

**Table S1:** RT-PCR and Genotyping primers

All primers are listed in 5' to 3' direction.

<b>GENE</b>	<b>FORWARD PRIMER</b>	<b>REVERSE PRIMER</b>
<i>Pgc-1<math>\alpha</math></i>	AGCCGTGACCACTGACAACGAG	GCTGCATGGTTCTGAGTGCTAAG
<i>Pgc-1<math>\beta</math></i>	AGTCAGCGGCCTTGTGTCAA	ACTCTGGGACAGGGCAGCA
<i>Atp5b</i>	CACCAAGAAGGGATCGATCAC	CAGGTCATCAGCAGGCACAT
<i>Err<math>\alpha</math></i>	CGGTGTGGCATCCTGTGA	CTCCCCTGGATGGTCCTCTT
<i>Cox5b</i>	GCTGCATCTGTGAAGAGGACAAC	CAGCTTGTAATGGGTTCACAGT
<i>Tfam</i>	GGTATGGAGAAGGAGGCCCGG	CGAATCATCCTTTGCCTCCTGGAA
<i>Glut1</i>	CGAGGGACAGCCGATGTG	TGCCGACCCTCTTCTTTTCAT
<i>Glut4</i>	CATGGCTGTCGCTGGTTTC	AAACCCATGCCGACAATGA
<i>Cytoc</i>	GCAAGCATAAGACTGGACAAA	TGTTGGCATCTGTGTAAGAGAATC
<i>Sod2</i>	GGCCAAGGAGATGTTACAAC	GCAACTCTCCTTTGGGTCTC
<i>MyHC-I</i>	CCTTGGCACCAATGTCCCGGCTC	GAAGCGCAATGCAGAGTCGGTG
<i>MyHC-IIa</i>	ATGAGCTCCGACGCCGAG	TCTGTTAGCATGAACTGGTAGGCG
<i>MyHC-IIx</i>	AAGGAGCAGGACACCAGCGCCCA	ATCTCTTTGGTCACTTTCTGCT
<i>MyHC-IIb</i>	GTGATTTCTCCTGTCACCTCTC	GGAGGACCGCAAGAACGTGCTGA
<i>Hif2<math>\alpha</math></i>	CTGAGGAAGGAGAAATCCCGT	TGTGTCCGAAGGAAGCTGATG
<i>Cd68</i>	TTCTCCAGCTGTTACCTTGACCT	GTTGCAAGAGAAACATGGCCCCGAA
<i>Il-6</i>	ATCCAGTTGCCTTCTTGGGACTGA	TAAGCCTCCGACTTGTGAAGTGGT
<i>Mcp-1</i>	TCACCTGCTGCTACTCATTACCA	TACAGCTTCTTTGGGACACCTGCT
<i>Tnf<math>\alpha</math></i>	CCCTCACACTCAGATCATCTTCT	GCTACGACGTGGGCTACAG
<i>Idh</i>	GCATTGCAGAGTTTGCTTCGAGT	GTTCTCCGCAACTTCCCTGCATTT
<i>Socs1</i>	AGTCGCCAACGGAAGTCTTCTT	ACGTAGTGCTCCAGCAGCTCGAAA
<i>Socs3</i>	ACCAAGAACCTACGCATCCAGTGT	CACCAGCTTGAGTACACAGTCGAA
<i>mtNdl</i>	GTCCATACGGCATCCTACAACCAT	TGTGAGTGATAGGGTGGGTGCAAT
<i>mtAtp6</i>	ATGGCATTAGCAGTCCGGCTTACA	TGTAATGGTAGCTGTTGGTGGGCT

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**Genotyping**

*LoxP*            TCCAGTAGGCAGAGATTTATGAC            TGTCTGGTTTGACAATCTGCTAGGT

*Myogenin-cre*    ACTGGAAACGTCTTGATGTG            GTGAAACAGCATTGCTGCTCACT

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