Supplementary Information Guide

Supplementary Table 1. Genotyping primer sequences and pairs for alleles used in this study.

Supplementary Table 2. RT-PCR primer sequences and pairs for quantitative gene expression studies

Supplementary Table 1. Genotyping primer sequences and pairs for alleles used in this study.

Allele	Primers	Pairs	bp
Opn5	F1: CACAGTATGTGTGACAACCT F2: ACTATCCCGACCGCCTTACT R1: GTGGACAGATTAACTGAAGC R2: GAACTGATGGCGAGCTCAGA	F1R1 – Wild type F1R1 – *Opn5*^{fl} F1R2 – *Opn5*$^{-}$ F2R2 – *Opn5*^{lacz}	626 700 376 701
Opn5^{cre}	F1: TGGAAAGAGATGCATTTGTGAG F2: CACTGCATTCTAGTTGTGGTTTGTCC R1: ACAGCCTATGAATTCTCTCAATGC	F1R1 – Wild type F2R1 – *Opn5*^{cre}	300 209
Lepr^{cre} *Rx*^{cre}	F: GCATTACCGGTCGATGCAACGAGTGATGAG R: GAGTGAACGAACCTGGTCGAAATCAGTGCG	FR – *cre*	450
Rosa26	F: AAGGGAGCTGCAGTGGAGTA R: CCGAAAATCTGTGGGAAGTC	FR – *Rosa26*$^{+}$	297
Ai14	F: CTGTTCCTGTACGGCATGG R: GGCATTAAAGCAGCGTATCC	FR – *Rosa26*^{Ai14}	196
Ai6	F: AACCAGAAGTGGCACCTGAC R: GGCATTAAAGCAGCGTATCC	FR – *Rosa26*^{Ai6}	199
RΦGT	F: ATTGCATCGCATTGTCTGAG R: CCGAAAATCTGTGGGAAGTC	FR – *Rosa26*^{RΦGT}	300
CAMPER	F1: AAGGGAGCTGCAGTGGAGTA R1: CAGGACAACGCCCACACA F2: GTCCAAGCTGAGCAAAGACC R2: GGTCAGCTTGCCGTAGGTG	F1R1 – *Rosa26*$^{+}$ F2R2 – *Rosa26*^{CAMPER}	241 260

Supplementary Table 2. RT-PCR primer sequences and pairs for quantitative gene expression studies.

Target	Forward primer	Reverse primer
Dio2	CAGTGTGGTGCACGTCTCCAATC	TGAACCAAAGTTGACCACCAG
Prdm16	CAGCACGGTGAAGCCATTC	GCGTGCATCCGCTTGTG
Pgc1a	CCCTGCCATTGTTAAGACC	TGCTGCTGTTCCTGTTTTC
Cidea	TGCTCTTCTGTATCGCCCAGT	GCCGTGTTAAGGAATCTGCTG
Ucp-1	ACTGCCACACCTCCAGTCATT	CTTTGCCTCACTCAGGATTGG
Ppary	GTGCCAGTTTCGATCCGTAGA	GGCCAGCATCGTGTAGATGA
Cyt-c	GCAAGCATAAGACTGGACCAAA	TTGTTGGCATCTGTGTAAGAGAATC
Tbp	GAAGCTGCGGTACAATTCCAG	CCCCTTGTACCCTTCACCAAT