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Additional Supporting Information: Single DNA Molecule Patterning for High-Throughput Epigenetic Mapping

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The full length MBD1 protein is composed of 605 amino acids (UniProt/Swiss-Prot ID: Q9UUIS9). The MBD1 methyl CpG binding domain protein, composed of the first 69 amino acids of the full sequence, has been reported in literature as a CpG-methylation probe (Hendrich, B.; Bird, A. *Mol. Cell. Biol.* **1998**, *18*, 6538-6547, which was cited as reference 13 in our paper). In our work, a peptide from the C-terminus of MBD1 (Abcam, Ab4918) corresponding to the last 13 amino acids of the full sequence was used. To our knowledge, this peptide has not been previously reported for the detection of DNA methylation. In Figure S2, we provide a Southwestern blot for both the MBD1 C-terminus peptide and the MBD1 methyl CpG binding domain protein, indicating that both have specificity for methylated DNA vs. unmethylated DNA. This was confirmed by our single molecule imaging of combed DNA.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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