

**Supplementary Table S1.** Primers used in this study.

Experiment/Gene	Primer	Primer sequence (5' to 3')
5'RACE	GSP1-s275	GCAGGGGTAGCACAGTAGGTCTC
	GSP2-s117	GTCTACCAGTTCCCCACCACAAAG
	GSP2-s 50	GCCAAAAAGGTGAGTGATAACAGGA
<i>Imprint and expression</i>	gDNAFw	GACTCCACTTTCCTTCCTTCCCTTT
	cDNA-1A-Fw	CTTCGCAAAATCTGGATGGGTTT
	cDNA-1B-Fw	AGTGGCAGCTTTGAATGGGTTT
	cDNA-1C-Fw	CTCACTCTTGAAAAAGCTCACGAT
	Seq Fw	GAGAGGGCCTCGCTACCAAC
	SNP1-Rv	AAAGCATGGCAGCCCACACT
	SNP1-3Rv	CTCTTCTGCCGAAGGATGAC
	qPCR-Rv	TGCCAGGAAGACTGAAATAGAAGC
	gDNA-CGI4-Fw	GTGGCCAAGAGCCAGGCAAG
	gDNA-CGI4-Rv	AGGGCGAGGACAGACTGGAAG
<i>Bisphite sequencing</i>	P1-BS- Fw	GGGAGTTTTTTGGTTTTTTTAGGT
	P1-BS- Rv	AAAAAAAAACATACCCCAAATTTTAC
	P2-BS1- Fw	TTTTTGTTTATTGTTTTATAAAATTTTT
	P2-BS1- Rv	CACTACTACTACCCACCTCCTTACTAC
	P2-BS2- Fw	TTTAAAATTAGATTAATGATGAGATTT
	P2-BS2- Rv	CTACTACTACCCACCTCCTTACTAC
	P3-BS- Fw	TGGGGTAGGGTTATATTGATTTTTGGAT
	P3-BS- Rv	TCTATCTCTCCACCAATACCCAACAAA
	CGI4-BS -Fw	AGTGAGGGAGAAGAGGGTTTTATTA
CGI4-BS -Rv	AACCTCTTACCTCCCAAATTAACTC	
<i>B-ACTIN</i>	Fw	TTGCTGACAGGATGCAGAAG
	Rv	AAAGCCATGCCAATCTCATC
<i>18S</i>	Fw	CGGCTACCACATCCAAGGAA
	Rv	GCTGGAATTACCGCGGCT
<i>GAPDH</i>	qPCR Fw	TCCCAATGTATCTGTTGTGGATCTG
	qPCR Rv	AACCATACTCATTGTCATACCAAGAAAT
	Fw	CCTACTCCCAATGTATCTGTTGTGG
	Rv	GGTGGAACCTCTTTTTTACTGG