**Additional File 5.** Primers and PCR cycling conditions for 5-hmC analyses.

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| --- | --- | --- | --- |
| region | primers | PCR cycling conditions | PCR product  size |
| *H19* ICR | F: 5’- AGGACACCTATGCCCTT -3’  R: 5’- CGCAGCAATTTGGTCTTTC -3’ | 94°C, 30 sec  60°C, 1 min  72°C, 1 min  repeat 30x  72°C, 10 min | 119 bp |
| *Snrpn* DMR | F: 5’- CCATTGCGGCAAGACTA -3’  R: 5’- GGATGCACTTTCACTACTAGAAT -3’ | 135 bp |
| *H19*-ppDMR | F: 5’- AGTAGTACTTCAGTAGGATAGGG -3’  R: 5’- AGTTATCTTACAGTCTGGTCTTG -3’ | 80 bp |
| *Cdkn1c* DMR | F: 5’- AATATGGCCTGACCCAAAC -3’  R: 5’- AGATCTGTAGCCTGGTCTATAA -3’ | 126 bp |
| *Ndn* DMR | F: 5’- GACTGTGAGATGCAGGAC -3’  R: 5’- CTGTTGGGCTGCCATAG -3’ | 117 bp |
| *Peg12* DMR | F: 5’- GGGCACAGCTCAGAACTA -3’  R: 5’- CTGGGTGAATCCCTTGGT -3’ | 102 bp |

PCR primers were designed to flank individual *Msp*I restriction enzyme recognition sites located within each DMR. Amplification of a unique, appropriately sized product was confirmed on a 10% polyacrylamide gel prior to qPCR experiments. 5-hmC analyses were conducted as described in the Materials and Methods.