

# Full wwPDB NMR Structure Validation Report (i)

#### Aug 10, 2023 – 07:40 PM EDT

PDB ID : 7U8K BMRB ID : 30877

Title : Magic Angle Spinning NMR Structure of Human Cofilin-2 Assembled on Actin

Filaments

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Deposited on : 2022-03-08

This is a Full wwPDB NMR Structure 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/NMRValidationReportHelp
with specific help available everywhere you see the (i) 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 (1)) were used in the production of this report:

Cyrange : FAILED NmrClust : FAILED MolProbity : 4.02b-467

Mogul : 1.8.5 (274361), CSD as541be (2020)

FAILED

Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)

wwPDB-RCI : FAILED PANAV : FAILED

Ideal geometry (proteins) : Engh & Huber (2001) Ideal geometry (DNA, RNA) : Parkinson et al. (1996)

Validation Pipeline (wwPDB-VP) : 2.35

wwPDB-ShiftChecker

## 1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:  $SOLID\text{-}STATE\ NMR$ 

The overall completeness of chemical shifts assignment was not calculated.

There are no overall percentile quality scores available for this entry.

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and a grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%

Mol	Chain	Length	Quality of chain
1	A	377	100%
1	В	377	100%
1	С	377	100%
1	D	377	100%
1	E	377	100%
1	F	377	100%
1	G	377	100%
1	Н	377	100%
1	I	377	100%
1	J	377	100%
2	K	168	100%
2	L	168	100%
2	M	168	100%
2	N	168	100%
2	О	168	100%
2	Р	168	100%
2	Q	168	100%

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Mol	Chain	Length	Quality of chain
2	R	168	100%



### 2 Ensemble composition and analysis (i)

This entry contains 4 models. The atoms present in the NMR models are not consistent. Some calculations may have failed as a result. All residues are included in the validation scores.

Cyrange was unable to find well-defined residues.

Error message: Cyrange did not run

NmrClust was unable to cluster the ensemble.

Error message: NmrClust did not run



## 3 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 79778 atoms, of which 39858 are hydrogens and 0 are deuteriums.

• Molecule 1 is a protein called Actin, alpha skeletal muscle.

Mol	Chain	Residues		Atoms										
1	A	377	Total	С	Н	N	О	S	1					
1	A	311	5833	1856	2897	494	565	21	1					
1	В	377	Total	С	Н	N	О	S	1					
1	Б	311	5833	1856	2897	494	565	21	1					
1	С	377	Total	С	Н	N	О	S	1					
1		311	5833	1856	2897	494	565	21	1					
1	D	377	Total	С	Н	N	О	S	1					
1	D	311	5833	1856	2897	494	565	21	1					
1	Е	377	Total	С	Н	N	О	S	1					
1	15	311	5833	1856	2897	494	565	21	1					
1	F	377	Total	С	Н	N	О	S	1					
1	I.	377	5833	1856	2897	494	565	21	1					
1	G	377	Total	$\mathbf{C}$	Η	N	O	$\mathbf{S}$	1					
1	d	311	5833	1856	2897	494	565	21	1					
1	Н	377	Total	$\mathbf{C}$	Η	N	O	$\mathbf{S}$	1					
1	11	377	5833	1856	2897	494	565	21	1					
1	I	377	Total	С	Η	N	О	S	1					
1	1	311	5833	1856	2897	494	565	21	1					
1	J	377	Total	С	Η	N	О	S	1					
1	J	311	5833	1856	2897	494	565	21	1					

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	0	ACE	-	acetylation	UNP P68135
A	376	NH2	-	amidation	UNP P68135
В	0	ACE	-	acetylation	UNP P68135
В	376	NH2	-	amidation	UNP P68135
С	0	ACE	-	acetylation	UNP P68135
С	376	NH2	-	amidation	UNP P68135
D	0	ACE	-	acetylation	UNP P68135
D	376	NH2	-	amidation	UNP P68135
E	0	ACE	-	acetylation	UNP P68135
Е	376	NH2	-	amidation	UNP P68135
F	0	ACE	-	acetylation	UNP P68135
F	376	NH2	-	amidation	UNP P68135
G	0	ACE	-	acetylation	UNP P68135

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Chain	Residue	Modelled	Actual	Comment	Reference
G	376	NH2	-	amidation	UNP P68135
Н	0	ACE	-	acetylation	UNP P68135
Н	376	NH2	-	amidation	UNP P68135
I	0	ACE	-	acetylation	UNP P68135
I	376	NH2	-	amidation	UNP P68135
J	0	ACE	-	acetylation	UNP P68135
J	376	NH2	-	amidation	UNP P68135

 $\bullet$  Molecule 2 is a protein called Cofilin-2.

Mol	Chain	Residues			Atom	ıs			Trace
2	K	168	Total	С	Н	N	О	S	1
2	K	100	2681	842	1361	218	255	5	1
2	L	168	Total	С	Н	N	О	S	1
2	ь	100	2681	842	1361	218	255	5	1
2	M	168	Total	С	Н	N	О	S	1
2	IVI	100	2681	842	1361	218	255	5	1
2	N	168	Total	С	Н	N	О	S	1
2	IN .	100	2681	842	1361	218	255	5	1
2	O	168	Total	С	Н	N	О	S	1
2		100	2681	842	1361	218	255	5	1
2	Р	168	Total	С	Н	N	О	S	1
2	Г	100	2681	842	1361	218	255	5	1
2	0	168	Total	С	Н	N	О	S	1
	Q	108	2681	842	1361	218	255	5	1
2	R	168	Total	С	Н	N	О	S	1
	1ι	100	2681	842	1361	218	255	5	1

There are 16 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
K	0	ACE	-	acetylation	UNP Q9Y281
K	167	NH2	-	amidation	UNP Q9Y281
L	0	ACE	-	acetylation	UNP Q9Y281
L	167	NH2	-	amidation	UNP Q9Y281
M	0	ACE	-	acetylation	UNP Q9Y281
M	167	NH2	-	amidation	UNP Q9Y281
N	0	ACE	-	acetylation	UNP Q9Y281
N	167	NH2	-	amidation	UNP Q9Y281
О	0	ACE	-	acetylation	UNP Q9Y281
О	167	NH2	-	amidation	UNP Q9Y281
Р	0	ACE	-	acetylation	UNP Q9Y281

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Chain	Residue	Modelled	Actual	Comment	Reference
Р	167	NH2	-	amidation	UNP Q9Y281
Q	0	ACE	-		UNP Q9Y281
Q	167	NH2	-	amidation	UNP Q9Y281
R	0	ACE	-	v	UNP Q9Y281
R	167	NH2	-	amidation	UNP Q9Y281



Chain A:

### 4 Residue-property plots (i)

#### 4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

• Molecule 1: Actin, alpha skeletal muscle

ACEO	1 1 1 1	3 E	E4	T2	10 A7	18	6/	C10	D11	G13	S14	G15	L16	V17 K18	A19	G20	F21	A22	D24	D25	A26	P27	A29	V30	F31	P32	134	V35	G36 p37	P38	R39	H40	G42	V43	M44 V45	G46	M4.7	G48	Q49 V50	D51	S52	Y53	vo4 G55	D56	E57	А50 (159
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360	K61	G63	164	1.65	1.67	K68	¥69	P70	171	E72 H73	G74	175	176	177 N78	W79	D80	D81	M82	K84	185	W86	H87	T89	F90	Y91	N92	1.94	R95	796 V	P98	E99	E100 H101	P102	T103	L104	T106	E107	A 108	P109	N111	P112	K113	A114 N115	R116	E117	M119
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180	181	183	184	185	180	188	.189	1190	191	193	194	195	1196	197	199	,200	201	202	204	205	206	207	209	210	211	212	214	215	216	218	219	220	222	223	:224  225	226	1227	228	229	231	1232	233	S234 S235	.236	237	239
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8300	G301	T303	T304	M305	1306 P307	308	1309	A310	D311	M313	Q314	K315	E316	T318	A319	L320	A321	P322	T324	M325	K326	1327	1329	1330	A331	P332	E334	R335	K336	S338	V339	W340	G342	G343	S344 T345	L346	A347	S348	L349	T351	F352	Q353 Q354	4354 M355	W356	1357	K359
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360	K61	G63	164	165	1.67	K68	Y69	P70	171	H73	G74	175	176	T77 M78	W79	D80	D81	M82	K84	185	W86	H87	T89	F90	Y91	N92	1.94	R95	796	P98	E99	H 10	P10:	T10	110	110	E10	A10	P10:	N11	P11.	K11.	A114 N115	R11	E11	MII



1120 1121 1122 1122 1122 1126 1126 1126
1180 4181 6182 6182 6182 6183 6183 6183 6183 6183 6184 6186 6187 6186 6187 6186 6187 6216 6216 6216 6216 6216 6216 6216 621
7240 1242 1243 12443 12443 12443 12443 12443 12444 12443 12444 12443 1246 1246 1246 1246 1246 1246 1246 1246
1300   1300
Q360 E361 Y362 D363 D363 B366 Q366 Q366 Q366 Q370 W372 C374 F375 NH2376
• Molecule 1: Actin, alpha skeletal muscle
Chain C: 100%
ACE O  D1  D2  D3  D4  D4  D5  D5  D5  D5  D5  D5  D5  D5
860 861 862 663 164 165 166 166 166 176 177 177 177 177
1120 1121 1122 1123 1123 1123 1123 1123
1180   4181   4181   4181   4181   4181   4181   4181   4181   4188
7240  1242 1243 1244 1244 1244 1244 1244 124
8300 G301 G302 G303 G303 G303 G303 G303 G304 G304 G308
Q360 E361 E364 B365 B366 G366 G366 G366 G374 C374 C374 C374 C374 C374 C374 C374 C
• Molecule 1: Actin, alpha skeletal muscle
Chain D: 100%
ACEO D1



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1122 1122 1122 1122 1122 1123 1126 1126
11.80  A1.81  G18.2  H1.83  H1.84  L1.85  H1.86  H1.86  H1.89  H1.94  H1.94  H1.95  H1.94  H1.96  H1
7240 12241 12242 12243 12243 12244 12245 12246 12253 12260 12261 12260 12261 12260 12270 122
8300 6301 6301 7302 7303 7303 7304 7305 7306 7308 7309 7316 7316 7318 7318 7318 7318 7318 7324 7328 7328 7329 7339 7349 7359 7369 7379 7389
Q360 E361 F362 D363 E364 A365 G366 P367 W370 W370 W373 K373 K373 K373 K373 K373
• Molecule 1: Actin, alpha skeletal muscle
Chain E: 100%
ACEO D11 E2 D23 E4 T5 T6 T6 T6 T6 T7 T6 T7 T6 T7 T6 T7 T6 T7
860 861 861 862 863 164 165 166 167 171 171 175 177 177 178 178 178 177 178 178
1120 1122 1123 1123 1124 1128 1128 1128 1138 1138 1149 1149 1149 1149 1149 1149 1149 114
1180   4181   4181   4181   4181   4181   4181   4181   4181   4188
7240 1242 1243 1244 1244 1244 1245 1246 1246 1246 1246 1246 1246 1256 1257 1256 1257 1257 1277 1277 1277 1277 1277 1277
8330 1300 1300 1300 1300 1300 1300 1300 1311 1311 1311 1311 1311 1311 1312 1320 1320 1317 1328 1320 1320 1320 1330 1320 1330 1330 1330 1330 1330 1330 1341 1341 1341 1341 1341 1341 1341 1346 1341 1341 1346 1341 1351 1361 1361 1362
9360 E261 1362 1366 6366 1369 1372 1372 1372 1373 1372 1373 1373 1373
• Molecule 1: Actin, alpha skeletal muscle
Chain F: 100%
ACEO D1
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1122 1122 1122 1122 1122 1126 1126 1127 1128 1139 1140 1140 1140 1140 1140 1140 1140 114
1180  A181  G182  A181  G182  A183  B183  B184  B188  B189
7240  1242  1242  1242  1243  1244  1244  1245  1246  1256  1256  1256  1256  1256  1256  1257  1261  1274  1277
83300 6301 6302 6302 6303 7303 7304 7306 7308 7309 7311 7318 7318 7319 7320 7321 7331 7332 7322 7323 7324 7332 7334 7339 7334 7336 7339 7339 7339 7339 7339 7339 7339
9360 E361 B361 A365 A366 B368 B368 B368 B372 N370 N4237 N42376
• Molecule 1: Actin, alpha skeletal muscle
Chain G: 100%
ACEO D1
860 661 662 663 663 664 665 665 665 665 666 667 666 674 674 674 674 674
1120 1121 1122 1123 1124 1126 1136 1136 1136 1136 1136 1136 1140 1140 1140 1151 1140 1151 1151 1151
1,180 4,181 4,181 4,181 4,188 4,188 4,188 4,189 4,189 4,189 4,199 4,209
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1366 1367 1368 1368 1368 1368 137 137 137 137 137 137 137 137 137 137
• Molecule 1: Actin, alpha skeletal muscle
Chain H: 100%
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X60 X61 X61 X62 X63 X63 X63 X63 X63 X63 X63 X63



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8300 6301 6301 7302 7306 7306 7306 7308 7310 7311 7318 7318 7318 7318 7318 7319 7321 7322 7324 7328	R336 (V338 (V338 (V338 (V338 (V338 (V348 (V348 (V348 (V348 (V348 (V348 (V358
9360 E361 E364 D363 D363 E364 E364 E366 G366 G366 G366 F370 K373 K373 K373 F376	
• Molecule 1: Actin, alpha skeletal muscle	
Chain I: 100%	
ACEO D1 E2 D1 E4 T5 T6 T6 T6 T1 M12 M12 M12 M12 M12 M13 M14 M15 M16 M17 M17 M18 M19 M19 M19 M19 M19 M19 M19 M19 M19 M19	V35 036 P28 P28 R40 Q41 Q42 Q42 Q48 Q48 Q48 Q48 Q48 Q48 Q48 Q48
860 R61 R61 164 168 168 168 168 170 171 175 177 177 178 188 188 188 188 188	M95 A96 A98 B99 B100 B100 B100 B100 B107 B107 B107 B107 B111
1120 1122 1123 1126 1126 1126 1127 1128 1138 1138 1138 1140 1143 1144 1148 1148 1149 1148 1148 1148 1148	\$155 0156 0157 1160 1160 1165 1165 1165 1166 1167 1170 1171 1171 1172 1174 1177 1176 1177 1177 1177 1177 1177
L180 A181 G182 G182 D184 L185 T186 D187 T188 L189 M190 M190 M190 M191 T194 E195 G197 T198 S199 F200 V201 T202 T202 V201 T203 A204 E205 E205 E205 E205 E205 E205 E205 E205	K115 K216 C217 V218 V219 A220 F222 F223
7240 F241 F242 F243 F244 F244 F244 F245 F246 F246 F246 F247 F246 F256 F256 F256 F256 F266 F267 F266 F270 F266 F270 F267 F267 F268 F270 F268 F271 F267 F268 F271 F274 F274 F274 F274 F274 F274 F274 F274	H275 H276 H277 H277 H279 N280 N280 N286 N285 N286 D286 D286 D286 L287 N291 N291 N296 N296 N297 N296 N296 N296 N296 N296 N296 N296 N296
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Q360 E361 F361 P362 D363 B366 G366 G366 G368 H371 R373 C374 F375 NH2376	
• Molecule 1: Actin, alpha skeletal muscle	
Chain J: 100%	
ACED  D1  D2  E2  D3  D3  D4  M2  C10  C10  C10  C10  C10  C10  C10  C1	105 105 105 105 105 105 105 105 105 105



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1180 4181 4181 4181 4183 4188 4188 4188 4188
7240  1242 1243 1244 1245 1246 1246 1246 1247 1248 1250 1250 1250 1250 1250 1250 1250 1250
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10 D C C C C C C C C C C C C C C C C C C
• Molecule 2: Cofilin-2
Chain K: 100%
ACEO
160 061 062 062 063 064 065 066 066 067 068 070 070 070 070 070 070 070 070 070 07
\$120 K121 D122 A123 A123 A123 K126 K126 K126 K127 F128 T128 T128 T131 K132 H133 E134 U137 W138 U140 D141 D142 U153 C156 G156 G156 G156 G156 G156 G156 G156 G
• Molecule 2: Cofilin-2
Chain L: 100%
ACEO
160 161 162 163 164 165 165 165 165 165 165 165 165 165 165
\$120 \$120 \$121 \$122 \$123 \$124 \$133 \$144 \$133 \$144 \$143 \$144 \$145 \$148 \$146 \$145 \$146 \$145 \$146
• Molecule 2: Cofilin-2
Chain M: 100%
ACEO ACEO ACEO ACEO ACEO ACEO ACEO ACEO
160 161 162 163 164 165 165 165 165 165 165 165 165



\$120 \$120 \$122 \$123 \$124 \$125 \$126 \$130 \$131
• Molecule 2: Cofilin-2
Chain N: 100%
A CEO  A
160 661 665 666 666 666 666 666 666 666 667 667
N120 N121 N122 N123 N126 N126 N127 N133 N133 N133 N133 N133 N133 N134 N133 N136 N155 N155 N155 N155 N155 N155 N156 N156 N157 N158 N158 N158 N158 N158 N158 N158 N164 N165 N165 N166
• Molecule 2: Cofilin-2
Chain O: 100%
A CEO  A
160 162 163 164 165 165 166 166 176 176 176 177 177 178 178 178 178 178 178 178 178
N120 N120 N121 N122 N123 N126 N126 N133 N133 N133 N133 N146 N136 N155 N155 N155 N156 N156 N156 N156 N15
• Molecule 2: Cofilin-2
Chain P: 100%
A ACEO  A ACEO  A A CEO  A A CEO  B A CEO  B A CEO  C A C
160 163 163 164 165 166 166 166 166 166 166 169 170 171 171 171 171 171 171 171
\$120 \$120 \$122 \$1124 \$1126 \$1126 \$1126 \$1127 \$1129 \$1133 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1140 \$1160 \$11
• Molecule 2: Cofilin-2
Chain Q: 100%
ACCO ACCO ACCO ACCO ACCO ACCO ACCO ACCO



091	G61	T63	V64	E65	P67	Y68	T69	F71	V72	K73	L74	L75	1.77	N78	D79	C80	Y82	A83	1.84	185 186	A87	T88	Y89	E90	K92	E93	\$94 705	96 X	E97	D98	V100	F101	1102 F103	W104	A105	P106	3108	A 109	P110	L111	S113	K114	M115	1116 Y117	A118	S119
\$120	K121	A123	1124	K125	K127	F128	T129	1131	K132	H133	E134	W135	V137	N138	G139	L140	D142	1143	K144	D145 R146	S147	T148	L149	G150 F151	K152	L153	G154 G155	M156	V157	V158	X159	L161	E162	K164	P165	L166 MH2167	MISTO									
•	Ν	lo	le	cu	ıle	2	:	С	of	fil	in	1-2	2																																	
C	h	aiı	1.	R:	-																		1	.00	)%																		•			
ACEO	M1	83 83	G4	V5	V 7	N8	D9	V11	112	K13	V14	F15	N 16	M18	K19	V20	K22	S23	\$24	125	E27	E28	129	K30	R32	K33	K34	N36	L37	F38	L40	S41	D42	K44	R45	Q46 T/7	148	V49	E50	E51	K53	<b>Q</b> 54	155	L56 V57	G28	D29
160	G61	T63	V64	E65	P67	Y68	T69	F7.1	V72	K73	L74	L75	1.77	N78	D79	C80	Y82	A83	184	T85	A87	T88	Y89	E90	191 K92	E93	S94	96X	E97	D98	V100	F101	I102 F103	W104	A105	P106	8108	A109	P110	L111	S113	K114	M115	1116 Y117	A118	S119
\$120	K121	A 123	1124	K125	K127	F128	T129	1131	K132	H133	E134	W135	W137	N138	G139	L140	D142	1143	K144	D145 R146	S147	T148	L149	G150 F151	K152	L153	G154	N156	V157	V158	S160	L161	E162	K164	P165	L166 NH2167	MISTO									

#### 4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

#### 4.2.1 Score per residue for model 1

• Molecule 1: Actin, alpha skeletal muscle



 $\bullet$  Molecule 1: Actin, alpha skeletal muscle

Ch	aiı	n .	В	•																				1	.00	)%																						
ACEO D1	23 E2	E4	T5	T6 A7	87	6/	C10	D11	N12	S14	G15	L16	V17	K18	A19	020 100	F21	A22	D24	D25	A26	P27	R28	A29	V30	F31	833	134	V35	G36 B27	P38	R39	H40	Q4.1	042 V43	M44	V45	G46	G48	049	KSO	D51	S52 V53	V54	G55	D56	A58	סנים
S60 K61	462 G63	164	1.65	T66 1.67	K68	V69	P70	171	E/2	G74	175	176	T77	N78	W79	D80	181	H 22	K84	185	W86	H87	H88	T89	F90	191 N92	E93	L94	R95	V96	86d 86d	E99	E100	H101	F102	L104	L105	T106	A 108	P109	L110	N111	P112	A114	N115	R116	K118	M110
T120 Q121	1122 M123	F124	E125	T126 F127	N128	V129	P130	A131	M132	V134	A135	1136	Q137	A138	V139	L140	5141	L142 V143	A144	S145	G146	R147	T148	T149	G150 T1E1	1151 V152	L153	D154	S155	G156 D157	G158	V159	T160	H161	N162 V163	P164	1165	Y166	G168	Y169	A170	L171	P172	A174	1175	M176	L178	0110
L180 A181	G182 R183	D184	L185	T186	Y188	L189	M190	K191	1192	T194	E195	R196	G197	Y198	S199	F200	V201	T203	A204	E205	R206	E207	1208	V209	R210	1211	K213	E214	K215	L216	V218	V219	A220	L221	D222 F223	E224	N225	E226	A228	T229	A230	A231	S232	S234	S235	L236	K238	2230
Y240 E241	L242 P243	D244	G245	4246 V247	1248	T249	1250	G251	N 25 Z	R254	F255	R256	C257	P258	E259	T260	L261	F 262	P264	S265	F266	1267	G268	M269	E270	\$271 A272	G273	1274	H275	E276	1277	Y279	N280	S281	1282 M283	K284	C285	D286	1267	1289	R290	K291	D292 1 293	Y294	A295	N296	V298	O O O O O
S300 G301	G302 T303	T304	M305	Y306 P307	8308	1309	A310	D311	K312	0314	K315	E316	1317	T318	A319	L320	A321	P322 S323	T324	M325	K326	1327	K328	1329	I330	A331 P332	P333	E334	R335	K336	23.38	V339	W340	1341	G342	S344	1345	L346	8348	L349	8350	T351	F352	0354	M355	W356	1357 T358	Karo
Q360 E361	1362 D363	364	A365	367	8368	1369	V370	H371	R372 R373	C374	F375	NH2376																																				
	Ä	畄	A	בּ	Ω.	Ĥ	>	Ξ.	4 5	4 0	1	Z																																				

• Molecule 1: Actin, alpha skeletal muscle

| Character | Char



• Molecule 1: Actin, alpha skeletal muscle

Chain	D																			1	00	%																							
ACE0 D1 E2 D3	T5	T6 A7	818	C10	D11	N12	\$14	G15	L16 V17	V1/ K18	A19	G20	F21	A22	D24	D25	A26	P27	R28	N29	F31	P32	833	134	V35	R37	P38	R39	H40	141 141	V43	M44	V45	G46	M4.7	049	K50	D51	S52	Y53	V54	655 D56	E57	A58	980
S60 K61 R62 G63	164 165	T66 L67	K68	P70	171	E72	G74	175	176	177 N78	M79	D80	D81	M82 F83	K84	185	W86	H87	H88	100	r 30	N92	E93	L94	R95	V 30 A 97	P98	E99	E100	H101	T103	L104	L105	T106	A108	P109	L110	N111	P112	K113	A114 N115	R116	E117	K118	M119
T120 Q121 T122 M123	F124 E125	T126 F127	N128	V123	A131	M132	V134	A135	I136	A138	V139	L140	\$141	L142	A144	S145	G146	R147	T148	1149	1151	V152	L153	D154	8155	D157	G158	V159	T160	H161	V163	P164	1165	Y166	6168	V169	A170	L171	P172	H173	A174	11/5 M176	R177	L178	D179
L180 A181 G182 R183	L185	1186 D187	Y188	M190	K191	1192	T194	E195	R196	4198 Y198	\$199	F200	V201	T202	A204	E205	R206	E207	1208	V203	D211	1212	K213	E214	K215	C217	Y218	V219	A220	1221	F223	E224	N225	E226	1221 1221	T229	A230	A231	S232	S233	S234	5235	E237	K238	8239
Y240 E241 L242 P243	G245	U246 V247	1248	1250	G251	N252 F253	R254	F255	R256	C257	E259	T260	L261	F262	P264	S265	F266	1267	G268 M260	F227	S271	A272	G273	1274	H275	T277	T278	Y279	N280	1202	M283	K284	C285	D286	120/ N288	1289	R290	K291	D292	L293	Y294	N296	N297	V298	MOGG
S300 G301 G302 T303	1304 M305	Y306 P307	G308	A310	D311	R312 M313	Q314	K315	E316	1318 T318	A319	L320	A321	P322	T324	M325	K326	1327	K328	1329	A331	P332	P333	E334	R335	V337	8338	V339	W340	1341	G343	S344	1345	L346	A347	1.349	8350	T351	F352	<b>Q353</b>	<b>Q354</b>	M356	1357	T358	K359
4360 F361 F362 D363	£364 4365	356 P367	3368	V370	H371	R372 8373	3374	7375	VH2376																																				

• Molecule 1: Actin, alpha skeletal muscle



• Molecule 1: Actin, alpha skeletal muscle

С	h	ai	n	F	:																					1	.00	)%																							
ACEO	D1	3 2	E4	TS	T6	Α' Σ	g ø <sub>2</sub>	C10	D11	N12	G13	S14	G15	L16	V17	K18	AIB	620 F23	121	422 G03	D24	D25	A26	P27	R28	A29	V30	F31	P32	134	V35	G36	R37	P38	R39	H40	7 4 5 C 4 5 C 4 5	V43	M44	V45	G46	M4.7	040	KSO	D51	S52	Y53	404 655	D56	E57	A58 059
360	K61	R62	164	Les	T66	707	Y 69	P70	171	E72	H73	G74	175	176	T77	N78	000	000	Mea	E83	K84	185	W86	Н87	H88	T89	F90	Y91	N92	1.94	R.95	96A	A97	P98	E99	E100	P102	T103	L104	L105	T106	E107	P 109	L110	N111	P112	K113	A114 N115	R116	E117	K118 M119
T120	Q121	1122 M123	F124	E125	T126	F127	V129	P130	A131	M132	Y133	V134	A135	1136	0137	A138	1139	L140	1 1 1 1 2	V143	A144	S145	G146	R147	T148	T149	G150	1151	V152	D154	3155	G156	D157	G158	V159	T160	N162	V163	P164	I165	Y166	E167	V169	A170	L171	P172	H173	A1/4 T175	M176	R177	L178 D179
L180	A181	G162 R183	D184	L185	T186	V188	L189	M190	K191	1192	L193	T194	E195	R196	G197	Y198	8199	F200	1000	T203	A204	E205	R206	E207	1208	V209	R210	D211	1212	F214	K215	L216	C217	Y218	V219	A220	D222	F223	E224	N225	E226	MZZI	T229	A230	A231	S232	S233	S235	L236	E237	K238 S239
Y240	E241	L242 P243	D244	G245	Q246 	V 24 / T 24 8	T249	1250	G251	N252	E253	R254	F255	R256	C257	P258	E.259	1 260	E261	1202	P264	S265	F266	1267	G268	M269	E270	S271	A272	1274	H275	E276	T277	T278	Y279	N280	1282	M283	K284	C285	D286	1287	1289	R290	K291	D292	L293	1294 4295	N296	N297	V298 M299
8300	G301	4302 T303	T304	M305	Y306	F307	1309	A310	D311	R312	M313	Q314	K315	E316	I317	T318	A319	1320	#321 D322	8323	T324	M325	K326	1327	K328	1329	1330	A331	P332	F334	R335	K336	Y337	8338	V339	W340	1341 (342	G343	S344	1345	L346	A347	1.349	8350	T351	F352	Q353	4355 M355	W356	1357	T358 K359
90	51	33	34	35	36	28	2000	02	71	72	73	74	75	NH2376																																					
0980	E361	L 35.	E364	A36	0366	P367	1369	V370	H371	R372	· K373	C374	F375	NHC	,			,				•				,																									

• Molecule 1: Actin, alpha skeletal muscle



(Q)	CO	CO	(Q)	Ó	CO	(Q)	co.	(Q)	CO	~	7	~	7	$\sim$	~	NH2376

• Molecule 1: Actin, alpha skeletal muscle

Chain	Н	: -																		10	0%	)																				
ACE0 D1 E2 D3	E4	T6 A7	87 9	C10	D11	N12	S14	G15	L16	V1/ K18	A19	G20	F21	422 G23	D24	D25	A26	P27	A29	V30	F31	F32 S33	134	V35	G36 R37	P38	R39	H40	G42	V43	M44 V45	G46	M47	G48	WE9	D51	S52	Y53	G55	D56	E57	0 0 0
S60 K61 R62 G63	164 L65	T66 L67	K68	r 69 P 70	171	E72	G74 G74	175	176	177 N78	67W	080	D81	E83	K84	185	W86	H88	T89	F90	Y91	E93	1.94	R95	V 96 A 97	P98	E99	E100	P102	T103	L104	T106	E107	A108	F109	N111	P112	K113	N115	R116	E117 K118	M440
T120 Q121 I122 M123	F124 E125	T126 F127	N128	V129 P130	A131	M132	V134	A135	1136	4137 A138	V139	L140	S141 1 1/12	Y143	A144	S145	G146	T148	T149	G150	I151	V152 L153	D154	S155	G156 D157	G158	V159	T160	N162	V163	P164 T165	Y166	E167	G168	Y 169	L171	P172	H173	1175	M176	R177	0110
L180 A181 G182 R183	D184 L185	T186 D187	Y188	L189 M190	K191	1192	T194	E195	R196	V198	8199	F200	V201	T203	A204	E205	R206	1208	V209	R210	D211	K213	E214	K215	L216 C217	Y218	V219	A220	D222	F223	E224	E226	M227	A228	1229 4230	A231	S232	8233	S235	L236	E237	0000
Y240 E241 L242 P243	D244 G245	Q246 V247	1248	1249	G251	N252	R254	F255	R256	C257 P258	E259	T260	L261 E262	r 262 0263	P264	S265	F266 T267	1267 G268	M269	E270	S271	A212 G273	1274	H275	E276 T277	T278	Y279	N280	1282	M283	K284	D286	1287	D288	1289 8390	K291	D292	L293	1234 A295	N296	N297 V298	0000
S300 G301 G302 T303	T304 M305	Y306 P307	308	1309 A310	D311	R312	0314	K315	E316	131/ T318	A319	L320	A321	S323	T324	M325	K326	1327 K328	1329	1330	A331	P333	E334	R335	K336 Y337	S338	V339	W340	1341 G342	G343	S344 1345	L346	A347	S348	L349 8350	T351	F352	Q353 Q354	M355	W356	I357 T358	1000
									NH2376																																	
Q360 E361 Y362 D363	E364 A365	G366 P367	S368	V370	H371	R372	C374	F375	NHZ																																	

• Molecule 1: Actin, alpha skeletal muscle



	0980	E361	Y362	D363	E364	A365	9985	P367	8368	1369	V370	H371	R372	K373	C374	F375	NH2376
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 $\bullet$  Molecule 1: Actin, alpha skeletal muscle

Chain J:	100%
ACEO D11 D2 D2 D3 D3 D4 D11 D11 D12 D12 D13 D13 D13 D14 D25 D25 D25 D26 D27 D27 D27 D27 D27 D27 D27 D27 D27 D27	M.29 (W30 (W31) (W31) (W31) (W32) (W32) (W32) (W32) (W32) (W32) (W41) (W42) (W42) (W42) (W42) (W42) (W42) (W43) (W42) (W43) (W43) (W43) (W44) (W45) (W45) (W45) (W46) (W47) (W47) (W46) (W47) (W
\$60 663 663 663 164 165 167 171 171 176 177 177 178 178 178 177 176 177 176 177 176 177 178 178 178 178 178 178 178 178 178	189 F 90 F 9
7120 7121 7122 7123 7126 7126 7126 7130 7133 7138 7138 7138 7138 7149 7143 7143 7144 7144	1149 (150 (151) (151) (153 (153 (158 (156 (158 (156 (158 (156 (156 (156 (156 (156 (156 (156 (156
1180 4181 G182 G183 G184 G186 G197	(V209) (V210) (V213) (V214) (V215) (V216) (V217) (V218) (V218) (V220) (V221) (V221) (V221) (V221) (V221) (V221) (V221) (V221) (V222) (V222) (V223) (V223) (V223) (V228) (V
7240 1241 1242 1243 1246 1246 1246 1248 1248 1250 1250 1250 1250 1250 1250 1250 1260 1261 1260 1261 1260 1261 1260 1261 1260 1261 1260 1261 1260 1261 1260 1261 1260	M.269 8.271 8.271 8.271 7.273 1.274 1.276 1.276 1.282 M.280 0.285 1.282 M.280 1.282 M.280 1.283 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.287 1.288 1.287
\$300 \$300 \$301 \$302 \$302 \$302 \$306 \$306 \$306 \$316 \$316 \$314 \$314 \$314 \$314 \$314 \$314 \$316 \$323 \$323 \$323 \$323 \$323 \$323 \$323 \$325 \$325 \$325 \$327	1329 1330 1330 1333 1333 1333 1333 1334 1341 1344 1345 1345
9360 E361 E361 D363 D363 E364 E364 B366 B368 B370 B371 B372 K373 K373 W370 W370 W370 W370 W370 W370 W370 W	
• Molecule 2: Cofilin-2	
• Molecule 2: Cofilin-2 Chain K:	100%
Chain K:	129 K X 33 K X 34 K X 34 K X 44 K X 45 K X 65 K X 6
Chain K:  883 884 887 888 888 888 888 888 888 888	
Chain K:  883 884 887 888 888 888 888 888 888 888	Y89   120   140
160   AGE	Y89   120   140
Strong   S	Y89   120   140
Chain K:    Ki21	1449   789   129



1134   1134
• Molecule 2: Cofilin-2
Chain M: 100%
ACEO ACEO ACEO ACEO ACEO ACEO ACEO ACEO
160 163 163 163 163 163 164 165 166 166 166 166 166 166 166 166 166
N 12 2 1 1 1 2 4 1 1 1 2 4 1 1 1 2 4 1 1 1 2 4 1 1 1 1
• Molecule 2: Cofilin-2
Chain N: 100%
A CEO
160 661 662 665 666 666 666 666 666 666 666 666
N 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
• Molecule 2: Cofilin-2
Chain O:
ACEO ACEO ACEO ACEO ACEO ACEO ACEO ACEO
160 160 161 162 163 164 165 165 166 166 166 166 166 166 166 166
\$120 \$120 \$122 \$123 \$1124 \$1126 \$126 \$130 \$131 \$144 \$144 \$144 \$144 \$144 \$144 \$145 \$145
• Molecule 2: Cofilin-2
Chain P: 100%
A ACEO  A ACEO  A A 2  S 3 3  S 3 4  G 4 4  V 7  W 8  W 11  W 11  W 11  W 12  W 12  W 12  W 12  W 12  W 12  W 13  W 14  W 15  W 16  W 16  W 17  W 17  W 17  W 18



160 061 062 063 064 065 066 066 066 066 066 066 066 066 066
8120 M122 M123 M123 M125 M255 M255 M255 M255 M331 M338 M338 M338 M338 M338 M338 M338
• Molecule 2: Cofilin-2
Chain Q: 100%
A CED A CED A S 3 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 1 A M 2 A M 3
160   163   163   163   163   163   163   163   164   165
N 12 20 17 22 17 2
• Molecule 2: Cofilin-2
Chain R: 100%
A ACEO  A ACEO  A ACEO  B S 3 S S S S S S S S S S S S S S S S S
160   961   962   963   964   965   966   966   966   967   770   770
8120 8120 8121 8122 8122 8122 8122 8126 8127 8128 8128 8133 8133 8134 8133 8134 8135 8144 8146 8146 8146 8146 8146 8146 8146
4.2.2 Score per residue for model 2
• Molecule 1: Actin, alpha skeletal muscle
Chain A: 100%
A ACEO  E 4 A CEO  E 4 A CEO  E 5 A CEO  C 10 B C CEO  C 10 B CEO  C 10 B C CEO  C 10 B CEO  C 10 B C CEO  C 10 B
860 663 663 663 663 164 165 176 176 177 177 177 177 177 178 188 179 170 170 170 170 170 170 170 170
11120 17121 17122 17124 17126 17126 17126 17126 17136 17138 17138 17138 17148 17143 17148 17149 17150 17150 17150 17169 17160 1717 17160 1717 1717



L180 A181 G182 R183 D184 L185 T186 V188	L189 M190 K191 1192 L193 T194	R196 G197 Y198 S199 F200	V201 T202 T203 A204	E203 R206 E207 I208	R210 D211 I212	K213 E214 K215 L216	Y218 V219 A220	L221 D222 F223 E224	N225 E226 M227	A228 T229 A230	\$232 \$232 \$233	\$234 \$235 L236	E237 K238 S239
Y240 E241 L242 P243 D244 G245 Q246 V247 I248	T249 I250 G251 N252 E253 R254	R256 C257 P258 E259	L261 F262 Q263 P264	5265 F266 I267 G268	M269 E270 S271 A272	G273 1274 H275 E276	1278 T278 Y279 N280	S281 1282 M283 K284	C285 D286 1287	D288 1289 R290 K291	D292 L293	7294 A295 N296	N297 V298 M299
S300 G301 G302 T303 T304 M305 Y306 P307 G308	1309 A310 D311 R312 M313 Q314	E316 1317 1318 A319 L320	A321 P322 S323 T324	K326 I327 K328	1329 1330 A331 P332	F333 E334 R335 K336	1337 8338 V339 W340	1341 G342 G343 S344	1345 L346 A347	S348 L349 S350 T351	F352 Q353	4354 M355 W356	1357 T358 K359
q360 E361 Y362 D363 D363 A365 G366 S368 S368	1369 1370 1371 1372 1374 1374	M2376											
• Molecule 1			keletal	muse	ele								
Chain B:					100%								
					10070								
ACE0 D1 E2 D3 D3 T6 T6 A7	V9 C10 D11 N12 G13 S14	L16 L16 V17 K18 A19 G20	F21 A22 G23 D24	A26 P27 R28	A23 V30 F31 P32	S33 134 V35 G36	R39 H40	Q41 G42 V43 M44	V45 G46 M47	G48 Q49 K50	S52 Y53	V54 G55 D56	E57 A58 Q59
S60 K61 R62 G63 164 L65 T66 L67 K68	Y69 P70 I71 E72 H73 G74	175 177 177 178 178 1080	D81 M82 E83 K84	195 W86 H87 T89	169 F90 Y91 N92	E93 L94 R95 V96	A9/ P98 E99 E100	H101 P102 T103	L105 T106 E107	A108 P109 L110 M111	P112 K113	A114 N115 R116	E117 K118 M119
T120 Q121 I122 M123 F124 E125 T126 F127	1129 1130 1131 1133 134	136 137 138 139	S141 L142 Y143 A144	146 147 148	149 150 151	L153 D154 S155 G156	158 159 160	161 162 163	165 166 167	168 169 170	172	174 175 176	177 178 179
H Q H M F M F F N	> G A M Y > <	4 H Q 4 > 1	ω ¬ ≻ ∢ υ	0 0	- 6 H >	помв	O O > F	HNDA	нуш	ნ ≻ ∢ ⊧	A H <	K H Z	R 1 D
L180 A181 G182 R183 D184 L185 T186 D187	L189 M190 K191 I192 L193 T194	R196 G197 Y198 S199 F200	T202 T203 A204	E205 E207 I208	R210 D211 I212	K213 E214 K215 L216	Y218 V219 A220	L221 D222 F223 E224	N225 E226 M227	A228 T229 A230	\$232 \$232 \$233	523 <del>4</del> S235 L236	E237 K238 S239
Y240 E241 L242 P243 D244 G245 Q246 V247	249 250 251 252 253 254	256 257 258 259 260	261 262 263 264	266 267 268 268	270 271 272	273 274 275 276	278 279 280	281 282 283 284	285 286 287	288 289 290	292 293	294 295 296	297 298 299
H K B B B B B B B B B B B B B B B B B B	HRENER	* <b>#</b> O T H H		игнся	EHWA	он ж ш н		SHER	рдн	O H K X	01;	HAN	N>E
S300 G301 G302 T303 T304 M305 Y306 P307 G308	1309 A310 D311 R312 M313 Q314	E316 E317 E317 E318 A319 E320	A321 P322 S323 T324	M325 K326 I327 K328	1329 1330 A331 P332	F333 E334 R335 K336	1337 8338 V339 W340	1341 G342 G343 S344	1345 L346 A347	S348 L349 S350	F352 Q353	4354 M355 W356	1357 T358 K359
0360 E361 Y362 D363 E364 E364 P365 S368	69 70 71 72 74	2376											
433 433 633 633 633 633 633 633 633 633	13 V3 K3 K3 C3	NH											
• Molecule 1	: Actin,	alpha s	keletal	muse	ele								
Chain C:					100%							•	
ACEO D1 E2 D3 E4 T5 T6 A7 L8	C10 D11 N12 G13 S14	G15 L16 V17 K18 A19 G20	F21 A22 G23 D24	A26 P27 R28	A23 V30 F31 P32	S33 134 V35 G36	n3/ P38 R39 H40	Q41 G42 V43 M44	V45 G46 M47	G48 Q49 K50	\$52 Y53	455 G55 D56	E57 A58 Q59
0 11 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	© ○ + ८ १ १ १ १ १	o o o o d	11 Cl C 4 1	0 0 1- 8 0	2010	8 4 7 0 i	8 6 0	.01 .03 .03	05	109	13 13	15 16	17 18 19



L180 A181 G182 B183	D184 L185 T186	D187	L189	K191	I192 L193	T194	E.195 R.196	G197	S 199	F200	T202	T203	A204	E205 R206	E207	1208	V209	D211	1212	K213	K215	L216 C217	Y218	V219	L221	D222	F223 E224	N225	E226 M227	A228	T229	A230 A231	8232	8233	S235	L236	E237	\$239
Y240 E241 L242	D244 G245	V247 1248	T249	G251	N252 E253	R254	r255 R256	C257	F259	T260	F262	<b>Q263</b>	P264	5265 F266	1267	G268	M269 F270	S271	A272	1274	H275	E276 T277	T278	Y279	\$281	1282	M283 K284	C285	D286 1287	D288	1289	K290 K291	D292	L293	A295	N296	N297 V298	M299
S300 G301 G302	T304 M305	P307	I309	D311	R312 M313	Q314	K315	I317	A319	L320	A321 P322	8323	T324	M325 K326	1327	K328	1329	A331	P332	F333	R335	K336 Y337	8338	V339	1341	G342	5343 S344	1345	L346 A347	S348	L349	5350 T351	F352	Q353	M355	W356	1357	K359
Q360 E361 Y362	E364 A365	P367	1369 V370	H371	R372 K373	C374	F375 NH2376																															
• Mc								ph	ıa	sk	æl	.et	al	r	nυ	ıso	cl€	9																				
Chai	n D:	_															10	00%	6																-			
ACEO D1 E2	E4 T5	A7 18	V 0 5	D11	N12 G13	S14	G15 L16	V17	A19	G20	F21 A22	G23	D24	D25 A26	P27	R28	A29 V30	F31	P32	533 134	V35	G36 R37	P38	R39	Q41	G42	743 M44	V45	G46 M47	G48	049	K50 D51	S52	Y53	V54 G55	D56	E57	<b>Q59</b>
S60 K61 R62	164 165 166	L67 K68	Y69 P70	171	E72 H73	G74 17E	175 176	T77 N720	0 / N W 7 9	D80	M82	E83	K84	185 W86	H87	H88	T89 F90	Y91	N92	L93	R95	V96 A97	P98	E99	H101	P102	1103 L104	L105	T106 E107	A108	P109	L110 N111	P112	K113	N115	R116	E117 K118	M119
T120 Q121 I122 M123	F124 E125 T126	F127	V129	A131	M132 Y133	V134	A135 I136	Q137	V139	L140	L142	Y143	A144	S145 G146	R147	T148	T149	1151	V152	L153 D154	S155	G156 D157	G158	V159	H161	N162	V163	1165	Y166 E167	G168	Y169	A170 L171	P172	H173	A174 I175	M176	R177	D179
.180 1181 1182	D184 L185 T186	187	L189	K191	I192 L193	T194	195	G197	199	F200	202	203	1204	2025	E207	1208	209	D211	212	K213 E214	(215	2216	Y218	V219	L221	D222	F223 E224	N225	E226 M227	1228	1229	230	1232	3233	235	.236	:237 :238	239
																																O 1			2 62	9	E X	. 0
Y240 E241 L242	024 024	V24.	T24	G25	N25.	R25	R25	C25.	E25	T26	F26:	Q26:	P26	526 F26	126	G26	M26 F27	S27	A27	127	H27	E27	T27	Y27	828	128	MZ8 K28	C28	D28-	D28	128	K29	D29	L29.	A 295	N29	N29	M29
S300 G301 G302 T303	T304 M305	P307	I309	D311	R312 M313	Q314	K315 E316	1317	A319	L320	A321 P322	8323	T324	M325 K326	1327	K328	1329	A331	P332	F333	R335	K336 Y337	8338	V339	1341	G342	5343 S344	1345	L346 A347	S348	L349	3350 T351	F352	Q353 D354	M355	W356	T357	K359
Q360 E361 Y362	E364 A365 G366	P367	1369 V370	H371	R372 K373	C374	F375 NH2376																															
• Mc	lecu	le	1:	Ac	etir	n,	al	ph	ıa	sk	æl	et	al	r	nu	ıso	cl€	9																				
Chai	n E:	-															10	00%	6																=			
ACEO D1 E2	E4 T5	A7	V 0	D11	N12 G13	S14	G15 L16	V17	A 19	G20	F 21 A 22	G23	D24 D25	D25 A26	P27	R28	A 29 V 30	F31	P32	333 134	V35	G36 R37	P38	R39	041	G42	v43 M44	V45	G46 M47	G48	049	K50 D51	S52	Y53	45 <del>5</del>	D56	E57	<b>Q59</b>
S60 K61 R62	164 165	167 168	Y69	171	E72 473	374	175 176	177	67F	080	V82	E83	K84	185	H87	H88	68.I	Y91	N92	193 194	R95	96A	P98	E99	H101	P102	1103	L105	F106	A108	P109	L110 V111	P112	K113	A114 V115	R116	E117	M119

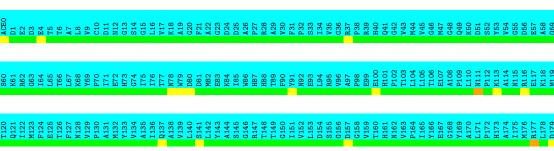


L180 A181 A181 A181 A183 D184 L186 T186 T186 T189 K191 L193 T194 E196 R196 G197 Y198 S199 F200 V201 T203 A204 E206 E206 E206 F206 V209 V201 T208 V201 T208 V201 V201 T208 V201 V201 V201 V201 V201 V201 V201 V201	R210 1212 K213 K213 K213 K213 K214 K215 L221 L221 L221 L221 L222 K224 K228 K228 K239 K230 K230 K230 K230 K230 K231 K230 K231 K230 K230 K231
Y240 E241 F242 P243 P244 Q245 Q246 Q246 Q251 I260 I260 C257 P266 R266 R266 R266 R266 R266 R266 R266	E270 8271 8271 8271 1274 1274 1276 1276 1277 1278 1278 1277 1278 1281 1282 1287
S300 G301 G301 T303 T303 F305 G308 G308 G308 F310 F311 F311 F313 F313 F313 F32 F32 F32 F32 F32 F32 F32 F32 F32 F3	P333 P333 P333 P333 P333 P333 P333 P33
Q360 E361 E361 D363 D363 E364 A365 C366 P367 E368 F37 E368 F37 E37 E37 E37 E37 E37 E37 E37	
• Molecule 1: Actin, alpha skeletal musc	le
Chain F:	100%
ACED D1	V30 V30 V30 V30 V30 V33 V33 V33 V33 V43 V43 V43 V43 V43 V43
S60   R61   R62   R62   R62   R62   R62   R62   R62   R65   R66	F90 N92 N92 E93 E94 A97 P98 E99 E100 H101 P102 P108 E107 A113 A114 M119
1120 (0.21) (0.21) (0.23) (1.22) (1.23) (1.24) (1.34) (1.34) (1.34) (1.35) (1.36) (1.36) (1.36) (1.37) (1.38) (1.38) (1.39) (1.3	1151 1151 1153 1155 1156 1156 1156 1156
1180 A181 A181 B183 B184 B185 B186 B186 B186 B196 B196 B196 B196 B196 B196 B197 B198	R210 1212 1213 1213 1214 1215 1216 1216 1216 1221 1222 1222 1222
Y240 E241 P242 P243 P244 Q245 Q246 V247 I260 I260 I261 R254 F255 R254 F256 R254 F256 R254 F266 R264 F266 R264 R264 F266 R264 R264 R264 R264 R264 R264 R264 R	E270 8271 8272 8271 1274 1274 1277 1278 7279 7279 7281 1282 7284 7294 7294 7294 7294 7296 7296 7296 7297 7297 7297 7297 7297
8300 6301 6302 1303 1304 1304 1309 1309 1310 1311 1311 1311 1311 1320	1330 A331 P332 P333 P333 P333 R336 R336 R336 R336 R336 R344 I346
0360 E361 V362 D363 E364 A365 E366 P367 S368 V370 H371 K372 K373 C374 F375 NH2376	
• Molecule 1: Actin, alpha skeletal musc	le
Chain G:	100%
ACEO D1 D1 E2 D3 D3 D4 D4 D5	V30 V30 S33 S33 I 34 I 34 I 34 I 34 I 34 I 34 I 40 I 50 I 50

| 1120 | 860 | AED | 1120 | 861 | 1122 | 862 | 863 | 863 | 863 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 864 | 8



1180   1181   1182   1183   1186   1188   1188   1188   1188   1188   1188   1188   1189	8239
1240 1241 1242 1244 1244 1244 1244 1244	M299
5300 6301 6302 7303 7304 7304 7305 7306 7306 7306 7306 7316 7316 7316 7316 7316 7316 7316 7316 7317 7318 7320 7331 7331 7331 7331 7332 7332 7333 7334 7336 7336 7336 7336 7336 7336 7336 7336 7336 7336 7336 7336 7337 7338 7336 7336 7336 7336 7336 7336 7336 7336 7336 7337 7336 7336 7336 7336 7336 7336 7336 7336 7336 7337 7336 7336 7336 7336 7336 7336 7336 7336 7336 7336 7347 7347 7347 7348 7356 7366 73776 7376 7376 7376 73776 7376 7376 7376 7376 7376 7376	K359
Q360 E361 D363 D366 G366 G366 G366 G368 G368 W370 W370 W370 W371 R372 R374 F376	
• Molecule 1: Actin, alpha skeletal muscle	
Chain H: 100%	
ACEO D1 D1 D2 D3 D3 D4	<b>059</b>
X60 R61 R62 R63 L65 L65 L65 L65 L65 L65 L65 L65	M119
1120 1122 1123 1124 1125 1126 1127 1128 1128 1128 1128 1128 1138 1138 1149 1149 1149 1149 1155 1165 1165 1165 1166 1166 1167 1168 1168 1168 1168 1171 1171	D179
1186 4181 4181 4181 4183 4188 4188 4188 4188	S239
7240  1242  1243  1244  1244  1248  1248  1248  1248  1248  1248  1250  1270	M299
8300 6301 1304 1306 1306 1306 1306 1306 1306 1317 1317 1318 1328 1338 1344 1346 1348 1358	K359
q360 E361 Y362 D363 E364 A366 G366 G366 P367 V370 V370 W372 K373 K373 K373 K373	
• Molecule 1: Actin, alpha skeletal muscle	
Chain I: 100%	
ACEO D1 D1 E2 D3 E2 D3 E4 A7 L16 T6 C10 D11 D12 D12 C10	<b>Q59</b>





L180 A181	R183 D184	L185 T186	D187	L189	K191	1192	T194	E195	G197	Y198	S199 F200	V201	T202	1203 A204	E205	R206	E207	V209	R210	D211 I212	K213	E214 K215	L216	C217 V218	V219	A220 1.221	D222	F223	N225	E226	M227	T229	A230	8232	\$233	\$234	L236	E237	8239
Y240 E241	P243 D244	G245 Q246	V247 I248	T249	G251	N252 F253	R254	F255 R256	C257	P258	E259 T260	L261	F262	4263 P264	S265	F266	1267	M269	E270	S271 A272	G273	I274 H275	E276	T277 T278	Y279	N280 S281	1282	M283	C285	D286	1287 1738	1289	R290	K291 D292	L293	Y294	N296	N297	V298 M299
									I																														
\$300 \$301	1303	M30E Y306	P307	1308	D311	R312	<b>Q31</b> 4	K318	1317	T318	A318	A321	P322	5326 T324	M32E	K326	1327 K328	1329	1330	A331	P333	E334	K336	Y337	V338	W340	G342	G343	134E	L346	A347	L349	8350	F352	<b>Q35</b> 3	Q354	W356	1357	1355 K359
(1360 E361 v260	D363 E364	A365 G366	P367 S368	1369	H371	R372 K373	C374	F375																															
• N	Iole	cul	le î	1:	Ασ	cti	n,	a	lp]	ha	ıs	ke	ele	eta	ıl	m	us	sc]	le																				
Cha	ain	J:																1	.00	%																			
ACEO D1	D3 E4	T5 T6	A7 L8	V9 C10	D11	N12	S14	G15 1.16	V17	K18	A19 G20	F21	A22	023 D24	D25	A26	P27 R28	A29	V30	F31 P32	833	I34 V35	989	R37	R39	H40	G42	V43	V45	G46	M47	Q49	K50	D51 S52	Y53	V54	us: D56	E57	А58 Q59
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S60 K61	G63 164	L65 T66	L67 K68	Y69	171	E72 H73	G74	175	TTT	N78	D80	D81	M82	K84	185	W86	H88	T89	F90	Y91 N92	E93	L94	96A	A97	E99	E10 H10	P10	T10	110	T10	E10	P10	LII	N L L P 1 1	K11	A114	R11	E11	M11
T120 Q121	M123 F124	E125 T126	F127 N128	V129	A131	M132 Y133	V134	A135 T136	Q137	A138	V139	S141	L142	7143 A144	S145	G146	K14/ T148	T149	G150	1151 V152	L153	D154	G156	D157	V159	T160 H161	N162	V163	1165	Y166	E167	Y169	A170	L171	H173	A174	M176	R177	L1 /8 D179
L180 A181	183	185	187	189	191	192	194	195	197	198	199	201	202	203	205	206	207	500	210	211 212	213	214 215	216	217	219	220	222	223	225	226	227	229	230	231	233	234	236	237	238
I A	2 K D	ДΗ	K D	ЦŞ	×	н	H	id id	9	× 6	ıı w	<b>&gt;</b>	11	A	H	22 (		<b>&gt;</b>	22 7	G H	K	H X	ä	ບ >	>	A	Ď	i ii	iz	iii i	M &	H	A	¥ 83	či.	ti iti	ii	<u>ы</u>	2 63
Y240 E241	P243 D244	G245 Q246	V247 I248	T249	G251	N252 F253	R254	F255	C257	P258	E259	L261	F262	W263	3265	F266	1267	M269	E270	S271 A272	G273	1274 H275	E276	T277 T278	Y279	N280 S281	1282	M283	C285	D286	1287	1289	R290	D292	L293	Y294	N296	N297	V298 M299
\$300 \$301	T303 T304	M305 Y306	P307 G308	I309	D311	R312 M313	q314	K315 F316	1317	T318	A319 L320	A321	P322	5323 T324	M325	K326	1327 K328	1329	1330	A331 P332	P333	E334 R335	K336	Y337	V339	W340 T341	G342	G343	1345	L346	A347	L349	8350	1351 F352	Q353	Q354 M355	M356	1357	T358 K359
								ď																															
Q360 E361	D363 E364	A365 G366	P367 S368	1369	H371	R372	C374	F375																															
• N	<b>I</b> ole	cul	le 2	2:	Co	ofi.	lin	ı-2	2																														
Cha	ain	K:																	100	2%																-			
ACEO M1	83 64	V5 T6	V7 N8	D9 E10	V11	112 K13	V14	F15	D17	M18	K19 V20	R21	K22	S24 S24	T25	Q26	E27	129	K30	K31	K33	K34	V36	L37 F38	C39	L40 S41	D42	D43	R45	Q46	147	749 V49	E50	A52	K53	Q54 TEE	156 L56	V57	б58 D59
30 31	T63 V64	35 36	57 58	39	71	72	74	75	2.2	78	90	31	32	34	35	36	38	68	06	91	93	94 95	96	97	66	001	102	103	105	901	107	601	110	111	113	114	116	117	118 119
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\$120 K121	A123 I124	K125 K126	K127 F128	T129	1131	K132	E134	W135	V137	N138	G139 L140	D141	D142	1143 K144	D145	R146	S147 T148	L149	G150	E151 K152	L153	G154	N156	V157	V159	S160 1.161	E162	G163	P165	L166	NH2167								



• Molecule 2: Cofilin-2	
Chain L:	100%
A CEC M1 M1 M2 S3 S3 S3 V14 V17 V112 V113 V113 V114 V114 V119 V20 V20 V20 V20 V20 V20 V20 V20	1220 1220 1230 1230 1230 1230 1230 1230 1240
160 160 163 163 164 165 169 170 171 174 177 177 177 177 177 177	769 769 769 769 769 769 769 769
S120 M121 M123 M124 M126 M126 M136 M138 M138 M138 M138 M138 M138 M144 M144 M144 M145 M146 M146 M146 M147 M147 M147 M148	1140 1150 1153 1153 1153 1153 1156 1156 1160 1161 1166 1166 1166 1166
• Molecule 2: Cofilin-2	
Chain M:	100%
ACEO ACEO ACEO ACEO ACEO ACEO ACEO ACEO	1220 1230 1230 1230 1231 1231 1231 1231 1231 1231 1240
160 061 062 163 163 169 169 170 171 177 177 177 177 177 177 177 178 178	789 789 789 789 789 889 885 885 885 885 885 885 8
\$120 \$121 \$121 \$124 \$126 \$126 \$127 \$127 \$130 \$131 \$133 \$133 \$144 \$144 \$144 \$144 \$145 \$147 \$147 \$147 \$147 \$147 \$147 \$147 \$147	1.150 (150 (150 (150 (153 (153 (153 (150 (150 (150 (150 (150 (150 (150 (150
• Molecule 2: Cofilin-2	
Chain N:	100%
A CEO A M A M A M B M B M B M B M B M B M B M B	K30 K30 K31 K32 K33 K34 K34 K34 K34 K44 K44 K44 K44 K45 K63 K63 K63 K63 K63 K63 K63 K63 K63 K63
160 061 163 163 164 165 165 166 166 170 170 170 171 171 171 171 171 171 171	K95 K95 K95 K96 K96 K96 K96 K96 K96 K96 K96
8120 1022 1022 1023 1024 1030 1030 1030 1030 1030 1030 1030 1040 104	114 50 115 115 115 115 115 115 115 115 115
• Molecule 2: Cofilin-2	
Chain O:	100%
ACEO ACEO ACEO ACEO ACEO ACEO ACEO ACEO	R33 R33 R33 R33 R33 R33 R34 R34 R45 R45 R45 R45 R45 R45 R45 R45 R45 R4
160 163 163 163 164 165 166 166 166 176 176 177 177 177 178 178 178 178 178 178 178	Y89 E90 E93 E93 S94 K96 E97 E97 D96 E100 F101 F101 F101 F101 F103 F103 F104 M114 M115 M115 M116 M116 M118 S118



\$120 \$122 \$122 \$122 \$124 \$126 \$126 \$126 \$131 \$131 \$131 \$131 \$131 \$132 \$139 \$139 \$139 \$139 \$139 \$140 \$144 \$144 \$146 \$146 \$146 \$146 \$146 \$146	11.49 (1.50
• Molecule 2: Cofilin-2	
Chain P:	100%
ACEO ACEO ACEO ACEO ACEO ACEO ACEO ACEO	K33 K33 K33 K33 K33 K33 K34 K34 K35 K44 K44 K44 K44 K44 K44 K44 K44 K44 K4
160 165 165 165 165 166 166 166 166	E90
8120 FIZ3 FIZ3 FIZ3 FIZ5 FIZ6 FIZ7 FIZ7 FIZ7 FIZ8 FIZ8 FIZ8 FIZ8 FIZ8 FIZ8 FIZ8 FIZ8	1149 1150 1153 1153 1153 1153 1155 1156 1161 1165 1166 1166
• Molecule 2: Cofilin-2	
Chain Q:	100%
A ACEO A	K33
160 661 661 163 706 866 166 169 170 177 177 177 177 177 178 188 188 188 188	F 989 F 982 F 982 F 983 F 986 F 986 F 986 F 100 F
8120 1122 1123 1124 1129 1129 1129 1129 1133 1133 1144 1146 1146 1146 1146 1146 1146	0150 0150 0155 0155 0155 0155 0155 0155
• Molecule 2: Cofilin-2	
Chain R:	100%
ACEO M1 A2 A2 A2 A2 A2 A2 A2 A2 M8 M16 M16 M16 M16 M16 M16 M16 M16 M16 M16	K33 K33 K33 K33 K33 K33 K33 K34 L40 D42 D42 D42 D42 B41 I47 I48 K44 K53 G69 G69 C69 C78 C78 C78 C78 C78 C78 C78 C78 C78 C78
160 661 062 163 163 764 168 168 171 174 177 177 177 178 188 188	P 89
\$120 \$120 \$121 \$122 \$123 \$126 \$126 \$126 \$127 \$128 \$128 \$133 \$133 \$133 \$134 \$134 \$136 \$136 \$136 \$136 \$136 \$136 \$136 \$136	1149 1160 1163 1163 1163 1165 1166 1161 1161 1166 1166 1166 1166 1166 1166 1166 1166 1166 1166 1166 1166
4.2.3 Score per residue for model	3
• Molecule 1: Actin, alpha skeletal muse	cle
Chain A:	100%



Chain C:

ACEO D1	E2	E4	T5 T6	A7	6 7	C10	N12	G13	S14	1.16	V17	K18	A19	G20 F24	A22	623	D24	D25	A26	R28	A29	V30	F31	P32	134	V35	G36 R37	P38	R39	H40	G42	V43	M44	745 746	M47	G48	Q49	K50	S52	Y53	V54	D56	E57	A58	(159
S60 K61	R62	164	L65 T66	L67	Y69	P70 171	E72	H73	G74 175	175	T77	N78	M79	D80	M82	E83	K84	185	W86 H87	H88	T89	F90	Y91	N92 F03	194	R95	796 797	P98	E99	E100	P102	T103	L104	T105	E107	A108	P109	L110 N111	P112	K113	A114	R116	E117	K118 M119	M1 19
T120	I122	F124	E125 T126	F127	V129	P130	M132	Y133	V134	A135	0137	A138	V139	L140	L142	Y143	A144	S145	G146 D1/17	T148	T149	G150	1151	V152	D154	S155	G156	G158	V159	T160	N162	V163	P164	1165 V166	E167	G168	Y169	A170 1.171	P172	H173	A174	M176	R177	L178	D1/9
180	G182 R183	184	185 186	187	189	190	192	193	194	195 196	197	198	199	200	202	203	204	205	206	208	209	210	211	212	214	215	216	218	219	220	222	223	224	222	227	228	229	230 231	232	233	234 235	236	237	238	239
1 4	<u></u> В д	Ω		Δ >	1	Z X	4 н	-1		r) pr	2 0	<u> </u>	Ø	<u> </u>	> [-	Н	V	ш	<b>2</b> (1	1 -	>	~	Д	7 2	а ш	X	10	>	>	V ⊦	10	E4	ы;	2 (2	ıΣ	A	Η.	A A	· w	<b>ω</b>	<b>ω</b> υ	2 1	Ш	× 0	מ
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00 10	02	4.	96	70	60	2 -	2 :	[3	14	م م	2	8	6]	50	22	23	24	25	26	- 80	62	30	31	32	34.	35	36	. 82	39	0 1	17	13	14	٠ 1	17	18	61	00	52	53	54	99	2.5	8 0	60
S300 G301	G3C	130	M3(	P3(	130	A3:	R3:	M3:	E 23	A F	13.	T3:	A3:	L3;	P33	833	T32	M3	K3.	K33	I33	133	A30	P 3	E33	R33	K3	833	V33	W3/	634	G34	83	13,	A34	834	L34	53E	F3E	038	1038 1038	W3E	136	T3E	K C
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AC D1	E2	E	1 1	A7	3 8	<u> </u>	E	5	<u> </u>	5 -	5	K	A.	£ 6	A	8	DZ	D	A G	. 2	A	N.	E	i, 6	ä	V	8	P	RS	H	. 9.	Λ	Mc	, 5 2	W	75	70	N. C.	SS	YE	a N	056 D56	H	AE	3
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L180 A181	G182	D184	L185 T186	D187	L189	M190 K191	1192	L193	T194	E195	G197	Y198	S199	F200	T202	T203	A204	E205	R206	1208	V209	R210	D211	1212 K213	E214	K215	L216	Y218	V219	A220	D222	F223	E224	N225 F226	M227	A228	T229	A230	\$232	\$233	S234	5235 L236	E237	K238	S239
Y240 E241	L242	D244	G246 Q246	V247	T249	1250	N252	E253	R254	F255	C257	P258	E259	T260	F262	Q263	P264	S26E	F266 T267	G268	M269	E270	S271	A272	1274	H275	E276	T278	Y279	N280	1282	M283	K284	0285	1287	D288	1289	K290	D292	1.293	Y294	N296	N297	V298	MZSS
S300 G301	G302 T303	T304	M305 Y306	P307	1309	A310	R312	M313	Q314	K315 F316	1317	T318	A319	L320	P322	S323	T324	M325	K326	K328	1329	1330	A331	P332	E334	R335	K336	8338	V339	W340	G342	G343	S344	1345	A347	S348	L349	S350 T351	F352	<b>Q353</b>	Q354 M355	M356	1357	T358	K359
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Q360 E361	Y362	E364	A365 G366	P367	1369	V370 H371	R372	K373	C374	F375																																			
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ACEO D1	D3 E4	T5 T6	A7 L8	V9 C10	D11 N12	G13 S14	G15	L16 V17	K18	A 19 G20	F21	A22 G23	D24	D25 A26	P27	R28	V30	F31	S33	134	435 436	R37	R39	H40	441 G42	V43	M44 V45	G46	M47	048 049	K50	S52	Y53	V54 G55	D56	E57 A58	<b>Q59</b>
S60 K61	G63 I64	L65 T66	L67 K68	Y69 P70	I71 E72	H73	175	176 T77	N78	W79 D80	D81	M82 E83	K84	185	H87	H88	F90	Y91	E93	L94	K95 V96	A97	F98	E100	P102	T103	L104	T106	E107	A108 P109	L110	N111 P112	K113	A114 N115	R116	E117 K118	M1 19
20	23 24	25 26	28	30	31	33	35	36	8 0	39	41	42	44	45	47	48	.50	51	553	54	55	.57	50	.60	.62	.63	65	99	79.	69	.70	72	.73	.74 7.5	M176	77	49
T10	M123 F124	日日	HN	P 1	A1 M1	Y1	A1	11	A1	L 4	S1	71	A1	S 1	R1	11	G1	11 V		D1	G 2	D1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	11	N1	V1	7 1	Y1	日 5	7.7	A1	P173	H17	A17.	M1	R.1	D1
L180 A181	R183 D184	L185 T186	D187 Y188	L189 M190	K191 I192	L193	E195	R196	Y198	S199 F200	V201	T202 T203	A204	E205	E207	1208 V209	R210	D211 1212	K213	E214	KZ15 L216	C217	V219	A220	D222	F223	N225	E226	M227	T229	A230	8232	S233	S234 S235	L236	E237 K238	\$239
Y240 E241	L242 P243 D244	G245 Q246	V247 I248	T249 I250	G251 N252	E253 R254	F255	R256 C257	P258	E259 T260	1261	F262 Q263	P264	S265 F266	1267	G268 M269	E270	S271	G273	1274	H275 E276	T277	1278 Y279	N280	1282	M283	K284 C285	D286	1287	1289	R290	N291 D292	L293	Y294 A295	N296	N297 V298	M299
S300 G301	4302 T303 T304	M305 Y306	P307 G308	I309 A310	D311 R312	M313 0314	K315	E316 I317	T318	A319 L320	A321	P322 S323	T324	M325 K326	1327	K328	1330	A331	F333	E334	K335 K336	Y337	V339	W340	G342	G343	3344 1345	L346	A347	5348 L349	3350	1351 F352	Q353	Q354 M355	W356	I357 T358	K359
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ACEO D1	D3 E4	T5 T6	A7	V9 C10	D11 N12	G13 S14	G15	L16 V17	K18	A19 G20	F21	A22 G23	D24	D25 A26	P27	R28	V30	F31	S33	134	435 G36	R37	R39	H40	G42	V43	N44 V45	G46	M47	045 049	K50	352 S52	Y53	V54 G55	D26	E57 A58	(159 (159
S60 K61	G63 I64	L65 T66	L67 K68	Y69 P70	171 E72	H73	175	176 T77	N78	W79 D80	D81	M82 E83	K84	185	H87	H88	F90	Y91	E93	1.94	к95 V96	A97	E99	E100	P102	T103	L104	T106	E107	A109	L110	N111	K113	A114 N115	R116	E117 K118	M119
T120 Q121	1122 M123 F124	E125 T126	F127 N128	V129 P130	A131 M132	Y133 V134	A135	1136	A138	V139 L140	\$141	L142 Y143	A144	S145 G146	R147	T148 T149	G150	1151	V152 L153	D154	S155 G156	D157	V159	T160	N162	V163	F164 1165	Y166	E167	V169	A170	L171	H173	A174 T175	M176	R177 L178	D179
L180 A181	183 184	185 186	187 188	189 190	191 192	193 194	195	196 197	198	199 200	201	202	204	205 206	207	208	210	211	212	214	215	217	218 219	220	222	223	224	226	227	229	230	231 232	233	234 235	236	237	239
Y240 E241	P24.	G24.	V24 124	T24	G25 N25	E25	F25	R25	P25	E25 T26	126	F26.	P26	S26 F26	126	G26 M26	E27	S27	G27.	127	H27	T27	Y27	N28	128	M28	K28 C28	D28	128.	128	R29	n29 D29	129	Y29	N29	N29 V29	M29
S300 G301	T303 T304	M305 Y306	P307 G308	I309 A310	D311 R312	M313	K315	E316 I317	T318	A319 L320	A321	P322 S323	T324	M325 K326	1327	K328	1330	A331	P333	E334	K336	Y337	V339	W340	G342	G343	S344 I345	L346	A347	2349 L349	S350	1351 F352	<b>Q353</b>	Q354 M355	W356	1357 T358	K359
Q360 E361	1362 D363 E364	A365 G366	P367 S368	1369 V370	H371 R372	K373	F375	NH2376																													
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Chain E:



Chain G:

ACEO D1 E2 D3 D3 T6 T6 A7 L8	C10 D11 N12 G13 S14 G15	L16 V17 K18 A19	G20 F21 A22 G23	D24 D25	A26 P27 R28	A29 V30 F31	S33 I34	V35 G36 R37	P38 R39	H40 Q41	V43	V45	G46 M47	G48 Q49	K50 D51	S52	V54	G55 D56	E57 A58 Q59
S60 K61 R62 G63 I64 L65 T66 K68	P70 171 E72 H73 G74 175	176 177 N78 W79	D80 D81 M82 E83	K84 185	M86 H87 H88	189 F90 Y91	E93	R95 V96 A97	P98 E99	E100 H101	T103	L105	T106 E107	A108 P109	L110 N111	P112	A114	N115 R116	E117 K118 M119
7120 Q121 1122 M123 F124 E125 T126 F127 N128	P130 A131 M132 Y133 V134 A135	1136 Q137 A138 V139	L140 S141 L142 Y143	A144 S145	G146 R147 T148	1149 G150 I151	v 152 L 153 D 154	S155 G156 D157	G158 V159	T160 H161	V163	1165	Y166 E167	G168 Y169	A170 L171	P172	A174	I175 M176	R177 L178 D179
1180 4181 6182 6182 7183 7186 7186 7188	M190 K191 I192 L193 T194 E195	R196 G197 Y198 S199	F200 V201 T202 T203	A204 E205	E207 1208	R210 D211	1212 K213 E214	K215 L216 C217	Y218 V219	A220 L221	F223	N225	E226 M227	A228 T229	A230 A231	S232	S234 S234	S235 L236	E237 K238 S239
7240 E241 L242 D244 G245 Q246 V247 I248	1250 G251 N252 E253 R254 F255	R256 C257 P258 E259	T260 L261 F262 Q263	P264 S265	F266 1267 G268	M269 E270 S271	G273 I274	H275 E276 T277	T278 Y279	N280 S281	M283	C285	1287	D288 I289	R290 K291	D292	Y294	A295 N296	N297 V298 M299
\$300 \$301 \$302 \$1303 \$1304 \$1306 \$1308 \$1308	A310 D311 R312 M313 Q314 K315	E316 I317 T318 A319	L320 A321 P322 S323	T324 M325	K326 I327 K328	1329 1330 A331	F333 E334	R335 K336 Y337	S338 V339	W340 I341	G343	1345	L346 A347	S348 L349	S350 T351	F352	Q354 Q354	M355 W356	1357 T358 K359
q360 E361 P362 D363 E364 A365 G366 G366 S368	V370 H371 R372 K373 C374 F376	NH2376																	
• Molecule 1:			skele	tal 1	mus	cle													
Chain F:						100%													
Chain F:	C10 D11 N12 G13 S14 G16	L16 V17 K18 A19	G20 F21 A22 G23	D24 D25	A26 P27 R28			V35 G36 R37	P38 R39	H40 Q41	V43	V45	G46 M47	G48 Q49	K50 D51	S52	V54	G55 D56	E57 A58 Q59
Chain F:							F32 S33 I34					L105 V45			L110 K50 N111 D51	01 0		M115 G55 R116 D56	E117 E57 K118 A58 M119 Q59
ACE0 D1 D3 D3 T15 T16 T16 V9	P70 171 172 173 173 175	176 177 N78 W79	D80 D81 M82 M82 E83	K84 185	H87 H88	A29 V30 F31	E93 S33	R95 V96 A97		E100 H101	T103	L105	F106						R177 E117 E57 L178 K118 A58 D179 M119 Q59
S60   ACEO   R61   D1   R62   E2   G63   G63   G63   G64	P130 P70 A131 I71 M132 E72 Y133 H73 V134 G74 A135 I76	1136 176 4137 177 4138 N78 V139 W79	1.140 D80 S141 D81 L142 M82 Y143 E83	A144 K84 S145 I85	G146 W86 R147 H87 T148 H88	1149 189 A29 (150 F90 V30 1151 Y91 F31	V102 N92 F52 L153 E93 S33 D154 L34	S156 R95 G156 V96 D157 A97	G158 P98 V159 E99	T160 E100 H161 H101 H201 H201 H201 H201 H201 H201 H20	V163 T103	1165	Y166 T106 E167 E107	G168 A108 Y169 P109	A170 L110 L171	P172 P112	A174 A114	1175 N115 M176 R116	R177 E117 L178 K118 D179 M119
1120   S60   ACE0   ACED   A	M190 P130 P70 K191 A131 I71 I192 M132 E72 L193 Y133 H73 T194 V134 G74 E195 A135 I75	1136 177 1137 177 1138 177 1138 178 1139 179	F200 L140 D80 V201 S141 D81 T202 L142 M82 T203 Y143 E83	A204 A144 K84 E205 S145 I85	K205 G146 W86 E207 R147 H87 I208 T148 H88	R210 (1149 189 A29 R210 (1150 F90 V30 D211 1151 V91 F31	1.2.2 V10.2 N9.2 F9.3 K21.3 I.15.3 E9.3 S3.3 E21.4 D15.4 L.9.4 I.3.4	K215 S155 R95 L216 G156 V96 C217 D157 A97	Y218 G158 P98 V219 V159 E99	A220 T160 E100 L221 H161 H101 H101	F223 V163 T103	N225 I165 L105	H27 E167 E107	A228 G168 A108 T229 Y169 P109	A230 A170 L110 A231 L171 N111	S232 P172 P112	S234 A174 A114	S235 1175 N115 L236 M176 R116	E237 R177 E117 K238 L178 K118 S239 D179 M119
L180   T120   S60   ACEO     A181   Q121   R61   D1     G182   L122   R62   E2     B183   M123   G63   D3     D184   F124   L64   E4     L185   E126   L65   T5     T186   T127   L67   A7     Y188   W129   Y69   V99   V99     L189   W129   Y69   V99   V99     L189   W129   Y69   V99   V99     L189   W129   Y69   V69   V69     L189   W129   W69   W69   W69     L189   W129   W69     L189   W129   W69     L189   W129   W69     L189   W69   W69     L18	1250         M190         P130         P70           G251         K191         A131         171           N252         1192         M132         E72           E253         L193         Y133         H73           R264         T194         V134         G74           F265         E196         A135         176	R56   R196   I136   I76   I76   I77   I7	T260 F200 L140 D80 L261 V201 S141 D81 F262 T202 L142 M82 D563 T203 Y143 E83	P264 A204 A144 K84 P265 E205 S145 I185	1267 E207 R147 H87 (2268 17208 17148 H88	K29 V209 1149 1789 A29 E270 R210 G150 F90 V30 S271 D211 1151 V91 F31	A212 1212 1132 1192 1792 1792 1792 1792 1793 1793 1794 1794 1794 1794 1794 1794 1794 1794	H276 K215 S155 R95 E276 L216 G156 V96 T277 C217 D157 A97	T278         Y218         G158         P98           Y279         V219         V159         E99	N280 A220 T160 E100 S281 L221 H161 H101 T200 P200 P100	M283 F223 V163 T103	C285 N225 1165 L105	1287 H227 E167 E107	D288         A228         G168         A108           I289         T229         Y169         P109	R290 A230 A170 L110 K291 A231 L171 N111	D292 S232 P172 P112	Y294 S234 A174 A114	A295 S235 I175 N115 N296 L236 M176 R116	N297 E237 R177 E117 V298 K238 L178 K118 M299 S239 D179 M119
Y240         L180         T120         S60         ACE0           E241         A181         q121         K61         D1           L242         G182         L122         R62         E2           P243         R183         M123         G63         D3           D244         D184         F124         L64         E4           G245         L185         E126         L65         T5           Q246         T186         T126         T6         T6           Q247         D187         F127         L67         A7           L1248         Y188         W129         Y69         V9           L189         V129         Y69         V9         V9	A310         1250         M190         P130         P70           B31         G251         K191         A131         I71           R312         N252         I192         M132         E72           M313         E253         L193         Y133         H73           Q314         R254         T194         V134         G74           K316         P256         E195         A135         I75	6 E316 R26 R196 I136 I776 1317 C257 G197 Q137 I777 T318 P268 Y198 A138 N78 A319 E259 S199 V139 W79	T260 F200 L140 D80 L261 V201 S141 D81 F262 T202 L142 M82 D563 T203 Y143 E83	P264 A204 A144 K84 P265 E205 S145 I185	1267 E207 R147 H87 (2268 17208 17148 H88	K29 V209 1149 1789 A29 E270 R210 G150 F90 V30 S271 D211 1151 V91 F31	A212 1212 1132 1192 1792 1792 1792 1792 1793 1793 1794 1794 1794 1794 1794 1794	H276 K215 S155 R95 E276 L216 G156 V96 T277 C217 D157 A97	T278         Y218         G158         P98           Y279         V219         V159         E99	N280 A220 T160 E100 S281 L221 H161 H101 T200 P200 P100	M283 F223 V163 T103	C285 N225 1165 L105	1287 H227 E167 E107	D288         A228         G168         A108           I289         T229         Y169         P109	R290 A230 A170 L110 K291 A231 L171 N111	D292 S232 P172 P112	Y294 S234 A174 A114	A295 S235 I175 N115 N296 L236 M176 R116	N297 E237 R177 E117 V298 K238 L178 K118 M299 S239 D179 M119



ACE0 D1 E2 D3 E4 T6 A7 L8	C10 D11 N12 G13 S14 G15 L16 L16 V17	A 19 G 20 F 21 A 22 G 23 D 24 D 25 A 26 A 26 A 26 A 26 A 26	A 29 V 30 F 31 P 32 S 33 I 34 V 35 G 36 R 37 P 38	R39 H40 Q41 G42 V43 V45 G46 G46	949 9449 750 753 753 753 753 753 753 753 753 956
S60 K61 R62 G63 I64 L65 T66 L67 K68 Y69	P70 171 171 E72 G74 175 176 N78	W79 D80 D81 M82 E83 K84 I85 W86 H87	T89 F90 Y91 N92 E93 E94 P95 P98	E99 E100 H100 T103 L104 L106 H106	M 11
T120 Q121 1122 M123 F124 F124 T126 V129	P130 A131 M132 Y133 V134 L136 G137 A138	V139 L140 S141 L142 Y143 A144 S145 G146 R144	T149 G150 I151 V152 L153 L154 B154 G156 G156	V159 T160 H161 N162 V163 P164 T165 Y166	4108 7108 7170 1171 1175 M176 M176 D179
L180 A181 G182 R183 D184 L185 T186 T186 T186 L189	M190 K191 1192 1193 T194 T194 R196 G197 Y198	S199 F200 V201 T202 T203 A204 E205 E205 E206	V209 R210 D211 1212 K213 E214 K216 L216 C217	V219 A220 L221 D222 F223 E224 N226 E226	72.28 72.29 72.30 72.31 82.33 82.34 82.34 12.36 12.36 82.33 82.39
Y240 E241 L242 P243 D244 G245 Q246 1248 1249	1250 G251 N252 E253 F254 F255 R256 C257	E259 1260 1261 F262 9263 P264 S265 F266 1267	M269 E270 S271 A272 G273 I274 H275 E276 E276	Y279 N280 S281 1282 N283 K284 C285 D286	1289 1289 1290 1292 1293 1294 1296 1297 1299
S300 G301 G302 T303 T304 M305 Y306 P307 G308	A310 D311 R312 M313 Q314 K315 E316 I317	A319 L320 A321 P322 S323 T324 M325 K326 L327	1329 1330 A331 P332 P333 E334 K335 K335 X335 S338	V339 W340 W340 G342 G343 G344 I346 L346 A347	1354 1354 1351 1351 1353 1353 1355 1356 1357
Q360 E361 Y362 D363 A365 A366 P367 S368 I369	V370 H371 R372 K373 C374 F375 NH2376				
		a skeletal mus	scle		
C1 . II					
Chain H:			100%		
Chain H:	C10 D11 C13 C13 S14 C16 C16 V17 V17	A19 G20 F21 A22 G23 D24 D26 P27 P27		R89 Q41 Q41 Q42 W43 W45 G46 G46 M47	049 049 061 051 051 056 056 056 056 056 056 056 056
ACEO D1 E2 D2 E4 T5 T6 T6 T6 V9				E199 R39 E100 H40 H101 q41 F102 G42 F103 W43 F104 M44 F106 G46 E107 M47	A108 (448   109
S60   ACEO   R61   D1   R62   E2   G63   G63   E4   L66   T6   T6   L67   K68   L8   Y69   V9	P70 171 E72 E72 E74 175 176 N78	W 79 W 20 M 82 W 84 W 84 W 86 W 86 W 86 W 86 W 86 W 86 W 86 W 86	A29 V30 F31 F32 S33 I34 V36 G36 G36 F87 R87		A100   L110   L110   M111   M114   M116   M116   M119   M119
1120   S60   ACEO   A	P130 P70 A131 I71 M132 E72 Y133 H73 V134 G74 A135 I76 Q137 I77 A138 N78	V139 W79 1140 D80 S141 D81 1142 R82 V143 E83 A144 K84 S145 I85 G146 W86 F1447 H87	1149 189 429 1150 190 190 1151 191 191 191 1153 1893 1833 1154 194 134 1156 1896 195 1156 1996 195 1157 197 187 1158 198	1159 1160 1161 1162 1165 1166 1166	A100   L110   L110   M111   M114   M116   M116   M119   M119
1180   1120   Se0   ACEO   A	M190 P130 P70 K191 A131 I71 I192 M132 E72 L194 V134 G74 E195 A135 I75 R196 I136 I77 Y198 A138 N78	\$199         V139         W79           F200         L140         D80           V201         S141         D81           T202         L142         M82           T203         Y143         E83           A204         A144         K84           E205         S145         185           R206         G146         W86           E207         R147         H87           L308         H148         H88	V209         T1449         T89         A29           R210         G160         F90         V30           D211         T151         V91         F31           I212         V152         N92         F31           K213         L153         E83         S33           E214         D164         L94         T34           K215         S155         R96         V35           L216         G156         V96         G36           V217         D167         A97         R37           V218         G158         P98         P38	V219 V159 A220 T160 L221 H161 D222 N163 E224 P164 N225 T166 M227 E167	1158 1169 1171 1171 1172 1172 1173 1175 1176 1176 1176 1176 1177 1178 1178 1178 1178 1178 1178 1178 1178
Y240         L180         T120         S60         ACEO           E241         A181         q121         K61         D1           L242         G182         L122         R62         E2           P243         R183         M123         G63         D3           D244         D184         F124         IG4         E4           Q246         L186         E126         L65         T6           Q47         D187         F127         IG7         A7           I 248         Y188         N128         K68         L8           T249         L189         V129         V69         V99	1250   M190   P130   P70     (2261   K191   A131   I71     (M222   I192   M132   E72     (E253   I194   V134   G74     (E265   E195   A135   I75     (E266   R196   I136   I76     (C267   C197   A138   I77     (C268   K198   A138   N78     (C268   K198   A138   N78     (C269   C269   C269   A138   N78     (C261   C269   C269   C269   A138   N78     (C261   C269   C269   C269   A138   N78     (C261   C269   C269   C269   C269   C269   C269     (C261   C269   C269   C269   C269   C269   C269   C269     (C261   C269   C269   C269   C269   C269   C269   C269   C269     (C261   C269   C	E259         \$199         V139         W79           T260         F200         L140         D80           L261         V201         S141         D81           F262         T202         L142         M82           Q263         T203         Y143         E83           P264         A204         A144         K84           S266         E206         S145         185           F266         R206         R146         W86           I267         E207         R147         H87           G286         I208         H148         H88	N269         V209         T1449         T89         A29           E277         R210         G160         F90         V30           S271         D211         1161         Y91         F31           A272         I 212         V162         N92         P32           G273         K213         L163         E93         S33           I 224         E214         D164         L94         134           H276         K215         S155         N96         V35           E276         L216         G156         V96         G36           T277         C217         D167         A97         R37           T278         Y218         G158         P98         P38	N279   V219   V159   V159   V159   V159   V150   V150	A228 0169 A100 A230 A170 L110 A231 L171 M111 S232 H173 K113 S233 H174 A114 S234 A174 A114 E236 M176 R116 E237 R177 E117 K238 L176 K118 S239 D179 M119
Y240         L180         T120         S60         ACEO           E241         A181         q121         K61         D1           L242         G182         L122         R62         E2           P243         R183         M123         G63         D3           D244         D184         F124         IG4         E4           Q246         L186         E126         L65         T6           Q47         D187         F127         IG7         A7           I 248         Y188         N128         K68         L8           T249         L189         V129         V69         V99	M310   1250   M390   P130   P70	E259         \$199         V139         W79           T260         F200         L140         D80           L261         V201         S141         D81           F262         T202         L142         M82           Q263         T203         Y143         E83           P264         A204         A144         K84           S266         E206         S145         185           F266         R206         R146         W86           I267         E207         R147         H87           G286         I208         H148         H88	N269         V209         T1449         T89         A29           E277         R210         G160         F90         V30           S271         D211         1161         Y91         F31           A272         I 212         V162         N92         P32           G273         K213         L163         E93         S33           I 224         E214         D164         L94         134           H276         K215         S155         N96         V35           E276         L216         G156         V96         G36           T277         C217         D167         A97         R37           T278         Y218         G158         P98         P38	N279   V219   V159   V159   V159   V159   V150   V150	1288   7229   7169   7100

Chain I: 100%



Chain K:

ACEO D1 E2	D3 E4	15 T6 A7	L8 V9	C10 D11	N12	S14	G15 1.16	V17	K18 A19	G20	F21 A22	G23	D24 D25	A26	P2/ R28	A29	V30 F31	P32	S33 134	V35	G36 R37	P38	R39 H40	Q41	G42 V43	M44	V45	046 M47	G48	Q49	N50 D51	S52	753 V54	G55	D56 E57	A58	69h
S60 K61 R62	G63 I64	T66 L67	K68 Y69	P70 I71	E72 H73	G74	175	T77	N78 W79	D80	D81 M82	E83	K84 I85	W86	H8 /	T89	F90 Y91	N92	E93	R95	V96 A97	P98	E99	H101	P102 T103	L104	L105	E107	A108	P109	N111	P112	A114	N115	KI 16 E1 17	K118	M1 19
20 21 22	23 24	26	823	30	22.2	34	35	37	8 6 8 6	01	11	13	15	91	). 18	61	50	52	53	35	99	82	6 C	31	33	34	35	37	38	39	2 17	22	5 <b>4</b> 7	75	9 2-	8 9	0
T120 Q121 I122	FIS	117	N12	P13	M13	V13	A13	0.13	A13	L14	S14	Y14	814 S14	G12	K14	T14	G18 T18	V18	L18	S1E	G18 D18	G1E	716 T16	H16	N16	P16	116	F16	G16	Y16	L17	P17	H17	117	R17	L17	DI.
L180 A181 G182	R183 D184	T186 D187	Y188 L189	M190 K191	1192	T194	E195	G197	Y198 S199	F200	V201 T202	T203	A204 E205	R206	E207	V209	R210	1212	K213 F214	K215	L216 C217	Y218	V219	1221	D222 F223	E224	N225	E226 M227	A228	T229	A230 A231	\$232 3000	S233 S234	\$235	L236 E237	K238	8238
Y240 E241 L242	P243 D244	4245 Q246 V247	1248 T249	I250 G251	N252 F253	R254	F255 R256	C257	P258 E259	T260	L261 F262	Q263	P264 S265	F266	1267 G268	M269	E270	A272	G273 1274	H275	E276 T277	T278	Y279 N280	S281	I282 M283	K284	C285	1287	D288	1289	K290 K291	D292	L293 Y294	A295	N296 N297	V298	M299
\$300 \$301 \$302	T30	Y30	G30 I30	A31	R31	431	K31	131	T31 A31	L32	A32 P32	\$32	132 M32	K32	132 K32	132	I33	P33	P33	R33	K33	833	V33	134	G34	S34	134	A34	S34	L34	735 T35	F35	035	M35	W35	T35	K35
q360 Е361 Y362	D363 E364	A365 G366 P367	S368 I369	V370 H371	R372	C374	F375 NH2376																														
• M									na	sł	кel	et.	al	m	us	scl	.e																				
Cha	in .	J: <b>-</b>			_	_	_	_	_	_	_	_	_	_	_	1	00%	%	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_				
ACE0 D1 E2	D3 E4	15 T6 A7	L8 V9	C10 D11	N12	S14	G15 1.16	V17	K18 A19	G20	F21 A22	G23	D24 D25	A26	P27 R28	A29	V30 F31	P32	S33 T34	V35	G36 R37	P38	R39 H40	Q41	G42 V43	M44	V45	G46 M47	G48	049	K50 D51	S52	r53 V54	G55	D56 E57	A58	<b>(159</b>
									Ī																	4	ഗ	۷ د	80	<b>o</b> 0	D F1	2 2	ი 4			m (	0
S60 K61 R62	G63 164	T66 T67	K68 Y69	P70 I71	E72	G74 G74	175	T77	N78 W79	D80	D81 M82	E83	K84 I85	W86	H88	T89	F90	N92	E93	R95	V96 V97	P98	E99	H10	P10	L10	L10	E10.	A 10	P109	N11	P112	A114	N115	E117	K11	MIL
T120 Q121 I122	M123 F124	T126 F127	N128 V129	P130 A131	M132	V134	A135 T136	4137	A138 V139	L140	S141 L142	Y143	A144 S145	G146	K14/ T148	T149	G150 T151	V152	L153	S155	G156 D157	G158	V159 T160	H161	N162 V163	P164	1165	1166 E167	G168	Y169	A170 L171	P172	H1/3 A174	1175	M176 R177	L178	D179
L180 A181 G182	3183	1186 1187	7188 1189	4190 4191	1192	1194 1194	3195 3196	3197	7198 3199	7200	7201	1203	\$204 3205	3206	1208	1209	3210	1212	7213 7214	(215	2216	1218	7219	1221	)222 7223	5224	N225	1227	A228	1229	4230	3232	5234	3235	1236	(238	5239
																	I																				
Y240 E241 L242	P243	Q246 V247	1248 T248	1250	N252	R254	F256	C257	P258 E259	T26(	L261 F262	Q26	S26F	F266	126 G268	M269	E270	A272	G273	H278	E276	T278	Y278 N280	S28.	1282 M283	K284	C286	1287	D288	1289	K290	D292	Y294	A296	N290 N297	V298	MZS
S300 G301 G302	T303 T304	Y306 P307	G308 I309	A310 D311	R312	Q314	K315 F316	1317	T318 A319	L320	A321 P322	8323	1324 M325	K326	1327 K328	1329	I330 A331	P332	P333	R335	K336 Y337	8338	V339 W340	1341	G342 G343	S344	1345	L346 A347	S348	L349	5350 T351	F352	u353 Q354	M355	W356 I357	T358	K359
30 31 32	53	36 37	39	70	22	4.	75																														
Q360 E361 Y362	D36 E36			V37	R37	C31	F3;																														
	olec	. 1	0			1.	0																														



A ACEO  M1  M2  M3  M3  M4  V7  V7  V8  M8  M8  M8  M8  M11  M12  M18  M18  M	K 33 K 3
160 G61 G61 D62 V64 V64 V64 P67 P67 P71 V72 K73 K73 K73 K73 K73 K73 K73 K73	E90 T91 K921 K923 S94 K96 K96 E93 K96 E97 L99 V100 F1002 F1003 F1003 F1003 F1004 F1004 F1004 F1005 F1005 F1005 F1005 F1005 F1006 F10
8120 8121 9122 4123 4123 6126 6126 7126 7129 7129 7139 7131 7131 7131 7131 7136 7136 7136 7137 7140	1150 (1150 (1153 (1153 (1153 (1153 (1153 (1154 (1155 (1156 (1164) (
• Molecule 2: Cofilin-2	
Chain L:	00%
ACEO M1 M1 M2 M3 M3 M3 M4 M4 M6 M7 M8 M10 M11 M112 M112 M112 M116 M116 M116 M116	K33 K33 K33 K33 K33 K33 K34 L37 C39 C39 C40 C40 C40 C40 C40 C40 C40 C40 C40 C40
160 061 061 163 763 768 768 770 771 773 770 771 772 773 774 773 774 775 776 770 771 772 773 774 775 776 776 776 777 778 778 778 778	E90  E93  E93  E93  E93  E93  E94  E95  E97  E96  E97  E97  E97  E97  E97  E97
\$120 \$122 \$122 \$123 \$124 \$126 \$126 \$130 \$131 \$131 \$133 \$138 \$138 \$138 \$138 \$138	0150 E151 KK152 C153 C154 C155 C155 C156 C156 C156 C156 C156 C156
• Molecule 2: Cofilin-2	
Chain M:	100%
ACEO  M1  M2  M3  M3  M4  M4  M5  M6  M6  M6  M1  M1  M1  M1  M1  M1  M1	K33 K33   K33   K
160 160 163 163 163 163 165 166 166 170 171 174 177 177 178 178 188 188 188 188	E90 E93
5120 KA21 MA23 MA26 MA26 MA27 MA27 MA27 MA27 MA37 MA38 MA38 MA38 MA38 MA38 MA38 MA38 MA38 MA37 MA46	155 155 155 155 155 155 155 156 156 156
• Molecule 2: Cofilin-2	
Chain N:	100%
ACEO ACEO ACEO ACEO ACEO ACEO ACEO ACEO	K 33 K 3
160 661 163 163 163 166 170 170 171 171 171 171 172 173 183 188 188 188 188 188 188	E90 111 121 1234 1294 1295 1296 1299 1299 1299 1299 1299 1299 1299
8120 7121 7123 7126 7126 7126 7126 7127 7130 7131 7132 7131 7141 7151	6150 6151 7153 6154 6155 6155 7159 7159 7159 7159 7160 6163 6163 6165 6165 6165 6165 6165 6165

• Molecule 2: Cofilin-2



• Molecule 2: Cofilin-2  Chain P: 100%  • Molecule 2: Cofilin-2  Chain Q: 100%  • Molecule 2: Cofilin-2  Chain Q: 100%	Chain O:	100%
• Molecule 2: Cofilin-2  Chain Q: 100%  **********************************	A ACEO A 11 A 11 A 12 A 13 A 14	K33 K33 K33 K33 K34 A35 K34 A35 C38 C38 C40 C40 C41 C40 C42 C40 C43 C43 C44 C44 C46 C46 C65 C65 C65 C66 C66 C66 C67 C67 C67 C67 C67 C67 C67
• Molecule 2: Cofilin-2  Chain P: 100%  ***Example of the control	160 061 163 163 164 165 165 166 166 166 167 168 177 177 177 177 177 177 178 188 188 18	E99 E99 E99 E99 E99 E99 E97 E97 E97 E97
• Molecule 2: Cofilin-2  Chain P: 100%  ***Example of the control	2120 2122 2122 2122 2122 2124 2126 2130 2130 2130 2130 2130 2130 2130 2130	11-15 11-15 11-15 11-15 11-15 11-15 11-15 11-15 11-16 11-16 11-16 11-16 11-16 11-16 11-16 11-16 11-16 11-16 11-16
** Molecule 2: Cofilin-2  Chain Q:  100%  ** Molecule 2: Cofilin-2  Chain R:  100%  ** Molecule 2: Cofilin-2  Chain R:  100%		
• Molecule 2: Cofilin-2  Chain Q: 100%  W 2 2 3 2 2 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Chain P:	100%
• Molecule 2: Cofilin-2  Chain Q: 100%  ****  ***  ***  ***  ***  ***  ***	A A CEO	1.23 R.33 R.33 R.33 R.33 R.33 R.33 R.33 R
● Molecule 2: Cofilin-2  Chain Q: 100%  Chain Q: 100%  See See See See See See See See See Se	160 160 163 163 163 163 164 168 169 170 171 171 171 171 171 171 171	100 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Chain Q: 100%  Chain Q: 100%  String	8120 7121 7124 7126 7126 7126 7129 7129 7129 7129 7129 7130 7131 7131 7131 7131 7131 7131 7131 7131 7131 7131 7140 7150	11.15 11.15 11.15 11.15 11.15 11.15 11.16 11
8114 991 991 991 991 991 991 991 991 991	• Molecule 2: Cofilin-2	
### ### ### ### ### ### ### ### ### ##	Chain Q:	100%
• Molecule 2: Cofilin-2  Chain R:  100%  888  881  881  881  881  881  88	ACEO ACEO ALEO ALEO ALEO ALEO ALEO ALEO ALEO AL	K33 K33 K33 K34 K34 K34 K35 K44 K45 K44 K45 K44 K45 K63 C64 C64 C64 C64 C64 C64 C64 C65 C68 C69 C69 C69 C69 C69 C69 C69 C69 C69 C69
• Molecule 2: Cofilin-2  Chain R: 100%  Chain R: 100%  See 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	160 061 163 163 164 165 165 165 166 166 177 177 177 177 177 177 178 188 188	100 E
Chain R:  100%  10	8120 7121 7124 7123 7124 7126 7126 7129 7131 7131 7131 7134 7136 7136 7136 7136 7140 7140 7144 7148	1143 (150 E151 E151 (1153 (1154 (1159 V159 V159 V159 V159 V159 V159 V159
160   ACEO   CG1	• Molecule 2: Cofilin-2	
160  163  163  164  165  166  166  176  176  177  177  177	Chain R:	100%
	A ACEO A	123 K33 K33 K33 K34 K34 A35 K35 C39 C39 C40 C40 C40 C40 C40 C40 C40 C40 C40 C40
83120 1124 1124 1125 1126 1127 1129 1129 1129 1129 1129 1129 1129	160 061 163 163 164 165 165 165 166 166 175 175 177 177 177 177 178 188 188	199 199 191 191 191 193 198 198 198 198 198 198 198 198
	\$120 \$121 \$122 \$122 \$123 \$124 \$125 \$130 \$130 \$133 \$134 \$134 \$144 \$144 \$144 \$144 \$144	1143 1153 1153 1153 1153 1153 1156 1161



#### 4.2.4 Score per residue for model 4

• Molecule 1: Actin, alpha skeletal muscle

Ch	aiı	1.	A:	-																				10	0%	6																					
ACE0 D1	E2 D3	E4	T5	A7	81	6 2	D11	N12	G13	S14	G15	L16	V17	A19	g20	F21	A22	G23	D24	D25	A26 P27	R28	A29	V30	F31	P32	333 134	V35	G36	R37	P38	H40	Q41	G42	M44	V45	G46	M47	8 6	24. X	D51	S52	Y53	V54	056 D56	E57	A58 059
S60 K61	R62 G63	164	L65 T66	Te2	K68	Y69	171	E72	H73	G74	175	176	1.7.7 N.70	W79	D80	D81	M82	E83	K84	185	W86 H87	H88	T89	F90	Y91	N92	E93	R95	96A	A97	25 of 14	E100	H101	P102	1103 L104	L105	T106	E107	A108	1110	N111	P112	K113	A114 N115	R116	E117	K118 M119
T120 Q121	I122 M123	F124	E125	F127	N128	V129	A131	M132	Y133	V134	A135	I136	4137	V139	L140	S141	L142	Y143	A144	S145	G146 B147	T148	T149	G150	1151	V152	L153	\$155	G156	D157	G158 V159	T160	H161	N162	V163	1165	Y166	E167	G168	1169 A170	L171	P172	H173	A174	M176	R177	L178 D179
L180 A181	G182 R183	D184	L185	D187	Y188	L189	K191	1192	L193	T194	E195	R196	6197	\$199	F200	V201	T202	T203	A204	E205	R206	1208	V209	R210	D211	1212	K213	K215	L216	C217	Y218 V219	A220	L221	D222	F223	N225	E226	M227	A228	1229	A231	\$232	\$233	\$234 6005	1236	E237	K238 S239
Y240 E241	L242 P243	D244	G245 0246	V247	1248	T249	G251	N252	E253	R254	F255	R256	C257	E259	T260	L261	F262	<b>Q263</b>	P264	S265	F266 T267	G268	M269	E270	S271	A272	1274	H275	E276	T277	T278 V279	N280	\$281	1282	K284	C285	D286	1287	1288	1.289 R.290	K291	D292	L293	Y 294	N296	N297	V298 M299
S300 G301	G302 T303	T304	M305	P307	G308	I309	D311	R312	M313	Q314	K315	E316	1317	A319	L320	A321	P322	8323	T324	M325	K326	K328	1329	1330	A331	P332	F333	R335	K336	Y337	8338	W340	1341	G342	S344	1345	L346	A347	S348	L349	T351	F352	<b>Q353</b>	4354 M2 EE	W356	1357	T358 K359
Q360 E361	Y362 D363	E364	A365	P367	8368	I369	H371	R372	K373	C374	F375	NH2376																																			

• Molecule 1: Actin, alpha skeletal muscle

| Chain | Case |



 $\bullet$  Molecule 1: Actin, alpha skeletal muscle

Ch	air	n (	C:																					1	00	%																				1			
ACE0 D1	E2 D3	E4	TS Te	A7	83 i	67	O. 1.	N12	G13	S14	G15	L16	V17	K18	A19	G20	121	422 G23	D24	D25	A26	P27	R28	A29	V30 F31	P32	833	134	V35	G36	15.7 D2.8	R39	H40	<b>Q41</b>	642	V43 M44	745	G46	M4.7	G48	049	K50	SEC	753 Y53	V54	G25	D56	E57	A50 Q59
S60 K61	R62 G63	164	L65 T66	L67	K68	Y 69	F70	E.72	H73	G74	175	176	T77	N78	W79	D80	T M M	F83	K84	185	W86	H87	H88	981	F90 V91	181 N92	E93	L94	R95	N96	A9/	E 30	E100	H101	P102	1.104	L 105	T106	E107	A108	P109	L110	N111 D112	K113	A114	N115	R116	E117 K118	M119
T120 Q121	I122 M123	F124	E125	F127	N128	V129	P130	M132	Y133	V134	A135	1136	Q137	A138	V139	L140	5141	V143	A144	S145	G146	R147	T148	1149	1151	V152	L153	D154	S155	G156	7157	V159	T160	H161	N162	V 163	1165	Y166	E167	G168	Y169	A170 1171	D172	H173	A174	1175	M176	K1//	D179
L180 A181	G182 R183	D184	L185	D187	Y188	L189	M190 K191	T192	L193	T194	E195	R196	G197	Y198	S199	F200	T2027	T203	A204	E205	R206	E207	1208	V209	K210	1212	K213	E214	K215	L216	V218	V219	A220	L221	D222	F224	N225	E226	M227	A228	T229	A230	A231	S233	S234	S235	L236	E237	\$239 \$239
Y240 E241	L242 P243	D244	G245 D246	V247	1248	T249	1250 G251	N252	E253	R254	F255	R256	C257	P258	E259	T260	E261	0263	P264	S265	F266	1267	G268	M269	E270	A272	G273	1274	H275	E276	1277	Y279	N280	S281	1282	K284	C285	D286	1287	D288	1289	R290	1824 1990	1293	Y294	A295	N296	N297 V298	M299
S300 G301	G302 T303	T304	M305 V306	P307	G308	1309	A310	R312	M313	Q314	K315	E316	1317	T318	A319	L320	A321	8323	T324	M325	K326	1327	K328	1329	1330	P332	P333	E334	R335	K336	1337	V339	W340	1341	G342	S344	1345	L346	A347	S348	L349	S350 T251	1351 F352	0353	<b>Q354</b>	M355	W356	135/ T358	K359
Q360 E361	Y362 D363	E364	A365	P367	8368	1369	V370 H371	R372	K373	C374	F375	NH2376																																					
• 1	Ло	le	cu	le	1	:	A	.C1	ti	n,	. 8	al	ρŀ	aa	1 8	sk	æ	le	ta	ıl	m	ıu	s	ele	е																								

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 $\bullet$  Molecule 1: Actin, alpha skeletal muscle

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ACEO D1	23 22	Z Z	TS	T6	A/ 1.8	67	010	D11	N12	G13	S14	615 146	L10	X X	A19	G20	F21	A22	G23	D24	D25	A20 D27	R28	A29	V30	F31	P32	134	V35	989	R37	P38	H40	Q4.1	G42	V43	V45	G46	M4.7	648	U49	N50 D51	S52	Y53	V54	G55 75	E57	A58	סניט
S60 K61	R62	164	T-65	T66	L67 K68	Y69	P70	171	E72	H73	G74 T71	175	1 / b	N78	W79	D80	D81	M82	E83	K84	185	W80 H87	H88	T89	F90	Y91	N92	L94	R95	96A	A97	7 P 98	E100	H101	P102	1.103	L105	T106	E107	A108	P109	N111	P112	K113	A114	N115 P116	E117	K118	M110
T120 Q121	I122	F124	E125	T126	F127 N128	V129	P130	A131	M132	Y133	V134	A135	1136	A 138	V139	L140	S141	L142	Y143	A144	S145	G146 R147	T148	T149	G150	1151	V152	D154	S155	G156	D157	G158 V159	T160	H161	N162	V163	1165	Y166	E167	G168	Y169	L171	P172	H173	A174	I175	R177	L178	D179
L180 A181	G182	D184	L185	T186	D187 V188	L189	M190	K191	1192	L193	T194	E195	K196	V198	S199	F200	V201	T202	T203	A204	E205	F207	1208	V209	R210	D211	I212	E214	K215	L216	C217	Y218 V219	A220	L221	D222	F223	N225	E226	M227	A228	1229 V330	A231	S232	S233	8234	S235 1236	E237	K238	4930
Y240 E241	L242	D244	G245	Q246 	V247 T248	T249	1250	G251	N252	E253	R254	F255	K256	P258	E259	T260	L261	F262	<b>Q263</b>	P264	S265 T000	F 266	G268	M269	E270	S271	A272	1274	H275	E276	T277	T278 v279	N280	S281	1282	M283 K284	C285	D286	1287	D288	1289	K291	D292	L293	Y294	A295	N297	V298	MOON
S300 G301	G302	T304	M305	Y306	P307	1309	A310	D311	R312	M313	Q314	K315	E316 T317	T318	A319	L320	A321	P322	S323	T324	M325	K326	K328	1329	1330	A331	P332	F334	R335	K336	Y337	8338	W340	1341	G342	5343	1345	L346	A347	S348	L349	T351	F352	<b>Q353</b>	<b>Q354</b>	M355	1357	T358	K350
Q360 E361	Y362	E364	A365	G366	P367 S368	1369	V370	H371	R372	K373	C374	F3/5	NHZ3/6																																				

• Molecule 1: Actin, alpha skeletal muscle

Chair (124) (112)



• Molecule 1: Actin, alpha skeletal muscle

Cl	nai	in	G	t:																					10	0%	6																						
ACEO D1	E CE	D3 F4	T2	T6	A7 1.8	3 S	C10	D11	N12	613	10 C	1.16	V17	K18	A19	G20	F21	A22	G23	D24	070	P27	R28	A29	V30	F31	P32	134	V35	336	R37	P38	R39	H40	144 L	V43	M44	V45	G46	M4.7	25 C	K PO	D51	S52	Y53	V54	G55 DE6	E57	A58
S60 K61	R62	G63 T64	165	T66	L67 V68	Y69	P70	171	E72	H73	47.4	176	T77	N78	W79	D80	D81	M82	E83	K84	COT	H87	H88	T89	F90	Y91	N92	1 94	R 95	96A	A97	P98	E99	E100	H101	T103	L104	L105	T106	E107	A108	1.110	N111	P112	K113	A114	N115	E117	K118
T120	1122	M123	E125	T126	F127	V129	P130	A131	M132	Y133	V 134	1136	0137	A138	V139	L140	S141	L142	Y143	A144	0.140	R147	T148	T149	G150	1151	V152	L153	N 15.4	G156	D157	G158	V159	T160	MIGI	V163	P164	1165	Y166	E167	2015	A 170	L171	P172	H173	A174	I175	R177	L178
L180	G182	R183	L185	T186	D187	L189	M190	K191	1192	L193	1194 F105	R196	G197	Y198	S199	F200	V201	T202	T203	A204	E205	E207	1208	V209	R210	D211	1212	K213	K215	L216	C217	Y218	V219	A220	L221	F223	E224	N225	E226	M227	A228	1223 A230	A231	\$232	\$233	S234	5235	E237	K238
Y240 F241	L242	P243 D244	G245	Q246	V247 T248	T249	1250	G251	N252	E253	RZ54 F255	R256	C257	P258	E259	T260	L261	F262	u263	P264	2202	1267	G268	M269	E270	S271	A272	1274	H275	E276	T277	T278	Y279	N280	1281	M283	K284	C285	D286	1287	1000	R 290	K291	D292	L293	Y294	A295 M296	N297	V298
8300	G302	T303	M305	Y306	P307	1309	A310	D311	R312	M313	US14 V315	F316	1317	T318	A319	L320	A321	P322	8323	T324	M3.25	I327	K328	1329	1330	A331	P332	F333	R335	K336	Y337	8338	V339	W340	1341	G343	S344	1345	L346	A347	2340	8350	T351	F352	<b>Q353</b>	Q354	M355	1357	T358
Q360 F361	Y362	D363	A365	G366	P367	1369	V370	H371	R372	K373	C3/4 E375	NH2376																																					

• Molecule 1: Actin, alpha skeletal muscle



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• Molecule 1: Actin, alpha skeletal muscle

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ACE0 D1	E E	E 5	TS	T6	A/ L8	6/	C10	D111	N 12.	S14	G15	L16	V17	K18	A19	620	121	G23	D24	D25	A26	P27	R28	A29	V30	F31 D32	S333	134	V35	G36 B27	P38	R39	H40	Q41	V43	M44	V45	G46	M47	0 0	K50	D51	S52	Y53	704 655	D56	E57	A58
S60 K61	R62	164	Te5	T66	L6/ K68	Y69	P70	171	E/2	G74	175	176	T77	N78	W79	D80	MBD	E83	K84	185	W86	Н87	Н88	T89	F90	TST MG2	E93	L94	R95	96 \	P.98	E99	E100	H101	T103	L104	L105	T106	E107	P109	L110	N111	P112	K113	A114 N115	R116	E117	K118
T120 Q121	I122	F124	E125	T126	F127 N128	V129	P130	A131	M132	V134	A135	1136	Q137	A138	V139	L140	1 142	Y143	A144	S145	G146	R147	T148	T149	G150 T1E1	1151	L153	D154	S155	G156	G158	V159	T160	H161	N162 V163	P164	1165	Y166	E167	4160 V160	A170	L171	P172	H173	A1/4 T175	M176	R177	L178
L180 A181	G182	M163 D184	L185	T186	D18/ Y188	L189	M190	K191	1192	T194	E195	R196	G197	Y198	S199	F200	T202	T203	A204	E205	R206	E207	1208	V209	R210	DZ11 T212	K213	E214	K215	L216	V218	V219	A220	L221	D222 F223	E224	N225	E226	M227	A220 T229	A230	A231	S232	S233	S235	L236	E237	K238
Y240 E241	L242	F 243 D 244	G245	Q246 	V247 1248	T249	1250	G251	N252 F253	R254	F255	1256	C257	P258	E259	1.260	E261	0263	P264	S265	F266	267	G268	M269	E270	27.7	G273	1274	H275	E276	T278	Y279	N280	S281	1202 M283	K284	C285	D286	1287	1289	R290	K291	D292	L293	1 294 4 295	N296	N297	V298
S300 G301	G302	T304	M305	Y306	F307 G308	1309	A310	D311	K312	0314	K315	E316	1317	T318	A319	L320	D322	S323 S323	T324	M325	K326	1327	K328	I329	1330	P333	P333	E334	R335	K336	3333	V339	W340	I341	G343	S344	1345	L346	A347	1340	8350	T351	F352	(1353 0254	M355	W356	1357	T358
1360 3361	7362	364	1365	3366	3868	6981	1370	1371	(372	3374	375	IH2376																																				

• Molecule 1: Actin, alpha skeletal muscle

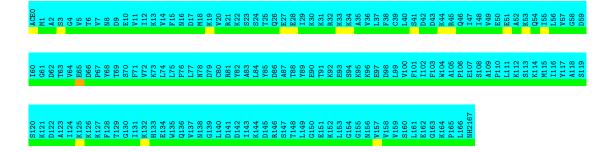


q360 F361 Y362 D363 F365 G366 P367 S368 F370 H371 R372 C374 F375			
• Molecule 2: Cofilin-2			
Chain K:	100%		•
ACEO M1 M1 A2 S3 S3 S4 S4 V7 V7 V7 V11 V11 V11 V14 V14 V14 V14 V15 V16 V17 V17 V17 V17 V17 V17 V17 V17 V17 V17	M10 W20 W20 W21 W22 W22 W22 W22 W22 W23 W33 W34 W34 W35 W36 W36	138 C39 C39 C39 D42 D43 D43 C44 C44 C44 C44 C44 C53 C53 C64 C64 C64 C64 C64 C64 C64 C64 C64 C64	155 156 V57 G58 D59
160 661 661 662 763 768 768 770 771 771 772 773 774 775 775 777 777 777 777 777 777 777	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	E97 D98 V100 V100 F103 F103 F103 F104 F105 F106 F110 F111 K111 K111 K111	M115 I116 Y117 A118 S119
8120 7121 7122 7123 7124 7126 7126 7129 7130 7131 7131 7131 7131 7131 7131 7131	6138 6138 61140 6141 6142 6143 6144 6150 6150 6151 6153 6155 6155 6155 6155 6155 6155	V15/ V15/8 V15/8 S160 L161 E162 G163 G163 G164 H166 MH2167	
• Molecule 2: Cofilin-2		<del></del>	
Chain L:	100%		
M A CEO MIS	M10 W20 W20 W22 S23 S24 C26 C26 C27 C28 C31 C33 C33 C34 C36 C37 C37 C37 C37 C37 C37 C37 C37	1.37 C.39 C.39 C.40 D.42 D.43 D.43 P.44 I.47 I.47 I.47 I.48 V.49 E.50 E.51 A.52 A.53 A.53 A.53 A.63 A.64 A.64 A.64 A.64 A.64 A.64 A.64 A.64	155 L56 V57 G58 D59
160 661 662 163 163 764 165 870 870 871 V72 V73 174 174 175	080 080 080 080 1086 1086 1090 1090 1090 1090 1090 1090 1090 109	E94 D98 L99 V100 F101 F103 F103 F103 F104 F106 F106 F107 F110 F111 F111 F111 F111 F111 F111	M115 1116 Y117 A118 S119
8120 M122 M122 M123 M125 M126 M126 M127 M137 M138 M138 M138 M138 M138 M138 M138 M138	6139 1140 1140 1143 1143 1144 1148 11149 11153 1153 1153 1153 1153 1153 1153	V15/ V158 V158 S160 S160 G163 G163 F166 I166	
• Molecule 2: Cofilin-2			
Chain M:	100%		•
A GEO M1 M1 M2 M3 S3 S3 G4 V5 V7 N8 M8 M8 V11 I12 K13 V14 F15 N16 N16	K119 V20 R21 K22 S23 S23 S24 T26 E27 E28 E27 E28 K30 K30 K33 K33 K33 K33 K33 K33 K33 K33	L37 C39 C39 L40 B42 D43 R44 K44 K44 K44 K45 I 148 V49 E51 E51 G64 G64	155 L56 V57 G58 D59
160 661 661 163 764 165 165 166 169 170 171 174 175 174 177	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	599 109 100 1100 1100 1100 1100 1100 1100 1100 1100 1110 1111 1111	M115 1116 Y117 A118 S119
8120 7121 7122 7123 7125 7126 7129 7129 7139 7139 7139 7139 7139 7139 7139 7139 7139 7130 7131	0.1100 11.40 11.40 11.43 11.43 11.44 11.48 11.148 11.153 11.153 11.153 11.153 11.153 11.153 11.153	V157 V158 V158 S160 S160 G163 G163 F166 I166 NH2167	
• Molecule 2: Cofilin-2	-		
Chain N:	100%		ı
ACEO M1 A2 A2 A2 C4 V7 V7 V7 N8 D9 D9 D9 V11 I12 K13 V14 F15 N16	K 100	137 C39 C39 C39 D42 D42 D43 C44 C44 C44 C50 E51 E51 C65 C65 C65 C65 C65 C65 C65 C65 C65 C65	155 156 V57 G58 D59



160 G61 D62 D63 V64 V64 P67 P67 T69 S70 F71 V72 K73 K73 K73	L777 N78 N78 C80 C80 Y82 A83 L84 Y85 A87 T88	E93 E93 S94 K96 K96 E97 L99	V100 F101 I102 F103 W104 A105 P106	\$108 A109 P110 L1111 K1112 S113 K114	M115 I116 Y117 A118 S119
5120 7121 7121 7125 7126 7126 7129 7130 1131 7132 7133 7133 7133 7133 7133 7133	V137 N138 N138 (1140 D141 1143 R144 R144 R144 R148	0150 E151 K152 L153 0154 0155 N156 V157 V159	S160 L161 E162 G163 K164 P165 L166 NH2167		
• Molecule 2: Cofilin-2					
Chain O:		100%			
A CEO  M 1  M 1  M 1  M 2  G 4  V 7  V 7  V 11  I 12  V 14  V 14  V 14  V 15  V 16  V 17	M18 M18 M18 M20 M22 S23 S23 S24 T26 G26 E77 E78	K33 K33 K34 K34 K34 K34 K34 K34 K34 K34	140 S41 D42 D43 K44 R45 Q46 I47	148 V49 E50 E51 A52 K53 Q54	155 L56 V57 G58 D59
160 061 062 063 163 163 166 166 170 171 174 174 177 174 177	L77 N78 D79 C80 C80 A81 A82 A83 A83 A85 D86 A87 T88	E90 K92 K92 E93 K96 K96 K96 E97 L99	V100 F101 I102 F103 W104 A105 P106 E107	\$108 4109 P110 L111 K112 \$113 K114	M115 I116 Y117 A118 S119
\$120 \$122 \$122 \$124 \$125 \$128 \$128 \$129 \$131 \$131 \$133 \$133 \$135 \$135 \$135 \$135	V137 V138 G138 G139 D141 D142 D142 D145 B146 S147 T148	0150 E151 K152 L153 C154 G155 N156 V157 V159	\$160 [161 E162 G163 K164 P165 [166		
• Molecule 2: Cofilin-2					
Chain P:		100%			
A CEO M1 M1 S3 G4 V7 V7 N8 D9 E10 V11 I12 K13 K13 K13 K13 K14 K14	M18 K19 V20 V20 K22 K21 K22 C24 T26 G26 E27	K33 K33 K34 K34 K34 K36 C39	140 S41 D42 D43 K44 R45 Q46	148 V49 E50 E51 A52 K53 Q54	155 L56 V57 G58 D59
160 160 163 163 163 163 164 168 179 171 172 174 175 175	L77 178 178 188 188 188 188 188	E 90 C C C C C C C C C C C C C C C C C C	V100 F101 1102 F103 W104 A105 P106	\$108 4109 P110 [1111 K112 S113 K114	M115 1116 Y117 A118 S119
5120 1124 1124 1126 1127 1128 1130 1131 1131 1131 1131 1133	V 137 V 138 G 139 G 139 D 141 D 142 I 143 R 146 S 147 T 148	G150 E151 K152 K152 G154 G155 N156 V157 V157	\$160 [161 E162 G163 K164 P165 L166 NH2167		
• Molecule 2: Cofilin-2					
Chain Q:		100%			
ACEO M1 M1 A2 S3 G4 C4 V7 V7 V1 E10 V11 V14 V14 V14 V14 V14	M18 M18 M18 V20 V20 V20 V20 V22 V24 V25 V26 V26 V26 V27 V27 V20 V20 V20 V20 V20 V20 V20 V20 V20 V20	K33 K34 K34 K34 K34 K34 K34 K34 K34 K34	140 841 D42 D43 K44 R45 Q46	148 V49 E50 E51 A52 K53 Q54	155 L56 V57 G58 D59
160 061 062 063 064 064 066 066 771 771 773 773 773 774 773	LTT NT8 NT8 NT9 C80 C80 C80 N81 N82 N85 N86 N86 N86 N86 N86 N86 N86 N86 N86 N86	E93 K92 K95 K96 K96 K96 K96 K96 K96	V100 F101 I102 F103 W104 A105 E107	S108 A109 P110 L111 K112 S113 K114	M115 1116 Y117 A118 S119
5120 5120 5121 5123 5124 5126 5126 5127 5129 5130 6130 6130 6130 6130 6130 6130 6131	V137 V138 M138 G139 D141 D142 I143 K144 D145 B146 S147 T148	(150 (150 (153 (153 (153 (154 (155 (155 (155 (155 (155 (155 (155	\$160 L161 E162 G163 K164 P165 L166 NH2167		
• Molecule 2: Cofilin-2					
Chain R:		100%			ı







#### 5 Refinement protocol and experimental data overview (i)



The models were refined using the following method: molecular dynamics.

Of the 4 calculated structures, 4 were deposited, based on the following criterion: all calculated structures submitted.

The following table shows the software used for structure solution, optimisation and refinement.

Software name	Classification	Version
TALOS-N	structure calculation	
X-PLOR NIH	structure calculation	
X-PLOR NIH	refinement	
NAMD	refinement	

No chemical shift data was provided. Note: This is a solid-state NMR structure, where hydrogen atoms are typically not assigned a chemical shift value, which may lead to lower completeness of assignment measure.



# 6 Model quality (i)

# 6.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: NH2, ACE

There are no covalent bond-length or bond-angle outliers.

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 6.2 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 each 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 averaged over the ensemble.

Mol	Chain	Non-H	H(model)	H(added)	Clashes
1	С	0	0	0	0±0
1	G	0	0	0	0±0
1	Н	0	0	0	0±0
1	I	0	0	0	0±0
1	J	0	0	0	0±0
1	A	0	0	0	0±0
1	D	0	0	0	0±0
1	Е	0	0	0	0±0
1	F	0	0	0	0±0
1	В	0	0	0	0±0
2	K	0	0	0	0±0
2	M	0	0	0	0±0
2	О	0	0	0	0±0
2	Р	0	0	0	0±0
2	Q	0	0	0	0±0
2	L	0	0	0	0±0
2	N	0	0	0	0±0
2	R	0	0	0	0±0
All	All	0	0	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 -.

There are no clashes.

### 6.3 Torsion angles (i)

#### 6.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR 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	0	-	-	-	-
1	В	0	-	-	-	-
1	С	0	-	-	-	-
1	D	0	-	-	-	-
1	Е	0	-	-	-	-
1	F	0	-	-	-	-
1	G	0	-	-	-	-
1	Н	0	-	-	-	-
1	I	0	-	-	-	-
1	J	0	-	-	-	-
2	K	0	-	-	-	-
2	L	0	-	-	-	-
2	M	0	-	-	-	-
2	N	0	-	-	-	-
2	О	0	-	-	-	-
2	Р	0	-	-	=	-
2	Q	0	-	-	-	-
2	R	0	-	-	-	-
All	All	0	-	-	-	-

There are no Ramachandran outliers.

#### 6.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR 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	0	-	-	-
1	В	0	-	-	-
1	С	0	-	-	-
1	D	0	-	-	-
1	Е	0	-	-	-
1	F	0	-	-	-
1	G	0	-	-	-
1	Н	0	-	-	-
1	I	0	-	-	-
1	J	0	-	-	-
2	K	0	-	-	-
2	L	0	-	-	-
2	M	0	-	_	-
2	N	0	-	-	-
2	О	0	-	-	-
2	Р	0	-	-	-
2	Q	0	-	-	-
2	R	0	-	-	-
All	All	0	-	-	-

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

### 6.3.3 RNA (i)

There are no RNA molecules in this entry.

## 6.4 Non-standard residues in protein, DNA, RNA chains (i)

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

# 6.5 Carbohydrates (i)

There are no monosaccharides in this entry.

# 6.6 Ligand geometry (i)

There are no ligands in this entry.



# 6.7 Other polymers (i)

There are no such molecules in this entry.

# 6.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

