

## Supplemental Figure 5

(A) Methylation states (beige: unmethylated; red: methylated) of individual cytosines at each dinucleotide context (CpG, CpA, CpC, CpT) at single molecule level of the 4.6kb amplicon in the imprinted Inpp5f\_v2 locus. CpA methylation (2nd panel) appears to be completely missing from the imprinted DMR (observable in the top panel). (B) Trend plot showing the population level methylation abundance of each cytosine dinucleotide context in the amplified region of Inpp5f\_v2 gene. CpA methylation (red) appears to be lower in the DMR compared to the surrounding region. (C) Trend plot showing the population level hydroxymethylation abundance of each cytosine dinucleotide context in Inpp5f\_v2 amplicon. (D) Methylation states (beige: unmethylated; red: methylated) of individual CpG sites at single molecule level of 4 previously reported DMR regions from two mouse inbred strains: Cast/EiJ (CAST, Right) and 129X1/SvJ (129, left).