Supplemental Table 1. Muscle masses and body weights (g) of adult and old male rats

Age Group	TA	EDL	SOL	PLN	MG	Body Weight
Adult	0.779 ± 0.043	0.191 ± 0.007	0.178 ± 0.013	0.414 ± 0.041	0.938 ±0.061	410±6.2
Old	0.741 ±0.059	0.188 ± 0.019	0.167 ± 0.016	0.395 ± 0.016	0.872 ± 0.064	575±36.8

Supplemental Table 2. Fiber type-specific cross-sectional area for the plantaris (PLN) and tibialis anterior (TA) muscles in adult and old rats.

		Type I	Type IIa	Type IIb	Type IIx
PLN	Adult	1483.5 ± 125.6	1784.0 ± 99.2	5848.0 ± 345.5	3051.8 ± 185.2
	Old	1725.3 ± 79.6	1790.5 ± 157.1	4716.3 ± 277.7*	2930.3 ± 176.2
TA	Adult	1075.4 ± 82.8	1028.8 ± 52.1	3634.4 ± 151.6	1511.6 ± 97.9
	Old	1223.7 ± 122.5	1524.4 ± 343.1	3137.0 ± 351.2	1684.7 ± 78.2

*indicates $P<0.05$ vs. adult muscle. Data presented as mean ± S.E.M. N=3/4 per group.

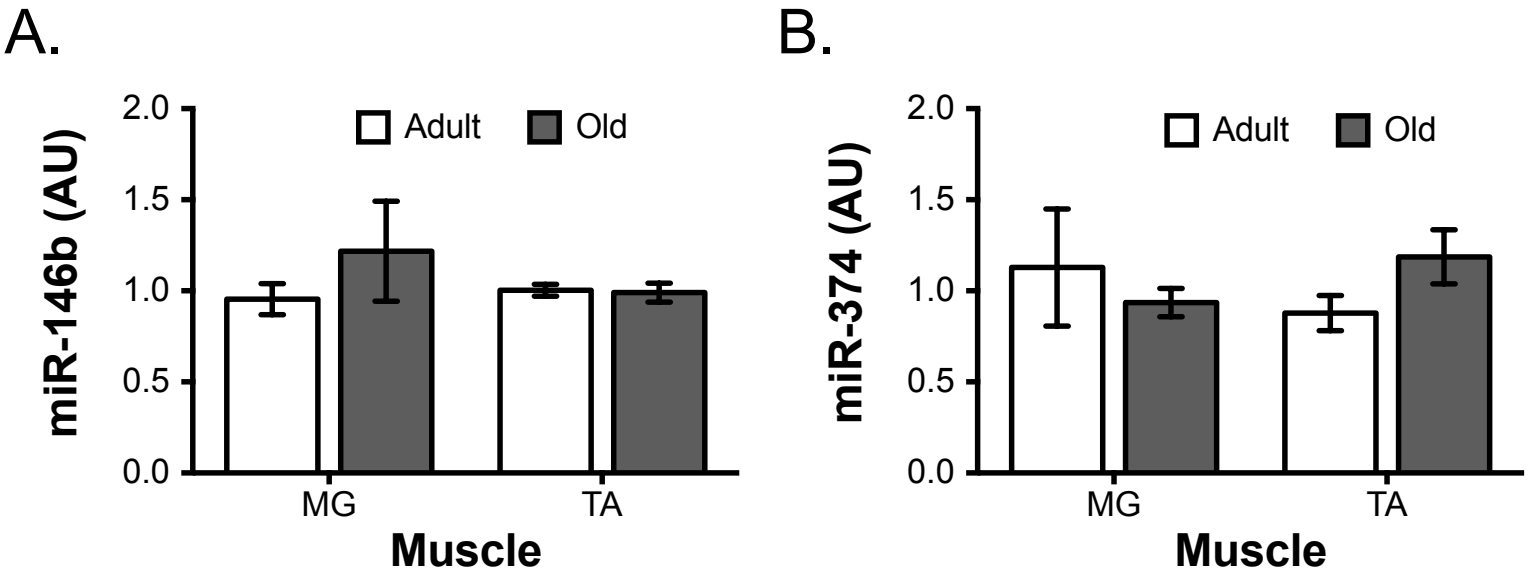

Figure S1. miR-146b and 374 levels in adult and old muscles. Expression of the dystromirs (A) miR-146b and (B) miR-374 in adult and old medial gastrocnemius (MG), and tibialis anterior (TA) muscles. No differences were observed in the old vs. adult muscle. Data presented as mean ± S.E.M. N=5/6 per group.

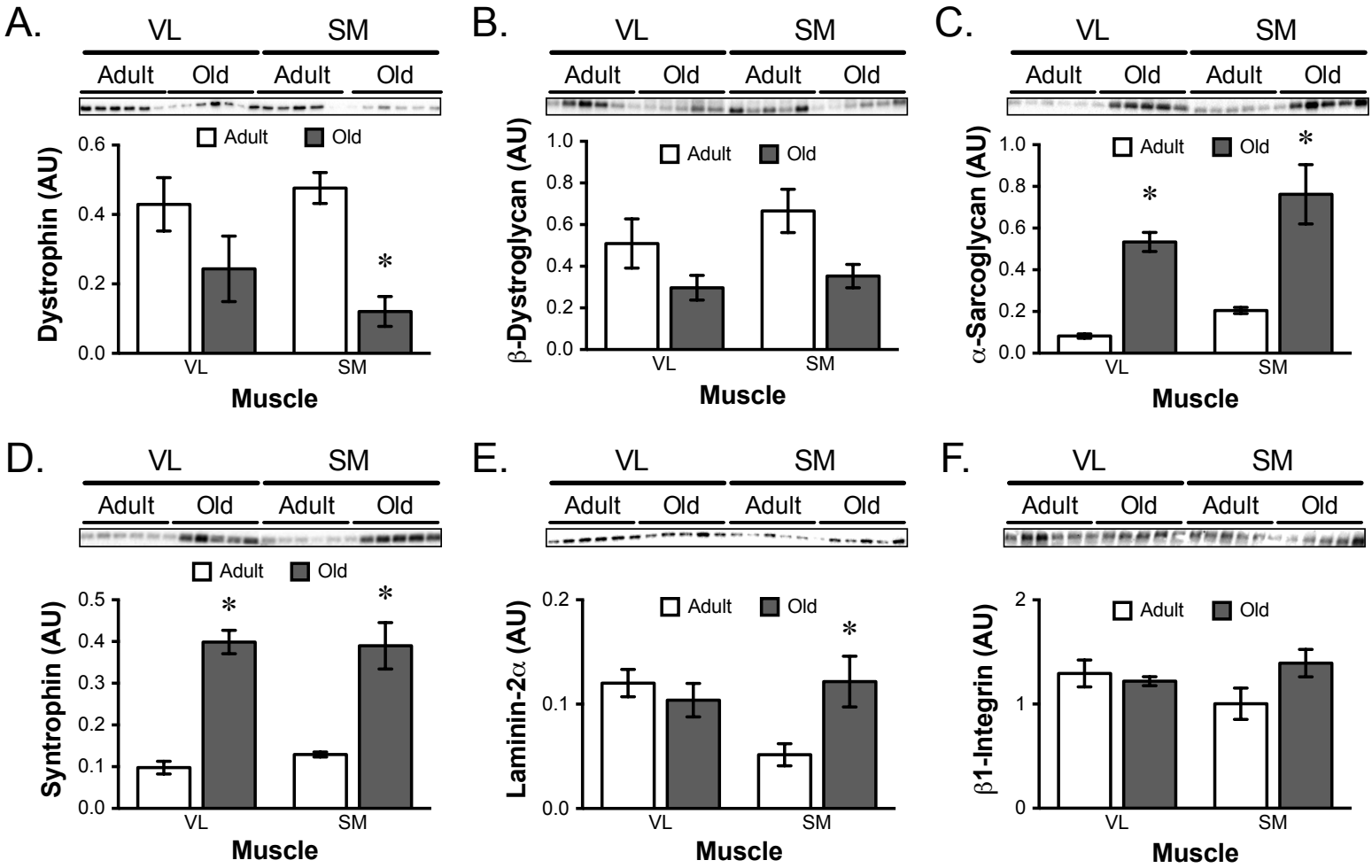

Figure S2. Dystrophin-associated glycoprotein (DGC) complex and surrounding cytoskeleton protein levels in adult and old vastus lateralis (VL) and semimembranosus (SM) muscles. Representative western blots for the (A-C, F) DGC complex, (D) β1-integrin and (E) Laminin-2α proteins from adult and old extensor vastus lateralis (VL) and flexor semi-membranosis (SM) muscles. Total protein for western blot analysis was determined by ponceau stain and was used to normalize protein expression. *indicates $P<0.05$ old vs. adult muscle. Data presented as mean ± S.E.M. N=5/6 per group.

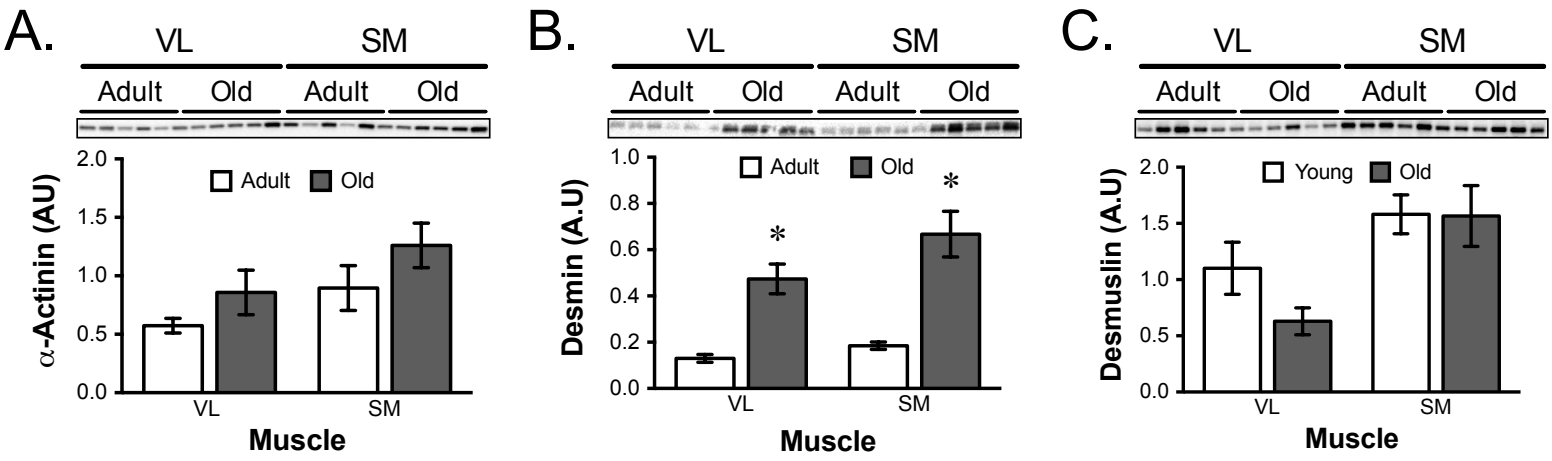

Figure S3. Alterations in α-actinin, desmin and desmuslin in aged flexor and extensor muscles. Representative western blots for (A) α-actinin, (B) desmin and (C) desmuslin in adult and old vastus lateralis (VL) and flexor semi-membranosis (SM) muscles. Total protein for western blot analysis was determined by ponceau stain and was used to normalize protein expression. *indicates P<0.05 old vs. adult muscle. † indicates P<0.05 between adult muscles. Data presented as mean ± S.E.M. N=5/6 per group.

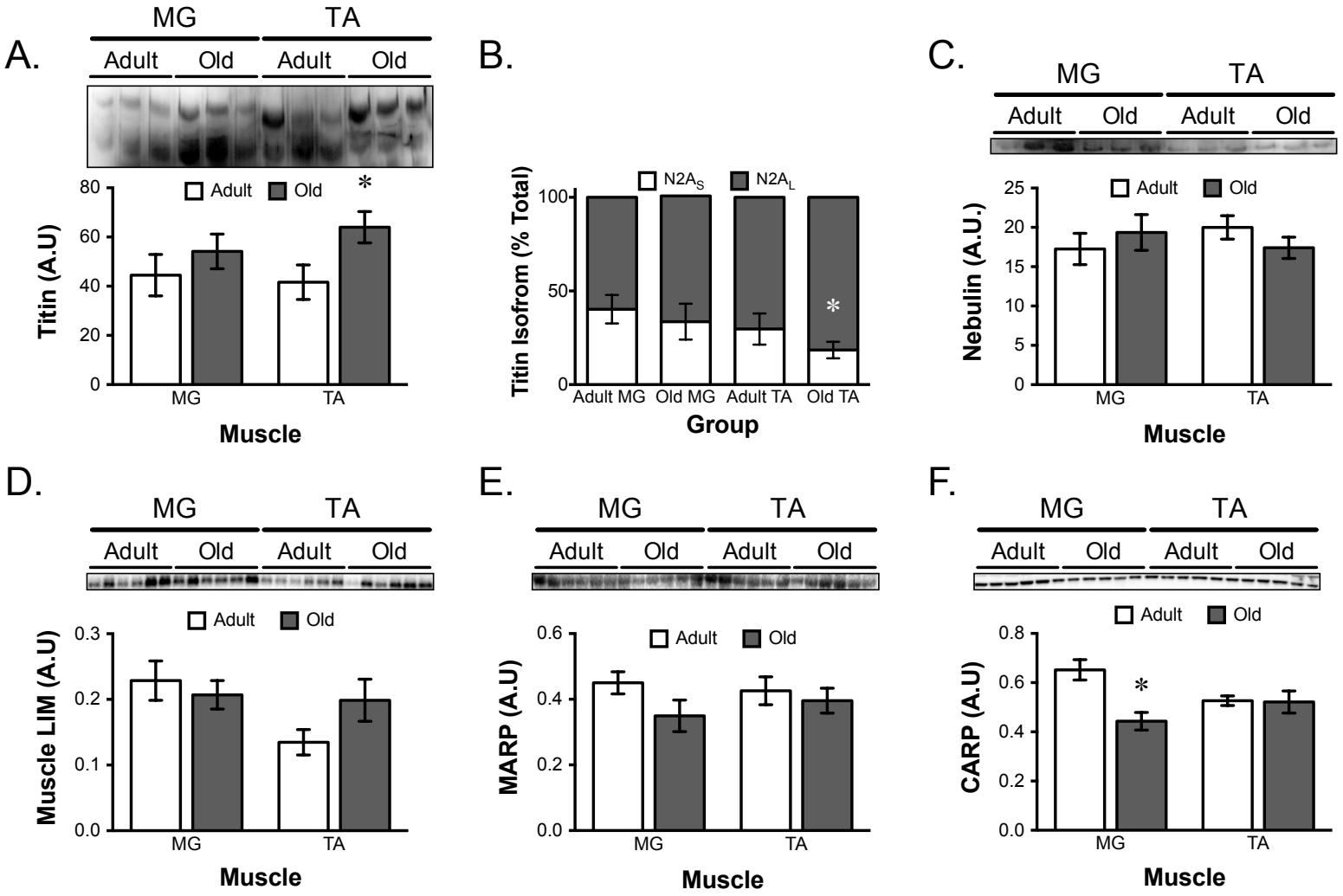

Figure S4. Cytoskeleton proteins involved in longitudinal force transmission. Titin levels (A) were determined using rat cardiac muscle as a marker of molecular weight. Both upper and lower bands, representing $N2A_L$ (longer) and $N2A_S$ (shorter) titin isoforms, were quantified to determine (A) total titin levels, whereas in (B) the percentage of $N2A_L$ and $N2A_S$ were quantified in adult and old medial gastrocnemius (MG) and tibialis anterior (TA) muscles. (C) Nebulin, (D) muscle LIM protein, (E) muscle ankyrin repeat, and (F) cardiac ankyrin repeat proteins were quantified in the same muscles. Total protein for western blot analysis was determined by imaging of ponceau stained membranes and was used to normalize protein expression. *indicates $P<0.05$ vs. adult muscle. Data presented as mean ± S.E.M. N=6/ group.