

Table S9. Nucleotide sequence of primers used in RT-qPCR analyses

Gene	GeneBank accession number	Primer sequence (5'→3')	Product size (bp)
<i>CNDP1</i>	XM_004935199.3	GCTGGAAAACGTGACCCTTTCAC CTGGCATAGCTCTTTTCAAGGC	138bp
<i>CARNMT1</i>	KR998071.1	TGCTTGCCAAGGAAATGAATGG TGCTAAACTGATGAATCCAGGGA	116bp
<i>CARNS</i>	NM_001172593.1	GCCCACTGGATATGACTGTGTG CACAGCACCATGGCACCT	100bp
<i>CTH</i>	XM_422542.5	AGCCATTCCGTCTCCCTTG TCAAGGAATCGACCCACAGC	111bp
<i>BCKDH E1a</i>	AB035083.1	ACCTCTTCTCCGATGTGTACCG TCGTAGAGCTCCATGGGGTAAT	112bp
<i>BCKDH E1b</i>	AB035084.1	TTGGATTGGTATTGGAGTTGCT AGAGCGGTAACGATACTTTGCTG	125bp
<i>BCAT1</i>	XM_004937974.1	CAGCAGTTCTGTGGCTATACG AAGGTGGAGTTGCCAGTTCATT	115bp
<i>ODC</i>	NM_001167766.1	GCCAGAGTTGCAAGTTGGTG TGCCATGCTGGTCTTGACAT	129bp
<i>AMD</i>	NM_001012569.1	CCACCTCTTACTGCAAGCA TACTCCTGGTGGGAAGGCTT	124bp
<i>INSR</i>	XM_001233398.5	GTCTGCTTTTCTCCCTCCACA GACAACCAGTCAACTTGGCAAA	146bp
<i>IGF1R</i>	NM_205032.1	GGCCATACGGATTGAGAAGAAC TCGGAGGCTTATTTCCAACAAT	110bp
<i>IRS1</i>	XM_004951101.1	GCATTGAGGAAACGGACTCACT GGGGTAAGAAGGCAACATCTCC	120bp
<i>IRS2</i>	XM_425588.4	ACTCGGACAGCTTCTTTCAT GAACTCGGACAGCTCCTTTAGA	152bp
<i>RPS17</i>	NM_204217.1	AAGCTGCAGGAGGAGGAGAGG GGTTGGACAGGCTGCCGAAGT	136bp

Abbreviations: *CNDP1*: carnosine dipeptidase 1, *CARNMT*: carnosine N-methyltransferase, *CARNS*: carnosine synthase, *CTH*: cystathionine gamma-lyase, *BCKDH E1a*: branched-chain alpha-keto acid dehydrogenase E1-alpha subunit, *BCKDH E1b*: branched-chain alpha-keto acid dehydrogenase E1-beta subunit, *BCAT1*: branched chain amino-acid transaminase 1, *ODC*: ornithine decarboxylase, *AMD*: adenosylmethionine decarboxylase, *INSR*: insulin receptor, *IGF1R*: insulin-like growth factor 1 receptor, *IRS1*: insulin receptor substrate 1, *IRS2*: insulin receptor substrate 2, *RPS17*: ribosomal protein S17