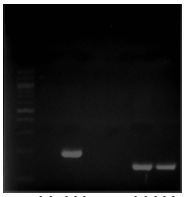
Figure S1, Kumari et al

Primer: *UvrD* *RecQ*



U W U W

Figure S2, Kumari et al

wt ΔuvrA clones

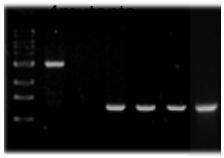
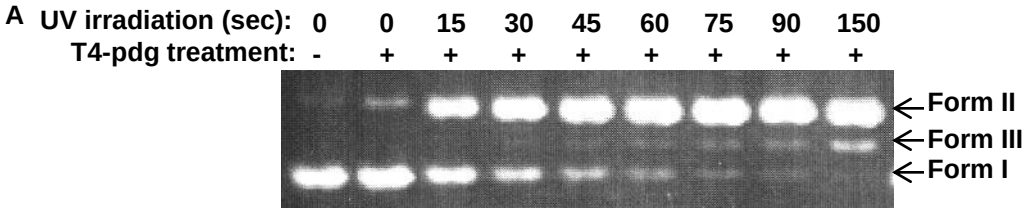


Figure S3, Kumari et al



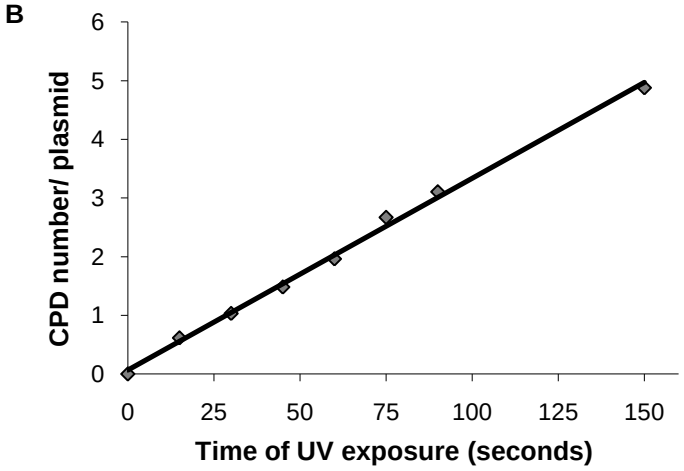
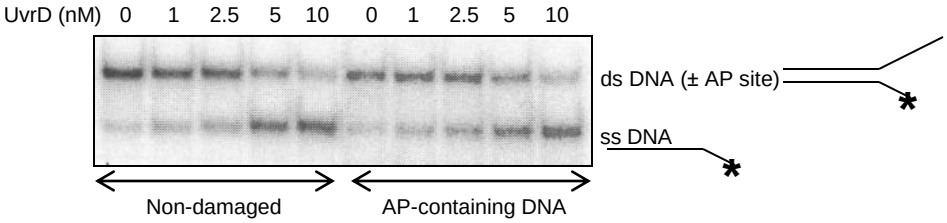


Figure S4, Kumari et al



SUPPLEMENTARY FIGURE LEGENDS

Figure S1. Verification of Δ*uvrD* deletion strain. Reverse transcriptase PCR assays were performed on RNA isolated from the wild-type (W) and Δ*uvrD* (U) cells harvested from overnight cultures. The *recQ* gene was used as an internal control.

Figure S2. Verification of Δ*uvrA* deletion clones. The deletion of the *uvrA* gene was confirmed for four randomly selected clones. The genomic DNA was extracted for each clone and PCR was performed using a primer pair located 100 bases upstream and downstream of the *uvrA* gene. The genomic DNA from the wild-type cells was used as a control to show the expected size of the *uvrA* gene *versus* the substituted chloramphenicol cassette gene in the deletion clones.

Figure S3. Plasmid DNA nicking assay. *A*. The UV-C irradiated pMS2 plasmid DNA aliquots were collected during the course of exposure (as indicated) and incubated with T4-pdg (5 ng/μl) for 1 hr at 37°C. The DNA aliquots were analyzed by agarose gel electrophoresis. The position of Form I (supercoiled DNA), Form II (nicked DNA) and Form III (linear DNA) are indicated. *B*. Quantitation of Phosphorimager data showing the CPD formation per plasmid molecule as a function of UV exposure.

Figure S4. UvrD helicase activity is not inhibited by AP-containing DNA. The ^{32}P-labeled 50-mer oligodeoxynucleotide (50T) was annealed to the complementary 30-mer oligodeoxynucleotide (30T). As described under "Experimental Procedures", the DPC-containing substrates were prepared under reducing conditions. Reaction mixtures containing 1 nM of the indicated duplex DNA substrate and specified concentrations of UvrD were incubated at room temperature for 5 min under standard conditions. The *asterisk* (*) indicates the ^{32}P-labeled strand of the duplex substrate. The abbreviations "ss DNA" and "ds DNA (±AP site)" correspond to the non-damaged single-stranded DNA and double-stranded DNA with or without an abasic site, respectively.