Supplemental Table S1. Direct effects of TNF-α on skeletal muscle.

Isolated Tissue	Culture Conditions	Maximum Specific Force	Overall Protein Content	Myofibrillar Protein Content	Fusion Parameters
Costal diaphragm fibers; ICR mice[3]	Intraperitoneal injection of 2000 U/g*, 1hr prior to muscle excision	*Stimulated at 300 Hz* Control: 26 ± 2 N/cm² 2000 U/g: 19 ± 2 N/cm²	-	-	-
EDL muscle; guinea pig[1]	Immersion of isolated muscle in 200 U/mL* of TNFα, 2hr prior to force testing	*Stimulated at 200 Hz* Control: 16.8 ± 1.6 N/cm² 200 U/mL: 4.7 ± 1.0 N/cm²	-	-	-
EDL muscle; Sprague Dawley rats[2]	Intravenous injection of 2400 U/mg**, 8hr prior to muscle excision	-	*Tyrosine release rate* # Control: 105 ± 5 nmol/hr/g 2400 U/mg: 133 ± 7 nmol/hr/g	*Methylhistidine release rate* † Control: 2.12 ± 0.17 nmol/hr/g 2400 U/mg: 3.00 ± 0.24 nmol/hr/g	-
***In vitro* culture**	Culture Conditions	Maximum Specific Force	Overall Protein Content	Myofibrillar Protein Content	Fusion Parameters
C2C12 myoblasts[4]	2, 20, 200 U/mL*, refreshed daily over 5 days	-	*Protein per plate* Control: 359 ± 6 µg 2 U/mL: 344 ± 10 µg 20 U/mL: 309 ± 29 µg 200 U/mL: 286 ± 32 µg	Decreased MyHCf expression	*Percent of nuclei in cells with ≥3 nuclei* Control: 43 ± 2% 2 U/mL: 32 ± 2% 20 U/mL: 24 ± 1% 200 U/mL: 2 ± 1%
L6 myoblasts[6]	2000 U/mL***, cultured for 5 days	-	-	Decreased presence of MHC isoforms in immunofluorescent images	*Percent nuclei in myosin heavy chain positive cells* Control: 19 +- 5% 2000 U/mL: 3 +- 1%
C2C12 myoblasts[7]	20 U/mL*, cultured for 3 days	-	-	*MyHCf/GAPDH abundance based on Western blot analysis* Control: 0.72 ± 0.02 AU 20 U/mL: 0.02 ± 0.01 AU	*Percent nuclei in cells with ≥2 nuclei* Control: 26% 2000 U/mL: 19%
C2C12 myoblasts[5]	400 U/mL*, cultured for 5 days and refreshed 48 hours before measurements	-	-	Decreased presence of MHC isoforms in immunofluorescent images	*Percent nuclei in cells with ≥2 nuclei* Control: 68 ± 3% 400 U/mL: 30 ± 3%

All data reported as Mean ± SEM;

*Specific activity (SA) of murine recombinant TNFα was not reported in these studies. Concentrations (ng/mL) were converted using average activity reported by the manufacturers of $2*10^7$ U/mg; **Converted using reported SA of $8*10^6$ U/µg (human recombinant TNFα); ***Converted using reported SA of $4*10^8$ U/mg.

#Tyrosine release rate is indicative of overall protein catalysis; †Methylhistidine release rate is indicative of myofibrillar protein catalysis.

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