



**Supplementary information, Fig. S3. Preparation of methylated DNA samples.**

**a** DNA agarose gel analysis of 4x177-601 DNA (4x601 DNA) and 4x177-601 5me-DNA (4X5me-DNA). **b** Analysis of methylated 4x177 bp DNA (4x5me-DNA) by dot blot using anti-5mC antibody. **c** Diagram of the DNA Oligos and 5me-DNA Oligos sequences and methylated sites. **d** In vitro phase separation assays for 4x5me-DNA, 4x5me-NA, synthesized DNA oligos or 5me-DNA oligos alone. Scale bars, 20 μm.