Supplementary Figure S4. FRET analysis for the substrate bending by Mus81-Eme1

A, Schematic illustrations showing the DNA bending by hMus81-Eme1. Using $R_0$=50Å, the angle between the pre- and post-nick duplex is 109°. B, Normalized fluorescence spectra of 3’ flap DNA. Six spectra are shown; Donor-only labeled 3’ flap in the absence protein (black dot). Donor-acceptor labeled 3’ flap in the absence (blue) or presence (green and magenta) of hMus81-Eme1. Spectra of donor-acceptor-labeled dsDNA in the absence (light pink) or presence (light cyan) of hMus81-Eme1, which are virtually identical. C, Fluorescence spectra of donor-only labeled 3’ flap DNA in the absence (black) or presence (green and orange) of hMus81-Eme1. Addition of 5 to 10 fold molar excess protein did not change the spectrum of the donor-only labeled 3’ flap DNA. D, FRET measurement for acceptor-only labeled 3’ flap DNA in the absence (black) or presence (magenta and blue) of hMus81-Eme1. The fluorescence intensity of acceptor-only labeled 3’ flap DNA remains nearly constant in the presence of 5 to 10-fold excess of protein.