

TableS1 Primer Sequences

Primer name	Primer sequence	
sgRNA1	GTTCTGCATCCGATAGAAGTTGG	
sgRNA2	CCAAATGAGGAGGGGGGAGACAC	
sgRNA3	GGGCGGCTGCAAACAGCGATAGG	
External primer F1	GTGGGCAAAGGATGGATTGA	Knockout targets and amplification primers for identifying homozygous clones
External primer R1	TGGGTGGACTGAAGGGAAAG	
Internal primer F1	TGCCAACTCACGGTGCAGTGGAAAT	
Internal primer F2	TCCAAAGCGTAGGTCCCTCTTCGTGTC	
Fragment A-F	GGATGGGGATAGAGGAGT	
Fragment A -R	ACAGCAAACGACTCACCTT	
Fragment B-F	CTTAAGATTTGTGCCAACTCAC	
Fragment B-R	GGTCCCTCTTCGTGTCTC	primers for construction of enhancer blocking assay vector
Fragment C-F	TACGCTTTGGATTTCTGCGGCAGC	
Fragment C-R	CAGGCTCTTCTTCACTCTTCC	
Fragment A-mut -F	GGGCTACAGTTTTTTGCGTTCCCAAATG	
Fragment A-mut -R	TTGGGGGCGCCACAGACTCTTGCGTGC	
Dlk1-F	ACGGGAAATTCTGCGAAATA	
Dlk1-R	CTTTCCAGAGAACCCAGGTG	
Gtl2-F	CGAGGACTTCACGCACAAC	
Gtl2-R	TTACAGTTGGAGGGTCTCTGG	
Rian-F	TAGAGTCTCCCTTGAAAGTGG	
Rian-R	TGGTATCTATAAGAACAGAGCTGA	
Mirg-F	GTTGTCTGTGATGAGTTCGC	
Mirg-R	GTTCTTGAACATCCGCTCC	qRT-PCR Primers
Gapdh-F	GTCGTGGAGTCTACTGGTGTGTC	
Gapdh-R	GAGCCCTTCCACAATGCCAAA	
Dlk1-DMR-F1	ACATGGCCCTCCCAAGACCT	
Dlk1-DMR-R1	GCTGCAGCCAGCTTGTTTCCT	
Dlk1-DMR-F2	AATCGTCCCAGAGTGATG	
Dlk1-DMR-R2	GTATTTTCGCTTGCTCTTCTC	
IG-DMR-F1	TAAGTGTTGTGGTTTGTATGGGTA	
IG-DMR-R1	CCATCCCCTATACTCAAAACATTCT	
IG-DMR-F2	TGGTTTGTTATGGGTAAGTTTTATG	
IG-DMR-R2	CTTCCCTCACTCCAAAAATTAAAA	
Gtl2-DMR-F	AAATTTTGTAAGGAAAAGAATTTTAGG	Primers for Methylation analysis
Gtl2-DMR-R	TTCAAATTAATAATCAACATAAACCTC	