Table S1. **Oligonucleotide primers used to prepare the domain or point mutant constructs**

Oligonucleotide	**Sequence**
Mouse muskelin domains	
Nterm-F1	5′ GGTGCTGACAAGATGGCG 3′
CtermR1	5′ CGTGACGGTACCTACAGTGTGATCAGGTC 3′
Lis-R1	5′ CTAGGGATCCTTACAGTGCAATCTTGGT 3′
CTHL-R	5′ ATGCATGGATCCTAGCTCTTAGGGAATAATCTG 3′
ΔC35-R	5′ CTAGGGTACCATCCACATCTGAAAAGCCTAGA 3′
Lis-F1	5′ CTAGGAATTCAGCAAGTACCGTGAACA 3′
CTLH-F	5′ CTAGGAATTCCATCCAATGTTGACAGAT 3′
Kelch-F	5′ GGCTTAGAATTCCAGGAGTATAAGCCA 3′
C35-F1	5′ GTACGAATTCTCAGATGTGGATCATACC 3′
LisHAA-F	5′ CGCCTTTGCCTAGCAGCCTTCAGACAACAT 3′
LisHAA-R	5′ ATGTTGTCTGAAGGCTGCTAGGCAAGGCG 3′
T723A-F	5′ TCCTGACAGCATGGCTCCTCCTAAAGGCAAC 3′
T723A-R	5′ GTTGCCTTTAGGAGGAGCCATGCTGTCAGGA 3′
T723D-F	5′ TCCTGACAGCATGGATCCTCCTAAAGGCAAC 3′
T723D-R	5′ GTTGCCTTTAGGAGGATCCATGCTGTCAGGA 3′
Vinculin constructs	
Vin-F	5′ CGCGTCGTTTCCTTATTTC 3′
Vin-R	5′ GTACGTTAACCTGATACCATGGGGTCTT 3′
MKLis-F2	5′ GTACGTTAACAAGTACCGTGAACAGGAA 3′
MKLis-R2	5′ CTAGTCTAGATTACAGTGCAATCTTGGTTT 3′
RanBP domains	
SPRY-F	5′ CTAGAAGCTTGCTCTGGTGGCGGGCAGCA 3′
CRA-R	5′ GCATGGTACCCTAATGTAGGTAGTCTTC 3′
Lis-F	5′ GATCAAGCTTGATCGAGAAGGAGAATGGCAG 3′
Lis-R	5′ GCATTAGAACTCAGGTCTGGTCTGTAGA 3′
H-F	5′ GATCAAGCTTGCTTCCATTAAGAATAGACAAAGA 3′
H-R	5′ GATCGGATCCTTAGCCTCCCAAACATCGTACTTC 3′
u-R	5′ GATCGGATCCTTACTGACTTCCTCCACACAACTG 3′
CRA-F	5′ GATCGAATTCAAGTCAGGCCGCCATAGAAAGA 3′

All oligonucleotides were synthesized by Sigma-Aldrich. Oligonucleotides used for mutagenesis were HPLC purified.