

**Supplemental Fig S4** (A) The distribution of Hi-C contact probability for genomic loci with related promoter-promoter interactions and the control background (all genomic loci). (B) The distribution of Hi-C contact probability at different 1D sequence distance. (C) The distribution of  $C_TG$  contact probability for genomic loci with related promoter-promoter interactions and the control background (all genomic loci). **(D)** The distribution of  $C_TG$  contact probability at different 1D sequence distance.