**Additional File 3.** Restriction enzymes and hairpin linker sequences for covalent attachment of complementary DNA strands.

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| --- | --- | --- |
| locus analyzed | restriction enzymea,  digestion & heat inactivation temperatures | hairpin linker |
| *H19*-ppDMR | *Ban*I (#R0118S)  37°C, 65°C | 5’-GCACAGCGATGCgttcgaGCATCGCT-3’ |
| *Cdkn1c* DMR | *Sac*I-HF (#R3156S)  37°C, 65°C | 5’- AGCGATGCgttcgaGCATCGCTAGCT -3’ |
| *Ndn* DMR | *Bpu*10I (#R0649S)  37°C, 80°C | 5’- TGAAGCGATGCgttcgaGCATCGCT -3’ |
| *Peg12* DMR | *Bsa*WI (#R0567S)  60°C, 80°C | 5’- CCGGAGCGATGCDDDDDDDGCATCGCT -3’ |
| *H19* ICR | *Ban*I (#R0118S)  37°C, 65°C | 5’- GTACAGCGATGCgttcgaGCATCGCT -3’ |
| *Snrpn* DMR | *Apo*I (#R0566S)  50°C, 80°C | 5’- AATTAGCGATGCgttcgaGCATCGCT -3’ |

For each DMR analyzed, genomic DNA was digested with the noted restriction enzyme and the digested products were ligated to staggered ends present in the hairpin linker to achieve covalent attachment of the complementary strands of DNA in order to obtain methylation data for each CpG dyad.

aRestriction enzymes were purchased from NEB, Ipswitch, MA.