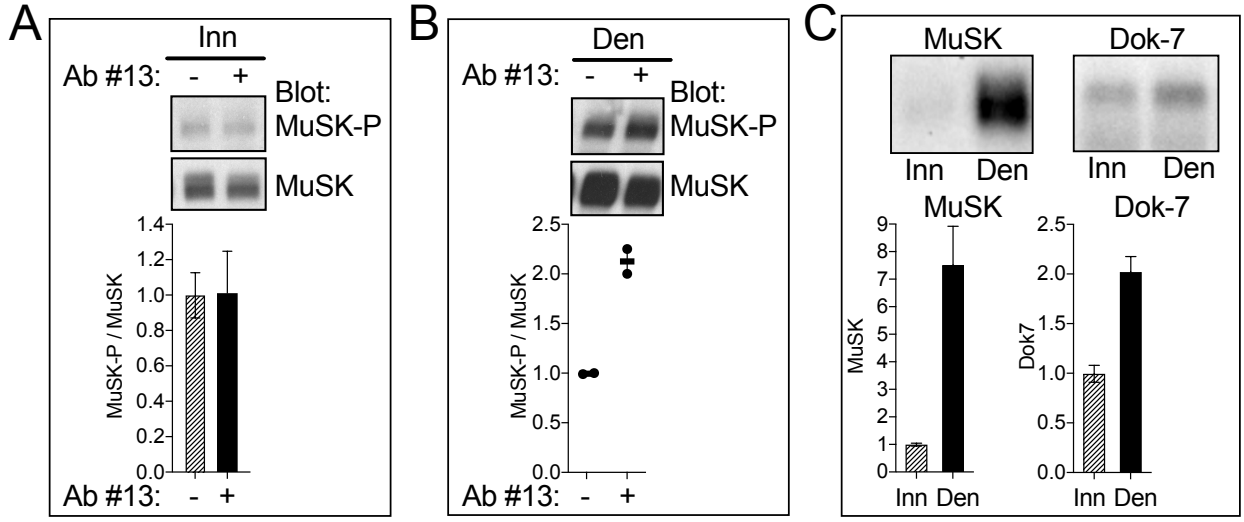
Figure 1- Figure Supplement 1



MuSK agonist antibody #13 stimulates MuSK tyrosine phosphorylation *in vivo*. (A) The MuSK agonist antibody (Ab #13) failed to stimulate MuSK phosphorylation in innervated (Inn) muscle, suggesting that MuSK may be maximally phosphorylated at synapses by Agrin and Lrp4. (B) Following denervation (Den), non-synaptic regions of muscle express MuSK, but not neural Agrin. Ab #13 stimulated MuSK phosphorylation in denervated muscle by 2.2-fold, demonstrating that Ab #13 activates MuSK *in vivo*. (C) Following denervation, MuSK expression increases 7.5-fold, but expression of Dok-7, an essential, inside-out activator of MuSK, increases only 2.0-fold. Thus, the activity of Ab #13 in denervated muscle may be limited by low non-synaptic Dok-7 expression. (A, B) The ratio of MuSK-P/MuSK in the absence of Ab #13 was assigned a value of 1.0. (C) The level of MuSK and Dok-7 expression in innervated muscle was assigned a value of 1.0. The SEMs (n=3) are shown in (A, C); values and averages from two experiments are shown in (B).