Supplementary Information

A modular approach for affinity-labeling the base elements of the cytosine demethylation pathway in DNA

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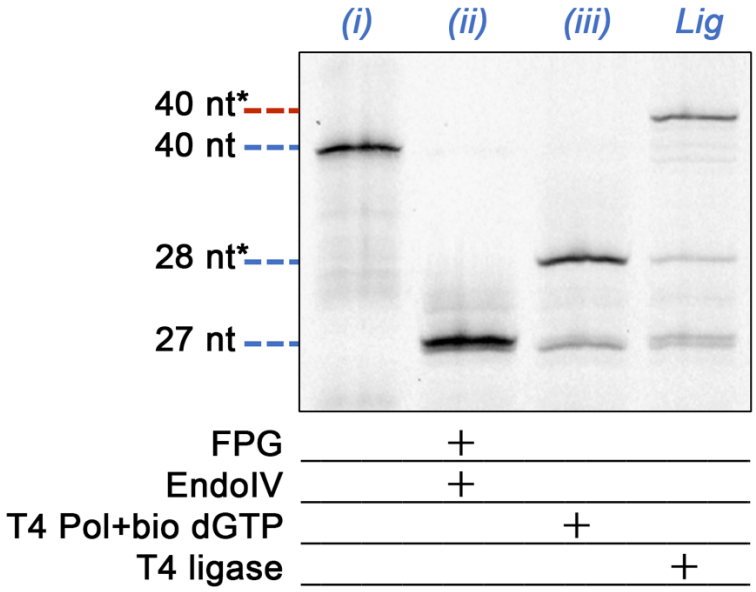
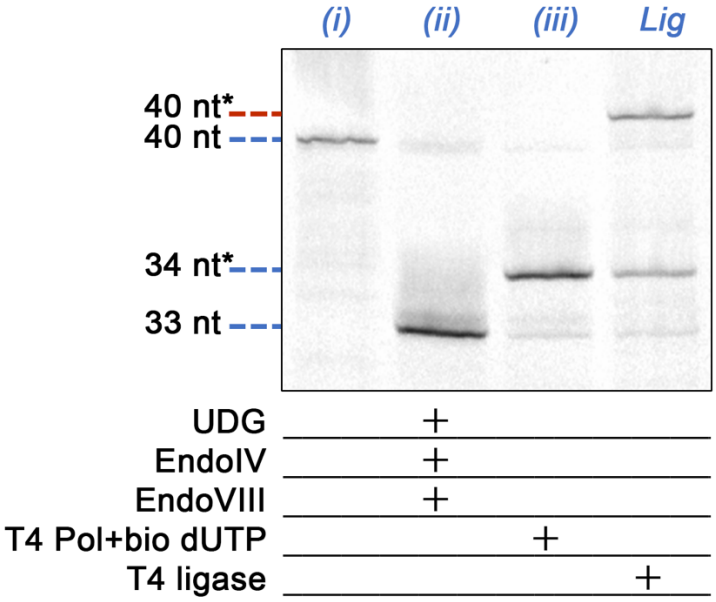


Supplementary Figure S1. *Denaturing gel analyses of 40 nt DNA constructs featuring a single 8-oxoguanine at base position 27. The base is excised with the bifunctional glycosylase formamidopyrimidine-DNA glycosylase (FPG) and the construct is treated with EndoIV to prepare the 3' end of the gap, T4 polymerase and biotinylated dGTP to label, and T4 ligase to repair the remaining nick. Lane (i): annealed oligonucleotide; lane (ii): following glycosylase/endonuclease treatment; lane (iii): following polymerase fill-in with a biotinylated nucleotide; lane "Lig" is post ligation yielding a biotin-labeled construct with a repaired backbone (red). Construct lengths at left apply to both gels and * indicates DNA length plus biotin tag.*



Supplementary Figure S2. *Denaturing gel analyses of 40 nt DNA constructs featuring a single uracil at base position 33. In each, the base is excised with the monofunctional glycosylase uracil DNA glycosylase (UDG) and the construct is treated with EndoIV to prepare the 3' end of the gap, EndoVIII to remove the phosphate flap, T4 polymerase and biotinylated dUTP to label, and T4 ligase to repair the remaining nick. Lane (i): annealed oligonucleotide; lane (ii): following glycosylase/endonuclease treatment; lane (iii): following polymerase fill-in with a biotinylated nucleotide; lane "Lig" is post ligation yielding a biotin-labeled construct with a repaired backbone (red). Construct lengths at left apply to both gels and * indicates DNA length plus biotin tag.*