

Table S1: Functional test on isolated EDL and soleus muscles

	wt-EDL Mean±SEM	ko-EDL Mean±SEM	wt-sol Mean±SEM	ko-sol Mean±SEM
Lo (mm)	12.18±0.11	12.22±0.12	11.88±0.16	11.74±0.16
Lf (mm)	5.36±0.05	5.37±0.05	8.43±0.11	8.33±0.11
Muscle mass (mg)	8.95±0.52	9.98±0.15	7.31±0.38	12.58±0.24*
muscle CSA (mm²)	1.57±0.08	1.75±0.02	0.81±0.03	1.42±0.02*
Po (mN)	361.24±8.64	277.59±8.89*	217.91±9.28	187.96±6.76*
sPo (kN/m²)	232.13±10.88	157.07±5.3*	268.45±12.36	132.45±6.74*
Po after 5 min. protocol (mN)	60.12±3.61	50.02±4.38	147.46±7.67	79.02±6.86*
Force deficit after 5 min. protocol	0.83±0.00	0.82±0.01	0.32±0.01	0.57±0.03*
Po after 5 min. rest	174.55±6.55	146.37±8.91	210.61±7.98	145.16±8.48*
Force deficit after 5 min. rest	0.51±0.01	0.47±0.02	0.03±0.01	0.22±0.03*
% recovery	0.38±0.02	0.42±0.02	0.9±0.04	0.62±0.04*
Pt (mN)	105.53±4.13	112.5±4.45	38.43±2.32	29.43±3.06*
TTPT (ms)	23.92±2.07	16.92±1.05	41.74±4.01	26.59±2.12*
HRT (ms)	16.39±0.97	16.93±0.82	39.7±2.19	35.51±1.26
Pt/Po	0.29±0.00	0.4±0.01*	0.17±0	0.15±0.01

Lo: optimal muscle length; Lf: fiber length; CSA: cross section area; Po: peak tetanic tension; sPo: specific tetanic tension; Pt: peak twitch tension; TTPT: time to peak tension; HRT: half relaxation time. wt (n=6), ko (n=10); * significant difference.