

**Appendix 1. cDNA PCR primers.**

Gene	Location	Primer	Primer sequence (5'→3')	Annealing temperature (°C)	Product size (bp)
<i>SYT3</i>	exon1	SYT3_cF1	ACCTTCGGATCAGAGGCTATC	60	689
	exon3	SYT3_cR1	GAGCTTGGCCTTTTCCTCTC		
	exon2	SYT3_cF2	AGTCGCATCAGCAGGTCAC	60	592
	exon4	SYT3_cR2	AGCTCCAGAAGGTTGTCCAG		
	exon4	SYT3_cF3	AAACTGCACTTCAGCGTCTATG	60	600
	exon7	SYT3_cR3	GCTGCCTTTTGTGAAGCTG		
	exon6	SYT3_cF4	CGTCTGAAGAAGCGGAAAAC	60	429
	exon8	SYT3_cR4	GACGTTATGGCTTCGAGGAG		
<i>SYT5</i>	exon1	SYT5_cF1	TGTCTAGCTGCCGCACAG	60	487
	exon5	SYT5_cR1	GCACGTAGGGATCAGAGGAG		
	exon4	SYT5_cF2	AGCCAGAAGTGGAAGAGCTG	60	491
	exon7	SYT5_cR2	ATAGCGGAGGGAGAAGCAG		
	exon6	SYT5_cF3	TACGACTTCGACCGCTTCTC	60	498
	exon9	SYT5_cR3	CAGCATGTCTGCCCAGTG		
<i>CPT1C</i>	exon1	CPT1C_cF1	GGAGGCGCATTAACCAAGT	60	465
	exon4	CPT1C_cR1	AGCCTGTGATGCTGTCCAC		
	exon3	CPT1C_cF2	TCAGCTGGCTTTTCCTCTTC	60	542
	exon7	CPT1C_cR2	CACGAATTCTTCCCACCAGT		
	exon6	CPT1C_cF3	TGCAGTGGTACTTGCAGCTC	60	662
	exon11	CPT1C_cR3	TGCGTAGGCGTCTAAGGAAG		
	exon11	CPT1C_cF4	GCTTTCTTCGTATCCCTCGAC	60	556
	exon15	CPT1C_cR4	CTTCCAGGAACAAGCGAGTC		
	exon14	CPT1C_cF5	CAGCTTCATCCAGACCACCT	60	411
exon17	CPT1C_cR5	TCGGGGTAATTACGAACGTC			
<i>PLXNC1</i>	exon1	PLXNC1_cF1*	GCTGCTTGCCTATCTGCTG	60	455
	exon1	PLXNC1_cR1*	TGTCGTTTCGCGTAGTACACC		
	exon1	PLXNC1_cF2*	AAGCTGCTGCTGCCCTAC	60	587
	exon1	PLXNC1_cR2*	TCCACCAAGCTGGAAGAGAG		
	exon1	PLXNC1_cF3	CGAGATGCTCCTGTTCCAG	60	562
	exon4	PLXNC1_cR3	GTTCGCAACACGAATTCTCC		
	exon3	PLXNC1_cF4	GAAAATTTGGCCTCGAATTG	60	594
	exon8	PLXNC1_cR4	TCGGATACATCCTGGACATTC		
	exon6	PLXNC1_cF5	TCCCAACCAGGACAGCTTAC	60	666
	exon12	PLXNC1_cR5	GGCCCATGATGGTTATATTTTG		
	exon11	PLXNC1_cF6	GGACCCTTGCTTACGTTGC	60	480
	exon14	PLXNC1_cR6	AAAGATGGTGGTAAGATCTTGATTTC		
	exon13	PLXNC1_cF7	TGAGGTGGACACAGAATTGG	60	585
	exon18	PLXNC1_cR7	TCGCTGGCATCTCTGTTATG		
	exon17	PLXNC1_cF8	GAACCTTCTTCCCCGAGTCAG	60	673

	exon22	PLXNC1_cR8	GGAGAGCCATTTTTGCTTAGG		
	exon22	PLXNC1_cF9	GTGCAGATGTCTGTCTCGGAAC	60	516
	exon27	PLXNC1_cR9	TTATAGCAAACGGGGCTCTG		
	exon27	PLXNC1_cF10	ACCAAGGTGGCAATTCCTC	60	568
	exon31	PLXNC1_cR10	CCAGCCCTCGTTCTCTTTC		
	exon30	PLXNC1_cF11_2	TGAAGAAGTGGCCTTGACAG	60	181
	5'UTR	PLXNC1_cR11_2	TTAAGCCAGTCCCCAGAGTG		
<i>SOCS2</i>	exon3	SOCS2_cF2	GTGACCTTTCTCCCATGACC	60	565
	exon4	SOCS2_cR2	GGTAAAGGCAGTCCCCAGAC		
	exon4	SOCS2_cF3	GTGCAAGGATAAGCGGACAG	60	542
	exon4	SOCS2_cR3	TACCAGTGCTGGGACCTTTC		
	exon4	SOCS2_cF4	TAGGTGAAAGGTCCCAGCAC	60	643
	exon4	SOCS2_cR4	GCAGTAAATAAACACTTTGAAAAGCAG		
<i>KIF21A</i>	exon1	KIF21Aex1-4_F	CGGGTGGCTGTCAGAATA	58	569
	exon4	KIF21Aex1-4_R	TCGGATTCCGTATTCCTGT		
	exon4	KIF21Aex4-8_F	AAGATTCAGCTGGAGGAATTTAT	58	583
	exon8	KIF21Aex4-8_R	TTGACCATCACTTTGTTCTTGA		
	exon8	KIF21Aex8-11_F	ATAGCATGTGTCAGCCCTTC	58	507
	exon11	KIF21Aex8-11_R	TCTTGATGTGGCTCTTGTC		
	exon11	KIF21Aex11-14_F	AGCCACATCAAGATCACCAT	58	533
	exon14	KIF21Aex11-14_R	GCACTTGGTCTCTTTCAAGC		
	exon14	KIF21Aex14-18_F	TGAAGAGAAGCTAATGATGCTACA	58	562
	exon18	KIF21Aex14-18_R	ACTGGAACCTGTGTCCTGAA		
	exon18	KIF21Aex18-21_F	GGGAAAGTCACTCGGAAGTT	58	587
	exon21	KIF21Aex18-21_R	AGAAGGTATCGGGCTTCTGT		
	exon21	KIF21Aex21-26_F	AGAAACATTGGATGTCCTGC	58	575
	exon26	KIF21Aex21-26_R	GAGGGAGCTCTTTTCCCTA		
	exon26	KIF21Aex26-30_F	AGAACCACCACTCAAATGGA	58	591
	exon30	KIF21Aex26-30_R	CACACAGAGCACAGCTTTTG		
	exon30	KIF21Aex30-33_F	CATAATCAACCCGTTTCCAG	58	592
	exon33	KIF21Aex30-33_R	GTAATGATCCTTGGAGCCAGT		
	exon33	KIF21Aex33-36_F	CAGGACATCTAGGCCCTGT	58	548
	exon36	KIF21Aex33-36_R	AATGTCTTCCCCCAAATCTC		

The PCR primers for amplification of the cDNA of the bovine *SYT3*, *SYT5*, *CPT1C*, *PLXNC1*, *SOCS2* and *KIF21A* genes are shown.