

**Supplementary Table 1. Primers list for RT-qPCR**

<b>Gene</b>	<b>Forward primer (5' - 3')</b>	<b>Reverse primer (5' - 3')</b>
<i>Ucp1</i>	CACTCAGGATTGGCCTCTACG	GGGGTTTGATCCCATGCAGA
<i>mitoDNA</i>	TTAAGACACCTTGCCTAGCCACAC	CGGTGGCTGGCACGAAATT
<i>Dio2</i>	GATGCTCCCAATTCCAGTGT	TGAACCAAAGTTGACCACCA
<i><math>\beta</math>-ACTIN</i>	GGCTGTATTCCCCTCCATCG	CCAGTTGGTAACAATGCCATGT
<i>Fasn</i>	AGGATATGGAGAGGGCTGGT	ACCCAAGCATCATTTCGTC
<i>Pgc1<math>\alpha</math></i>	CCCTGCCATTGTAAAGACC	TGCTGCTGTTCCCTGTTTTTC
<i>Cidea</i>	TGACATTCATGGGATTGCAGAC	GGCCAGTTGTGATGACTAAGAC
<i>Elovl3</i>	TTCTCACGCGGGTTAAAAATGG	GAGCAACAGATAGACGACCAC
<i>Atp5a</i>	TTTGCCAGTTTGGTTCTGAT	CCCGTACACCCGCATAGATAA
<i>Uqcrc2</i>	TGGCTCTGGTTGGACTTGGT	TTTCACCTCCACGGTATTTGG
<i>Sdhb</i>	CTGTGAGGGGCACAGAC	CAACACCATAGGTCCGCACT
<i>Ndufb8</i>	GGCACGTGTTCCCTTCCTAC	CCGCTCCAGGTACAGATTATTGT
<i>Cox8b</i>	GAACCATGAAGCCAACGACT	GCGAAGTTCACAGTGGTTCC
<i>HSL</i>	GAGACACCAGCCAACGGATAC	TTTTGCGGTTAGAAGCCACAT
<i>Cpt2</i>	GGCCACCAACTTGACTGTTT	GAAGGAACAAAGCGGATGAG
<i>Glut1</i>	TCAACACGGCCTTCACTG	CACGATGCTCAGATAGGACATC
<i>HK2</i>	TGATCGCCTGCTTATTCACGG	AACCGCCTAGAAATCTCCAGA
<i>Mtcol1</i>	ACACATGAGCAAAAAGCCCAC	AGTCTGAGTAGCGTCGTGGT
<i>PPAR<math>\gamma</math></i>	CCGTAGAAGCCGTGCAAGAG	GGAGGCCAGCATCGTGTAGA
<i>NucDNA</i>	ATGACGATATCGCTGCGCTG	TCACTTACCTGGTGCCTAGGGC
<i>Letmd1</i>	CGGGAGATGGAGCATTTGAGACAG	GGCAAAGGGTGGAAATGGAGATGAG
<i>Pgc1<math>\alpha</math></i>	CCC TGC CAT TGT TAA GAC C	TGC TGC TGT TCC TGT TTT C

**Supplementary Table 2. Antibody list**

<b>Antibody</b>	<b>Company</b>
UCP1	Abcam, USA
LETMD1	Abcam, USA
SCA-1-APC	Miltenyi Biotec, Germany
CD11B-FITC	Miltenyi Biotec, Germany
CD45-PE	Miltenyi Biotec, Germany
HSP90	Proteintech, USA
TOMM20	Proteintech, USA
A-TUBULIN	Proteintech, USA
MFN2	Proteintech, USA
DRP1	Proteintech, USA