

**Supplemental Table 1.** Measures of junctional histopathology for NMJs in the TA of the KI Model based on synaptophysin and AChR co-staining of Junctions. Values shown are mean±SEM of 20 junctions from 5-6 mice/group. Statistically significant values denoted in bold font.

Measure (% of Junctions)	WT	KI	p
Denervation: None	98.00±1.22	93.33±4.01	0.334
Denervation: Partial	2.00±1.22	6.67±4.01	0.334
Denervation: Complete	0.00±0.00	0.00±0.00	N/A
Fragmentation: None	81.00±6.40	81.67±6.15	0.942
Fragmentation: Partial	20.00±5.70	17.50±6.16	0.776
Fragmentation: Complete	0.00±0.00	0.83±0.83	0.389
Synaptophysin Intensity: Intense	40.00±7.25	65.00±5.16	<b>0.018</b>
Synaptophysin Area	158.08±23.45	215.75±11.64	<b>0.045</b>
Endplate Area	333.62±16.10	297.88±19.07	0.196
Synaptophysin to Endplate Area Ratio	0.50±0.07	0.77±0.04	<b>0.005</b>
Muscle Fiber Diameter	44.28±2.85	42.37±2.85	0.649