

**Supplementary table 2 qPCR primers used in DNase-qPCR and H3 and H3.3 ChIP-qPCR**

<b>Region</b>	<b>Forward</b>	<b>Reverse</b>
<b>TSS DHS sites</b>		
C1ORF159	GAAGCGCCCTGGGAAATGTA	GGGAATGTAGTCCCTCCGTG
EGR1	CTGCTCAGTTCGTGCTCACT	CTCCTCGCTCCTCCTCCC
NPM1	GCGAGGTAGAAAGGAGTGGG	GACGGAATCACACCAGGGAA
GCAT	ACAAGTCAAGCCTCTCGGTC	TCGCTTAAAAAGGCGGGGAG
NRAS	CCCGCTACGTAATCAGTCGG	CATGACTCGTGGTTCCGAGG
HGB1	TTCTTCATCCCTAGCCAGCC	CCTTGCCTTGACCAATAGCC
PIN1	AGGGATAACGTGGGAGGGTC	CTAACGGTCCGGATTGGCTT
HES4	CCTCAGGCCGTTTCCCTATT	GCGAGTGTGGGAAAGAATGC
H3F3B	TGACATCCCCGACACAAAG	GCCAATCAGCGGCGTAGATA
OGG1	CGCCACCCTGATTTCTCAT	AACCACCGCTCATTTACCT
HGB2	GTGTGGAAGTCTGAAGGGT	GCCTTGCCTTGACCAATAGC
NCL	TGAAGATCCCGGAGCACGTA	TTCCACAGGCGATTACTGGG
KIAA0895L	AAATGAGAGGGTGTGGCCTG	TTCCCATTGGCTCTTCACC
DNMT3B	CCGAGCGATTTCAAATTTCCCT	GAGTGGGTGGGGAGGGG
BZRAPP	AATAGGAAGTCGGCTGCTGG	CTGCTCTTCTTCTGTCCCC
<b>Intra and Intergenic</b>		
Intragenic 1	TTTGCATGGGGCTCATTTC	GGATTGACAGTGGCTCCTCC
Intragenic 2	CGTGCGGTGAGCGGG	CAGCCTCGCTCCATCTCATA
Intragenic 3	GTCAGGTGGTCAGCTTCTCC	CTGGCTCAAGCACAGCAATG
Intragenic 4	CAGGACAGGACGGGGAATTT	AAGTGGCGGTGATTACCCTG
Intragenic 5	CAGAACAACACTCACAGGCAACG	GAAGGGGGAAGGATCCAAGC
Intragenic 6	TGGAAGGGAAGTCCGAAGGA	CCATCTCTCCCGGTGCAACA
Intergenic 1	CTGCTGCCGCATTTTCCCTT	AGATAAGGCCTCTGGCTGGA
Intergenic 2	CCACTCTCCTCATCCCTCCA	TACGACTTCAGGCTCTGGGT
Intergenic 3	TGGAACCGGTGTCTGCTAC	CCAGCGGTCTTTTCCACCTC
Intergenic 4	TCAGCGGAGAGTACCTGGTT	GTTTAGGGATGCTGCCACCT
Intergenic 5	GGTCGGCCTCGGGTCT	GGGCCGCAGAAACACCA
Intergenic 6	ATGCCTGCGAGGATGGAAAA	ACTCTGCTCACCAAACCTGG
Intergenic 7	CTCCCACTGCCTTCTGTTGT	CTGTGAGCACGGACATAGCC
Intergenic 8	AGCTTATTCAGTGCCTGGGG	GGGAAAGGTCAGATGCGAGG
Intergenic 9	GTCCTGACCTGGCCACC	GTCGAGGAAGTGGCGTTTTTC
<b>Active tRNA</b>		
tRNA 1	ACACCCCACCACTATCTCCA	TTCTTCCAGGTGCCTCAAC
tRNA 2	CCCACCAATATCTCCACCCAC	CCAGATGCCAATGATTGCGG
tRNA 3	ACTCCAGTTTCTTGCCAGG	GCCACGACTACACGAATGGA
tRNA 4	CGTTGCCAGTGAAGGAGGAT	GCCCCTCTCTAATTCTGCC
tRNA 5	TAGACGGAACCAAGTGCCTC	CCTTCATTCTCGGACGCTT
tRNA 6	CGGGTGAAGGAAAACCTGGGA	CAAACGGCATGCTTTGTGGA