

**Table S2.** List of primer sequences used in PCR, qRT-PCR, MSP and bisulfite sequencing analysis.

<b>qRT-PCR primers</b>	<b>Sequence (5' → 3')</b>
HSA-MIR-31	Stem-loop: GGAGAGGAGGCAAGAUGCUGGCAUA GCUGUUGAACUGGGAACCUGCUAUGC CAACAUAUUGCCAUCUUCC
MCM2-F	CAAGACTTTGCCGCTACCT
MCM2-R	TCTGCCACTAACTGCTTCAGTATGA
FIH1-F	CACATAGGCTTGCCTCTAAAGC
FIH1-R	TTGAGGGTGTGTGGCACATT
<b>PCR primers for mapping</b>	<b>Sequence (5' → 3')</b>
9p – 1Mb-F	CCTGCTGTGCACTAGATCTC
9p – 1Mb-R	AGGGCTCCCCTTGATTCTG
9p + 1Mb-F	GTTATGCTGCATTCCAGATGG
9p + 1Mb-R	GTAATGCTCCAGGTCTATGC
9p – 2Mb-F	CTGCACCGCGTTAACTCGTCAT
9p – 2Mb-R	GGAAACCATCATTCTCAGCAAAC
9p + 2Mb-F	GAATGCTCGGAGAACATG
9p + 2Mb-R	CACTGTGCAGATAAAGGGAAC
9 + 5Mb-F	AAACGTAGCAGTCAGGAGGC
9 + 5Mb-R	TCAACAGCGGAATAACACA
LOC402359-F	TGGGGATCCTTACAAAGTGC
LOC402359-R	CTTCGTGTAGCCTGCTGCC
DMRTA1-F	AGTGTCTCAAGACCAAGAGATCCT
DMRTA1-R	TGAAAGGCTGTGTTCCAGTTC
MIR-31-F	CTTGAGGGCCTATGGAGTCA
MIR-31-R	GCCAGTCCTCGTGTATTGC
CDKN2A (p16)-F	GAATCCCGTAGCTCCCTAC
CDKN2A (p16)-R	CGGGTCCCGATTAGAAGG
<b>MSP primers</b>	<b>Sequence (5' → 3')</b>
<i>miR-31</i> -Left M primer	TTGTGTATAATTGGGGCGTC
<i>miR-31</i> Right M primer	CCAACTTACCTACGAATCCGA
<i>miR-31</i> Left U primer	TTGTGTATAATTGGGGTGTGT
<i>miR-31</i> Right U primer	CTCCCAACTTACCTACAAATCCA

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<b>Bisulfite sequencing primers</b>	<b>Sequence (5' → 3')</b>
<i>miR-31</i> -Left primer (fragment 1)	GGTTTTTAGGAGGAGTTGGT
<i>miR-31</i> -Right primer (fragment 1)	AAAACCTCTCCCAACTTACCTAC
<i>miR-31</i> -Left primer (fragment 2)	GTAAGTAAGTTGGGAGAGTTT
<i>miR-31</i> -Right primer (fragment 2)	ACCTAAAATTAAACAAAAAAA