

Table S1. Primer sequences used for ground squirrel qRT-PCR

Gene symbol	Protein	Direction	Sequence	Source	Size (bp)
ACAA1	acetyl-Coenzyme A acyltransferase 1	Forward	CTGTGTGGAGAACGCTAGGAATCC	UP <sup>a</sup>	51
		Reverse	CCTCCCAGAGGGTTCACCTT		
ACAA2	acetyl-Coenzyme A acyltransferase 2	Forward	AGCCTTGCTCCCCAGTATT	IT <sup>a</sup>	180
		Reverse	GCTGATCCAACGGCATTT		
ACADM	acyl-Coenzyme A dehydrogenase, C-4 to C-12 straight chain	Forward	GGGAGCTTTGATAGAACCA	UP <sup>b</sup>	91
		Reverse	CAGGGCATACTGGTAGCTT		
ACADVL	acyl-Coenzyme A dehydrogenase, very long chain	Forward	GACATTCTCGGCTCTTGT	UP <sup>b</sup>	129
		Reverse	CTGTTTCCCTGCCTCTCCTA		
ACAT1	acetyl-Coenzyme A acetyltransferase 1	Forward	ATTGATCCCCAAAAAGTGA	UP <sup>b</sup>	146
		Reverse	CCTCCCTCATTGCAGATACT		
ACAT2	acetyl-Coenzyme A acetyltransferase 2	Forward	GCCATGGGAGTAACCTTGAA	CL <sup>a</sup>	245
		Reverse	AGCTTGCTTATGGCTGGAA		
ACSL3	acyl-CoA synthetase long-chain family member 3	Forward	TGAAGCAAAACAAAAGCTG	UP <sup>b</sup>	94
		Reverse	ACAACCATCAGGGTCAAAC		
AGPAT3	1-acylglycerol-3-phosphate O-acyltransferase 3	Forward	TGGTCATCATCCTCAATCAC	UP <sup>b</sup>	104
		Reverse	CTTCTTAGCGAGGACTTTGG		
ARG1	arginase, liver	Forward	GATGCTCACACGGATATCAA	UP <sup>b</sup>	114
		Reverse	TCCTGGTACATCAGGGATCT		
BCKDHA	E1-alpha subunit of the branched-chain alpha-keto acid dehydrogenase complex	Forward	GCCAGATGCCTGTCCACTAT	IT <sup>a</sup>	235
		Reverse	TTGTTCCGGCAGAAGAAGAT		
BCKDHB	branched chain keto acid dehydrogenase E1, beta polypeptide	Forward	GGCTTGGCGTCAGAGATCAG	IT <sup>a</sup>	160
		Reverse	TTTTCGAAGGGCATCATAG		
BDH2	3-hydroxybutyrate dehydrogenase, type 2	Forward	TGTTGCTGGTTTGTTCATC	UP <sup>b</sup>	126
		Reverse	GCAAGCATTAGGAAGGAA		
CACT	carnitine/acylcarnitine translocase	Forward	GCTTCTTGGGTTGGTTTG	CL <sup>a</sup>	203
		Reverse	TGCACAGTCCAAGGTACCA		
CPT1A	carnitine palmitoyltransferase 1A, liver	Forward	CATCGTCACCATGCGCTACT	UP <sup>a</sup>	51
		Reverse	CAGCCGTGGTAGGAGAGCAG		
CPT1B	carnitine palmitoyltransferase 1B, muscle	Forward	GCCACAATTCAAGCGGTACTT	IT <sup>a</sup>	215
		Reverse	CTGTTCACCATGAGGGGACT		
CRAT	carnitine acetyltransferase	Forward	GGCCCATATCAACTTCTCTG	UP <sup>b</sup>	110
		Reverse	GAAGTAGGGTACCGATGTCC		
CS	citrate synthase	Forward	GGCCATAGTATCCCTGAATG	UP <sup>b</sup>	117
		Reverse	CTGTTCCTCTGTTGGGATCT		
ELOVL6	ELOVL family member 6, elongation of long chain fatty acids	Forward	ACCTCAGCTACCTGTGCTC	UP <sup>b</sup>	81
		Reverse	ATTCAAGCTTCGTTGGTTTC		
Fabp1	fatty acid binding protein 1, liver	Forward	CACTTCAAGCTCACCACATCAC	UP <sup>b</sup>	115
		Reverse	TGTTGACCACTGTCTTGACC		
FABP4	fatty acid binding protein 4, adipocyte	Forward	GCCAGGAATTGATGAAGTC	UP <sup>b</sup>	94
		Reverse	ATCCACTTCTGCACCTGAAC		
G6PC	glucose-6-phosphatase, catalytic subunit	Forward	GATGGAGGAAGGAATGAATG	UP <sup>b</sup>	118
		Reverse	GAGGTCAAGCAATCACAGACA		
GAPDH	glyceraldehyde-3-phosphate dehydrogenase	Forward	AAGGTATCCCTGAACTGAA	UP <sup>b</sup>	114
		Reverse	ATCGTATTTGGCAGCTTCT		
GLUD1	Glutamate dehydrogenase 1	Forward	GTGCATTCTGGCTTAGCCTACA	UP <sup>a</sup>	51
		Reverse	CATAATTGCGCTGGCTGAACG		
GOT1	glutamic-oxaloacetic transaminase 1	Forward	CTGCTCAGGGAGCACGAATT	UP <sup>a</sup>	51
		Reverse	CACATTGCCTGTCCATTCTTAAAG		
GOT2	glutamic-oxaloacetic transaminase 2	Forward	CGGTACTATGACCCCAAGAC	UP <sup>b</sup>	92
		Reverse	TGCAGGGAGAACACTCTG		
Gpd1	Glycerol -3-phosphate dehydrogenase 1	Forward	CTCTGAAGTGTGGGGAAAC	UP <sup>b</sup>	88
		Reverse	GAACCTCTCATCAGCCACCT		
GSK3A	glycogen synthase kinase 3 alpha	Forward	CTGACACTGCTGTCTCAAG	UP <sup>b</sup>	144
		Reverse	CGATGGACGAGGTATAATCA		
GSY1	glycogen synthase 1, muscle	Forward	ACCATTTACCAACCCATGC	CL <sup>a</sup>	51

			Reverse	ACCAAGCACACAGGTAGCGC		
GSY2	glycogen synthase 2		Forward	CATCACCACCGCGACAGAA	UP <sup>a</sup>	51
			Reverse	GTACTGAGGAAGGCCTGGGATA		
HADHA	hydroxyacyl-Coenzyme A dehydrogenase, alpha subunit		Forward	TGTCAGCAAAGACCTGAGA	UP <sup>b</sup>	116
			Reverse	CAGAACGAGTTGTGCTCTTG		
HADHSC	short-chain L-3-hydroxyacyl-CoA dehydrogenase		Forward	TCTTGCAGATACAAGCAT	UP <sup>b</sup>	76
			Reverse	CTGGGTTGAAGAAATGAAGG		
HK1	Hexokinase 1		Forward	CGTGGATGGGACACTCTACA	UP <sup>b</sup>	102
			Reverse	GACAGGAGGAAGGACACGTT		
HMGCL	3-hydroxymethyl-3-methylglutaryl-Coenzyme A lyase		Forward	GTACGTCTCCTGTGCTTG	UP <sup>b</sup>	96
			Reverse	TAGCAGCCCATTGAGTACAA		
HMGCS2	3-hydroxymethyl-3-methylglutaryl-Coenzyme A lyase		Forward	CCCTTACCTTCCACACAC	UP <sup>b</sup>	138
			Reverse	CTAACGCCAGAGCCATAGGAG		
HPD	4-hydroxyphenylpyruvate dioxygenase		Forward	CCTGAGAGAGGCCGATTCCCT	CL <sup>a</sup>	51
			Reverse	GCCAACCCAGAAGGTACACAG		
HPRT1	hypoxanthine phosphoribosyltransferase 1		Forward	CGACCTGACTTTGTTGGATT	UP <sup>b</sup>	124
			Reverse	ATTTGCTTCCCAGTTCA		
HSL	Hormone-Sensitive Lipase		Forward	TTGCGCGAGTATGTCACACTG	UP <sup>a</sup>	51
			Reverse	CAAGCAGCGGCCATAGAAAC		
IDH2	isocitrate dehydrogenase 2 (NADP+), mitochondrial		Forward	GATGGTCTTCACTCCAAAGG	UP <sup>b</sup>	109
			Reverse	CGAGATGGACTCATCGGTAT		
IDH3B	isocitrate dehydrogenase 3 (NAD+) beta		Forward	GCCAATGTAGTCCATGTGAA	UP <sup>b</sup>	88
			Reverse	CTTCTGTCTGCTCACGAATG		
LDHB	lactate dehydrogenase B		Forward	TCTCAATCTGGTGCAGAGAA	UP <sup>b</sup>	78
			Reverse	ATGCAATCGGGACTGTACTT		
MDH2	malate dehydrogenase 2, NAD, mitochondrial		Forward	ATCCCACATCACAGCAGAACT	UP <sup>b</sup>	111
			Reverse	CAGCTCTGCAACAAAAGTGT		
OTC	ornithine carbamoyltransferase		Forward	CATCCTGGCTAGAGAACAT	UP <sup>b</sup>	130
			Reverse	GCTGAGGGTAAGAACCTTGA		
OXCT1	3-oxoacid CoA transferase 1		Forward	GGACAGTAAGAAAGGGCTGA	UP <sup>b</sup>	83
			Reverse	AATCACACCCAGTGCTCTT		
PAH	Phenylalanine hydroxylase		Forward	GGACAGGAAACGAGCTACAT	UP <sup>b</sup>	87
			Reverse	TGCACCAACTTCTCTTGA		
PCK1	Phosphoenolpyruvate carboxykinase 1		Forward	ATCGACTACATCCCCAAAGAA	UP <sup>b</sup>	104
			Reverse	ACTTCCTCCTCCCAGAACTC		
PCK2	phosphoenolpyruvate carboxykinase 2, mitochondrial		Forward	AGTGAAGGTCGACTCCGGG	UP <sup>a</sup>	51
			Reverse	GCCACCCCAAAGAAACCATT		
PDHE1B	pyruvate dehydrogenase E1 beta		Forward	GGATGTGAACTGGAAAGAG	UP <sup>b</sup>	75
			Reverse	TTGTATGCCCATCATCTG		
PDK1	pyruvate dehydrogenase kinase, isozyme 1		Forward	GGGATATGGGACAGATGCAG	CL <sup>a</sup>	164
			Reverse	GGAACGTGGTCATGTCCTT		
PDK2	pyruvate dehydrogenase kinase, isozyme 2		Forward	TCCAACCAGAACATCCAGTA	UP <sup>b</sup>	93
			Reverse	ATCAAAGATGAGGGTGTGCT		
PDK4	pyruvate dehydrogenase kinase, isozyme 4		Forward	GAGCTTCTCCCGCTACAG	IT <sup>a</sup>	161
			Reverse	CGATCAGGGAGGACATCAAT		
PFKL	phosphofructokinase, liver		Forward	GTGATCGCATCAAACAGTCG	UP <sup>a</sup>	130
			Reverse	AAGACGTAGGCAGCATCAGC		
PFKM	phosphofructokinase, muscle		Forward	GTGGTGAGCCTCTGGTAA	UP <sup>b</sup>	116
			Reverse	AGCTTCATGGCTTCATCAA		
PKM2	pyruvate kinase, muscle		Forward	GAACGTCGCTCGTCAAAC	UP <sup>b</sup>	108
			Reverse	TAGAGAATGGGGTCAGAAC		
RPS3	ribosomal protein S3		Forward	ACTCCGAGGACAGAGAGCTA	UP <sup>b</sup>	149
			Reverse	GCAGCATGATCTTCACTTTG		
SC4MOL	sterol-C4-methyl oxidase-like		Forward	GTTGGAAAACCAATGGAAT	UP <sup>b</sup>	82
			Reverse	ATGGGTTCCACAAATCAAAG		
SCD	stearoyl-CoA desaturase, delta-9-desaturase		Forward	CCGACCCCTATAACTCTCGC	CL <sup>a</sup>	51
			Reverse	GCCAACCCACGTGAGAGAAAG		
SUCLG1	succinate-CoA ligase, alpha subunit		Forward	TGGTGATGCAGAAGAAAATG	UP <sup>b</sup>	99

		Reverse	GGAGCAGTTAACCCAGCAAT		
<i>UGP2</i>	UDP-glucose pyrophosphorylase 2	Forward	AAGATGGTGCCTCTCAGTTC	UP <sup>b</sup>	148
		Reverse	TGAAATAGCTTCCGAAATCC		
<i>YWHAZ</i>	protein kinase C inhibitor protein	Forward	GGGCTAAGTTACCCAAAGC	UP <sup>b</sup>	147
		Reverse	AGAAAACATTGTCCCTGCTC		

Source indicates species of EST sequence used to develop primers (CL, *Callospermophilus lateralis*; IT, *Ictidomys tridecemlineatus*; UP, *Urocitellus parryii*) and source of the EST sequence (<sup>a</sup>Yan et al., 2008; <sup>b</sup>present study).

Size indicates length of the amplicon.