

Supplementary Materials

Supplemental Table S1. Antibodies used for Western Blot.

Target	Dilution	Source	Target	Dilution	Source
Total OXPHOS Rodent Cocktail	1:500	Abcam (ab110413)	SIRT3	1:1000	Cell Signaling (cs2627)
DRP1	1:1000	Santa Cruz (sc-32898)	FOXO3A	1:1000	Cell Signaling (cs2497)
FIS1	1:500	Santa Cruz (sc-98900)	NRF2	1:1000	Abcam (ab89443)
SOD2	1:500	Santa Cruz (sc-30080)	LC3A/B	1:1000	Cell Signaling (cs4108)
Acetylated SOD2 (K68)	1:1000	Abcam (ab137037)	IRb	1:1000	BD Biosciences (#610109)
ERRA	1:1000	Cell Signaling (cs13826)	IRS1	1:500	Cell Signaling (cs3407)
RIL1	1:1000	Abcam (AB40774)	AKT	1:1000	Cell Signaling (cs9272)
IL6	1:1000	Santa Cruz (sc-57315)	AMPK	1:1000	Cell Signaling (cs2522)
NFkB	1:500	Santa Cruz (sc-372)	LKB1	1:1000	Cell Signaling (cs13031)
IkB	1:1000	Cell signaling (cs4814)	LDHA	1:1000	Cell Signaling (cs2021)
P53	1:500	Santa Cruz (sc-263)	GSK3	1:500	Santa Cruz (sc-9166)
Caspase 3	1:1000	Cell Signaling (cs9662)	IDH2	1:1000	Cell Signaling (cs12652)

Supplemental Table S2. Primers and conditions used for RT-qPCR.

Gene	Forward Primer (5'-3') Reverse Primer (5'-3')	An. T (°C)	Gene	Forward Primer (5'-3') Reverse Primer (5'-3')	An. T (°C)
<i>Rpl32</i>	CCAGTCGGACCGATATGTGAA TCTGGCCCTTGAATCTTCTCC	60	<i>Gsk3b</i>	AAGGCACATCCTTGGACGAA GTTGAAGAGGGCAGGTGTGT	58
<i>Tbp</i>	CACCGTGAATCTTGGCTGTAAAC CGCAGTTGTTCGTGGCTCTC	60	<i>Mtor</i>	CTGATGTCATTTATTGGCAGAAA CAGGGACTCAGAACACAAATGC	57
<i>Sod1</i>	ACTTCGAGCAGAAGGCAAGC CCAGGTCTCCAACATGCCTC	60	<i>Hif1a</i>	GCGGCGAGAACGAGAAGAA AGATGGGAGCTCACGTTGTG	60
<i>Sod2</i>	ACCGAGGAGAAGTACCACGA TAGGGCTCAGGTTTGTCCAG	60	<i>Rela</i>	GAACCTGTGGGGAAGGACTG GGGGTTATTGTTGGTCTGGA	60
<i>Sirt3</i>	AGGCCCATATCCCTCTCTGT ACTCCCTGGGGATCTGAAGT	60	<i>Il1b</i>	CTGTGACTCGTGGGATGATG GGGATTTGTCTGTTGCTTGT	60
<i>Nfe2l2</i>	GCAACTCCAGAAGGAACAGG AGGCATCTTGTTTGGGAATG	58	<i>Tgfb1</i>	GCAACAACGCAATCTATGAC CCTGTATTCCGTCCTCTT	60
<i>Foxo3</i>	TTCGTTCTGAACCCGCATGA CGGCTCACTTGTCCCAGAT	60	<i>Tnf</i>	CTGAACTTCGGGTGATCCG CTTGGTGGTTTGCTACGACG	60
<i>Map1lc3a</i>	GGTCCAGTTGTGCCTTTATTGA GTGTGTGGGTTGTGTACGTCG	60	<i>Cdkn1a</i>	GAGCAGTGCCCGAGTTAAGG TGGAACAGGTCGGACATCAC	60
<i>Sqstm1</i>	CTAGGCATCGAGTTGACATT CTTGGCTGAGTACCACTCTTATC	56	<i>Cdkn2a</i>	TCCTCCGCTGGGAACGT GGCGTGCTTGAGCAGAAGTT	55
<i>Pik3ca</i>	ACCTCAGGCTTGAAGAGTGTCG CCGTAAGTCGTCGCCATTTTAA	59	<i>Tp53</i>	TTCCTCAATAAGCTGTTCTGCC TGCTCTCTTGCACCTCCCTGG	66
<i>Akt1</i>	CTAACTTGAGCCGCAGGAAC GCTTGCTCAGTTTGCTACCC	57	<i>Sirt6</i>	GACCTAACGCTCGCTGATGA CTGGCGGTCATGTTTGTG	60

An. T: annealing temperature; *Rpl32*: ribosomal protein L32; *Tbp*: TATA box binding protein; *Sod1*: superoxide dismutase 1; *Sod2*: superoxide dismutase 2; *sirt3*: sirtuin 3; *Nfe2l2*: nuclear factor erythroid 2-related factor 2; *Foxo3*: forkhead box O3; *Map1lc3a*: microtubule-associated protein 1 light chain 3 alpha; *Sqstm1*: sequestosome 1; *Pik3ca*: phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha; *Akt1*: AKT serine/threonine kinase 1; *Gsk3b*: glycogen synthase kinase 3 beta; *Mtor*: mechanistic target of rapamycin kinase; *Hif1a*: hypoxia inducible factor 1 subunit alpha; *Rela*: RELA proto-oncogene, nuclear factor kappa B subunit; *Il1b*: interleukin 1 beta; *Tgfb1*: transforming growth factor beta 1; *Tnf*: tumor necrosis factor; *Cdkn1a*: cyclin-dependent kinase inhibitor 1A; *Cdkn2a*: cyclin-dependent kinase inhibitor 2A; *Tp53*: tumor protein p53; *Sirt6*: sirtuin 6.

Figure S1. ATPase activity as a measure of muscle function. Effects of calorie restriction on the enzymatic activity of Complex V. Results are shown as the mean \pm SEM. Two-way ANOVA was performed to assess for significance. Abbreviations: S, sex differences, $p=0.00215$.

