Supplementary information

NRF2 PROTECTS AGAINST TWEAK-MEDIATED SKELETAL MUSCLE WASTING

Othman Al-Sawaf^{1*}, Athanassios Fragoulis¹, Christian Rosen¹, Yuet Wai Kan², Tolga Taha Sönmez³, Thomas Pufe¹, Christoph Jan Wruck^{1*}

- 1 Department of Anatomy and Cell Biology, University Hospital, RWTH Aachen University, Aachen, Germany
- 2 Department of Laboratory Medicine, University of California, San Francisco, California, USA.
- 3 Department of Oral and Maxillofacial Surgery, University Hospital, RWTH Aachen University, Aachen, Germany

Al-Sawaf et al. (2013)



Figure S1. Healthy and recovering Nrf2-WT and KO mice do not show apoptotic muscle cells.

A TUNEL Assay was performed to detect apoptotic nuclei on sections of healthy (*A*-F) Nrf2-WT and KO mice and mice 96h after I/R injury (*G*-*L*). In contrast to mice 6h after injury (see Figure 2), no apoptosis can be detected under healthy conditions or during early regeneration 96h after ischemia.

Sections at x200 magnification. Scale bar represent $100\mu m$. Experiments were performed with n=6.

Nrf2 protects against TWEAK-mediated skeletal muscle wasting *Al-Sawaf et al. (2013)*

С Α Nrf2-WT Nrf2-KO Nrf2-WT Nrf2-KO 6h Post-I/R 96h Post-I/R 96h Post-I/R 6h Post-I/R (kDa) (kDa) 140 260 100 140 70 100 70 50 40 35 25 63.23 50 40 35 25 6.4 2.4 15 15 anti-NFkB anti-NFkB В D Nrf2-WT Nrf2-KO Nrf2-WT Nrf2-KO 6h Post-I/R 6h Post-I/R 96h Post-I/R 96h Post-I/R (kDa) (kDa) 140 260 100 140 70 50 100 70 50 40 35 25 40 35 25 18 50 15 15 anti-GAPDH anti-GAPDH

Figure S2. Full-length blots.

Regions of interest are highlighted in Figure 4E.

Substance		Target	Applied concentration
SB 203580	#559389, Calbiochem	p38	5µM
PD 98059	#513000, Calbiochem	ERK	20µM
Wortmannin	#681675, Calbiochem	PI3K	1µM
SP 600125	#420119, Calbiochem	JNK	2µM
Ro-31-8220	#557520, Calbiochem	GRK-5, PKC	10µM

Table S1. Kinase inhibitors used in this study.

Substances were applied to C2C12 cells 30 minutes before TWEAK stimulation.