1:B:1471:MET:HG3	1:B:1492:LEU:HD11	1.81	0.62
1:B:3001:GLN:HG3	1:B:3139:PHE:CE2	2.35	0.62
1:A:738:ALA:O	1:A:785:ARG:NH1	2.33	0.62
1:A:3244:LEU:HB3	1:A:3249:ILE:HB	1.81	0.62
1:B:849:ARG:NH1	1:B:980:LEU:O	2.33	0.62
1:B:4533:LEU:HD13	1:B:4587:LEU:HD22	1.80	0.62
3:F:33:LEU:HG	3:F:37:MET:HE3	1.81	0.62
1:A:1249:ASN:O	1:A:1253:ASN:ND2	2.32	0.61
1:A:2352:MET:SD	1:A:2354:ILE:HG23	2.39	0.61
1:B:1031:SER:O	1:B:1035:ILE:HG23	2.00	0.61
1:B:1553:HIS:HE2	1:B:1602:TYR:HH	1.46	0.61
1:A:849:ARG:NH1	1:A:980:LEU:O	2.33	0.61
1:B:1489:ARG:HA	1:B:1492:LEU:HD12	1.81	0.61
3:F:101:ILE:HB	3:F:137:VAL:HB	1.82	0.61
1:A:3194:LEU:HD11	1:A:3213:LEU:HD23	1.82	0.61
1:B:1622:SER:O	1:B:2536:ARG:NH2	2.32	0.61
1:B:2369:GLU:HB3	1:B:2404:PHE:HB3	1.83	0.61
1:A:3774:LYS:NZ	1:B:3523:ASP:OD1	2.33	0.61
1:A:4562:VAL:HG12	1:A:4566:MET:HE1	1.82	0.61
1:A:1916:HIS:ND1	1:A:1920:LYS:O	2.29	0.61
1:B:3474:TYR:CD2	2:E:292:LEU:HG	2.36	0.61
1:A:1051:VAL:HG12	1:A:1055:LYS:NZ	2.14	0.61
1:B:738:ALA:O	1:B:785:ARG:NH1	2.33	0.61
1:B:3214:LEU:HB3	1:B:3224:TYR:HE1	1.65	0.61
1:B:1048:SER:O	1:B:1052:ASN:ND2	2.34	0.61
1:A:2312:TYR:OH	2:C:64:TYR:O	2.19	0.61
1:A:3214:LEU:HB3	1:A:3224:TYR:HE1	1.65	0.61
1:A:3459:PRO:HA	1:A:3879:VAL:HG21	1.83	0.61
1:A:4328:PRO:HA	1:A:4331:ILE:HG12	1.82	0.61
1:B:1498:TYR:HA	1:B:1501:ARG:HD3	1.83	0.61
1:B:4679:LYS:NZ	1:B:4731:ILE:O	2.33	0.61
1:B:790:MET:HB3	1:B:858:LEU:HD21	1.83	0.61
1:B:947:ARG:HB3	1:B:1012:ILE:HD11	1.83	0.61
1:B:3243:LEU:HD22	1:B:3268:THR:HG23	1.83	0.61
1:A:840:LEU:O	1:A:847:GLN:NE2	2.32	0.61
1:A:1489:ARG:HA	1:A:1492:LEU:HD12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4278:VAL:HG21	1:B:3829:LEU:HD21	1.83	0.61
1:B:273:PHE:CZ	1:B:335:SER:HA	2.36	0.61
1:B:1453:LEU:HD21	1:B:1499:ILE:HG12	1.81	0.61
1:A:1621:LEU:HD22	1:A:2536:ARG:HD2	1.83	0.60
1:A:2369:GLU:HB3	1:A:2404:PHE:HB3	1.83	0.60
1:A:3990:LEU:HD21	1:A:4023:LEU:HD11	1.83	0.60
1:B:4303:GLU:O	1:B:4307:LYS:HG2	2.01	0.60
1:A:1453:LEU:HD21	1:A:1499:ILE:HG12	1.81	0.60
1:A:4491:ARG:HD2	2:C:367:LEU:HD23	1.83	0.60
1:B:412:TRP:O	1:B:416:ASN:ND2	2.35	0.60
1:B:3990:LEU:HD21	1:B:4023:LEU:HD11	1.82	0.60
1:B:4328:PRO:HA	1:B:4331:ILE:HG12	1.83	0.60
1:A:4303:GLU:O	1:A:4307:LYS:HG2	2.01	0.60
1:B:840:LEU:O	1:B:847:GLN:NE2	2.33	0.60
1:B:937:SER:OG	1:B:939:GLU:OE1	2.19	0.60
1:B:1249:ASN:O	1:B:1253:ASN:ND2	2.32	0.60
1:B:3555:ARG:HB2	1:B:3562:VAL:HB	1.83	0.60
1:B:4491:ARG:HD2	2:E:367:LEU:HD23	1.84	0.60
1:A:819:HIS:O	1:A:826:ARG:NH2	2.35	0.60
1:A:2959:GLU:HG2	1:A:2962:GLY:H	1.66	0.60
1:A:3243:LEU:HD22	1:A:3268:THR:HG23	1.84	0.60
1:A:4104:ARG:HG2	3:D:146:MET:SD	2.42	0.60
1:B:1819:MET:O	1:B:1819:MET:HE3	2.01	0.60
1:B:3950:LYS:HZ1	1:B:3967:SER:HG	1.49	0.60
1:A:3474:TYR:CD2	2:C:292:LEU:HG	2.36	0.60
1:A:4207:PRO:HG3	2:C:355:ILE:HD11	1.83	0.60
1:A:4318:LYS:HD2	2:C:363:GLU:HG2	1.84	0.60
1:B:3827:GLU:O	1:B:3830:GLU:HG3	2.00	0.60
3:D:20:PHE:CE2	3:D:36:VAL:HA	2.37	0.60
1:A:412:TRP:O	1:A:416:ASN:ND2	2.35	0.60
1:A:1048:SER:O	1:A:1052:ASN:ND2	2.34	0.60
1:A:1498:TYR:HA	1:A:1501:ARG:HD3	1.83	0.60
1:A:4741:GLY:HA2	1:A:4745:ILE:HG13	1.84	0.60
1:B:1515:LEU:HD11	1:B:1556:LEU:HD21	1.82	0.60
1:B:1621:LEU:HD22	1:B:2536:ARG:HD2	1.83	0.60
1:B:3436:TYR:HH	1:B:3479:THR:HG1	1.50	0.60
1:B:3593:TYR:HB3	1:B:3612:TRP:HB3	1.83	0.60
1:A:2589:VAL:HG21	1:A:2670:CYS:HB2	1.84	0.60
1:B:4139:GLN:NE2	1:B:4182:GLU:OE2	2.34	0.60
1:B:4444:MET:SD	1:B:4447:LEU:HD13	2.42	0.60
1:A:3001:GLN:HG3	1:A:3139:PHE:CE2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3593:TYR:HB3	1:A:3612:TRP:HB3	1.84	0.60
1:B:1112:LEU:HA	1:B:1115:ILE:HD12	1.84	0.60
1:B:3194:LEU:HD11	1:B:3213:LEU:HD23	1.83	0.60
1:B:4318:LYS:HD2	2:E:363:GLU:HG2	1.84	0.60
1:A:3555:ARG:HB2	1:A:3562:VAL:HB	1.83	0.60
1:B:833:PHE:HE1	1:B:858:LEU:HD12	1.67	0.60
1:B:2312:TYR:OH	2:E:64:TYR:O	2.19	0.60
1:B:2959:GLU:HG2	1:B:2962:GLY:H	1.66	0.60
1:A:273:PHE:CZ	1:A:335:SER:HA	2.36	0.60
1:A:3523:ASP:OD1	1:B:3774:LYS:NZ	2.34	0.60
1:B:2624:GLN:O	1:B:2628:HIS:ND1	2.27	0.60
1:B:3459:PRO:HA	1:B:3879:VAL:HG21	1.83	0.60
1:A:4232:LEU:HD21	1:B:3750:TYR:HB2	1.84	0.59
1:A:4383:MET:HE2	1:A:4421:VAL:HG22	1.84	0.59
1:B:1163:LEU:HD22	1:B:1313:THR:HG21	1.84	0.59
1:B:3573:LYS:HD3	1:B:3628:LYS:HZ1	1.67	0.59
1:B:3915:ARG:NH2	1:B:3971:GLU:OE2	2.32	0.59
1:A:1163:LEU:HD22	1:A:1313:THR:HG21	1.84	0.59
1:A:3398:GLN:HA	1:A:3401:LYS:HG2	1.85	0.59
1:B:3455:TRP:NE1	1:B:3496:ILE:HD12	2.18	0.59
1:A:1500:VAL:HG13	1:A:1506:VAL:HG11	1.84	0.59
1:B:1030:MET:HE2	1:B:1035:ILE:HG22	1.84	0.59
1:B:3431:LEU:O	1:B:3435:ILE:HG12	2.02	0.59
1:A:1515:LEU:HD11	1:A:1556:LEU:HD21	1.84	0.59
1:A:4320:TYR:H	2:C:367:LEU:HD12	1.68	0.59
1:B:724:SER:OG	1:B:726:ASN:OD1	2.14	0.59
1:B:1009:ILE:O	1:B:1013:LEU:HG	2.02	0.59
1:B:1219:VAL:HA	1:B:1222:LEU:HD23	1.85	0.59
1:A:352:VAL:HG21	1:A:424:LEU:HD21	1.85	0.59
1:A:708:ALA:O	1:A:712:HIS:ND1	2.28	0.59
1:B:753:SER:O	1:B:757:LEU:HD23	2.02	0.59
1:A:3730:GLU:HG2	1:A:3733:LYS:NZ	2.17	0.59
1:A:4121:LEU:HG	1:A:4161:GLN:HG3	1.85	0.59
1:A:1381:LEU:HD21	1:A:1427:VAL:HA	1.84	0.59
1:A:3240:ILE:HG23	1:A:3272:LEU:HD11	1.85	0.59
1:B:1419:LEU:O	1:B:1470:ARG:NH2	2.36	0.59
1:A:1378:GLU:HG2	1:A:1426:ARG:HG3	1.85	0.59
1:A:3431:LEU:O	1:A:3435:ILE:HG12	2.03	0.59
1:B:3641:MET:HA	1:B:3641:MET:HE3	1.85	0.59
3:D:59:ASP:OD2	3:D:61:ASN:ND2	2.36	0.59
3:F:59:ASP:OD2	3:F:61:ASN:ND2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3410:GLN:OE1	1:A:3857:ARG:NH2	2.35	0.59
1:A:3455:TRP:NE1	1:A:3496:ILE:HD12	2.18	0.59
1:A:4325:TYR:HE2	1:A:4495:ILE:HA	1.68	0.59
1:B:3233:LEU:HD22	1:B:3290:TRP:CZ3	2.38	0.59
1:A:3573:LYS:HD3	1:A:3628:LYS:HZ1	1.68	0.58
1:A:4040:GLU:O	1:A:4078:ARG:NH1	2.34	0.58
1:B:1381:LEU:HD21	1:B:1427:VAL:HA	1.84	0.58
1:A:257:LEU:HD21	1:A:325:ARG:NH2	2.18	0.58
1:A:273:PHE:CE1	1:A:338:TYR:HB3	2.39	0.58
1:A:3233:LEU:HD13	1:A:3290:TRP:HE3	1.68	0.58
1:B:799:VAL:HA	1:B:853:LEU:HD21	1.85	0.58
1:B:1500:VAL:HG13	1:B:1506:VAL:HG11	1.84	0.58
1:B:4121:LEU:HG	1:B:4161:GLN:HG3	1.85	0.58
1:B:4207:PRO:HG3	2:E:355:ILE:HD11	1.84	0.58
1:A:3174:ILE:O	1:A:3177:THR:OG1	2.14	0.58
1:B:1849:GLU:HG2	1:B:2147:PHE:HD1	1.68	0.58
1:B:4616:LEU:O	1:B:4620:ILE:HG13	2.04	0.58
1:A:762:LEU:HG	1:A:813:MET:HE1	1.85	0.58
1:A:2354:ILE:HG22	1:A:2420:VAL:HG22	1.86	0.58
1:A:4027:PRO:O	2:C:313:ARG:NH2	2.36	0.58
1:B:662:MET:HE3	1:B:674:LEU:HG	1.85	0.58
1:B:2589:VAL:HG21	1:B:2670:CYS:HB2	1.84	0.58
1:B:3398:GLN:HA	1:B:3401:LYS:HG2	1.85	0.58
1:B:4741:GLY:HA2	1:B:4745:ILE:HG13	1.84	0.58
1:A:1112:LEU:HA	1:A:1115:ILE:HD12	1.84	0.58
1:A:1219:VAL:HA	1:A:1222:LEU:HD23	1.85	0.58
1:B:352:VAL:HG21	1:B:424:LEU:HD21	1.86	0.58
1:B:911:PHE:HD1	1:B:914:VAL:HG22	1.67	0.58
1:A:1566:ARG:NH2	1:A:1569:LYS:HD2	2.18	0.58
1:A:2298:LEU:HD12	1:A:2422:ILE:HG22	1.85	0.58
1:A:3954:ALA:HB1	1:A:3964:LEU:HD11	1.85	0.58
1:B:3233:LEU:HD13	1:B:3290:TRP:HE3	1.69	0.58
1:B:4027:PRO:O	2:E:313:ARG:NH2	2.37	0.58
1:B:4325:TYR:HE2	1:B:4495:ILE:HA	1.69	0.58
1:A:724:SER:OG	1:A:726:ASN:OD1	2.14	0.58
1:A:762:LEU:HD13	1:B:197:LEU:HD21	1.84	0.58
1:A:4319:ARG:N	2:C:367:LEU:HB2	2.18	0.58
1:B:1472:THR:HG22	1:B:1492:LEU:HD13	1.86	0.58
1:B:3044:GLU:O	1:B:3049:ASN:ND2	2.36	0.58
1:B:4320:TYR:H	2:E:367:LEU:HD12	1.68	0.58
1:B:4383:MET:HE2	1:B:4421:VAL:HG22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1419:LEU:O	1:A:1470:ARG:NH2	2.36	0.58
1:A:3233:LEU:HD22	1:A:3290:TRP:CZ3	2.39	0.58
1:A:3511:ASN:HD21	1:B:4006:PRO:C	2.12	0.58
1:B:1106:CYS:O	1:B:1171:SER:OG	2.20	0.58
1:B:2354:ILE:HG22	1:B:2420:VAL:HG22	1.86	0.58
1:B:3458:LEU:HD11	1:B:3465:ALA:HB1	1.86	0.58
1:A:150:THR:O	1:A:154:MET:HG3	2.04	0.58
1:A:937:SER:OG	1:A:939:GLU:OE1	2.22	0.58
1:B:819:HIS:O	1:B:826:ARG:NH2	2.35	0.58
1:B:4276:LEU:HD12	1:B:4279:GLN:HB2	1.86	0.58
1:B:4310:MET:HE1	1:B:4475:MET:HB3	1.85	0.58
1:A:1849:GLU:HG2	1:A:2147:PHE:HD1	1.68	0.57
1:A:2110:GLY:HA2	1:A:2126:TYR:HD1	1.69	0.57
1:A:4310:MET:HE1	1:A:4475:MET:HB3	1.84	0.57
1:B:1009:ILE:O	1:B:1012:ILE:HG22	2.04	0.57
1:B:1378:GLU:HG2	1:B:1426:ARG:HG3	1.85	0.57
1:A:3044:GLU:O	1:A:3049:ASN:ND2	2.35	0.57
1:A:799:VAL:HA	1:A:853:LEU:HD21	1.85	0.57
1:B:2704:VAL:HG23	1:B:2705:LEU:HG	1.86	0.57
1:A:2548:LEU:HD13	1:A:2591:PHE:HB3	1.86	0.57
1:A:3101:VAL:HG11	1:A:3164:VAL:HG11	1.86	0.57
1:A:3396:VAL:HG21	1:A:3438:ASN:HB2	1.86	0.57
1:B:257:LEU:HD21	1:B:325:ARG:NH2	2.19	0.57
1:B:4121:LEU:HD21	1:B:4158:ARG:HA	1.86	0.57
1:A:840:LEU:HD11	1:A:855:LEU:HD11	1.84	0.57
1:A:1472:THR:HG22	1:A:1492:LEU:HD13	1.86	0.57
1:A:4139:GLN:NE2	1:A:4182:GLU:OE2	2.34	0.57
1:B:1315:LEU:HD21	1:B:1353:LYS:HB2	1.86	0.57
1:B:3343:SER:HB3	2:E:290:GLN:HE22	1.69	0.57
1:B:3421:SER:O	1:B:3425:ARG:NH1	2.37	0.57
1:B:4319:ARG:N	2:E:367:LEU:HB2	2.17	0.57
1:B:3229:ASP:O	1:B:3233:LEU:HG	2.04	0.57
1:A:1315:LEU:HD21	1:A:1353:LYS:HB2	1.86	0.57
1:A:2704:VAL:HG23	1:A:2705:LEU:HG	1.84	0.57
1:A:3421:SER:O	1:A:3425:ARG:NH1	2.38	0.57
1:A:4266:VAL:HG13	1:A:4291:LEU:HD22	1.86	0.57
1:B:3567:GLY:O	1:B:3569:HIS:ND1	2.35	0.57
1:A:3494:VAL:HG22	1:A:3905:LEU:HD13	1.87	0.57
1:A:4121:LEU:HD21	1:A:4158:ARG:HA	1.86	0.57
1:B:1036:LEU:HD21	1:B:1123:THR:HA	1.86	0.57
1:B:3501:ASN:OD1	1:B:3913:ASN:ND2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:78:PHE:CE2	2:E:112:ILE:HG12	2.39	0.57
1:A:662:MET:HE3	1:A:674:LEU:HG	1.85	0.57
1:A:3853:ALA:HA	1:A:3856:TYR:HB3	1.86	0.57
1:A:4322:LEU:HD11	1:A:4494:GLY:HA3	1.87	0.57
1:B:1214:LEU:HG	1:B:1218:LEU:HG	1.86	0.57
1:B:1453:LEU:HD13	1:B:1506:VAL:HA	1.87	0.57
1:B:2981:LEU:O	1:B:2999:TYR:OH	2.22	0.57
1:B:3726:ILE:CG2	1:B:3831:TYR:HB2	2.34	0.57
3:D:37:MET:HE1	3:D:73:MET:HE1	1.87	0.57
1:A:1394:ARG:NH2	1:A:1443:ASN:HB2	2.20	0.57
1:A:3641:MET:HE3	1:A:3641:MET:HA	1.85	0.57
1:B:273:PHE:CE1	1:B:338:TYR:HB3	2.39	0.57
1:B:2580:ILE:HG22	1:B:2588:LEU:HB2	1.86	0.57
1:B:4040:GLU:O	1:B:4078:ARG:NH1	2.34	0.57
3:D:1:MET:HE3	3:D:74:ALA:HB3	1.87	0.57
1:A:3501:ASN:OD1	1:A:3913:ASN:ND2	2.37	0.56
1:A:3508:PRO:HA	1:B:4006:PRO:HG2	1.85	0.56
1:A:4006:PRO:HG2	1:B:3508:PRO:HA	1.85	0.56
1:B:2119:LEU:HD12	1:B:2121:MET:HE2	1.87	0.56
1:B:3005:MET:O	1:B:3008:THR:OG1	2.20	0.56
1:A:727:LEU:O	1:A:731:LEU:HD23	2.05	0.56
1:A:833:PHE:HE1	1:A:858:LEU:HD12	1.69	0.56
1:A:3229:ASP:O	1:A:3233:LEU:HG	2.04	0.56
1:A:4256:ARG:HA	1:A:4259:LYS:HE2	1.86	0.56
1:A:925:ASP:OD1	1:A:926:ALA:N	2.38	0.56
1:A:1373:ASP:H	1:A:1376:ILE:HD12	1.70	0.56
1:A:1453:LEU:HD13	1:A:1506:VAL:HA	1.87	0.56
1:A:2580:ILE:HG22	1:A:2588:LEU:HB2	1.86	0.56
1:A:4006:PRO:C	1:B:3511:ASN:HD21	2.12	0.56
1:A:4312:VAL:HG13	2:C:362:LEU:HD11	1.88	0.56
1:B:150:THR:O	1:B:154:MET:HG3	2.05	0.56
1:B:1173:THR:OG1	1:B:1288:LEU:HD11	2.05	0.56
1:A:3005:MET:O	1:A:3008:THR:OG1	2.23	0.56
1:A:4599:ASP:OD1	1:A:4637:ARG:NH2	2.38	0.56
2:C:78:PHE:CE2	2:C:112:ILE:HG12	2.40	0.56
1:A:1036:LEU:HD21	1:A:1123:THR:HA	1.86	0.56
1:B:714:ASN:HA	1:B:717:LEU:HD12	1.85	0.56
1:B:1589:HIS:HA	1:B:1592:ILE:HD12	1.86	0.56
1:A:790:MET:HB3	1:A:858:LEU:HD21	1.88	0.56
1:A:1122:TYR:HB2	1:A:1266:GLN:OE1	2.06	0.56
1:A:3915:ARG:NH2	1:A:3971:GLU:OE2	2.32	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1564:LEU:HD21	1:B:1603:LEU:HD11	1.88	0.56
1:B:3951:VAL:HG22	1:B:3968:LEU:HD22	1.88	0.56
1:B:4101:TYR:O	1:B:4105:TRP:HD1	1.89	0.56
1:A:1437:LEU:HD23	1:A:1440:LYS:HD3	1.87	0.56
1:A:3458:LEU:HD11	1:A:3465:ALA:HB1	1.87	0.56
1:B:253:SER:O	1:B:257:LEU:HD23	2.06	0.56
1:B:1394:ARG:NH2	1:B:1443:ASN:HB2	2.20	0.56
1:A:3668:PRO:HB2	1:A:3671:PRO:HD2	1.88	0.56
1:A:4312:VAL:O	2:C:362:LEU:HD13	2.06	0.56
1:B:1122:TYR:HB2	1:B:1266:GLN:OE1	2.06	0.56
2:C:347:PHE:HA	2:C:350:MET:HB2	1.88	0.56
1:A:711:TYR:OH	1:A:759:ARG:NH2	2.33	0.56
1:A:1315:LEU:HB3	1:A:1316:PRO:HD3	1.88	0.56
1:B:2209:ALA:HB1	1:B:2235:GLU:H	1.70	0.56
1:B:2548:LEU:HD13	1:B:2591:PHE:HB3	1.86	0.56
1:B:3563:VAL:HB	1:B:3640:LEU:HB3	1.87	0.56
1:B:4599:ASP:OD1	1:B:4637:ARG:NH2	2.38	0.56
1:A:318:LEU:HA	1:A:325:ARG:HH22	1.70	0.56
1:A:2190:VAL:C	1:A:2191:MET:HE2	2.31	0.56
1:B:727:LEU:O	1:B:731:LEU:HD23	2.05	0.56
1:B:1916:HIS:ND1	1:B:1920:LYS:O	2.29	0.56
1:B:3436:TYR:OH	1:B:3479:THR:OG1	2.22	0.56
2:E:20:ARG:NH2	2:E:38:GLU:OE2	2.37	0.56
3:F:12:GLU:O	3:F:15:GLU:HG3	2.06	0.56
1:A:3320:LEU:HD21	1:A:3415:PHE:CD2	2.41	0.55
1:A:3951:VAL:HG22	1:A:3968:LEU:HD22	1.88	0.55
1:A:4488:MET:HE2	1:A:4512:PHE:CD2	2.41	0.55
1:A:4643:ASN:HB3	1:A:4646:LYS:HG2	1.88	0.55
1:A:2373:ARG:HG2	1:A:2387:PHE:HZ	1.70	0.55
1:B:105:LYS:O	1:B:108:ILE:HG22	2.06	0.55
1:B:4253:SER:OG	3:F:21:ASP:O	2.24	0.55
1:A:2368:ILE:HG23	1:A:2377:LEU:HD11	1.88	0.55
1:A:2474:VAL:HA	1:A:2477:ARG:HH21	1.72	0.55
1:A:3295:ILE:HD11	1:A:3391:LEU:HB3	1.88	0.55
1:A:4267:LEU:HD21	1:A:4316:THR:HG21	1.89	0.55
1:B:1340:PRO:HD2	1:B:1343:SER:HB3	1.89	0.55
1:B:2112:SER:OG	1:B:2125:SER:OG	2.22	0.55
1:B:3990:LEU:HD21	1:B:4023:LEU:CD1	2.35	0.55
1:B:4488:MET:HE2	1:B:4512:PHE:CD2	2.41	0.55
1:A:739:PRO:HB3	1:A:782:VAL:HG23	1.89	0.55
1:A:1049:SER:HA	1:A:1052:ASN:HD21	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2119:LEU:HD12	1:A:2121:MET:HE2	1.88	0.55
1:A:2981:LEU:O	1:A:2999:TYR:OH	2.24	0.55
1:B:1051:VAL:HG12	1:B:1055:LYS:HZ3	1.72	0.55
1:B:1460:GLU:OE1	1:B:1463:ARG:N	2.30	0.55
1:B:3494:VAL:HG22	1:B:3905:LEU:HD13	1.87	0.55
3:D:12:GLU:O	3:D:15:GLU:HG3	2.06	0.55
1:A:1610:LEU:HD21	1:A:1799:LEU:HD13	1.88	0.55
1:A:3990:LEU:HD21	1:A:4023:LEU:CD1	2.36	0.55
1:A:152:THR:HG22	1:A:156:LYS:HE3	1.89	0.55
1:A:1106:CYS:O	1:A:1171:SER:OG	2.20	0.55
1:A:2672:LEU:HD22	1:A:2972:MET:HE1	1.89	0.55
1:B:1437:LEU:HD23	1:B:1440:LYS:HD3	1.87	0.55
1:B:4208:TYR:HE2	1:B:4212:LEU:HD11	1.72	0.55
1:B:4312:VAL:HG13	2:E:362:LEU:HD11	1.86	0.55
1:B:4349:PHE:CD2	1:B:4438:MET:HE1	2.40	0.55
1:A:1051:VAL:HG12	1:A:1055:LYS:HZ3	1.71	0.55
1:B:683:MET:HG3	1:B:727:LEU:HD22	1.89	0.55
1:B:1315:LEU:HB3	1:B:1316:PRO:HD3	1.88	0.55
1:B:2190:VAL:C	1:B:2191:MET:HE2	2.31	0.55
1:B:3869:SER:HB3	1:B:3871:LYS:HG2	1.89	0.55
1:B:3954:ALA:HB1	1:B:3964:LEU:HD11	1.89	0.55
1:A:253:SER:O	1:A:257:LEU:HD23	2.06	0.55
1:B:1373:ASP:H	1:B:1376:ILE:HD12	1.70	0.55
1:B:1630:ILE:HB	1:B:2269:VAL:HB	1.89	0.55
1:B:4256:ARG:HA	1:B:4259:LYS:HE2	1.88	0.55
1:B:4266:VAL:HG13	1:B:4291:LEU:HD22	1.88	0.55
1:A:814:LEU:HA	1:A:817:ILE:HD12	1.89	0.55
1:A:3750:TYR:HB2	1:B:4232:LEU:HD21	1.88	0.55
1:B:3101:VAL:HG11	1:B:3164:VAL:HG11	1.89	0.55
1:B:3295:ILE:HD11	1:B:3391:LEU:HB3	1.88	0.55
1:A:683:MET:HG3	1:A:727:LEU:HD22	1.89	0.54
1:A:1340:PRO:HD2	1:A:1343:SER:HB3	1.89	0.54
1:B:3825:ARG:O	1:B:3829:LEU:HD23	2.06	0.54
1:A:1009:ILE:O	1:A:1013:LEU:HG	2.08	0.54
1:A:1589:HIS:HA	1:A:1592:ILE:HD12	1.89	0.54
1:A:1630:ILE:HB	1:A:2269:VAL:HB	1.89	0.54
1:A:3901:VAL:HG11	1:A:3939:ALA:HB2	1.89	0.54
1:A:4320:TYR:C	2:C:367:LEU:HA	2.32	0.54
1:A:4320:TYR:O	2:C:367:LEU:HD12	2.08	0.54
1:B:318:LEU:HA	1:B:325:ARG:HH22	1.71	0.54
1:B:3031:GLU:O	1:B:3052:HIS:NE2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1465:GLN:HA	1:A:1468:LEU:HD12	1.89	0.54
1:B:418:LEU:HB3	1:B:533:LEU:HD11	1.90	0.54
1:B:2298:LEU:HD12	1:B:2422:ILE:HG22	1.90	0.54
1:B:3320:LEU:HD21	1:B:3415:PHE:CD2	2.42	0.54
1:B:3591:ASN:HB2	1:B:3643:GLU:HB3	1.90	0.54
1:B:4322:LEU:HD11	1:B:4494:GLY:HA3	1.89	0.54
1:A:1469:THR:HA	1:A:1473:THR:HB	1.89	0.54
1:A:1834:SER:HB3	1:A:2256:SER:HB2	1.90	0.54
1:A:4534:ASN:OD1	1:A:4535:VAL:N	2.40	0.54
1:B:3396:VAL:HG21	1:B:3438:ASN:HB2	1.89	0.54
1:A:2679:SER:HA	1:A:2682:TYR:CD1	2.42	0.54
1:A:3031:GLU:O	1:A:3052:HIS:NE2	2.41	0.54
1:B:1208:ARG:NE	1:B:1324:GLU:HB3	2.22	0.54
1:B:3668:PRO:HB2	1:B:3671:PRO:HD2	1.88	0.54
1:B:4320:TYR:C	2:E:367:LEU:HA	2.32	0.54
1:B:4320:TYR:O	2:E:367:LEU:HA	2.08	0.54
1:A:471:VAL:O	1:A:475:ILE:HG12	2.08	0.54
1:A:802:GLU:O	1:A:929:HIS:ND1	2.33	0.54
1:A:1173:THR:HG22	1:A:1322:SER:HB2	1.88	0.54
1:A:2209:ALA:HB1	1:A:2235:GLU:H	1.72	0.54
1:A:2555:LEU:HD12	1:A:2556:ASN:N	2.23	0.54
1:B:739:PRO:HB3	1:B:782:VAL:HG23	1.89	0.54
1:B:2555:LEU:HD12	1:B:2556:ASN:N	2.22	0.54
1:B:4534:ASN:OD1	1:B:4535:VAL:N	2.41	0.54
1:A:1247:TRP:HA	1:A:1251:PHE:HB2	1.89	0.54
1:B:1059:ILE:HG22	1:B:1065:ALA:HA	1.90	0.54
1:B:4200:LEU:HD22	1:B:4205:VAL:HG11	1.90	0.54
1:B:1049:SER:HA	1:B:1052:ASN:HD21	1.72	0.54
1:B:3881:GLU:HG2	1:B:3921:MET:HG3	1.90	0.54
1:B:3901:VAL:HG11	1:B:3939:ALA:HB2	1.89	0.54
1:A:1208:ARG:NE	1:A:1324:GLU:HB3	2.22	0.54
1:A:3567:GLY:O	1:A:3569:HIS:ND1	2.35	0.54
1:B:762:LEU:HG	1:B:813:MET:HE1	1.89	0.54
1:B:1173:THR:HG22	1:B:1322:SER:HB2	1.90	0.54
1:B:2368:ILE:HG23	1:B:2377:LEU:HD11	1.88	0.54
3:F:37:MET:HE1	3:F:73:MET:HE1	1.89	0.54
1:A:3343:SER:HB3	2:C:290:GLN:HE22	1.71	0.54
1:B:2672:LEU:HD22	1:B:2972:MET:HE1	1.89	0.54
1:B:3240:ILE:HG23	1:B:3272:LEU:HD11	1.89	0.54
1:B:3325:CYS:SG	1:B:3333:LEU:HD11	2.48	0.54
1:A:2076:GLU:O	1:A:2079:SER:OG	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3563:VAL:HB	1:A:3640:LEU:HB3	1.89	0.53
1:A:4253:SER:OG	3:D:21:ASP:O	2.26	0.53
1:B:348:ALA:HB1	1:B:468:GLY:HA2	1.90	0.53
1:B:4195:HIS:HB2	3:F:35:THR:HG21	1.90	0.53
2:C:20:ARG:NH2	2:C:38:GLU:OE2	2.38	0.53
1:A:535:LEU:HD22	1:A:682:HIS:HB3	1.91	0.53
1:A:4320:TYR:O	2:C:367:LEU:HA	2.08	0.53
1:B:152:THR:HG22	1:B:156:LYS:HE3	1.90	0.53
1:B:3573:LYS:HB2	1:B:3716:TYR:HB3	1.90	0.53
1:A:348:ALA:HB1	1:A:468:GLY:HA2	1.90	0.53
1:A:3327:LEU:HD21	1:A:3396:VAL:HG22	1.89	0.53
1:B:412:TRP:CD1	1:B:416:ASN:HD21	2.27	0.53
1:B:1247:TRP:HA	1:B:1251:PHE:HB2	1.91	0.53
1:B:1446:LEU:HD23	1:B:1449:LEU:HD13	1.90	0.53
1:B:1874:ARG:NH1	1:B:2235:GLU:OE2	2.42	0.53
1:A:474:VAL:HG11	1:A:646:LEU:CD2	2.38	0.53
1:A:1087:VAL:HG13	1:A:1158:LEU:HD11	1.90	0.53
1:A:1497:THR:O	1:A:1501:ARG:HB3	2.09	0.53
1:A:2120:GLN:HG2	1:A:2138:ARG:HH21	1.74	0.53
1:A:4200:LEU:HD22	1:A:4205:VAL:HG11	1.91	0.53
1:B:4522:ARG:O	1:B:4526:VAL:HG23	2.08	0.53
1:A:418:LEU:HB3	1:A:533:LEU:HD11	1.90	0.53
1:A:877:PHE:HB3	1:B:193:PHE:CE2	2.43	0.53
1:A:1085:TYR:O	1:A:1088:GLU:HG3	2.08	0.53
1:A:1446:LEU:HD23	1:A:1449:LEU:HD13	1.91	0.53
1:B:1208:ARG:HE	1:B:1324:GLU:HB3	1.74	0.53
1:B:1834:SER:HB3	1:B:2256:SER:HB2	1.89	0.53
1:B:1977:VAL:HG11	1:B:3125:LEU:HD11	1.91	0.53
1:B:3888:ARG:HA	1:B:3928:LEU:HD13	1.91	0.53
1:A:386:ASP:OD1	1:A:387:MET:N	2.42	0.53
1:A:412:TRP:CD1	1:A:416:ASN:HD21	2.27	0.53
1:A:3888:ARG:HA	1:A:3928:LEU:HD13	1.91	0.53
1:B:1087:VAL:HG13	1:B:1158:LEU:HD11	1.89	0.53
1:B:3726:ILE:HG21	1:B:3831:TYR:HB2	1.90	0.53
1:A:318:LEU:HA	1:A:325:ARG:NH2	2.24	0.53
1:A:1000:GLN:NE2	1:A:1270:LEU:HB2	2.23	0.53
1:A:4195:HIS:HB2	3:D:35:THR:HG21	1.90	0.53
1:B:3102:LEU:O	1:B:3197:TYR:OH	2.21	0.53
1:A:747:LEU:HD11	1:A:793:ASN:HD22	1.73	0.53
1:B:44:PHE:HZ	1:B:49:LEU:HB2	1.73	0.53
1:B:338:TYR:HA	1:B:341:VAL:HB	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:535:LEU:HD22	1:B:682:HIS:HB3	1.90	0.53
1:B:1000:GLN:NE2	1:B:1270:LEU:HB2	2.23	0.53
1:A:1530:ASP:HB2	1:A:1591:MET:HB3	1.91	0.53
1:A:2190:VAL:HG13	1:A:2199:ILE:HG12	1.91	0.53
1:A:3405:LYS:HE2	1:A:3446:LEU:HD11	1.91	0.53
1:B:4267:LEU:HD21	1:B:4316:THR:HG21	1.91	0.53
3:F:117:LEU:HB3	3:F:121:GLU:OE2	2.09	0.53
1:A:44:PHE:HZ	1:A:49:LEU:HB2	1.73	0.52
1:A:3767:VAL:HG21	1:A:3799:LEU:HD11	1.89	0.52
1:A:4208:TYR:HE2	1:A:4212:LEU:HD11	1.74	0.52
1:A:753:SER:O	1:A:757:LEU:HD23	2.09	0.52
1:A:1059:ILE:HG22	1:A:1065:ALA:HA	1.90	0.52
1:A:1076:SER:HA	1:A:1080:CYS:HB2	1.92	0.52
1:A:1528:ASN:OD1	1:A:1529:GLY:N	2.42	0.52
1:A:1538:MET:HB3	1:A:1602:TYR:CE2	2.45	0.52
1:A:3573:LYS:HB2	1:A:3716:TYR:HB3	1.90	0.52
1:A:3591:ASN:HB2	1:A:3643:GLU:HB3	1.90	0.52
1:B:386:ASP:OD1	1:B:387:MET:N	2.41	0.52
1:B:1469:THR:HA	1:B:1473:THR:HB	1.89	0.52
1:B:2181:GLN:OE1	1:B:2184:THR:OG1	2.28	0.52
1:B:2677:THR:HA	1:B:2680:LYS:HD2	1.91	0.52
1:B:4320:TYR:O	2:E:367:LEU:HD12	2.08	0.52
3:D:32:GLU:O	3:D:36:VAL:HG23	2.10	0.52
1:A:1874:ARG:NH1	1:A:2235:GLU:OE2	2.42	0.52
1:A:1977:VAL:HG11	1:A:3125:LEU:HD11	1.92	0.52
1:A:2181:GLN:OE1	1:A:2184:THR:OG1	2.28	0.52
1:A:4263:VAL:HB	1:A:4298:MET:HE1	1.92	0.52
1:A:338:TYR:HA	1:A:341:VAL:HB	1.90	0.52
1:A:732:LEU:HG	1:A:737:VAL:HG23	1.90	0.52
1:A:2687:LEU:O	1:A:2995:ARG:NH2	2.30	0.52
1:A:4320:TYR:H	2:C:367:LEU:CD1	2.23	0.52
1:B:747:LEU:HD11	1:B:793:ASN:HD22	1.73	0.52
1:B:1465:GLN:HA	1:B:1468:LEU:HD12	1.91	0.52
1:B:3486:LEU:HD22	1:B:3896:LEU:HD21	1.92	0.52
1:A:3328:CYS:HA	1:A:3434:HIS:CD2	2.45	0.52
1:A:4522:ARG:O	1:A:4526:VAL:HG23	2.08	0.52
1:B:4052:ILE:HD11	1:B:4121:LEU:HD13	1.90	0.52
2:C:321:GLN:O	2:C:325:LEU:HD23	2.09	0.52
1:A:1204:ILE:O	1:A:1212:ASN:ND2	2.42	0.52
1:B:711:TYR:OH	1:B:759:ARG:NH2	2.34	0.52
1:B:1497:THR:O	1:B:1501:ARG:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:714:ASN:HA	1:A:717:LEU:HD12	1.92	0.52
1:A:4146:CYS:SG	1:A:4186:LEU:HB2	2.50	0.52
1:B:732:LEU:HG	1:B:737:VAL:HG23	1.91	0.52
1:B:1496:THR:HG21	1:B:1540:VAL:HG13	1.90	0.52
1:A:1030:MET:HE1	1:A:1089:ILE:HD11	1.92	0.52
1:A:1208:ARG:HE	1:A:1324:GLU:HB3	1.74	0.52
1:A:2619:CYS:HB3	1:A:2622:ILE:HD12	1.92	0.52
1:A:4052:ILE:HD11	1:A:4121:LEU:HD13	1.90	0.52
1:B:1528:ASN:OD1	1:B:1529:GLY:N	2.43	0.52
1:B:1553:HIS:NE2	1:B:1602:TYR:OH	2.41	0.52
1:B:3405:LYS:HE2	1:B:3446:LEU:HD11	1.91	0.52
1:B:4047:PRO:HA	1:B:4075:LEU:HD11	1.92	0.52
3:D:14:LYS:HG2	3:D:66:PHE:CZ	2.45	0.52
1:A:671:ARG:HA	1:A:674:LEU:HD12	1.92	0.52
1:A:866:LEU:HD13	1:A:1012:ILE:HG21	1.92	0.52
1:A:4646:LYS:HG3	1:A:4647:TYR:N	2.25	0.52
1:B:3428:ALA:O	1:B:3432:THR:HG22	2.10	0.52
1:B:4320:TYR:H	2:E:367:LEU:CD1	2.23	0.52
1:A:1703:GLU:CD	1:A:2383:ARG:HH12	2.18	0.52
1:B:475:ILE:HG22	1:B:479:HIS:CE1	2.45	0.52
1:B:1703:GLU:CD	1:B:2383:ARG:HH12	2.17	0.52
1:B:2064:MET:SD	1:B:2113:VAL:HB	2.50	0.52
1:B:2120:GLN:HG2	1:B:2138:ARG:HH21	1.74	0.52
3:F:14:LYS:HG2	3:F:66:PHE:CZ	2.45	0.52
1:A:2054:ASN:OD1	1:A:2058:LYS:N	2.43	0.51
1:A:3264:LEU:HD12	1:A:3311:VAL:HA	1.91	0.51
1:A:3881:GLU:HG2	1:A:3921:MET:HG3	1.90	0.51
1:B:1623:VAL:O	1:B:1623:VAL:HG12	2.10	0.51
1:B:1647:SER:OG	1:B:3208:ARG:NH1	2.40	0.51
1:B:2054:ASN:OD1	1:B:2058:LYS:N	2.43	0.51
1:B:4264:GLY:H	2:E:358:LEU:HD22	1.74	0.51
1:A:1292:VAL:HG11	1:A:1326:VAL:HB	1.91	0.51
1:A:3291:GLN:O	1:A:3295:ILE:HG13	2.09	0.51
1:B:874:VAL:HA	1:B:877:PHE:HD2	1.75	0.51
1:B:931:ARG:HG3	1:B:932:PHE:N	2.25	0.51
1:B:2474:VAL:HA	1:B:2477:ARG:HH21	1.76	0.51
1:B:3291:GLN:O	1:B:3295:ILE:HG13	2.09	0.51
1:A:1076:SER:O	1:A:1081:SER:N	2.44	0.51
1:A:1623:VAL:O	1:A:1623:VAL:HG12	2.10	0.51
1:A:2309:LEU:O	2:C:77:SER:OG	2.26	0.51
1:A:3609:PRO:HA	1:A:3612:TRP:HD1	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3706:CYS:O	1:A:3710:ARG:NH1	2.44	0.51
1:A:4097:LEU:O	1:A:4101:TYR:HD1	1.93	0.51
1:B:2342:ASN:HD21	1:B:2347:MET:HG3	1.75	0.51
1:A:815:LEU:HD13	1:A:864:TYR:CE2	2.45	0.51
1:A:2331:THR:HG22	1:A:2414:VAL:HG22	1.93	0.51
1:A:2335:GLY:CA	1:A:2405:ILE:O	2.58	0.51
1:A:4047:PRO:HA	1:A:4075:LEU:HD11	1.91	0.51
1:B:318:LEU:HA	1:B:325:ARG:NH2	2.24	0.51
1:B:749:ILE:HD12	1:B:754:LEU:HD13	1.93	0.51
1:B:3439:SER:HB3	1:B:3443:GLN:HB2	1.93	0.51
1:B:4077:ILE:HD12	3:F:114:GLY:O	2.10	0.51
1:B:4307:LYS:HA	1:B:4310:MET:HG2	1.93	0.51
1:A:1245:GLY:H	1:A:1247:TRP:HZ3	1.58	0.51
1:A:3050:GLU:O	1:A:3054:VAL:HG23	2.10	0.51
1:A:4617:LEU:HA	1:A:4620:ILE:HD12	1.92	0.51
1:B:471:VAL:O	1:B:475:ILE:HG12	2.09	0.51
1:B:3175:THR:HG21	1:B:3184:PRO:HD3	1.93	0.51
1:B:3190:TRP:O	1:B:3194:LEU:HD23	2.10	0.51
1:B:3455:TRP:CZ3	1:B:3458:LEU:HD22	2.46	0.51
1:B:4635:VAL:HG11	1:B:4685:LYS:HG3	1.92	0.51
1:A:849:ARG:NH1	1:A:980:LEU:HD12	2.26	0.51
1:B:815:LEU:HD13	1:B:864:TYR:CE2	2.46	0.51
1:A:4307:LYS:HA	1:A:4310:MET:HG2	1.93	0.51
1:B:2190:VAL:HG13	1:B:2199:ILE:HG12	1.91	0.51
2:E:321:GLN:O	2:E:325:LEU:HD23	2.10	0.51
1:A:2686:LEU:HD22	1:A:2998:PRO:HB2	1.93	0.51
1:A:3190:TRP:O	1:A:3194:LEU:HD23	2.10	0.51
1:A:3486:LEU:HD22	1:A:3896:LEU:HD21	1.92	0.51
1:B:63:ILE:HG12	1:B:74:TYR:CE1	2.46	0.51
1:B:849:ARG:NH1	1:B:980:LEU:HD12	2.25	0.51
1:B:3743:LEU:HD11	1:B:3825:ARG:HH12	1.74	0.51
2:C:89:THR:N	2:C:92:SER:OG	2.44	0.51
3:D:117:LEU:HB3	3:D:121:GLU:OE2	2.10	0.51
1:A:3455:TRP:CZ3	1:A:3458:LEU:HD22	2.46	0.51
1:A:3564:LYS:HB2	1:A:3602:ILE:HB	1.92	0.51
1:A:4044:THR:O	1:A:4077:ILE:HG13	2.11	0.51
1:A:4635:VAL:HG11	1:A:4685:LYS:HG3	1.92	0.51
1:B:1678:HIS:HB3	1:B:1685:VAL:HG12	1.92	0.51
1:B:2180:VAL:HA	1:B:2187:PRO:HA	1.93	0.51
1:B:2619:CYS:HB3	1:B:2622:ILE:HD12	1.92	0.51
1:B:3706:CYS:O	1:B:3710:ARG:NH1	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3773:GLU:O	1:B:3794:ARG:NH1	2.38	0.51
1:B:4146:CYS:SG	1:B:4186:LEU:HB2	2.51	0.51
1:B:4561:GLN:O	1:B:4565:ILE:HG12	2.11	0.51
3:F:32:GLU:O	3:F:36:VAL:HG23	2.11	0.51
1:A:1401:PHE:HZ	1:A:1434:LEU:HD11	1.76	0.51
1:A:2309:LEU:HD22	2:C:87:GLY:HA3	1.93	0.51
1:A:2978:LEU:O	1:A:2982:LEU:HD23	2.11	0.51
1:A:4193:SER:HB3	1:A:4195:HIS:CE1	2.46	0.51
1:A:4280:ARG:HA	1:A:4284:ILE:HG21	1.92	0.51
1:B:2309:LEU:HD22	2:E:87:GLY:HA3	1.93	0.51
1:B:3099:LEU:HG	1:B:3103:LYS:HE3	1.93	0.51
1:B:3592:LEU:HB2	1:B:3615:ALA:HB3	1.93	0.51
1:B:4004:LYS:NZ	1:B:4136:PRO:HD2	2.25	0.51
2:E:89:THR:N	2:E:92:SER:OG	2.44	0.51
1:A:111:SER:HB3	1:A:133:ILE:HD11	1.93	0.50
1:A:321:LEU:HD12	1:A:326:LEU:HD23	1.93	0.50
1:A:747:LEU:HB2	1:A:804:GLU:O	2.11	0.50
1:A:2180:VAL:HA	1:A:2187:PRO:HA	1.92	0.50
1:A:3428:ALA:O	1:A:3432:THR:HG22	2.10	0.50
1:A:3699:LEU:HD23	1:A:3706:CYS:HB2	1.93	0.50
1:A:3732:ARG:HH22	1:B:4277:VAL:HG11	1.77	0.50
1:B:123:ALA:HB3	1:B:154:MET:HE3	1.92	0.50
1:B:747:LEU:HB2	1:B:804:GLU:O	2.10	0.50
1:B:2331:THR:HG22	1:B:2414:VAL:HG22	1.92	0.50
1:B:3564:LYS:HB2	1:B:3602:ILE:HB	1.92	0.50
1:B:4324:ASP:HA	1:B:4326:ARG:HH12	1.75	0.50
1:A:3508:PRO:O	1:A:3757:ARG:NH2	2.44	0.50
1:A:4588:THR:HG21	1:A:4626:GLY:HA3	1.94	0.50
1:B:474:VAL:HG11	1:B:646:LEU:CD2	2.41	0.50
1:B:1610:LEU:HD21	1:B:1799:LEU:HD13	1.92	0.50
1:B:3723:VAL:HG21	1:B:3824:SER:OG	2.12	0.50
1:A:862:PHE:HE2	1:A:1013:LEU:HD21	1.76	0.50
1:B:1292:VAL:HG11	1:B:1326:VAL:HB	1.92	0.50
1:B:1390:SER:OG	1:B:1391:SER:N	2.44	0.50
1:B:1401:PHE:HZ	1:B:1434:LEU:HD11	1.76	0.50
1:B:3050:GLU:O	1:B:3054:VAL:HG23	2.12	0.50
1:B:3609:PRO:HA	1:B:3612:TRP:HD1	1.76	0.50
1:B:3831:TYR:O	1:B:3834:GLN:HG3	2.10	0.50
1:B:4093:ARG:NH2	3:F:85:GLU:HG3	2.26	0.50
1:B:4097:LEU:O	1:B:4101:TYR:HD1	1.94	0.50
1:A:1010:LEU:HD23	1:A:1013:LEU:HD12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2552:VAL:O	1:A:2555:LEU:HG	2.12	0.50
1:A:3831:TYR:O	1:A:3834:GLN:HG3	2.11	0.50
1:A:4644:PHE:HB3	1:A:4722:ILE:HD11	1.93	0.50
1:B:1564:LEU:O	1:B:1568:LYS:HD3	2.10	0.50
1:B:2335:GLY:CA	1:B:2405:ILE:O	2.59	0.50
1:B:3508:PRO:O	1:B:3757:ARG:NH2	2.44	0.50
1:A:1678:HIS:HB3	1:A:1685:VAL:HG12	1.94	0.50
1:A:3175:THR:HG21	1:A:3184:PRO:HD3	1.93	0.50
1:A:2173:HIS:CD2	1:A:2218:ARG:HD3	2.47	0.50
1:A:3592:LEU:HB2	1:A:3615:ALA:HB3	1.93	0.50
1:B:671:ARG:HA	1:B:674:LEU:HD12	1.93	0.50
1:B:2170:VAL:HG21	1:B:2176:LEU:HD23	1.93	0.50
1:B:3214:LEU:HB3	1:B:3224:TYR:CE1	2.45	0.50
1:B:3328:CYS:HA	1:B:3434:HIS:CD2	2.46	0.50
1:B:4032:LYS:HA	1:B:4035:LYS:HE3	1.94	0.50
1:B:4193:SER:HB3	1:B:4195:HIS:CE1	2.46	0.50
1:A:1214:LEU:HG	1:A:1218:LEU:HG	1.93	0.50
1:A:2218:ARG:NH1	1:A:2228:THR:HG1	2.08	0.50
1:A:4399:LEU:HD13	1:A:4406:MET:CG	2.42	0.50
1:A:4556:ALA:CB	1:A:4605:PHE:HZ	2.25	0.50
1:A:4561:GLN:O	1:A:4565:ILE:HG12	2.11	0.50
1:B:31:VAL:HG13	1:B:34:ARG:HH21	1.77	0.50
1:B:834:VAL:O	1:B:838:GLN:HG3	2.12	0.50
1:B:1245:GLY:H	1:B:1247:TRP:HZ3	1.58	0.50
1:B:3449:ASP:OD1	1:B:3485:LYS:NZ	2.42	0.50
1:B:4419:LEU:HD13	1:B:4459:LEU:HG	1.93	0.50
3:F:20:PHE:CD2	3:F:36:VAL:HG22	2.46	0.50
1:A:46:MET:N	1:A:46:MET:HE2	2.27	0.50
1:A:193:PHE:HZ	1:B:877:PHE:HA	1.77	0.50
1:A:844:MET:HE1	1:A:973:LEU:HA	1.94	0.50
1:A:3439:SER:HB3	1:A:3443:GLN:HB2	1.93	0.50
1:A:3825:ARG:CZ	1:A:3825:ARG:HB2	2.41	0.50
1:A:4197:LYS:NZ	1:A:4247:SER:O	2.37	0.50
1:A:4273:LEU:HA	1:A:4276:LEU:HD23	1.93	0.50
1:B:910:GLY:HA3	1:B:915:GLU:OE1	2.11	0.50
1:B:1690:VAL:HG12	1:B:1716:CYS:HB2	1.94	0.50
1:B:4197:LYS:NZ	1:B:4247:SER:O	2.37	0.50
3:D:13:PHE:HB3	3:D:69:PHE:CE2	2.47	0.50
1:A:914:VAL:CG2	1:A:932:PHE:HB3	2.39	0.50
1:A:1093:TYR:HE2	1:A:1124:LEU:HA	1.77	0.50
1:A:1181:PHE:CZ	1:A:1226:VAL:HG13	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1416:ASN:O	1:A:1470:ARG:NH1	2.45	0.50
1:A:1706:TYR:O	1:A:2353:ARG:NH2	2.45	0.50
1:B:1181:PHE:CZ	1:B:1226:VAL:HG13	2.47	0.50
1:B:2552:VAL:O	1:B:2555:LEU:HG	2.12	0.50
2:E:111:PRO:HD2	2:E:128:PHE:CZ	2.47	0.50
1:A:1390:SER:OG	1:A:1391:SER:N	2.44	0.49
1:B:844:MET:HE1	1:B:973:LEU:HA	1.94	0.49
1:B:1416:ASN:O	1:B:1470:ARG:NH1	2.45	0.49
1:B:1530:ASP:HB2	1:B:1591:MET:HB3	1.94	0.49
1:B:2173:HIS:CD2	1:B:2218:ARG:HD3	2.47	0.49
1:B:3739:ILE:HD11	1:B:3824:SER:CB	2.37	0.49
1:B:4588:THR:HG21	1:B:4626:GLY:HA3	1.94	0.49
1:A:3256:VAL:H	1:A:3306:GLN:NE2	2.10	0.49
1:A:4319:ARG:NH1	2:C:361:ALA:O	2.45	0.49
1:B:2270:ARG:HH22	1:B:3135:ASP:HB2	1.77	0.49
1:B:2677:THR:O	1:B:2681:ILE:HG12	2.12	0.49
1:B:3699:LEU:HD23	1:B:3706:CYS:HB2	1.94	0.49
3:F:13:PHE:HB3	3:F:69:PHE:CE2	2.47	0.49
1:A:2268:PRO:HG3	1:A:2658:ASN:ND2	2.27	0.49
1:B:111:SER:HB3	1:B:133:ILE:HD11	1.93	0.49
1:B:3171:ILE:O	1:B:3175:THR:HG23	2.13	0.49
1:A:849:ARG:HD2	1:A:980:LEU:HA	1.95	0.49
1:A:4264:GLY:H	2:C:358:LEU:HD22	1.76	0.49
1:B:1312:ARG:O	1:B:1312:ARG:NH1	2.40	0.49
1:B:1537:LEU:O	1:B:1541:MET:HE3	2.12	0.49
1:B:2118:VAL:HG11	1:B:2174:PRO:HB3	1.94	0.49
1:B:2978:LEU:O	1:B:2982:LEU:HD23	2.11	0.49
1:B:3766:LYS:HD3	1:B:3795:TYR:CE1	2.48	0.49
1:B:4193:SER:O	1:B:4197:LYS:HG3	2.13	0.49
1:A:774:PRO:HB2	1:A:822:THR:HG21	1.94	0.49
1:A:3099:LEU:HD13	1:A:3190:TRP:CD2	2.48	0.49
1:B:4276:LEU:CD1	1:B:4279:GLN:HB2	2.42	0.49
1:A:531:MET:SD	1:A:677:SER:OG	2.69	0.49
1:A:1567:CYS:O	1:A:1571:LEU:HB3	2.12	0.49
1:A:2118:VAL:HG11	1:A:2174:PRO:HB3	1.94	0.49
1:A:4071:TRP:HH2	2:C:318:LEU:HD23	1.77	0.49
1:B:46:MET:HE2	1:B:46:MET:N	2.27	0.49
1:B:911:PHE:CE1	1:B:913:GLU:HG2	2.48	0.49
1:B:1204:ILE:O	1:B:1212:ASN:ND2	2.42	0.49
1:B:2268:PRO:HG3	1:B:2658:ASN:ND2	2.27	0.49
1:B:4230:THR:HG22	1:B:4231:ASP:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:63:ILE:HG12	1:A:74:TYR:CE1	2.48	0.49
1:A:2270:ARG:HH22	1:A:3135:ASP:HB2	1.77	0.49
1:A:3933:THR:HG22	1:A:3939:ALA:HB1	1.95	0.49
1:A:4193:SER:O	1:A:4197:LYS:HG3	2.12	0.49
1:B:698:LEU:HD21	1:B:704:GLU:HA	1.94	0.49
1:B:3933:THR:HG22	1:B:3939:ALA:HB1	1.95	0.49
1:A:758:SER:HA	1:A:813:MET:HE2	1.95	0.49
1:A:1537:LEU:O	1:A:1541:MET:HE3	2.12	0.49
1:A:3214:LEU:HB3	1:A:3224:TYR:CE1	2.45	0.49
1:A:3282:ILE:HD11	1:A:3286:ARG:NH2	2.27	0.49
1:A:3505:THR:HG22	1:B:4005:THR:HG22	1.94	0.49
1:A:3837:GLU:O	1:A:3841:LYS:HG2	2.13	0.49
1:A:3969:GLN:NE2	1:B:3769:GLU:OE2	2.45	0.49
1:B:683:MET:HB3	1:B:731:LEU:HD21	1.95	0.49
1:B:967:TYR:OH	1:B:1037:HIS:NE2	2.42	0.49
1:B:1015:PRO:HB3	1:B:1019:TYR:HD2	1.78	0.49
1:B:4093:ARG:NH2	3:F:88:GLU:OE1	2.34	0.49
1:B:4280:ARG:NH1	1:B:4288:GLN:OE1	2.46	0.49
1:A:4032:LYS:HA	1:A:4035:LYS:HE3	1.94	0.49
1:B:1269:HIS:O	1:B:1273:LEU:HD23	2.12	0.49
1:B:1974:ASP:HB3	1:B:1976:HIS:CE1	2.48	0.49
1:B:3602:ILE:HD11	1:B:3639:ASN:HB3	1.95	0.49
1:A:683:MET:HB3	1:A:731:LEU:HD21	1.95	0.49
1:B:3282:ILE:HD11	1:B:3286:ARG:NH2	2.27	0.49
1:B:4312:VAL:O	2:E:362:LEU:HD13	2.12	0.49
1:A:240:ILE:HA	1:A:243:ASN:ND2	2.28	0.48
1:A:1690:VAL:HG12	1:A:1716:CYS:HB2	1.95	0.48
1:A:4485:LEU:HD22	1:A:4525:LEU:HD21	1.96	0.48
1:B:1575:ASN:OD1	1:B:1576:VAL:N	2.46	0.48
1:B:1706:TYR:O	1:B:2353:ARG:NH2	2.46	0.48
1:B:1995:GLN:HB2	1:B:2024:LYS:HZ1	1.78	0.48
1:A:3171:ILE:O	1:A:3175:THR:HG23	2.13	0.48
1:A:3602:ILE:HD11	1:A:3639:ASN:HB3	1.95	0.48
1:A:3800:ALA:HB1	1:B:3791:SER:HB2	1.95	0.48
1:A:4217:ILE:HD13	1:A:4269:GLY:HA2	1.94	0.48
1:B:72:PRO:HB2	1:B:155:MET:HE1	1.96	0.48
1:A:1477:LYS:HA	1:A:1482:LEU:HD11	1.95	0.48
1:A:4004:LYS:NZ	1:A:4006:PRO:HG3	2.27	0.48
1:A:4419:LEU:HD13	1:A:4459:LEU:HG	1.94	0.48
1:A:4616:LEU:HD23	1:A:4620:ILE:HD11	1.94	0.48
1:B:321:LEU:HD12	1:B:326:LEU:HD23	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:833:PHE:CE1	1:B:858:LEU:HD12	2.47	0.48
1:B:2218:ARG:NH1	1:B:2228:THR:HG1	2.11	0.48
1:A:381:CYS:O	1:A:384:ILE:HG22	2.13	0.48
1:A:1383:TYR:HA	1:A:1386:LYS:HG2	1.96	0.48
1:A:1568:LYS:HZ1	1:A:1814:MET:HG2	1.78	0.48
1:B:240:ILE:HA	1:B:243:ASN:ND2	2.28	0.48
1:B:833:PHE:HE2	1:B:862:PHE:HB2	1.79	0.48
1:B:1526:LEU:HD21	1:B:1534:PHE:CD1	2.48	0.48
1:B:4556:ALA:CB	1:B:4605:PHE:HZ	2.25	0.48
1:A:187:LYS:HB3	1:A:191:MET:HE1	1.96	0.48
1:A:3192:TYR:O	1:A:3196:GLU:HG2	2.13	0.48
1:B:786:PHE:O	1:B:790:MET:HG2	2.14	0.48
1:B:3192:TYR:O	1:B:3196:GLU:HG2	2.13	0.48
1:A:713:PHE:CZ	1:A:717:LEU:HD11	2.49	0.48
1:A:755:SER:O	1:A:758:SER:OG	2.27	0.48
1:A:1015:PRO:HB3	1:A:1019:TYR:HD2	1.78	0.48
1:A:1575:ASN:OD1	1:A:1576:VAL:N	2.46	0.48
1:B:849:ARG:HD2	1:B:980:LEU:HA	1.95	0.48
1:B:941:SER:O	1:B:947:ARG:NE	2.46	0.48
1:B:1859:MET:SD	1:B:2189:VAL:HG21	2.54	0.48
1:B:3192:TYR:CE1	1:B:3231:HIS:HE1	2.32	0.48
1:B:4654:ASP:HA	1:B:4657:VAL:HG12	1.96	0.48
1:A:77:PHE:HD2	1:A:107:LEU:HD21	1.79	0.48
1:A:912:LYS:HG3	1:A:913:GLU:OE1	2.13	0.48
1:A:1269:HIS:O	1:A:1273:LEU:HD23	2.12	0.48
1:A:1526:LEU:HD21	1:A:1534:PHE:CE1	2.48	0.48
1:A:1974:ASP:HB3	1:A:1976:HIS:CE1	2.48	0.48
1:A:1995:GLN:HB2	1:A:2024:LYS:HZ1	1.78	0.48
1:A:2170:VAL:HG21	1:A:2176:LEU:HD23	1.95	0.48
1:A:2564:ASP:OD1	1:A:2564:ASP:N	2.47	0.48
1:A:3689:SER:OG	1:A:3700:CYS:SG	2.71	0.48
1:A:4276:LEU:HB3	1:A:4280:ARG:HB2	1.95	0.48
1:B:1007:TRP:O	1:B:1040:ARG:NH2	2.47	0.48
1:A:202:ASN:HD21	1:A:204:ARG:HH11	1.59	0.48
1:A:333:SER:HB2	1:A:388:ILE:HG21	1.95	0.48
1:A:749:ILE:HD12	1:A:754:LEU:HD13	1.95	0.48
1:A:2548:LEU:O	1:A:2552:VAL:HG23	2.14	0.48
1:A:4536:MET:HE3	1:A:4566:MET:SD	2.54	0.48
1:B:1003:PHE:CZ	1:B:1266:GLN:HG2	2.49	0.48
1:B:1477:LYS:HA	1:B:1482:LEU:HD11	1.94	0.48
1:B:3099:LEU:HD13	1:B:3190:TRP:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3837:GLU:O	1:B:3841:LYS:HG2	2.13	0.48
3:D:101:ILE:HB	3:D:137:VAL:HB	1.94	0.48
1:A:4093:ARG:NH2	3:D:85:GLU:HG3	2.27	0.48
1:B:1093:TYR:HE2	1:B:1124:LEU:HA	1.78	0.48
1:B:1526:LEU:HD21	1:B:1534:PHE:CE1	2.48	0.48
1:B:2360:ALA:HB3	1:B:2363:ARG:HB2	1.96	0.48
1:B:4470:GLU:CD	1:B:4519:LYS:H	2.22	0.48
1:A:185:ARG:O	1:A:188:GLU:HG2	2.14	0.48
1:A:475:ILE:HG22	1:A:479:HIS:CE1	2.49	0.48
1:A:1460:GLU:OE1	1:A:1463:ARG:N	2.30	0.48
1:A:3173:LYS:O	1:A:3177:THR:HG23	2.14	0.48
1:A:3757:ARG:HB3	1:A:3758:PRO:HD3	1.96	0.48
1:A:3909:LEU:HD23	1:A:3913:ASN:HB2	1.96	0.48
1:A:3990:LEU:HD23	1:A:3990:LEU:HA	1.66	0.48
1:B:1383:TYR:HA	1:B:1386:LYS:HG2	1.95	0.48
1:B:1589:HIS:CE1	1:B:1590:VAL:HG23	2.48	0.48
1:B:3173:LYS:O	1:B:3177:THR:HG23	2.14	0.48
1:B:4071:TRP:HH2	2:E:318:LEU:HD23	1.79	0.48
1:B:4295:LEU:O	1:B:4299:THR:HG23	2.14	0.48
3:F:20:PHE:CE2	3:F:36:VAL:HA	2.49	0.48
1:A:125:SER:OG	1:A:128:HIS:ND1	2.40	0.47
1:A:3057:ARG:HE	1:A:3139:PHE:HA	1.79	0.47
1:A:3279:CYS:O	1:A:3282:ILE:HG22	2.15	0.47
1:A:3532:CYS:SG	1:A:3869:SER:OG	2.57	0.47
1:A:4319:ARG:N	2:C:367:LEU:H	2.12	0.47
1:B:3136:MET:O	1:B:3140:PHE:N	2.39	0.47
1:B:3413:ARG:HH12	1:B:3857:ARG:HH21	1.61	0.47
1:B:3757:ARG:HB3	1:B:3758:PRO:HD3	1.96	0.47
1:B:3983:ASP:OD1	1:B:3983:ASP:N	2.47	0.47
1:B:4536:MET:HE1	1:B:4565:ILE:HB	1.96	0.47
1:A:1133:VAL:HG11	1:A:1258:SER:HB3	1.96	0.47
1:A:1255:THR:HG23	1:A:1256:ILE:HG13	1.96	0.47
1:A:3349:SER:O	2:C:281:SER:OG	2.29	0.47
1:A:3822:PHE:HA	1:A:3825:ARG:HH11	1.78	0.47
1:B:74:TYR:O	1:B:78:VAL:HG23	2.14	0.47
1:B:381:CYS:O	1:B:384:ILE:HG22	2.14	0.47
1:B:4272:CYS:SG	1:B:4320:TYR:OH	2.53	0.47
1:B:4705:LEU:HD22	1:B:4754:VAL:HG22	1.96	0.47
3:D:102:SER:HA	3:D:136:GLN:OE1	2.14	0.47
3:F:102:SER:HA	3:F:136:GLN:OE1	2.14	0.47
1:A:3192:TYR:CE1	1:A:3231:HIS:HE1	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4295:LEU:O	1:A:4299:THR:HG23	2.13	0.47
1:B:2379:LEU:HD21	1:B:2385:PHE:HE1	1.78	0.47
1:B:4092:LEU:HD22	3:F:50:GLN:HG2	1.96	0.47
1:B:4319:ARG:N	2:E:367:LEU:H	2.12	0.47
2:C:282:SER:O	2:C:286:LEU:HG	2.14	0.47
1:A:786:PHE:O	1:A:790:MET:HG2	2.14	0.47
1:A:1859:MET:SD	1:A:2189:VAL:HG21	2.54	0.47
1:A:4470:GLU:CD	1:A:4519:LYS:H	2.22	0.47
1:B:190:GLN:O	1:B:194:LEU:HG	2.15	0.47
1:B:1361:ILE:HA	1:B:1365:HIS:HB2	1.97	0.47
1:B:2548:LEU:O	1:B:2552:VAL:HG23	2.14	0.47
1:B:2564:ASP:OD1	1:B:2564:ASP:N	2.47	0.47
1:B:4263:VAL:HB	1:B:4298:MET:HE1	1.96	0.47
1:B:4625:PHE:CD1	1:B:4674:ASN:HB3	2.50	0.47
1:A:74:TYR:O	1:A:78:VAL:HG23	2.14	0.47
1:A:240:ILE:HA	1:A:243:ASN:HD21	1.79	0.47
1:A:1159:LEU:HD11	1:A:1298:LEU:HB3	1.96	0.47
1:A:3245:GLU:HG3	1:A:3250:PHE:HE1	1.79	0.47
1:A:3598:THR:H	1:A:3724:ASP:CG	2.21	0.47
1:A:4280:ARG:NH1	1:A:4288:GLN:OE1	2.48	0.47
1:A:4536:MET:HE1	1:A:4569:ILE:HD12	1.95	0.47
1:B:2496:ILE:H	1:B:2496:ILE:HD12	1.80	0.47
1:B:4217:ILE:HD13	1:B:4269:GLY:HA2	1.95	0.47
1:A:853:LEU:O	1:A:857:ARG:HG2	2.15	0.47
1:A:4547:GLU:HG2	1:A:4605:PHE:CE1	2.49	0.47
1:B:978:SER:HB2	1:B:1119:GLN:HB3	1.97	0.47
1:B:2354:ILE:HG13	1:B:2385:PHE:HB2	1.96	0.47
1:B:4359:GLN:HE21	1:B:4448:LEU:HD12	1.78	0.47
1:A:269:TYR:O	1:A:273:PHE:HD2	1.98	0.47
1:A:996:ALA:O	1:A:999:LEU:HG	2.14	0.47
1:A:1003:PHE:CZ	1:A:1266:GLN:HG2	2.49	0.47
1:A:1041:TRP:HA	1:A:1044:ARG:HB2	1.97	0.47
1:A:1214:LEU:HD13	1:A:1383:TYR:HB2	1.97	0.47
1:A:2018:VAL:HG13	1:A:2023:VAL:HG22	1.96	0.47
1:A:2316:GLN:HE22	2:C:76:GLN:HG3	1.80	0.47
1:A:2379:LEU:HD21	1:A:2385:PHE:HE1	1.78	0.47
1:A:2656:THR:O	1:A:2660:LEU:HG	2.15	0.47
1:A:4166:LEU:O	1:A:4183:TYR:OH	2.28	0.47
1:A:4208:TYR:CE2	1:A:4212:LEU:HD11	2.50	0.47
1:A:4257:HIS:CE1	1:A:4261:ARG:HH22	2.33	0.47
1:A:4705:LEU:HD22	1:A:4754:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:77:PHE:HD2	1:B:107:LEU:HD21	1.79	0.47
1:B:89:CYS:HA	1:B:92:ILE:HD12	1.96	0.47
1:B:187:LYS:HB3	1:B:191:MET:HE1	1.96	0.47
1:B:269:TYR:O	1:B:273:PHE:HD2	1.97	0.47
1:B:412:TRP:NE1	1:B:416:ASN:HD21	2.12	0.47
1:B:911:PHE:HE1	1:B:913:GLU:HG2	1.79	0.47
1:B:996:ALA:O	1:B:999:LEU:HG	2.14	0.47
1:B:1076:SER:O	1:B:1081:SER:N	2.45	0.47
1:B:2309:LEU:O	2:E:77:SER:OG	2.26	0.47
1:B:3090:LEU:HD11	1:B:3175:THR:HG22	1.97	0.47
1:B:3975:LEU:HD12	1:B:3975:LEU:HA	1.75	0.47
1:B:4166:LEU:O	1:B:4183:TYR:OH	2.30	0.47
1:B:4547:GLU:HG2	1:B:4605:PHE:CE1	2.49	0.47
2:E:282:SER:O	2:E:286:LEU:HG	2.14	0.47
1:A:412:TRP:NE1	1:A:416:ASN:HD21	2.12	0.47
1:A:679:SER:HG	1:A:682:HIS:CG	2.33	0.47
1:A:882:HIS:ND1	1:A:907:LEU:HG	2.29	0.47
1:A:3108:TYR:CE2	1:A:3157:THR:HG21	2.50	0.47
1:A:4005:THR:HG22	1:B:3505:THR:HG22	1.97	0.47
1:A:4105:TRP:O	1:A:4109:LEU:HD23	2.15	0.47
1:A:4132:VAL:O	1:A:4135:THR:HG22	2.14	0.47
1:A:4522:ARG:HE	1:A:4572:GLU:HB2	1.80	0.47
1:B:774:PRO:HB2	1:B:822:THR:HG21	1.97	0.47
1:B:853:LEU:O	1:B:857:ARG:HG2	2.14	0.47
1:B:2650:LEU:HB2	1:B:2653:ILE:HG12	1.97	0.47
2:C:78:PHE:N	2:C:88:TYR:O	2.47	0.47
2:E:78:PHE:N	2:E:88:TYR:O	2.47	0.47
1:A:273:PHE:CE2	1:A:335:SER:HA	2.50	0.47
1:A:1361:ILE:HA	1:A:1365:HIS:HB2	1.97	0.47
1:A:2496:ILE:H	1:A:2496:ILE:HD12	1.80	0.47
1:A:3449:ASP:OD1	1:A:3485:LYS:NZ	2.41	0.47
1:A:3644:PHE:HE2	1:A:3699:LEU:HD11	1.80	0.47
1:A:4092:LEU:HD22	3:D:50:GLN:HG2	1.96	0.47
1:B:1579:LYS:HE3	1:B:1589:HIS:CE1	2.50	0.47
1:B:1960:ASN:HB3	1:B:1963:LYS:O	2.14	0.47
1:B:3256:VAL:H	1:B:3306:GLN:NE2	2.12	0.47
1:A:89:CYS:HA	1:A:92:ILE:HD12	1.96	0.47
1:A:698:LEU:HD23	1:A:698:LEU:H	1.80	0.47
1:A:1415:ALA:HB2	1:A:1467:TRP:HB2	1.97	0.47
1:A:1647:SER:OG	1:A:3208:ARG:NH1	2.40	0.47
1:A:2360:ALA:HB3	1:A:2363:ARG:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2496:ILE:HG22	1:A:2500:ARG:HH21	1.80	0.47
1:A:3090:LEU:HD11	1:A:3175:THR:HG22	1.97	0.47
1:A:3773:GLU:HB2	1:A:3794:ARG:NH1	2.30	0.47
1:B:125:SER:OG	1:B:128:HIS:ND1	2.39	0.47
1:B:1298:LEU:O	1:B:1302:SER:OG	2.21	0.47
1:B:1428:LEU:HD12	1:B:1488:ASN:HB3	1.97	0.47
1:B:3433:LEU:HD22	2:E:292:LEU:HD22	1.97	0.47
1:B:3766:LYS:HB3	1:B:3795:TYR:CE2	2.49	0.47
1:B:4319:ARG:NH1	2:E:361:ALA:O	2.47	0.47
1:B:4397:VAL:HA	1:B:4400:LEU:HD12	1.96	0.47
1:A:1319:LEU:HD21	1:A:1350:VAL:HG22	1.97	0.46
1:A:2354:ILE:HG13	1:A:2385:PHE:HB2	1.97	0.46
1:B:1041:TRP:HA	1:B:1044:ARG:HB2	1.97	0.46
1:B:3245:GLU:HG3	1:B:3250:PHE:HE1	1.79	0.46
1:B:3279:CYS:O	1:B:3282:ILE:HG22	2.15	0.46
1:B:4132:VAL:O	1:B:4135:THR:HG22	2.15	0.46
1:B:4492:LEU:HD22	1:B:4508:LEU:HD13	1.97	0.46
1:A:479:HIS:HA	1:A:482:LYS:HE2	1.98	0.46
1:A:1317:LEU:O	1:A:1323:THR:OG1	2.33	0.46
1:A:2650:LEU:HB2	1:A:2653:ILE:HG12	1.97	0.46
1:A:3000:MET:HG3	1:A:3054:VAL:HG12	1.96	0.46
1:A:3433:LEU:HD22	2:C:292:LEU:HD22	1.98	0.46
1:A:4492:LEU:HD22	1:A:4508:LEU:HD13	1.97	0.46
1:B:2375:MET:HB2	1:B:2387:PHE:HE2	1.79	0.46
1:B:3951:VAL:HG11	1:B:3996:LEU:HD22	1.97	0.46
1:B:4231:ASP:OD1	1:B:4231:ASP:N	2.49	0.46
1:B:4522:ARG:HE	1:B:4572:GLU:HB2	1.80	0.46
2:C:33:CYS:HG	2:C:35:SER:HG	1.63	0.46
1:A:1015:PRO:HD2	1:A:1054:ILE:HD13	1.98	0.46
1:A:1434:LEU:HD21	1:A:1449:LEU:HD11	1.97	0.46
1:A:1526:LEU:HD21	1:A:1534:PHE:CD1	2.50	0.46
1:A:2066:SER:HA	1:A:2110:GLY:H	1.81	0.46
1:A:3245:GLU:HG3	1:A:3250:PHE:CE1	2.51	0.46
1:A:4647:TYR:HD2	1:A:4718:ALA:HB2	1.80	0.46
1:B:726:ASN:OD1	1:B:727:LEU:N	2.48	0.46
1:B:1434:LEU:HD21	1:B:1449:LEU:HD11	1.97	0.46
1:B:1567:CYS:O	1:B:1571:LEU:HB3	2.15	0.46
1:B:3108:TYR:CE2	1:B:3157:THR:HG21	2.50	0.46
1:B:3909:LEU:HD23	1:B:3913:ASN:HB2	1.97	0.46
1:B:4201:ALA:HB1	1:B:4258:PHE:HE2	1.80	0.46
1:A:4129:LEU:HD23	1:A:4165:LEU:HD21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:333:SER:HB2	1:B:388:ILE:HG21	1.96	0.46
1:B:756:VAL:O	1:B:760:LEU:HD23	2.14	0.46
1:B:875:TYR:CE2	1:B:937:SER:HB2	2.51	0.46
1:B:3233:LEU:HD13	1:B:3290:TRP:CE3	2.50	0.46
3:F:130:ASP:OD2	3:F:135:GLY:N	2.44	0.46
1:A:978:SER:HB2	1:A:1119:GLN:HB3	1.97	0.46
1:A:1960:ASN:HB3	1:A:1963:LYS:O	2.15	0.46
1:A:3325:CYS:HA	1:A:3333:LEU:HD11	1.97	0.46
1:A:4093:ARG:HH22	3:D:85:GLU:HG3	1.81	0.46
1:A:4397:VAL:HA	1:A:4400:LEU:HD12	1.97	0.46
1:B:811:LEU:HD11	1:B:861:ILE:HG12	1.98	0.46
1:B:881:GLN:HE22	1:B:885:LEU:HD22	1.81	0.46
1:B:1394:ARG:HH22	1:B:1443:ASN:HB2	1.81	0.46
1:B:2316:GLN:HE22	2:E:76:GLN:HG3	1.80	0.46
1:B:2993:GLY:O	1:B:2997:ILE:HG13	2.16	0.46
1:B:3057:ARG:HE	1:B:3139:PHE:HA	1.80	0.46
1:B:3689:SER:OG	1:B:3700:CYS:SG	2.71	0.46
1:B:4613:LEU:O	1:B:4617:LEU:HG	2.16	0.46
1:A:833:PHE:O	1:A:837:ILE:HG13	2.15	0.46
1:A:1394:ARG:HH22	1:A:1443:ASN:HB2	1.81	0.46
1:A:2993:GLY:O	1:A:2997:ILE:HG13	2.15	0.46
1:A:3012:GLY:HA2	1:A:3018:LYS:HD3	1.97	0.46
1:A:3159:LEU:O	1:A:3163:MET:HG2	2.15	0.46
1:A:4201:ALA:HB1	1:A:4258:PHE:HE2	1.81	0.46
1:A:4230:THR:HB	1:B:3825:ARG:HH21	1.80	0.46
1:A:4622:TYR:OH	1:A:4670:LYS:HG3	2.16	0.46
1:B:320:PRO:HD2	1:B:325:ARG:NH1	2.31	0.46
1:B:552:ARG:NH2	1:B:644:PRO:HB3	2.31	0.46
1:B:833:PHE:CE2	1:B:862:PHE:HB2	2.50	0.46
1:B:1401:PHE:CE1	1:B:1449:LEU:HD12	2.51	0.46
1:B:3012:GLY:HA2	1:B:3018:LYS:HD3	1.97	0.46
1:B:3616:LYS:HD3	1:B:3629:ILE:HG23	1.97	0.46
1:B:4093:ARG:HH22	3:F:85:GLU:HG3	1.80	0.46
1:A:1428:LEU:HD12	1:A:1488:ASN:HB3	1.98	0.46
1:B:479:HIS:HA	1:B:482:LYS:HE2	1.97	0.46
1:B:1159:LEU:HD11	1:B:1298:LEU:HB3	1.96	0.46
1:B:4159:LYS:O	1:B:4163:LEU:HD23	2.15	0.46
3:F:37:MET:HE2	3:F:37:MET:N	2.31	0.46
1:A:1579:LYS:HE3	1:A:1589:HIS:CE1	2.50	0.46
1:B:679:SER:HG	1:B:682:HIS:CG	2.33	0.46
1:B:1133:VAL:HG11	1:B:1258:SER:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1564:LEU:HD21	1:B:1603:LEU:CD1	2.45	0.46
1:B:2018:VAL:HG13	1:B:2023:VAL:HG22	1.97	0.46
1:B:2656:THR:O	1:B:2660:LEU:HG	2.15	0.46
1:B:3057:ARG:HA	1:B:3163:MET:CE	2.41	0.46
1:B:4208:TYR:CE2	1:B:4212:LEU:HD11	2.51	0.46
1:B:4491:ARG:HD2	2:E:367:LEU:CD2	2.45	0.46
2:C:20:ARG:HB3	2:C:22:TYR:HE2	1.81	0.46
2:C:324:LEU:HD23	2:C:324:LEU:HA	1.79	0.46
3:D:56:VAL:HG11	3:D:64:ILE:HG12	1.97	0.46
3:D:107:ARG:HD3	3:D:122:VAL:HG11	1.97	0.46
1:A:151:PHE:HA	1:A:154:MET:SD	2.56	0.46
1:A:228:ASP:OD1	1:A:228:ASP:N	2.47	0.46
1:A:1553:HIS:CE1	1:A:1606:VAL:HG21	2.51	0.46
1:A:1564:LEU:O	1:A:1568:LYS:HD3	2.16	0.46
1:A:4613:LEU:O	1:A:4617:LEU:HG	2.16	0.46
1:B:1015:PRO:HD2	1:B:1054:ILE:HD13	1.97	0.46
1:B:2997:ILE:HD13	1:B:3136:MET:HG2	1.98	0.46
1:B:4152:LEU:HD23	2:E:321:GLN:HG2	1.97	0.46
1:B:4276:LEU:HB3	1:B:4280:ARG:HB2	1.98	0.46
1:A:77:PHE:CD2	1:A:107:LEU:HD21	2.51	0.46
1:A:378:VAL:HG21	1:A:472:LEU:HD23	1.98	0.46
1:A:726:ASN:OD1	1:A:727:LEU:N	2.48	0.46
1:A:2985:LEU:HA	1:A:2988:LEU:HD12	1.98	0.46
1:A:3388:GLU:HA	1:A:3391:LEU:HD12	1.98	0.46
1:B:257:LEU:HD11	1:B:329:VAL:HG22	1.98	0.46
1:B:378:VAL:HG21	1:B:472:LEU:HD23	1.97	0.46
1:B:1415:ALA:HB2	1:B:1467:TRP:HB2	1.97	0.46
1:B:4129:LEU:HD23	1:B:4165:LEU:HD21	1.97	0.46
1:A:1312:ARG:O	1:A:1312:ARG:NH1	2.39	0.45
1:A:2112:SER:OG	1:A:2125:SER:OG	2.11	0.45
1:A:2552:VAL:HA	1:A:2555:LEU:CD2	2.46	0.45
1:A:4352:THR:HA	1:A:4370:ASN:O	2.16	0.45
1:B:193:PHE:O	1:B:197:LEU:HG	2.16	0.45
1:B:240:ILE:HA	1:B:243:ASN:HD21	1.79	0.45
1:B:531:MET:SD	1:B:677:SER:OG	2.69	0.45
1:B:1164:GLN:O	1:B:1168:THR:HG23	2.16	0.45
1:B:3000:MET:HG3	1:B:3054:VAL:HG12	1.98	0.45
1:B:4158:ARG:HH22	2:E:322:GLU:CD	2.24	0.45
2:C:365:LEU:O	2:C:366:ASN:HB3	2.16	0.45
3:F:56:VAL:HG11	3:F:64:ILE:HG12	1.96	0.45
1:A:1164:GLN:O	1:A:1168:THR:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:814:LEU:HA	1:B:817:ILE:HD12	1.98	0.45
1:B:833:PHE:O	1:B:837:ILE:HG13	2.17	0.45
1:B:2496:ILE:HG22	1:B:2500:ARG:HH21	1.80	0.45
1:B:3384:SER:O	1:B:3388:GLU:HG2	2.16	0.45
1:B:3726:ILE:HG13	1:B:3731:ASP:HB3	1.99	0.45
3:D:109:VAL:HG12	3:D:110:MET:HE2	1.98	0.45
3:F:14:LYS:HG2	3:F:66:PHE:HZ	1.82	0.45
1:A:193:PHE:CZ	1:B:877:PHE:HD1	2.34	0.45
1:A:730:THR:O	1:A:733:GLN:HG2	2.17	0.45
1:A:1159:LEU:O	1:A:1163:LEU:HG	2.17	0.45
1:A:1344:ASP:OD1	1:A:1344:ASP:N	2.49	0.45
1:A:1819:MET:CE	1:A:2515:LEU:HD11	2.44	0.45
1:A:3029:ILE:HD13	1:A:3092:SER:HB3	1.98	0.45
1:A:3794:ARG:O	1:A:3798:GLN:HG3	2.17	0.45
1:A:4152:LEU:HD23	2:C:321:GLN:HG2	1.97	0.45
1:A:4205:VAL:HG23	1:A:4206:LEU:HD12	1.98	0.45
1:A:4263:VAL:CB	1:A:4298:MET:HE1	2.46	0.45
1:B:2552:VAL:HA	1:B:2555:LEU:CD2	2.46	0.45
1:B:4005:THR:O	1:B:4007:VAL:N	2.49	0.45
2:C:114:ALA:HA	2:C:121:PRO:HA	1.98	0.45
1:A:313:LEU:HA	1:A:318:LEU:HD11	1.98	0.45
1:A:320:PRO:HD2	1:A:325:ARG:NH1	2.31	0.45
1:A:3256:VAL:H	1:A:3306:GLN:HE22	1.64	0.45
1:A:3295:ILE:CD1	1:A:3391:LEU:HB3	2.46	0.45
1:A:3769:GLU:OE2	1:B:3969:GLN:NE2	2.50	0.45
1:A:4272:CYS:O	1:A:4275:LYS:HB2	2.17	0.45
1:B:730:THR:O	1:B:733:GLN:HG2	2.17	0.45
1:B:1159:LEU:O	1:B:1163:LEU:HG	2.16	0.45
1:B:1255:THR:HG23	1:B:1256:ILE:HG13	1.99	0.45
1:B:3245:GLU:HG3	1:B:3250:PHE:CE1	2.51	0.45
1:B:3314:GLY:HA3	1:B:3633:LEU:HD11	1.96	0.45
1:B:4171:ASP:OD1	1:B:4171:ASP:N	2.49	0.45
3:D:37:MET:N	3:D:37:MET:HE2	2.32	0.45
1:A:1273:LEU:HD13	1:A:1279:PRO:HB2	1.99	0.45
1:A:3564:LYS:NZ	1:A:3600:GLN:O	2.50	0.45
1:A:3951:VAL:HG11	1:A:3996:LEU:HD22	1.97	0.45
1:A:4034:ASN:CG	1:A:4042:LEU:HD11	2.42	0.45
1:B:49:LEU:HB3	1:B:50:PRO:HD3	1.99	0.45
1:B:145:ARG:HD3	1:B:148:ILE:HB	1.98	0.45
1:B:2529:LEU:HD21	1:B:2542:HIS:HD2	1.82	0.45
1:B:3598:THR:H	1:B:3724:ASP:CG	2.22	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3644:PHE:HE2	1:B:3699:LEU:HD11	1.80	0.45
1:A:811:LEU:HD11	1:A:861:ILE:HG12	1.98	0.45
1:A:1567:CYS:SG	1:A:1571:LEU:HD23	2.57	0.45
1:A:4491:ARG:HD2	2:C:367:LEU:CD2	2.45	0.45
1:A:4654:ASP:HA	1:A:4657:VAL:HG12	1.98	0.45
1:B:422:LEU:HD13	1:B:536:THR:HG21	1.98	0.45
1:B:815:LEU:HD13	1:B:864:TYR:CZ	2.52	0.45
1:B:1305:MET:HG3	1:B:1307:PRO:HD3	1.99	0.45
1:B:1428:LEU:HD23	1:B:1428:LEU:HA	1.87	0.45
1:B:1597:CYS:SG	1:B:2478:LEU:HB2	2.56	0.45
1:B:3112:GLN:O	1:B:3115:ASP:HB2	2.17	0.45
1:B:4257:HIS:CE1	1:B:4261:ARG:HH22	2.35	0.45
1:B:4268:ASN:HD21	2:E:362:LEU:CD2	2.20	0.45
1:B:4318:LYS:C	2:E:367:LEU:H	2.25	0.45
1:B:4533:LEU:HD21	1:B:4570:LEU:HD21	1.99	0.45
1:B:4622:TYR:OH	1:B:4670:LYS:HG3	2.16	0.45
1:A:422:LEU:HD13	1:A:536:THR:HG21	1.98	0.45
1:A:833:PHE:CE2	1:A:862:PHE:HB2	2.51	0.45
1:A:833:PHE:HE2	1:A:862:PHE:HB2	1.81	0.45
1:A:3314:GLY:HA3	1:A:3633:LEU:HD11	1.98	0.45
1:A:4017:LEU:HA	1:A:4017:LEU:HD23	1.69	0.45
1:B:1317:LEU:O	1:B:1323:THR:OG1	2.33	0.45
1:B:1319:LEU:HD21	1:B:1350:VAL:HG22	1.98	0.45
1:B:1541:MET:HA	1:B:1544:LEU:HD12	1.99	0.45
1:B:1899:MET:CE	1:B:1912:LEU:HG	2.47	0.45
1:B:2508:LEU:O	1:B:2512:LEU:HD23	2.17	0.45
1:B:2540:HIS:HB3	1:B:2584:ARG:NE	2.31	0.45
1:B:3295:ILE:CD1	1:B:3391:LEU:HB3	2.46	0.45
3:D:14:LYS:HG2	3:D:66:PHE:HZ	1.82	0.45
1:A:257:LEU:HD11	1:A:329:VAL:HG22	1.99	0.45
1:A:831:SER:O	1:A:835:GLN:HG2	2.17	0.45
1:A:1305:MET:HG3	1:A:1307:PRO:HD3	1.99	0.45
1:A:1401:PHE:CE1	1:A:1449:LEU:HD12	2.51	0.45
1:A:3258:ALA:O	1:A:3849:PRO:HD2	2.17	0.45
1:A:3474:TYR:OH	1:A:3478:LYS:HE3	2.17	0.45
1:A:3616:LYS:HD3	1:A:3629:ILE:HG23	1.98	0.45
1:A:4359:GLN:HE21	1:A:4448:LEU:HD12	1.80	0.45
1:A:4533:LEU:HD21	1:A:4570:LEU:HD21	1.99	0.45
1:B:313:LEU:HA	1:B:318:LEU:HD11	1.99	0.45
1:B:2985:LEU:HA	1:B:2988:LEU:HD12	1.97	0.45
1:B:4205:VAL:HG23	1:B:4206:LEU:HD12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:145:ARG:HD3	1:A:148:ILE:HB	1.99	0.45
1:A:336:CYS:SG	1:A:381:CYS:HA	2.57	0.45
1:A:881:GLN:OE1	1:A:885:LEU:HD22	2.17	0.45
1:A:2540:HIS:HB3	1:A:2584:ARG:NE	2.31	0.45
1:A:3136:MET:O	1:A:3140:PHE:N	2.41	0.45
1:B:93:PRO:HB2	1:B:95:ASN:OD1	2.17	0.45
1:B:273:PHE:CE2	1:B:335:SER:HA	2.51	0.45
1:B:1273:LEU:HD13	1:B:1279:PRO:HB2	1.99	0.45
1:B:2370:ILE:HG22	1:B:2371:PHE:CD2	2.52	0.45
1:B:3349:SER:O	2:E:281:SER:OG	2.30	0.45
2:E:33:CYS:HG	2:E:35:SER:HG	1.65	0.45
1:A:395:SER:HB3	1:A:398:ALA:HB3	1.98	0.45
1:A:662:MET:HG3	1:A:674:LEU:HD21	1.99	0.45
1:A:2508:LEU:O	1:A:2512:LEU:HD23	2.17	0.45
1:A:3273:MET:HE3	1:A:3273:MET:O	2.17	0.45
1:A:4324:ASP:HA	1:A:4326:ARG:HH12	1.82	0.45
1:B:753:SER:O	1:B:756:VAL:HG12	2.16	0.45
1:B:917:ASN:O	1:B:920:LYS:HG2	2.17	0.45
1:B:1573:GLN:O	1:B:1575:ASN:N	2.50	0.45
1:B:3564:LYS:NZ	1:B:3600:GLN:O	2.49	0.45
1:B:4048:TYR:OH	1:B:4106:LYS:NZ	2.40	0.45
1:B:4556:ALA:HB2	1:B:4605:PHE:CZ	2.48	0.45
2:E:88:TYR:HB3	2:E:93:LEU:HB2	1.98	0.45
1:A:552:ARG:NH2	1:A:644:PRO:HB3	2.31	0.44
1:A:698:LEU:HD13	1:A:889:PHE:CZ	2.53	0.44
1:A:808:VAL:HG12	1:A:930:PRO:HG3	1.98	0.44
1:A:1597:CYS:SG	1:A:2478:LEU:HB2	2.57	0.44
1:A:1899:MET:CE	1:A:1912:LEU:HG	2.47	0.44
1:A:2677:THR:HA	1:A:2680:LYS:HD2	1.99	0.44
1:A:4005:THR:O	1:A:4007:VAL:N	2.50	0.44
1:A:4506:THR:O	1:A:4509:LEU:HG	2.18	0.44
1:A:4522:ARG:NE	1:A:4572:GLU:HB2	2.32	0.44
1:B:849:ARG:NH1	1:B:983:VAL:HB	2.32	0.44
1:B:3273:MET:O	1:B:3273:MET:HE3	2.17	0.44
2:E:114:ALA:HA	2:E:121:PRO:HA	1.98	0.44
1:A:753:SER:O	1:A:756:VAL:HG12	2.17	0.44
1:A:817:ILE:HG22	1:A:821:PHE:CE1	2.52	0.44
1:A:849:ARG:NH1	1:A:983:VAL:HB	2.32	0.44
1:A:1589:HIS:CE1	1:A:1590:VAL:HG23	2.53	0.44
1:B:77:PHE:CD2	1:B:107:LEU:HD21	2.51	0.44
1:B:155:MET:HE2	1:B:155:MET:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1560:ALA:O	1:B:1564:LEU:HG	2.17	0.44
1:B:4506:THR:O	1:B:4509:LEU:HG	2.18	0.44
1:A:49:LEU:HB3	1:A:50:PRO:HD3	2.00	0.44
1:A:3825:ARG:HG3	1:B:4278:VAL:HG11	1.98	0.44
1:B:1344:ASP:OD1	1:B:1344:ASP:N	2.49	0.44
1:B:1531:GLY:O	1:B:1534:PHE:HB2	2.17	0.44
1:B:1690:VAL:HG11	1:B:1699:HIS:CD2	2.53	0.44
1:B:4325:TYR:CE2	1:B:4495:ILE:HA	2.52	0.44
1:B:4522:ARG:NE	1:B:4572:GLU:HB2	2.32	0.44
3:F:29:THR:HG22	3:F:31:LYS:H	1.83	0.44
3:F:109:VAL:HG12	3:F:110:MET:HE2	1.98	0.44
1:A:833:PHE:CE1	1:A:858:LEU:HD12	2.52	0.44
1:A:1690:VAL:HG11	1:A:1699:HIS:CD2	2.52	0.44
1:A:1962:CYS:SG	1:A:2639:ASN:ND2	2.83	0.44
1:A:2219:HIS:CE1	1:A:2227:ARG:HB2	2.52	0.44
1:A:2370:ILE:HG22	1:A:2371:PHE:CD2	2.52	0.44
1:A:3225:ARG:HA	1:A:3228:ARG:HG2	2.00	0.44
1:A:3483:GLU:OE2	1:A:3899:ILE:HD11	2.18	0.44
1:B:1412:MET:HE2	1:B:1412:MET:HA	1.99	0.44
1:B:2219:HIS:CE1	1:B:2227:ARG:HB2	2.52	0.44
1:B:2311:VAL:O	2:E:65:TYR:OH	2.34	0.44
1:B:3225:ARG:HA	1:B:3228:ARG:HG2	2.00	0.44
1:B:4034:ASN:CG	1:B:4042:LEU:HD11	2.42	0.44
1:B:4316:THR:CB	2:E:362:LEU:HD22	2.44	0.44
1:B:4622:TYR:HA	1:B:4625:PHE:CD2	2.52	0.44
1:A:200:VAL:HG22	1:B:719:THR:HG21	1.99	0.44
1:A:400:GLY:O	1:A:404:GLN:HG2	2.18	0.44
1:A:549:GLN:HA	1:A:552:ARG:HE	1.83	0.44
1:A:963:TYR:HE2	1:A:967:TYR:HD2	1.65	0.44
1:A:1358:CYS:HB3	1:A:1384:LEU:HD11	2.00	0.44
1:A:1541:MET:HA	1:A:1544:LEU:HD12	1.99	0.44
1:A:1858:LEU:HD12	1:A:2200:GLN:HB2	1.99	0.44
1:A:2997:ILE:HD13	1:A:3136:MET:HG2	1.98	0.44
1:A:3464:LYS:HE3	1:A:3464:LYS:HB2	1.72	0.44
1:A:3670:ASN:HB3	1:A:3671:PRO:HD3	1.99	0.44
1:A:4713:PHE:CE2	1:A:4751:LEU:HD21	2.48	0.44
1:B:228:ASP:OD1	1:B:228:ASP:N	2.47	0.44
1:B:540:THR:O	1:B:543:ARG:HD3	2.17	0.44
1:B:683:MET:HB3	1:B:731:LEU:CD2	2.47	0.44
1:B:723:GLN:HA	1:B:727:LEU:HD12	1.99	0.44
1:B:1299:ILE:HG21	1:B:1337:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2395:LEU:HD23	1:B:2432:TRP:CZ3	2.53	0.44
1:A:1573:GLN:O	1:A:1575:ASN:N	2.50	0.44
1:A:3099:LEU:HD22	1:A:3190:TRP:CD1	2.53	0.44
1:A:3099:LEU:HG	1:A:3103:LYS:HE3	1.99	0.44
1:A:4349:PHE:HB2	1:A:4438:MET:HE1	1.99	0.44
1:A:4479:MET:HE1	1:A:4485:LEU:HD23	1.99	0.44
1:B:1689:GLY:H	1:B:1712:PHE:HZ	1.66	0.44
1:B:1858:LEU:HD12	1:B:2200:GLN:HB2	1.99	0.44
1:B:4101:TYR:O	1:B:4105:TRP:CD1	2.70	0.44
1:B:4272:CYS:O	1:B:4275:LYS:HB2	2.18	0.44
1:B:4309:PHE:O	1:B:4312:VAL:HB	2.18	0.44
2:E:349:ALA:O	2:E:353:VAL:HG23	2.18	0.44
1:A:416:ASN:O	1:A:420:LEU:HG	2.18	0.44
1:A:540:THR:O	1:A:543:ARG:HD3	2.17	0.44
1:A:2313:ASN:OD1	1:A:2316:GLN:N	2.41	0.44
1:B:395:SER:HB3	1:B:398:ALA:HB3	1.99	0.44
2:C:88:TYR:HB3	2:C:93:LEU:HB2	1.98	0.44
3:D:117:LEU:HB3	3:D:121:GLU:CD	2.43	0.44
2:E:324:LEU:HD23	2:E:324:LEU:HA	1.79	0.44
1:A:126:GLN:O	1:A:130:ILE:HG12	2.18	0.44
1:A:382:LEU:HD13	1:A:479:HIS:NE2	2.33	0.44
1:A:683:MET:HB3	1:A:731:LEU:CD2	2.47	0.44
1:A:1412:MET:HA	1:A:1412:MET:HE2	2.00	0.44
1:A:1535:PRO:O	1:A:1539:VAL:HG22	2.17	0.44
1:A:3546:LYS:HG2	1:A:3714:MET:HE1	2.00	0.44
1:A:3742:LEU:HD23	1:A:3742:LEU:HA	1.80	0.44
1:A:3766:LYS:HD3	1:A:3795:TYR:CE1	2.52	0.44
1:B:657:PHE:O	1:B:661:SER:OG	2.22	0.44
1:B:831:SER:O	1:B:835:GLN:HG2	2.18	0.44
1:B:1400:PHE:CD1	1:B:1405:GLY:HA3	2.53	0.44
1:B:2994:VAL:HA	1:B:2997:ILE:HD12	2.00	0.44
1:B:3670:ASN:HB3	1:B:3671:PRO:HD3	1.99	0.44
1:B:4281:THR:HG22	1:B:4282:LYS:N	2.33	0.44
1:B:4339:ILE:HG12	1:B:4475:MET:HB2	2.00	0.44
1:A:1194:LYS:HA	1:A:1370:SER:O	2.18	0.44
1:A:2529:LEU:HD21	1:A:2542:HIS:HD2	1.82	0.44
1:B:1207:SER:HB2	1:B:1216:PRO:HG3	2.00	0.44
1:B:3327:LEU:HD23	1:B:3434:HIS:HD2	1.83	0.44
1:B:3483:GLU:OE2	1:B:3899:ILE:HD11	2.18	0.44
3:D:29:THR:HG22	3:D:31:LYS:H	1.83	0.44
1:A:855:LEU:HB3	1:A:1002:TYR:HE1	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1531:GLY:O	1:A:1534:PHE:HB2	2.18	0.43
1:A:1996:LEU:HD11	1:A:2002:ILE:HG13	2.00	0.43
1:A:2371:PHE:HZ	1:A:2397:ALA:HB2	1.83	0.43
1:A:3188:HIS:HA	1:A:3191:PHE:HD2	1.83	0.43
1:A:4093:ARG:NH2	3:D:88:GLU:OE1	2.34	0.43
1:B:103:ALA:O	1:B:107:LEU:HG	2.18	0.43
1:B:400:GLY:O	1:B:404:GLN:HG2	2.18	0.43
1:B:4158:ARG:NH2	2:E:322:GLU:HG2	2.34	0.43
1:B:4351:VAL:HG12	1:B:4438:MET:HE2	1.99	0.43
1:B:4713:PHE:CE2	1:B:4751:LEU:HD21	2.48	0.43
2:C:349:ALA:O	2:C:353:VAL:HG23	2.17	0.43
3:F:115:GLU:HB3	3:F:117:LEU:HG	2.00	0.43
1:A:29:TRP:O	1:A:33:VAL:HG13	2.18	0.43
1:A:323:PRO:HA	1:A:326:LEU:HD12	2.00	0.43
1:A:1007:TRP:O	1:A:1040:ARG:NH2	2.50	0.43
1:A:1551:ALA:HA	1:A:1799:LEU:HD11	2.00	0.43
1:A:3112:GLN:O	1:A:3115:ASP:HB2	2.17	0.43
1:A:3188:HIS:HA	1:A:3191:PHE:CD2	2.53	0.43
1:A:4191:ILE:HD13	1:A:4248:PHE:CE1	2.52	0.43
1:A:4281:THR:HG22	1:A:4282:LYS:N	2.34	0.43
1:A:4531:ASN:HD21	1:A:4534:ASN:HD21	1.65	0.43
1:B:273:PHE:HZ	1:B:338:TYR:HB3	1.81	0.43
1:B:1076:SER:HA	1:B:1080:CYS:HB2	2.00	0.43
1:B:1221:ASN:HB2	1:B:1376:ILE:HG12	2.01	0.43
1:B:2698:LYS:HD2	1:B:2698:LYS:C	2.43	0.43
1:B:3029:ILE:HD13	1:B:3092:SER:HB3	1.99	0.43
1:B:3099:LEU:HB2	1:B:3190:TRP:CZ2	2.53	0.43
1:B:3474:TYR:CZ	1:B:3478:LYS:HE3	2.53	0.43
1:B:3474:TYR:OH	1:B:3478:LYS:HE3	2.17	0.43
1:B:3946:LEU:HD23	1:B:3946:LEU:HA	1.76	0.43
1:B:4203:ARG:HH21	2:E:347:PHE:HD1	1.65	0.43
1:A:196:GLN:NE2	1:B:885:LEU:O	2.51	0.43
1:A:815:LEU:HD13	1:A:864:TYR:CZ	2.53	0.43
1:A:1428:LEU:HD23	1:A:1428:LEU:HA	1.87	0.43
1:A:1689:GLY:H	1:A:1712:PHE:HZ	1.67	0.43
1:A:2555:LEU:HD23	1:A:2621:PHE:HE1	1.83	0.43
1:A:2637:PRO:HD3	1:A:2648:PRO:HG2	2.01	0.43
1:A:3827:GLU:O	1:A:3830:GLU:HG2	2.18	0.43
1:A:4171:ASP:OD1	1:A:4171:ASP:N	2.50	0.43
1:B:549:GLN:HA	1:B:552:ARG:HE	1.83	0.43
1:B:783:TRP:CZ2	1:B:818:PHE:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2686:LEU:HD22	1:B:2998:PRO:HB2	1.99	0.43
1:B:3760:LEU:HD23	1:B:3760:LEU:HA	1.79	0.43
1:B:4328:PRO:HG3	2:E:367:LEU:HD11	2.00	0.43
1:B:4351:VAL:HG21	1:B:4379:ILE:HG21	1.99	0.43
2:C:86:MET:SD	2:C:86:MET:N	2.91	0.43
1:A:93:PRO:HB2	1:A:95:ASN:OD1	2.17	0.43
1:A:1493:GLN:OE1	1:A:1539:VAL:HG23	2.18	0.43
1:A:2999:TYR:O	1:A:3003:ILE:HG12	2.18	0.43
1:A:4203:ARG:HH21	2:C:347:PHE:HD1	1.66	0.43
1:A:4318:LYS:C	2:C:367:LEU:H	2.26	0.43
1:A:4339:ILE:HG12	1:A:4475:MET:HB2	1.99	0.43
1:A:4359:GLN:OE1	1:A:4444:MET:HG2	2.18	0.43
1:A:4443:ARG:NH2	1:A:4453:GLU:OE1	2.36	0.43
1:B:1478:ASP:OD1	1:B:1478:ASP:N	2.50	0.43
1:B:2230:MET:HB2	1:B:2242:TYR:HB2	2.00	0.43
1:B:2371:PHE:HZ	1:B:2397:ALA:HB2	1.84	0.43
1:B:2999:TYR:O	1:B:3003:ILE:HG12	2.18	0.43
1:B:3188:HIS:HA	1:B:3191:PHE:CD2	2.53	0.43
1:B:3258:ALA:O	1:B:3849:PRO:HD2	2.17	0.43
1:A:2508:LEU:HG	1:A:2512:LEU:HD23	2.01	0.43
1:A:3057:ARG:HA	1:A:3163:MET:HE1	2.00	0.43
1:A:3099:LEU:HB2	1:A:3190:TRP:CZ2	2.53	0.43
1:B:416:ASN:O	1:B:420:LEU:HG	2.18	0.43
1:B:1194:LYS:HA	1:B:1370:SER:O	2.18	0.43
1:B:1950:VAL:HG11	1:B:1954:VAL:HG22	2.00	0.43
1:B:4313:CYS:HA	1:B:4316:THR:HG22	1.99	0.43
1:A:881:GLN:O	1:A:886:SER:N	2.52	0.43
1:A:1086:ASP:O	1:A:1089:ILE:HG22	2.18	0.43
1:A:1110:LEU:HB3	1:A:1114:GLU:HB2	2.00	0.43
1:A:1299:ILE:HG21	1:A:1337:ILE:HD11	1.99	0.43
1:A:1400:PHE:CD1	1:A:1405:GLY:HA3	2.53	0.43
1:A:1473:THR:HG22	1:A:1474:SER:N	2.34	0.43
1:A:1478:ASP:N	1:A:1478:ASP:OD1	2.50	0.43
1:A:2355:GLN:HB3	1:A:2419:ALA:HB3	2.01	0.43
1:A:2555:LEU:HD22	1:A:2621:PHE:CD1	2.53	0.43
1:B:1475:PRO:HG3	1:B:1485:ILE:HG21	2.00	0.43
1:B:2112:SER:HG	1:B:2125:SER:HG	1.63	0.43
1:B:2555:LEU:HD23	1:B:2621:PHE:HE1	1.83	0.43
1:B:2695:PHE:CE2	1:B:3134:PRO:HB2	2.54	0.43
1:B:3188:HIS:HA	1:B:3191:PHE:HD2	1.83	0.43
1:B:3742:LEU:HD23	1:B:3742:LEU:HA	1.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3982:GLU:OE2	2:E:313:ARG:HD2	2.19	0.43
1:B:4278:VAL:C	1:B:4280:ARG:H	2.25	0.43
2:C:111:PRO:HD2	2:C:128:PHE:CZ	2.54	0.43
1:A:1221:ASN:HB2	1:A:1376:ILE:HG12	2.00	0.43
1:A:2375:MET:HB2	1:A:2387:PHE:HE2	1.83	0.43
1:A:2533:HIS:HB2	1:A:2539:TYR:HB2	2.01	0.43
1:A:2698:LYS:HD2	1:A:2698:LYS:C	2.43	0.43
1:A:3232:THR:HG22	1:A:3236:HIS:CD2	2.54	0.43
1:A:3771:ALA:HB2	1:B:3919:ALA:HB2	2.01	0.43
1:A:4105:TRP:HD1	1:A:4109:LEU:HD23	1.83	0.43
1:B:984:ARG:NE	1:B:987:GLU:OE2	2.51	0.43
1:B:1387:GLN:C	1:B:1393:ALA:HB1	2.44	0.43
1:B:1474:SER:HB3	1:B:1532:THR:HB	2.00	0.43
1:B:1585:MET:C	1:B:1590:VAL:HG21	2.43	0.43
1:B:1849:GLU:HG2	1:B:2147:PHE:CD1	2.51	0.43
1:B:2355:GLN:HB3	1:B:2419:ALA:HB3	2.00	0.43
1:B:3049:ASN:HB3	1:B:3156:TYR:OH	2.18	0.43
1:B:3388:GLU:HA	1:B:3391:LEU:HD12	2.00	0.43
1:B:4399:LEU:HD13	1:B:4406:MET:CG	2.48	0.43
1:A:1031:SER:O	1:A:1035:ILE:HG23	2.18	0.43
1:A:1204:ILE:HG22	1:A:1353:LYS:HG3	2.01	0.43
1:A:1204:ILE:HB	1:A:1354:LEU:HD23	2.01	0.43
1:A:1521:MET:O	1:A:1525:MET:HG3	2.19	0.43
1:A:1950:VAL:HG11	1:A:1954:VAL:HG22	2.00	0.43
1:A:2230:MET:HB2	1:A:2242:TYR:HB2	2.01	0.43
1:A:4750:LYS:O	1:A:4754:VAL:HG23	2.19	0.43
1:B:85:ILE:O	1:B:89:CYS:HB2	2.19	0.43
1:B:943:ASP:O	1:B:947:ARG:HG2	2.19	0.43
1:B:1358:CYS:HB3	1:B:1384:LEU:HD11	2.00	0.43
1:B:1565:SER:O	1:B:1569:LYS:HG2	2.19	0.43
1:B:2171:MET:HE2	1:B:2641:PHE:HZ	1.83	0.43
1:B:2555:LEU:HD22	1:B:2621:PHE:CD1	2.54	0.43
1:B:3232:THR:HG22	1:B:3236:HIS:CD2	2.54	0.43
1:B:3546:LYS:HG2	1:B:3714:MET:HE1	2.00	0.43
1:B:4024:ILE:HG12	2:E:320:VAL:CG2	2.47	0.43
2:C:94:GLN:HA	2:C:132:LEU:HD13	2.01	0.43
2:E:75:PRO:HB2	2:E:78:PHE:CZ	2.54	0.43
2:E:86:MET:N	2:E:86:MET:SD	2.91	0.43
1:A:78:VAL:HG11	1:A:132:LEU:HB3	2.00	0.43
1:A:103:ALA:O	1:A:107:LEU:HG	2.19	0.43
1:A:984:ARG:NE	1:A:987:GLU:OE2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1109:ILE:HD11	1:A:1199:ALA:HB2	2.00	0.43
1:A:3049:ASN:HB3	1:A:3156:TYR:OH	2.18	0.43
1:A:3233:LEU:HD22	1:A:3290:TRP:CE3	2.54	0.43
1:B:1885:ILE:HG13	1:B:1972:LEU:HD11	2.00	0.43
1:B:2355:GLN:HB2	1:B:2384:TRP:CE2	2.54	0.43
1:B:2687:LEU:O	1:B:2995:ARG:NH2	2.31	0.43
1:B:4129:LEU:HD12	1:B:4129:LEU:HA	1.84	0.43
1:B:4263:VAL:CB	1:B:4298:MET:HE1	2.48	0.43
2:C:75:PRO:HB2	2:C:78:PHE:CZ	2.53	0.43
2:E:109:ILE:HG12	2:E:124:VAL:HG22	2.01	0.43
1:A:82:THR:HA	1:A:85:ILE:HG22	2.01	0.43
1:A:702:SER:O	1:A:705:GLU:HG3	2.19	0.43
1:A:917:ASN:O	1:A:920:LYS:HG2	2.18	0.43
1:A:1475:PRO:HG3	1:A:1485:ILE:HG21	2.00	0.43
1:A:2355:GLN:HB2	1:A:2384:TRP:CE2	2.54	0.43
1:A:3113:GLN:OE1	1:A:3201:GLN:N	2.52	0.43
1:A:4195:HIS:HA	1:A:4198:VAL:HG12	2.00	0.43
1:A:4319:ARG:HD2	2:C:365:LEU:HB2	2.00	0.43
1:B:2508:LEU:HG	1:B:2512:LEU:HD23	2.01	0.43
1:B:3602:ILE:HD12	1:B:3602:ILE:HA	1.89	0.43
1:A:2395:LEU:HD23	1:A:2432:TRP:CZ3	2.53	0.42
1:A:2520:SER:O	1:A:2524:GLN:HG2	2.19	0.42
1:A:2994:VAL:HA	1:A:2997:ILE:HD12	2.00	0.42
1:A:3817:ILE:O	1:A:3821:VAL:HG23	2.19	0.42
1:A:4105:TRP:CD1	3:D:145:MET:HE2	2.53	0.42
1:B:974:LEU:HB3	1:B:1033:CYS:SG	2.60	0.42
1:B:1109:ILE:HD11	1:B:1199:ALA:HB2	2.00	0.42
1:B:1462:VAL:O	1:B:1465:GLN:HG3	2.19	0.42
1:B:2520:SER:O	1:B:2524:GLN:HG2	2.19	0.42
1:B:3099:LEU:HD22	1:B:3190:TRP:CD1	2.54	0.42
1:B:3968:LEU:HD23	1:B:3968:LEU:HA	1.86	0.42
1:B:4444:MET:SD	1:B:4447:LEU:CD1	3.05	0.42
2:E:309:MET:HE2	2:E:309:MET:HB2	1.92	0.42
1:A:72:PRO:HB2	1:A:155:MET:HE1	2.00	0.42
1:A:674:LEU:HB3	1:A:722:LEU:HD21	2.01	0.42
1:A:723:GLN:HA	1:A:727:LEU:HD12	2.00	0.42
1:A:1064:LYS:HE2	1:A:1066:GLU:HB2	2.01	0.42
1:A:1462:VAL:O	1:A:1465:GLN:HG3	2.19	0.42
1:A:3890:LEU:HD23	1:A:3890:LEU:HA	1.86	0.42
1:B:70:TYR:OH	1:B:159:LYS:O	2.17	0.42
1:B:1962:CYS:SG	1:B:2639:ASN:ND2	2.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3041:LYS:O	1:B:3049:ASN:ND2	2.42	0.42
1:B:3325:CYS:HA	1:B:3333:LEU:HD11	2.01	0.42
1:B:3948:ILE:HD11	1:B:3992:CYS:HA	2.01	0.42
1:B:4195:HIS:HA	1:B:4198:VAL:HG12	2.01	0.42
1:B:4574:ASN:OD1	1:B:4674:ASN:ND2	2.50	0.42
1:A:857:ARG:O	1:A:860:LEU:HG	2.20	0.42
1:A:1347:LEU:HD23	1:A:1347:LEU:HA	1.87	0.42
1:A:3233:LEU:HD13	1:A:3290:TRP:CE3	2.50	0.42
1:A:3471:LEU:HD23	1:A:3471:LEU:HA	1.83	0.42
1:A:3474:TYR:CZ	1:A:3478:LYS:HE3	2.54	0.42
1:A:4346:VAL:HG22	1:A:4426:LYS:HE3	2.01	0.42
1:A:4381:PRO:C	1:A:4382:LEU:HD12	2.45	0.42
1:B:808:VAL:HG12	1:B:930:PRO:HG3	2.01	0.42
1:B:1996:LEU:HD11	1:B:2002:ILE:HG13	2.00	0.42
1:B:2022:PHE:CE1	1:B:2024:LYS:HE3	2.54	0.42
1:B:2533:HIS:HB2	1:B:2539:TYR:HB2	2.01	0.42
1:B:3944:ASN:HD21	1:B:3989:ARG:HA	1.84	0.42
1:B:4346:VAL:HG22	1:B:4426:LYS:HE3	2.01	0.42
1:B:4381:PRO:C	1:B:4382:LEU:HD12	2.45	0.42
1:B:4526:VAL:HA	1:B:4587:LEU:HD11	2.00	0.42
2:C:109:ILE:HG12	2:C:124:VAL:HG22	2.01	0.42
1:A:877:PHE:HB3	1:B:193:PHE:CD2	2.54	0.42
1:A:1596:THR:HG22	1:A:2478:LEU:HD11	2.01	0.42
1:A:3417:LEU:HD13	1:A:3461:TYR:CD2	2.54	0.42
1:A:3825:ARG:HD3	1:B:4228:LEU:O	2.19	0.42
1:A:4470:GLU:OE2	1:A:4519:LYS:N	2.52	0.42
1:B:732:LEU:HG	1:B:757:LEU:HD11	2.01	0.42
1:B:1204:ILE:HG22	1:B:1353:LYS:HG3	2.01	0.42
1:B:3233:LEU:HD22	1:B:3290:TRP:CE3	2.54	0.42
1:B:3486:LEU:HD23	1:B:3486:LEU:HA	1.92	0.42
1:B:4259:LYS:HA	1:B:4262:LEU:HG	2.01	0.42
1:B:4269:GLY:O	1:B:4273:LEU:HD13	2.19	0.42
1:B:4486:GLU:O	1:B:4489:LEU:HG	2.19	0.42
1:B:4750:LYS:O	1:B:4754:VAL:HG23	2.19	0.42
3:F:14:LYS:HE2	3:F:14:LYS:HB3	1.88	0.42
1:A:1223:PRO:O	1:A:1227:GLN:NE2	2.53	0.42
1:A:2695:PHE:CE2	1:A:3134:PRO:HB2	2.54	0.42
1:A:3887:LEU:HD23	1:A:3887:LEU:HA	1.87	0.42
1:A:4526:VAL:HA	1:A:4587:LEU:HD11	2.00	0.42
1:B:78:VAL:HG11	1:B:132:LEU:HB3	2.01	0.42
1:B:862:PHE:HE2	1:B:1013:LEU:HD21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:115:GLU:HB3	3:D:117:LEU:HG	2.00	0.42
1:A:85:ILE:O	1:A:89:CYS:HB2	2.18	0.42
1:A:882:HIS:HA	1:A:886:SER:OG	2.20	0.42
1:A:3744:ASP:HA	1:B:4282:LYS:HE2	2.00	0.42
1:B:29:TRP:O	1:B:33:VAL:HG13	2.20	0.42
1:B:126:GLN:O	1:B:130:ILE:HG12	2.18	0.42
1:B:674:LEU:HB3	1:B:722:LEU:HD21	2.01	0.42
1:B:1154:ILE:O	1:B:1158:LEU:HD13	2.20	0.42
1:B:1807:PHE:O	1:B:1811:VAL:HG23	2.19	0.42
1:B:3320:LEU:HD23	1:B:3320:LEU:HA	1.90	0.42
1:B:3794:ARG:O	1:B:3798:GLN:HG3	2.19	0.42
1:B:3986:TRP:CZ3	1:B:3990:LEU:HD12	2.55	0.42
1:B:4167:THR:HG21	1:B:4205:VAL:HG12	2.02	0.42
1:B:4540:LEU:O	1:B:4544:LEU:HG	2.19	0.42
2:C:316:ARG:O	2:C:320:VAL:HG22	2.19	0.42
1:A:1387:GLN:C	1:A:1393:ALA:HB1	2.44	0.42
1:A:2063:ILE:HB	1:A:2071:TYR:HB2	2.02	0.42
1:A:3481:GLN:OE1	1:A:3485:LYS:HD3	2.20	0.42
1:A:3968:LEU:HD23	1:A:3968:LEU:HA	1.86	0.42
1:A:4024:ILE:HG12	2:C:320:VAL:CG2	2.47	0.42
1:B:758:SER:HA	1:B:813:MET:HE2	2.02	0.42
1:B:1202:LEU:HG	1:B:1321:SER:HB2	2.02	0.42
1:B:1204:ILE:HB	1:B:1354:LEU:HD23	2.02	0.42
1:B:1473:THR:HG22	1:B:1474:SER:N	2.34	0.42
1:B:1563:TRP:HB3	1:B:1599:ILE:HD13	2.02	0.42
1:B:2355:GLN:O	1:B:2418:ASP:HB2	2.19	0.42
1:B:3004:LEU:O	1:B:3008:THR:HG23	2.19	0.42
1:B:4017:LEU:HA	1:B:4017:LEU:HD23	1.69	0.42
1:B:4470:GLU:OE2	1:B:4519:LYS:N	2.52	0.42
3:D:55:GLU:OE1	3:D:75:ARG:NH1	2.53	0.42
3:D:106:LEU:HD12	3:D:106:LEU:HA	1.85	0.42
1:A:341:VAL:HG11	1:A:417:SER:HB2	2.02	0.42
1:A:471:VAL:HG13	1:A:472:LEU:HD12	2.01	0.42
1:A:1087:VAL:HG21	1:A:1154:ILE:HD13	2.02	0.42
1:A:1316:PRO:O	1:A:1320:GLU:HB2	2.20	0.42
1:A:3287:THR:HG23	1:A:3325:CYS:HB3	2.00	0.42
1:A:3982:GLU:OE1	2:C:313:ARG:HD2	2.19	0.42
1:A:4017:LEU:HD11	1:A:4132:VAL:HG11	2.01	0.42
1:B:1004:LEU:HD23	1:B:1004:LEU:HA	1.85	0.42
1:B:1223:PRO:O	1:B:1227:GLN:NE2	2.53	0.42
1:B:2063:ILE:HB	1:B:2071:TYR:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2294:HIS:O	1:B:2425:LYS:HE2	2.20	0.42
1:B:3172:LYS:HD2	1:B:3186:PHE:CE2	2.55	0.42
1:B:3417:LEU:HD13	1:B:3461:TYR:CD2	2.54	0.42
1:B:4017:LEU:HD11	1:B:4132:VAL:HG11	2.01	0.42
1:B:4443:ARG:NH2	1:B:4453:GLU:OE1	2.37	0.42
2:E:28:TYR:CE1	2:E:122:ASN:HB2	2.55	0.42
3:F:117:LEU:HB3	3:F:121:GLU:CD	2.44	0.42
1:A:50:PRO:HA	1:A:53:VAL:HG22	2.02	0.42
1:A:730:THR:O	1:A:731:LEU:C	2.63	0.42
1:A:974:LEU:HB3	1:A:1033:CYS:SG	2.60	0.42
1:A:1154:ILE:O	1:A:1158:LEU:HD13	2.20	0.42
1:A:1374:GLU:OE2	1:A:1420:SER:N	2.38	0.42
1:A:1563:TRP:HB3	1:A:1599:ILE:HD13	2.01	0.42
1:A:2294:HIS:O	1:A:2425:LYS:HE2	2.20	0.42
1:A:3562:VAL:HG12	1:A:3602:ILE:HG13	2.01	0.42
1:A:3986:TRP:CZ3	1:A:3990:LEU:HD12	2.55	0.42
1:A:4216:GLU:HB3	1:A:4238:LEU:HD21	2.01	0.42
1:B:280:ASN:HD21	1:B:412:TRP:HE1	1.67	0.42
1:B:491:LEU:HD13	1:B:521:ILE:HG13	2.02	0.42
1:B:1521:MET:O	1:B:1525:MET:HG3	2.20	0.42
1:B:3113:GLN:OE1	1:B:3201:GLN:N	2.52	0.42
1:B:3464:LYS:HB2	1:B:3464:LYS:HE3	1.72	0.42
1:B:4216:GLU:HB3	1:B:4238:LEU:HD21	2.02	0.42
1:B:4479:MET:HE1	1:B:4485:LEU:HD23	2.02	0.42
1:A:63:ILE:HG12	1:A:74:TYR:HE1	1.84	0.42
1:A:491:LEU:HD13	1:A:521:ILE:HG13	2.02	0.42
1:A:730:THR:O	1:A:733:GLN:N	2.52	0.42
1:A:3760:LEU:HD23	1:A:3760:LEU:HA	1.79	0.42
1:A:3793:ASN:N	1:B:3519:LEU:O	2.38	0.42
1:A:3955:LEU:HD11	1:A:4012:ILE:CD1	2.50	0.42
1:A:4019:ILE:O	1:A:4022:LYS:HG2	2.20	0.42
1:A:4153:ALA:HB2	1:A:4162:VAL:HG11	2.02	0.42
1:B:323:PRO:HA	1:B:326:LEU:HD12	2.00	0.42
1:B:471:VAL:HG13	1:B:472:LEU:HD12	2.02	0.42
1:B:475:ILE:HG22	1:B:479:HIS:HE1	1.83	0.42
1:B:730:THR:O	1:B:733:GLN:N	2.53	0.42
1:B:2367:TYR:HA	1:B:2377:LEU:HG	2.01	0.42
1:B:3745:LYS:HA	1:B:3748:ARG:NH2	2.35	0.42
2:E:316:ARG:O	2:E:320:VAL:HG22	2.20	0.42
1:A:967:TYR:OH	1:A:1037:HIS:NE2	2.40	0.41
1:A:1474:SER:HB3	1:A:1532:THR:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3083:SER:HA	1:A:3174:ILE:HG21	2.01	0.41
1:A:3946:LEU:HD23	1:A:3946:LEU:HA	1.76	0.41
1:A:4495:ILE:HG21	1:A:4505:LEU:HD21	2.02	0.41
1:B:82:THR:HA	1:B:85:ILE:HG22	2.01	0.41
1:B:253:SER:OG	1:B:325:ARG:NH1	2.53	0.41
1:B:662:MET:HG3	1:B:674:LEU:HD21	2.02	0.41
1:B:713:PHE:CZ	1:B:717:LEU:HD11	2.55	0.41
1:B:855:LEU:HB3	1:B:1002:TYR:HE1	1.85	0.41
1:B:912:LYS:HG3	1:B:913:GLU:OE1	2.20	0.41
1:B:1064:LYS:HE2	1:B:1066:GLU:HB2	2.01	0.41
1:B:1128:ILE:HA	1:B:1131:VAL:HG12	2.02	0.41
1:B:2637:PRO:HD3	1:B:2648:PRO:HG2	2.01	0.41
2:C:21:ARG:C	2:C:22:TYR:HD2	2.28	0.41
2:E:83:CYS:HB3	2:E:101:HIS:CE1	2.55	0.41
2:E:83:CYS:SG	2:E:96:HIS:NE2	2.87	0.41
1:A:1807:PHE:O	1:A:1811:VAL:HG23	2.19	0.41
1:A:1885:ILE:HG13	1:A:1972:LEU:HD11	2.01	0.41
1:A:2022:PHE:CE1	1:A:2024:LYS:HE3	2.54	0.41
1:A:3728:ASN:OD1	1:A:3731:ASP:N	2.42	0.41
1:A:3765:CYS:O	1:A:3769:GLU:HG2	2.20	0.41
1:A:4325:TYR:CE2	1:A:4495:ILE:HA	2.51	0.41
1:A:4665:ILE:O	1:A:4669:ILE:HG13	2.20	0.41
1:B:730:THR:O	1:B:731:LEU:C	2.63	0.41
1:B:980:LEU:O	1:B:984:ARG:HG2	2.20	0.41
1:B:1438:THR:OG1	1:B:1446:LEU:HD22	2.20	0.41
1:B:4106:LYS:HZ1	3:F:115:GLU:CD	2.28	0.41
2:C:83:CYS:HB3	2:C:101:HIS:CE1	2.55	0.41
1:A:737:VAL:CG2	1:A:757:LEU:HD21	2.45	0.41
1:A:2355:GLN:O	1:A:2418:ASP:HB2	2.19	0.41
1:A:3172:LYS:HD2	1:A:3186:PHE:CE2	2.55	0.41
1:A:3905:LEU:HD23	1:A:3932:LEU:HD11	2.02	0.41
1:A:4158:ARG:NH2	2:C:322:GLU:OE2	2.50	0.41
1:B:36:LEU:HD11	1:B:73:PHE:CE1	2.55	0.41
1:B:151:PHE:HA	1:B:154:MET:SD	2.60	0.41
1:B:3057:ARG:HG2	1:B:3139:PHE:HA	2.02	0.41
1:B:3320:LEU:HD11	1:B:3415:PHE:CD1	2.55	0.41
1:B:3726:ILE:HG23	1:B:3831:TYR:HB2	2.01	0.41
1:A:253:SER:OG	1:A:325:ARG:NH1	2.53	0.41
1:A:415:LEU:HD21	1:A:484:LEU:HD11	2.02	0.41
1:A:1515:LEU:O	1:A:1519:THR:HG23	2.20	0.41
1:A:2367:TYR:HA	1:A:2377:LEU:HG	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3726:ILE:CG2	1:A:3831:TYR:HB2	2.49	0.41
1:A:4193:SER:HB2	1:A:4196:TRP:HD1	1.86	0.41
1:A:4573:SER:HB2	1:A:4587:LEU:HD12	2.01	0.41
1:B:1316:PRO:O	1:B:1320:GLU:HB2	2.20	0.41
1:B:1535:PRO:O	1:B:1539:VAL:HG22	2.21	0.41
1:B:2312:TYR:C	2:E:77:SER:HB2	2.46	0.41
1:B:2550:LYS:HA	1:B:2553:GLN:CD	2.46	0.41
1:B:3686:LYS:HB3	1:B:3703:CYS:SG	2.60	0.41
1:B:3763:LEU:HD23	1:B:3763:LEU:HA	1.84	0.41
1:B:4019:ILE:O	1:B:4022:LYS:HG2	2.21	0.41
1:B:4314:ILE:HD13	1:B:4314:ILE:HA	1.93	0.41
2:E:20:ARG:HB3	2:E:22:TYR:HE1	1.85	0.41
2:E:358:LEU:O	2:E:362:LEU:HG	2.20	0.41
3:F:55:GLU:OE1	3:F:75:ARG:NH1	2.53	0.41
1:A:155:MET:N	1:A:155:MET:HE2	2.35	0.41
1:A:857:ARG:NH2	1:A:931:ARG:O	2.53	0.41
1:A:1121:ILE:O	1:A:1124:LEU:HG	2.21	0.41
1:A:1849:GLU:HG2	1:A:2147:PHE:CD1	2.51	0.41
1:A:2180:VAL:HG21	1:A:2213:ASP:HA	2.02	0.41
1:A:3686:LYS:HB3	1:A:3703:CYS:SG	2.60	0.41
1:A:3792:VAL:HG12	1:B:3796:ILE:HG22	2.01	0.41
1:A:3822:PHE:O	1:A:3825:ARG:HB3	2.21	0.41
1:B:1003:PHE:CE2	1:B:1266:GLN:HG2	2.56	0.41
1:B:2024:LYS:HE2	1:B:2038:TYR:HE1	1.85	0.41
1:B:3083:SER:HA	1:B:3174:ILE:HG21	2.01	0.41
1:B:3562:VAL:HG12	1:B:3602:ILE:HG13	2.01	0.41
1:B:4573:SER:HB2	1:B:4587:LEU:HD12	2.02	0.41
2:C:28:TYR:CE1	2:C:122:ASN:HB2	2.55	0.41
1:A:193:PHE:O	1:A:197:LEU:HB2	2.20	0.41
1:A:3421:SER:OG	1:A:3422:SER:N	2.54	0.41
1:A:3792:VAL:CG2	1:A:3797:LEU:HG	2.51	0.41
1:A:4224:GLU:OE1	1:A:4278:VAL:HB	2.20	0.41
1:A:4231:ASP:OD1	1:A:4231:ASP:N	2.52	0.41
1:A:4268:ASN:HD21	2:C:362:LEU:CD2	2.23	0.41
1:B:95:ASN:OD1	1:B:96:GLN:N	2.54	0.41
1:B:857:ARG:O	1:B:860:LEU:HG	2.21	0.41
1:B:2049:VAL:HG13	1:B:2061:ILE:HG13	2.02	0.41
1:B:2701:LEU:HA	1:B:2704:VAL:HG22	2.03	0.41
1:B:3592:LEU:HD11	1:B:3629:ILE:HD13	2.03	0.41
1:B:4419:LEU:HD21	1:B:4458:SER:HA	2.02	0.41
1:B:4531:ASN:HD21	1:B:4534:ASN:HD21	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:326:SER:O	2:C:329:VAL:HG12	2.20	0.41
3:F:8:GLU:O	3:F:12:GLU:HG2	2.20	0.41
1:A:280:ASN:HD21	1:A:412:TRP:HE1	1.67	0.41
1:A:2701:LEU:HA	1:A:2704:VAL:HG22	2.03	0.41
1:A:4328:PRO:HG3	2:C:367:LEU:HD11	2.02	0.41
1:A:4489:LEU:O	1:A:4535:VAL:HG11	2.21	0.41
1:A:4547:GLU:OE1	1:A:4555:GLY:N	2.54	0.41
1:B:827:ARG:HH12	1:B:960:LEU:HD22	1.86	0.41
1:B:1052:ASN:HA	1:B:1055:LYS:NZ	2.36	0.41
1:B:1446:LEU:O	1:B:1449:LEU:HB3	2.21	0.41
1:B:1456:LEU:HD13	1:B:1514:LEU:HD11	2.01	0.41
1:B:3501:ASN:ND2	1:B:3912:TYR:HB2	2.36	0.41
1:B:4198:VAL:HG23	1:B:4254:ILE:HD11	2.01	0.41
3:D:69:PHE:O	3:D:73:MET:HG2	2.21	0.41
3:D:131:ILE:HD12	3:D:141:GLU:HG2	2.03	0.41
1:A:1563:TRP:O	1:A:1566:ARG:HB2	2.20	0.41
1:A:2312:TYR:C	2:C:77:SER:HB2	2.46	0.41
1:A:2371:PHE:CZ	1:A:2397:ALA:HB2	2.56	0.41
1:A:4383:MET:HB2	1:A:4417:LEU:HA	2.02	0.41
1:B:50:PRO:HA	1:B:53:VAL:HG22	2.03	0.41
1:B:962:LYS:HB2	1:B:965:GLU:OE2	2.20	0.41
1:B:1030:MET:CE	1:B:1035:ILE:HG22	2.49	0.41
1:B:1681:THR:HG23	1:B:1703:GLU:H	1.86	0.41
1:B:4665:ILE:O	1:B:4669:ILE:HG13	2.20	0.41
3:D:8:GLU:O	3:D:12:GLU:HG2	2.20	0.41
3:D:14:LYS:HE2	3:D:14:LYS:HB3	1.88	0.41
2:E:94:GLN:HA	2:E:132:LEU:HD13	2.02	0.41
1:A:310:LEU:HD12	1:A:311:ASP:N	2.36	0.41
1:A:838:GLN:HG2	1:A:965:GLU:HG2	2.03	0.41
1:A:980:LEU:O	1:A:984:ARG:HG2	2.20	0.41
1:A:1030:MET:H	1:A:1030:MET:HG2	1.62	0.41
1:A:1128:ILE:HA	1:A:1131:VAL:HG12	2.02	0.41
1:A:1206:SER:HB2	1:A:1319:LEU:C	2.45	0.41
1:A:1446:LEU:O	1:A:1449:LEU:HB3	2.21	0.41
1:A:1690:VAL:HG11	1:A:1699:HIS:NE2	2.36	0.41
1:A:2049:VAL:HG13	1:A:2061:ILE:HG13	2.02	0.41
1:A:3039:VAL:HA	1:A:3042:LYS:HB2	2.02	0.41
1:A:3745:LYS:HA	1:A:3748:ARG:NH2	2.36	0.41
1:A:3792:VAL:HG22	1:A:3797:LEU:HG	2.01	0.41
1:A:3944:ASN:HD21	1:A:3989:ARG:HA	1.86	0.41
1:A:3948:ILE:HD11	1:A:3992:CYS:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3975:LEU:HD12	1:A:3975:LEU:HA	1.75	0.41
1:A:4129:LEU:HB2	2:C:328:LEU:HD21	2.03	0.41
1:A:4399:LEU:HD13	1:A:4406:MET:HG2	2.02	0.41
1:A:4540:LEU:O	1:A:4544:LEU:HG	2.20	0.41
1:A:4574:ASN:OD1	1:A:4674:ASN:ND2	2.50	0.41
1:B:284:ILE:O	1:B:285:MET:HE2	2.21	0.41
1:B:384:ILE:HA	1:B:387:MET:HG3	2.03	0.41
1:B:470:GLY:HA3	1:B:641:ARG:HH21	1.86	0.41
1:B:1110:LEU:HB3	1:B:1114:GLU:HB2	2.01	0.41
1:B:1278:LEU:HB3	1:B:1281:ALA:HB2	2.03	0.41
1:B:2041:LEU:HD13	1:B:2045:LYS:HA	2.03	0.41
1:B:3304:LEU:HD13	1:B:3322:LEU:HD23	2.02	0.41
1:B:3481:GLN:OE1	1:B:3485:LYS:HD3	2.20	0.41
1:B:4047:PRO:HA	1:B:4075:LEU:HD21	2.03	0.41
2:E:51:PRO:HG3	2:E:81:PRO:HA	2.03	0.41
1:A:119:ASP:HB3	1:A:122:CYS:HB2	2.03	0.41
1:A:202:ASN:ND2	1:A:204:ARG:HH11	2.18	0.41
1:A:724:SER:OG	1:A:727:LEU:HG	2.21	0.41
1:A:1202:LEU:HG	1:A:1321:SER:HB2	2.03	0.41
1:A:1571:LEU:HD12	1:A:1572:SER:H	1.86	0.41
1:A:3004:LEU:O	1:A:3008:THR:HG23	2.21	0.41
1:A:3281:GLU:O	1:A:3285:GLN:HG3	2.21	0.41
1:A:3501:ASN:ND2	1:A:3912:TYR:HB2	2.36	0.41
1:A:4312:VAL:HG22	2:C:358:LEU:HB3	2.02	0.41
1:A:4319:ARG:NE	2:C:365:LEU:HD13	2.36	0.41
1:A:4419:LEU:HD21	1:A:4458:SER:HA	2.03	0.41
1:B:415:LEU:HD21	1:B:484:LEU:HD11	2.02	0.41
1:B:911:PHE:O	1:B:915:GLU:CG	2.66	0.41
1:B:1596:THR:HG22	1:B:2478:LEU:HD11	2.03	0.41
1:B:3281:GLU:O	1:B:3285:GLN:HG3	2.21	0.41
1:B:3745:LYS:HG3	1:B:3748:ARG:NH1	2.31	0.41
2:E:326:SER:O	2:E:329:VAL:HG12	2.21	0.41
1:A:384:ILE:HA	1:A:387:MET:HG3	2.03	0.40
1:A:1522:ALA:HB2	1:A:1537:LEU:HD21	2.03	0.40
1:A:1525:MET:HA	1:A:1528:ASN:OD1	2.21	0.40
1:A:2024:LYS:HE2	1:A:2038:TYR:HE1	1.86	0.40
1:A:2677:THR:O	1:A:2681:ILE:HG13	2.21	0.40
1:A:3316:SER:N	1:A:3317:PRO:HD2	2.36	0.40
1:A:3935:ASP:HA	1:A:3984:SER:OG	2.22	0.40
1:A:4106:LYS:NZ	3:D:115:GLU:OE2	2.52	0.40
1:B:702:SER:O	1:B:705:GLU:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1032:GLU:HA	1:B:1035:ILE:HG12	2.03	0.40
1:B:1121:ILE:O	1:B:1124:LEU:HG	2.21	0.40
1:B:1297:ASP:HB3	1:B:1301:TRP:CZ3	2.56	0.40
1:B:1515:LEU:O	1:B:1519:THR:HG23	2.21	0.40
1:B:3287:THR:HG23	1:B:3325:CYS:HB3	2.02	0.40
1:B:4280:ARG:HA	1:B:4284:ILE:HG21	2.03	0.40
1:B:4298:MET:SD	1:B:4298:MET:C	3.04	0.40
1:B:4492:LEU:HD12	1:B:4539:THR:HG21	2.03	0.40
1:B:4547:GLU:OE1	1:B:4555:GLY:N	2.54	0.40
2:C:4:HIS:NE2	2:C:19:GLY:O	2.52	0.40
1:A:877:PHE:HB3	1:B:193:PHE:HE2	1.85	0.40
1:A:1278:LEU:HB3	1:A:1281:ALA:HB2	2.03	0.40
1:A:2024:LYS:HG2	1:A:2038:TYR:HD1	1.86	0.40
1:A:2254:GLN:O	1:A:2258:GLN:HG2	2.22	0.40
1:A:2555:LEU:CD2	1:A:2621:PHE:HE1	2.34	0.40
1:A:3303:PHE:CZ	1:A:3307:VAL:HG21	2.56	0.40
1:A:3320:LEU:HD11	1:A:3415:PHE:CD1	2.56	0.40
1:A:4077:ILE:HG22	3:D:114:GLY:HA3	2.04	0.40
1:A:4492:LEU:HD12	1:A:4539:THR:HG21	2.02	0.40
1:B:341:VAL:HG11	1:B:417:SER:HB2	2.03	0.40
1:B:469:PHE:CD2	1:B:540:THR:HG21	2.57	0.40
1:B:724:SER:OG	1:B:727:LEU:HG	2.21	0.40
1:B:874:VAL:HA	1:B:877:PHE:CD2	2.55	0.40
1:B:1206:SER:HB2	1:B:1319:LEU:C	2.45	0.40
1:B:1571:LEU:HD12	1:B:1572:SER:H	1.86	0.40
1:B:1996:LEU:HD21	1:B:2002:ILE:HG13	2.03	0.40
1:A:859:LEU:HB3	1:A:1009:ILE:CD1	2.52	0.40
1:A:1541:MET:HE2	1:A:1541:MET:HB3	1.96	0.40
1:A:2550:LYS:HA	1:A:2553:GLN:CD	2.46	0.40
1:A:3745:LYS:HG3	1:A:3748:ARG:NH1	2.30	0.40
1:B:379:GLN:O	1:B:382:LEU:HG	2.21	0.40
1:B:1571:LEU:HD22	1:B:1592:ILE:HG22	2.03	0.40
1:B:2479:VAL:O	1:B:2483:LEU:HG	2.22	0.40
1:B:4320:TYR:N	2:E:367:LEU:HD12	2.36	0.40
1:B:4351:VAL:CG2	1:B:4372:TYR:HB2	2.52	0.40
1:A:379:GLN:O	1:A:382:LEU:HG	2.21	0.40
1:A:1003:PHE:CE2	1:A:1266:GLN:HG2	2.56	0.40
1:A:1438:THR:OG1	1:A:1446:LEU:HD22	2.20	0.40
1:A:2536:ARG:HG2	1:A:2540:HIS:CD2	2.57	0.40
1:A:2578:ARG:HG3	1:A:2662:ASP:HB2	2.02	0.40
1:A:3408:LEU:HD23	1:A:3408:LEU:HA	1.97	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3597:ARG:HD2	1:A:3724:ASP:HB3	2.03	0.40
1:A:4313:CYS:HA	1:A:4316:THR:HG22	2.03	0.40
1:A:4379:ILE:HG23	1:A:4386:ILE:HG12	2.03	0.40
1:B:119:ASP:HB3	1:B:122:CYS:HB2	2.03	0.40
1:B:487:LEU:HD13	1:B:524:LEU:HD11	2.03	0.40
1:B:1819:MET:CE	1:B:1823:GLN:HB2	2.51	0.40
1:B:2180:VAL:HG21	1:B:2213:ASP:HA	2.02	0.40
1:B:3235:SER:HA	1:B:3238:ARG:HG2	2.04	0.40
1:B:3302:TYR:O	1:B:3306:GLN:HG3	2.21	0.40
1:B:3728:ASN:OD1	1:B:3731:ASP:N	2.41	0.40
1:B:3880:THR:O	1:B:3884:ILE:HG12	2.22	0.40
1:B:4170:LEU:HD23	1:B:4170:LEU:HA	1.89	0.40
1:A:95:ASN:OD1	1:A:96:GLN:N	2.54	0.40
1:A:469:PHE:CD2	1:A:540:THR:HG21	2.57	0.40
1:A:1456:LEU:HD13	1:A:1514:LEU:HD11	2.03	0.40
1:A:1633:ASP:HB2	1:A:2706:ARG:HH12	1.86	0.40
1:A:1677:TYR:OH	1:A:2293:GLU:OE2	2.28	0.40
1:A:3063:MET:SD	1:A:3174:ILE:HD12	2.62	0.40
1:A:3612:TRP:CE3	1:A:3641:MET:HG2	2.57	0.40
1:A:3954:ALA:HB1	1:A:3964:LEU:CD1	2.52	0.40
1:A:4198:VAL:HG23	1:A:4254:ILE:HD11	2.03	0.40
1:B:415:LEU:HB3	1:B:528:VAL:HG21	2.04	0.40
1:B:2373:ARG:HH12	1:B:2390:THR:HG23	1.86	0.40
1:B:2555:LEU:CD2	1:B:2621:PHE:CE1	3.05	0.40
1:B:3039:VAL:HA	1:B:3042:LYS:HB2	2.02	0.40
1:B:3533:LEU:HD12	1:B:3534:VAL:HG23	2.04	0.40
1:B:3739:ILE:HD13	1:B:3739:ILE:HA	1.79	0.40
1:B:3990:LEU:HD23	1:B:3990:LEU:HA	1.66	0.40
1:B:4533:LEU:HD22	1:B:4587:LEU:HB3	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	4110/5203 (79%)	3955 (96%)	153 (4%)	2 (0%)	100	100
1	B	4114/5203 (79%)	3957 (96%)	155 (4%)	2 (0%)	100	100
2	C	233/381 (61%)	221 (95%)	12 (5%)	0	100	100
2	E	233/381 (61%)	222 (95%)	11 (5%)	0	100	100
3	D	147/149 (99%)	144 (98%)	3 (2%)	0	100	100
3	F	147/149 (99%)	144 (98%)	3 (2%)	0	100	100
All	All	8984/11466 (78%)	8643 (96%)	337 (4%)	4 (0%)	100	100

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	3220	SER
1	B	3220	SER
1	B	4006	PRO
1	A	4006	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3656/4537 (81%)	3656 (100%)	0	100	100
1	B	3659/4537 (81%)	3659 (100%)	0	100	100
2	C	209/330 (63%)	209 (100%)	0	100	100
2	E	209/330 (63%)	209 (100%)	0	100	100
3	D	127/127 (100%)	127 (100%)	0	100	100
3	F	127/127 (100%)	127 (100%)	0	100	100
All	All	7987/9988 (80%)	7987 (100%)	0	100	100

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (68) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	69	GLN
1	A	96	GLN
1	A	242	GLN
1	A	262	ASN
1	A	416	ASN
1	A	478	ASN
1	A	729	ASN
1	A	733	GLN
1	A	835	GLN
1	A	921	HIS
1	A	1000	GLN
1	A	1052	ASN
1	A	1111	GLN
1	A	1138	HIS
1	A	1436	GLN
1	A	1481	GLN
1	A	1887	GLN
1	A	1976	HIS
1	A	2316	GLN
1	A	2501	ASN
1	A	2652	HIS
1	A	3023	ASN
1	A	3128	HIS
1	A	3306	GLN
1	A	3685	HIS
1	A	3756	HIS
1	A	3819	GLN
1	A	3834	GLN
1	A	4034	ASN
1	A	4161	GLN
1	A	4268	ASN
1	A	4753	GLN
1	B	69	GLN
1	B	96	GLN
1	B	262	ASN
1	B	297	ASN
1	B	416	ASN
1	B	478	ASN
1	B	656	ASN
1	B	729	ASN
1	B	733	GLN
1	B	921	HIS
1	B	1052	ASN

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Mol	Chain	Res	Type
1	B	1111	GLN
1	B	1138	HIS
1	B	1369	ASN
1	B	1436	GLN
1	B	1481	GLN
1	B	1887	GLN
1	B	1892	HIS
1	B	1976	HIS
1	B	1989	HIS
1	B	2316	GLN
1	B	2652	HIS
1	B	3306	GLN
1	B	3398	GLN
1	B	3410	GLN
1	B	3756	HIS
1	B	3819	GLN
1	B	4034	ASN
1	B	4161	GLN
1	B	4268	ASN
1	B	4753	GLN
2	C	76	GLN
3	D	50	GLN
2	E	76	GLN
3	F	50	GLN
3	F	54	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

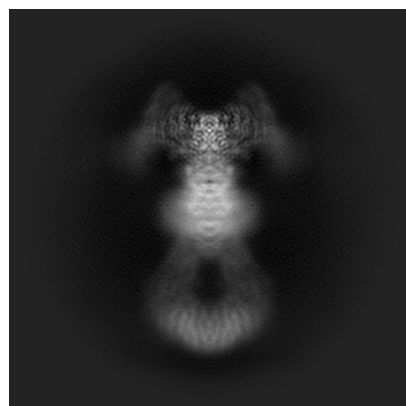
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-67234. These allow visual inspection of the internal detail of the map and identification of artifacts.

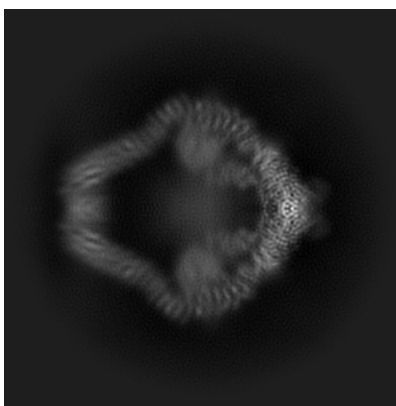
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

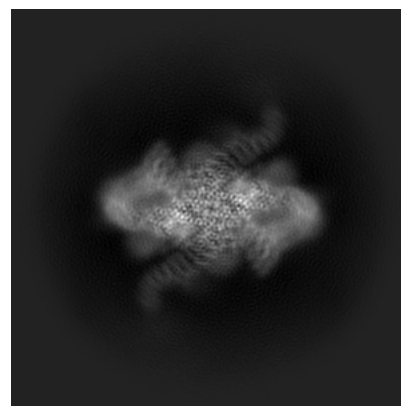
6.1.1 Primary map



X

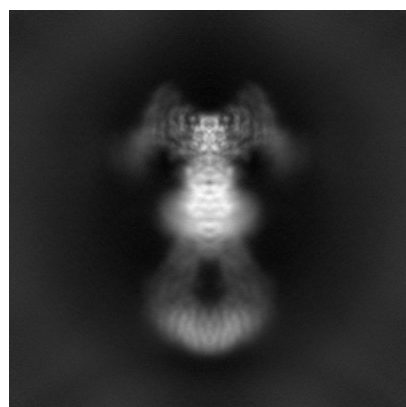


Y

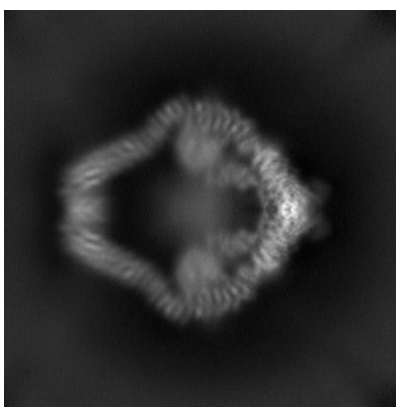


Z

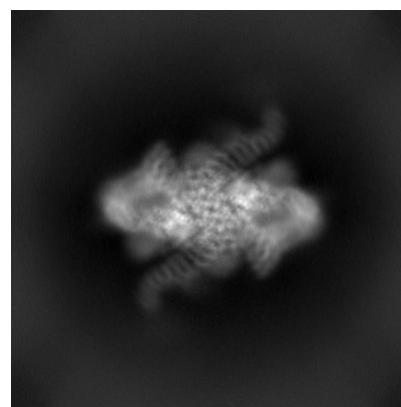
6.1.2 Raw map



X



Y

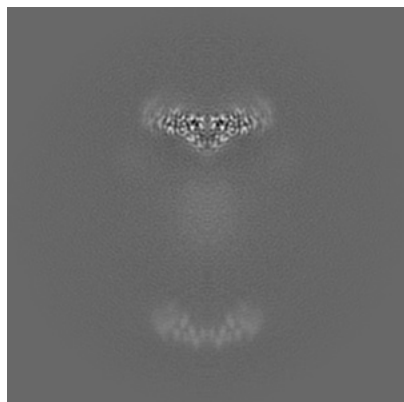


Z

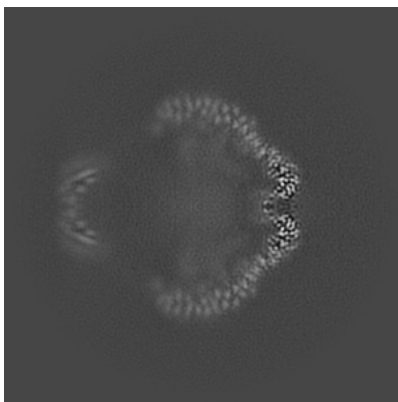
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

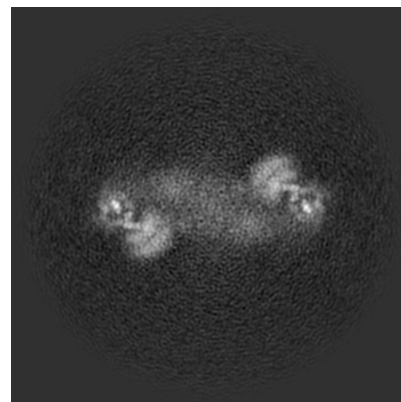
6.2.1 Primary map



X Index: 260

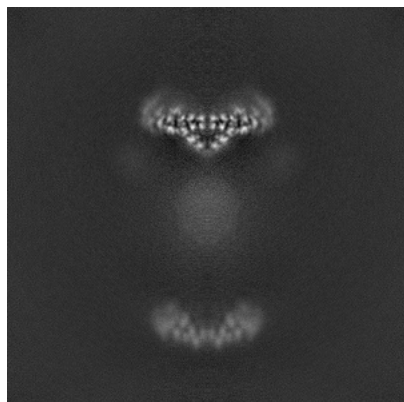


Y Index: 260

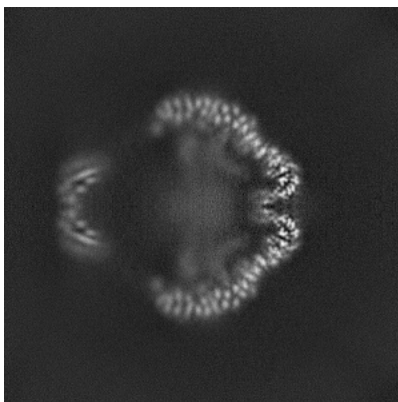


Z Index: 260

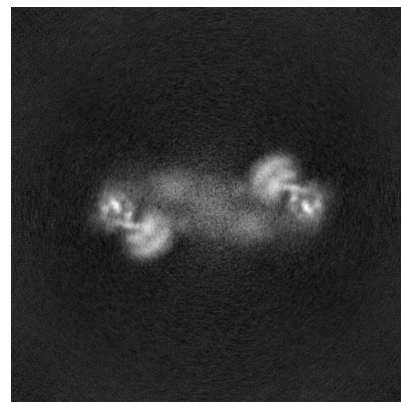
6.2.2 Raw map



X Index: 260



Y Index: 260

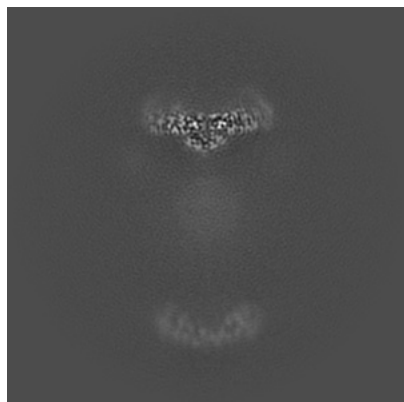


Z Index: 260

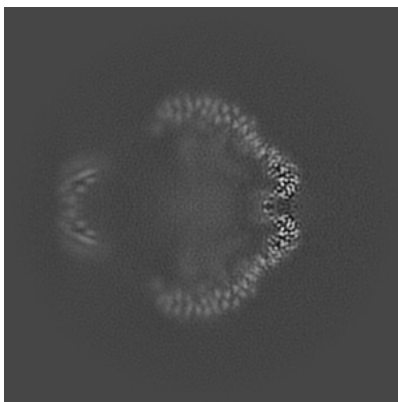
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

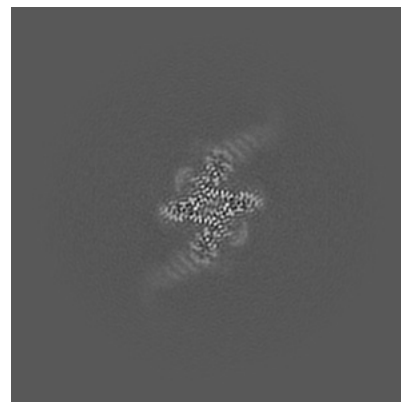
6.3.1 Primary map



X Index: 257

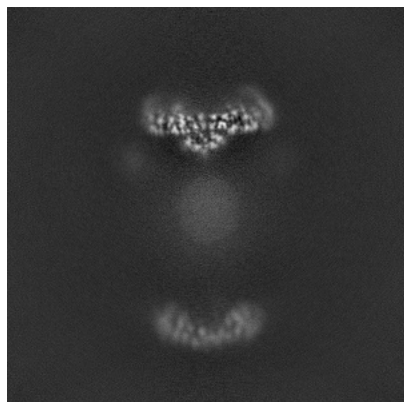


Y Index: 260

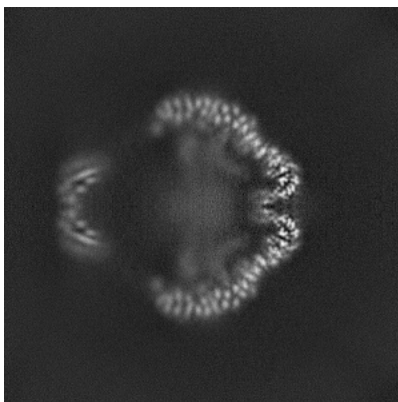


Z Index: 364

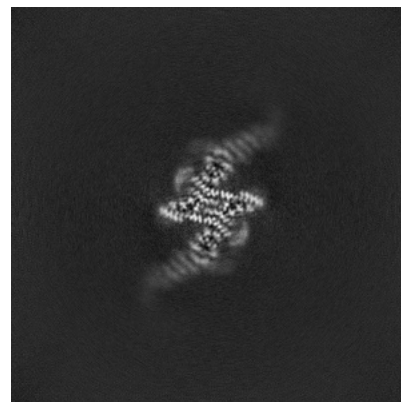
6.3.2 Raw map



X Index: 256



Y Index: 260

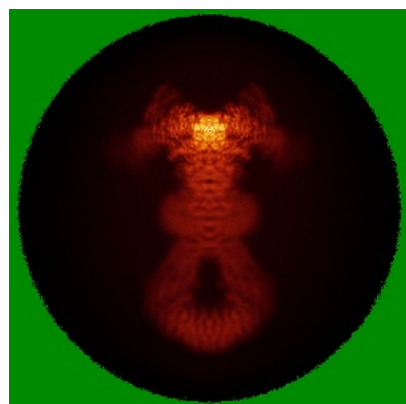


Z Index: 365

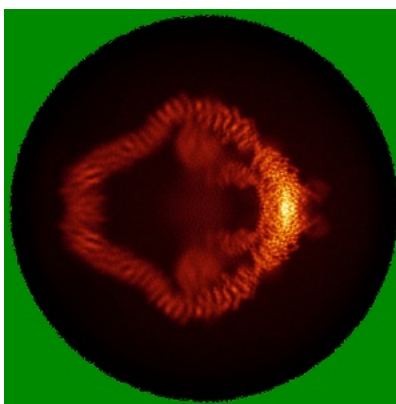
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

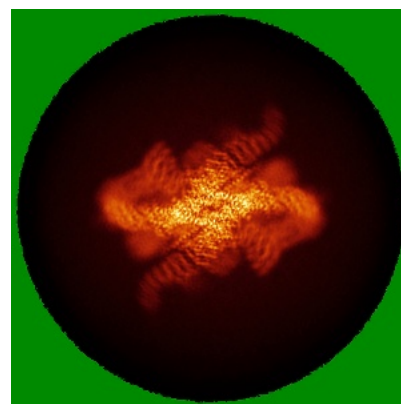
6.4.1 Primary map



X

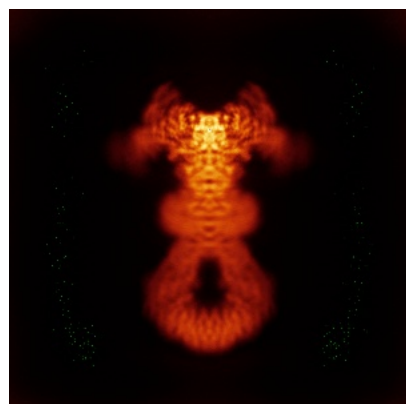


Y

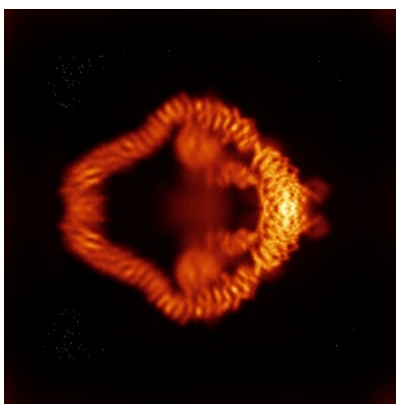


Z

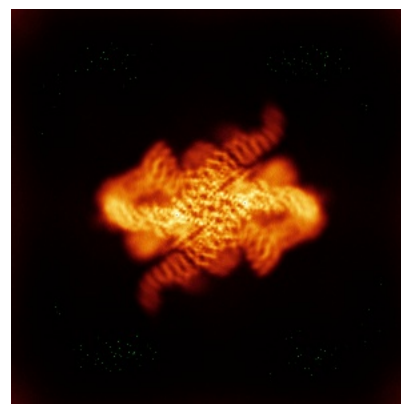
6.4.2 Raw map



X



Y

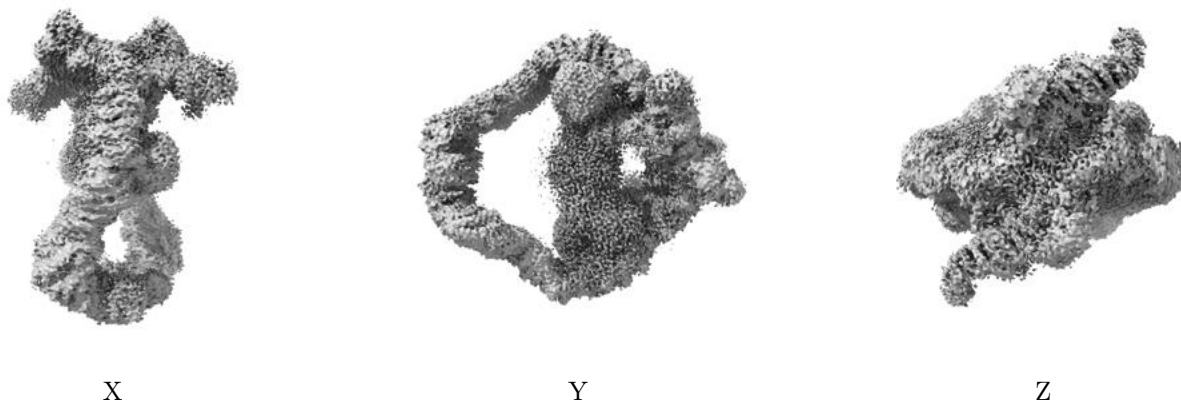


Z

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

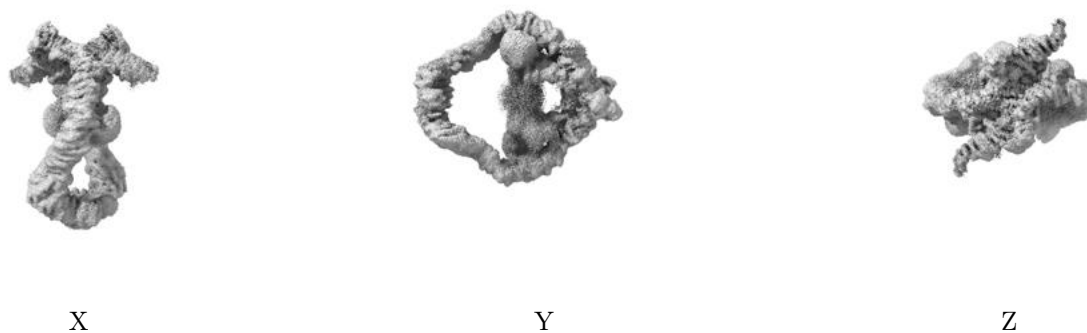
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

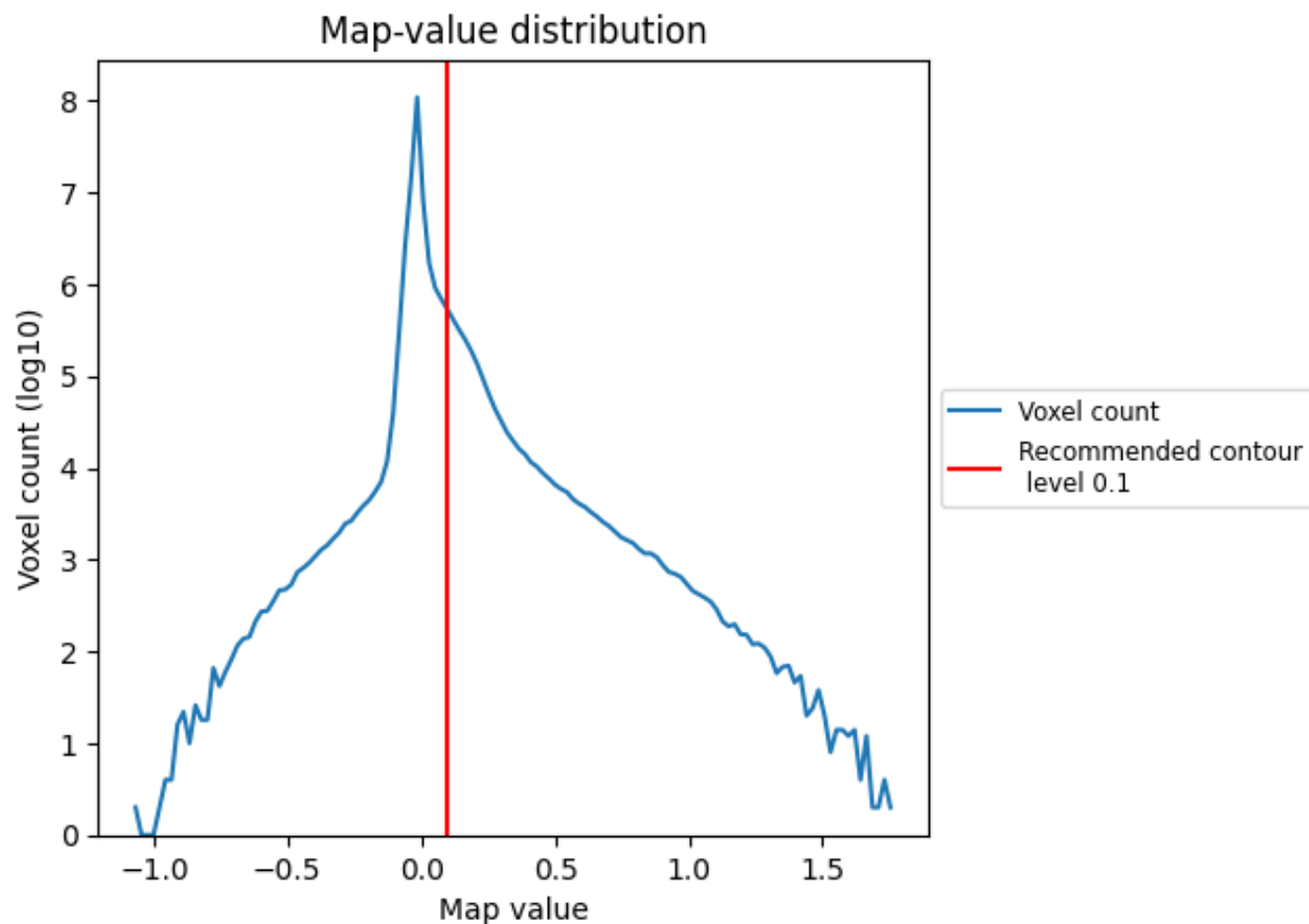
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

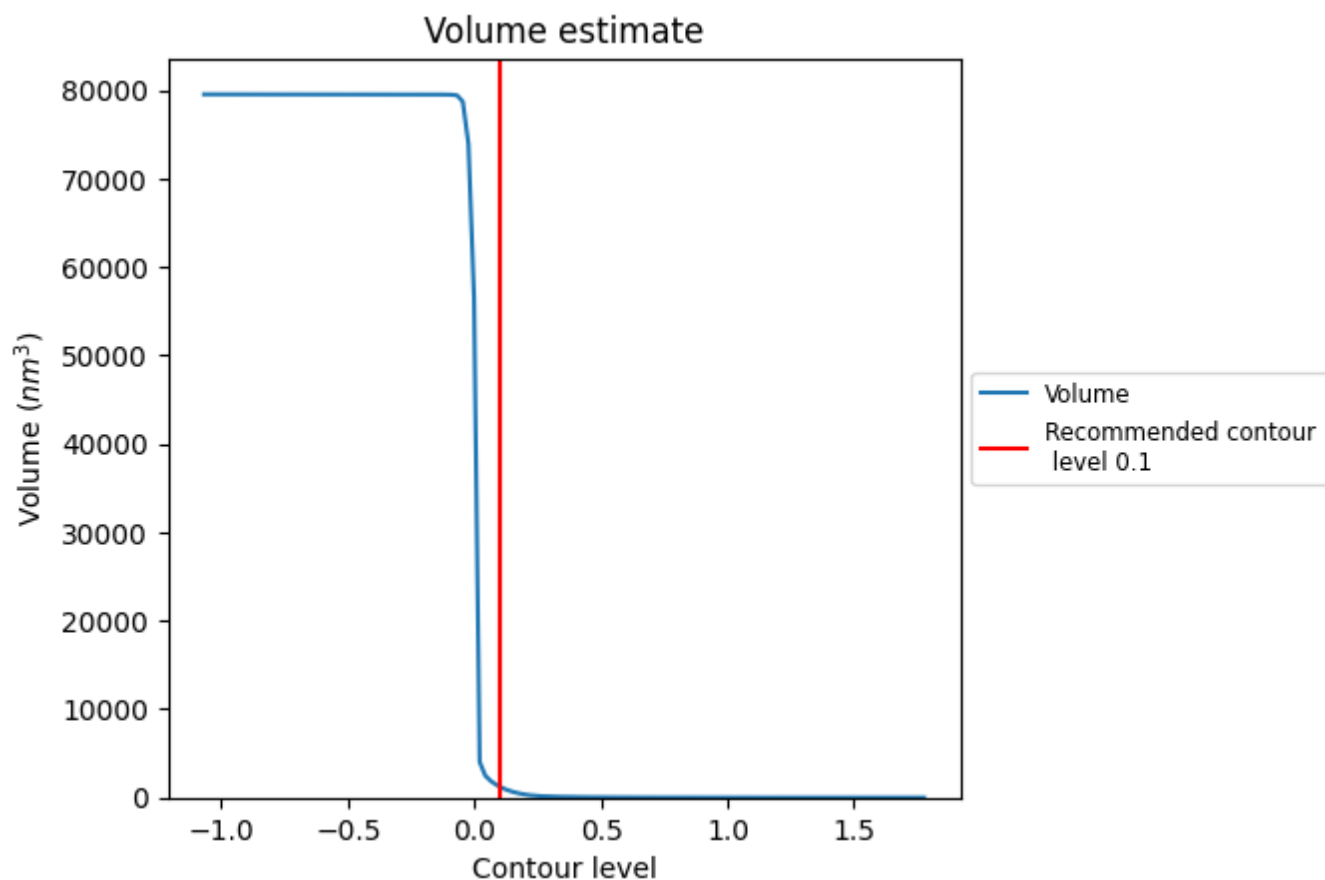
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

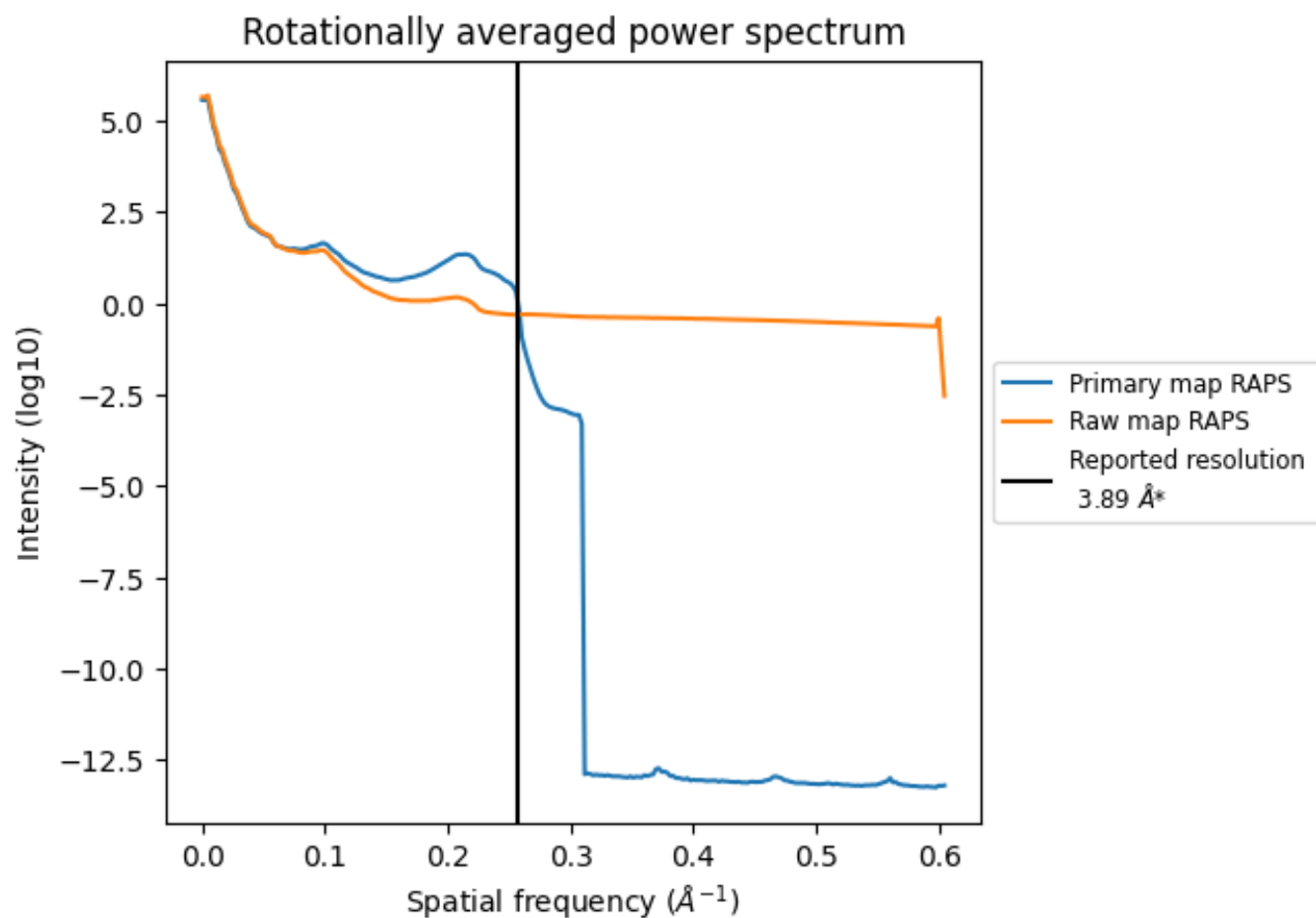
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1242 nm^3 ; this corresponds to an approximate mass of 1122 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

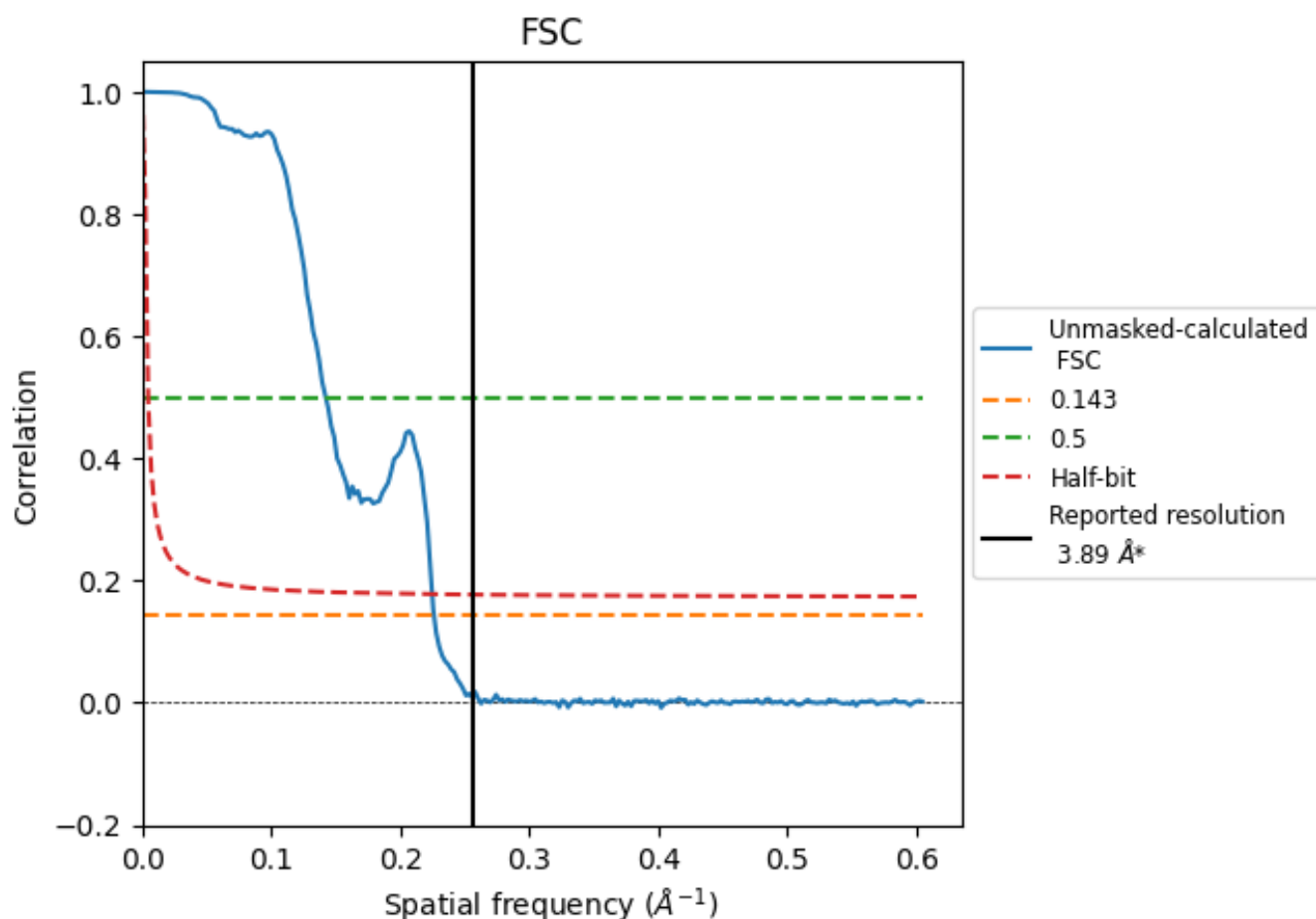


*Reported resolution corresponds to spatial frequency of 0.257 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of $0.257 \text{ \AA}^{-1}$

8.2 Resolution estimates [i](#)

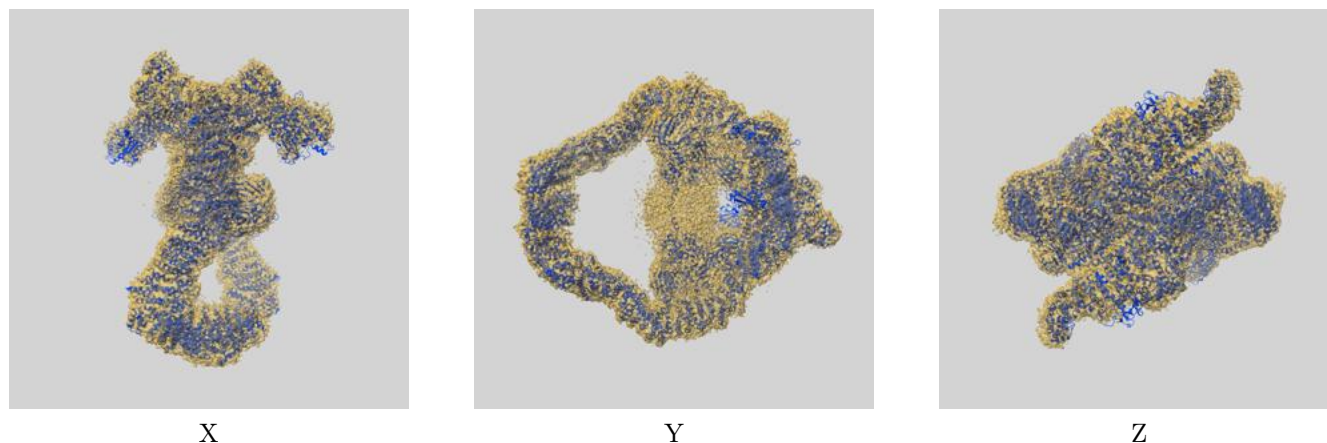
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.89	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.42	7.03	4.45

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.42 differs from the reported value 3.89 by more than 10 %

9 Map-model fit [i](#)

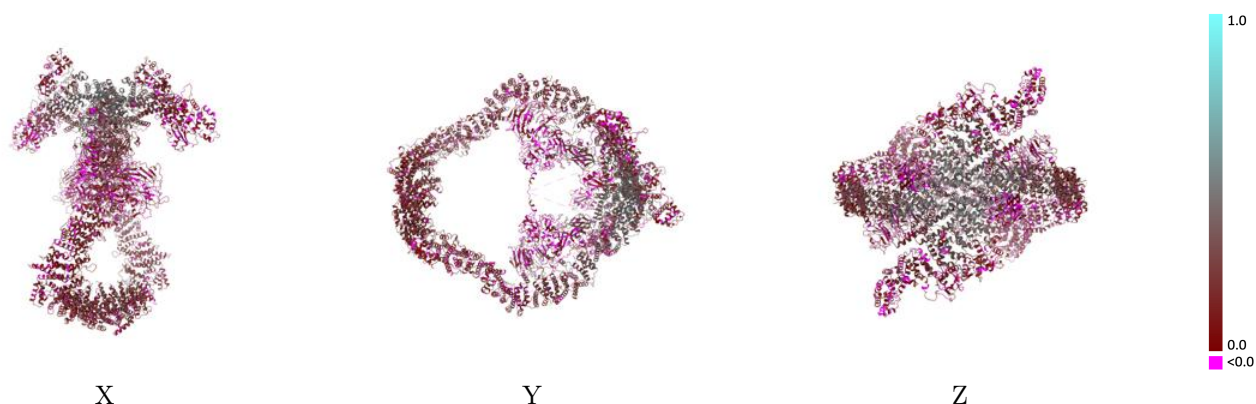
This section contains information regarding the fit between EMDB map EMD-67234 and PDB model 9XTJ. Per-residue inclusion information can be found in section [3](#) on page [6](#).

9.1 Map-model overlay [i](#)



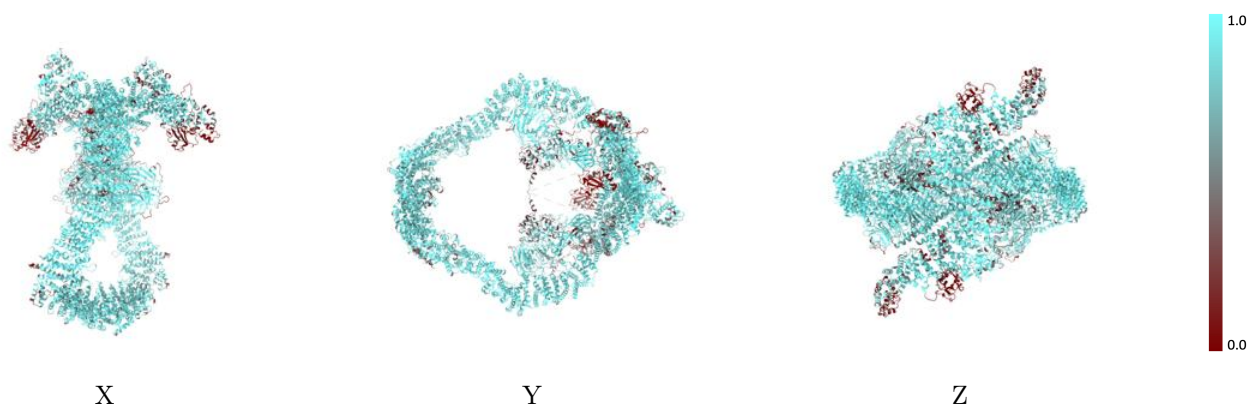
The images above show the 3D surface view of the map at the recommended contour level 0.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



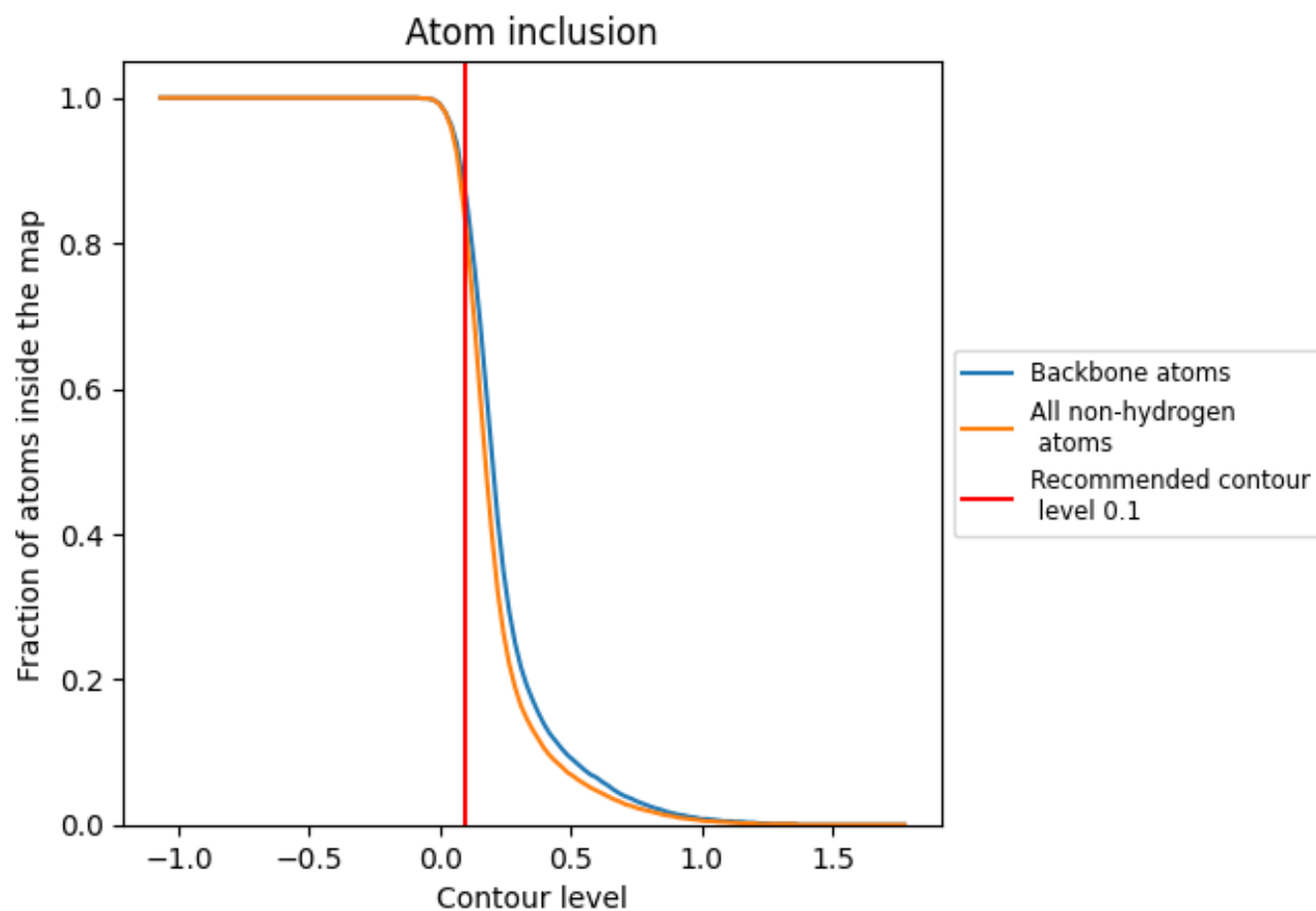
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.1).

9.4 Atom inclusion [i](#)



At the recommended contour level, 86% of all backbone atoms, 82% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8230	0.1940
A	0.8400	0.2000
B	0.8390	0.1990
C	0.5440	0.1140
D	0.7920	0.1620
E	0.5450	0.1130
F	0.7920	0.1620

1.0

0.0

<0.0