analytical chemistry

Addition/Correction

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Correction to Single DNA Molecule Patterning for High-Throughput Epigenetic Mapping

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An additional figure to the Supporting Information of the original manuscript is being presented here that will greatly benefit the reader.

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 the 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

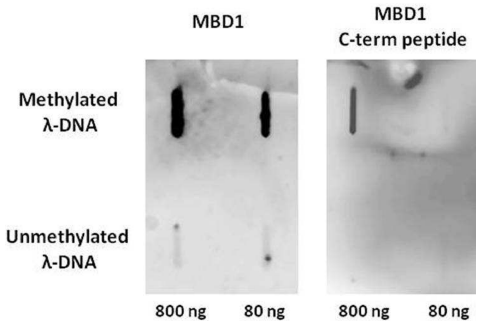

Figure S2. SouthWestern blot analysis of MBD1 methyl CpG binding domain protein and MBD1 C-term peptide activity and methylation specificity. To determine MBD1 C-term peptide activity and methylation specificity, a SouthWestern blot was performed. Unmethylated and *in vitro* methylated lambda DNA were immobilized on a nitrocellulose membrane at 800 ng and 80 ng total DNA using a slot blotting apparatus. Membranes were incubated overnight at 4 °C with either MBD1 methyl CpG binding domain protein at a concentration of 150 nM or MBD1 C-term peptide at a concentration of 280 nM. Both the MBD1 methyl CpG binding domain protein and the MBD1 C-term peptide were labeled with AlexaFluor 488 fluorescent dye. Membranes were washed after incubation, and the fluorescence emission was measured using a Typhoon 9400 imager. Results show that the MBD1 C-term peptide binds preferentially to methylated lambda DNA (top row of blots) compared to unmethylated lambda DNA (bottom row of blots).

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.

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