Supporting Information for

Analysis of Heat-Labile Sites Generated by Reactions of Depleted Uranium and Ascorbate in Plasmid DNA

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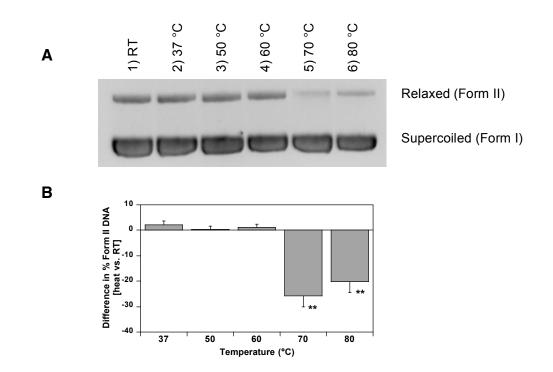


Figure S1. Optimization of temperature for post-treatment exposures of pBR322 plasmid DNA (0.2 mM DNA-P in 25 mM ACES, pH 7.4). (A) Representative gel illustrating affect of incubation temperature on untreated pBR322 plasmid DNA degradation. DNA was incubated for 30 min at temperatures ranging from RT – 80 °C, followed by gel electrophoresis as described in methods. (B) Quantification of DNA degradation as differences in % DNA plasmid relaxation (Form II) for [raised temperature incubation – RT incubations]. Data represent mean \pm SEM for n = 5 independent experiments. Differences in % Form II DNA for [raised temperature incubation] significantly different than 0 by Student's t-test (**p<0.001).

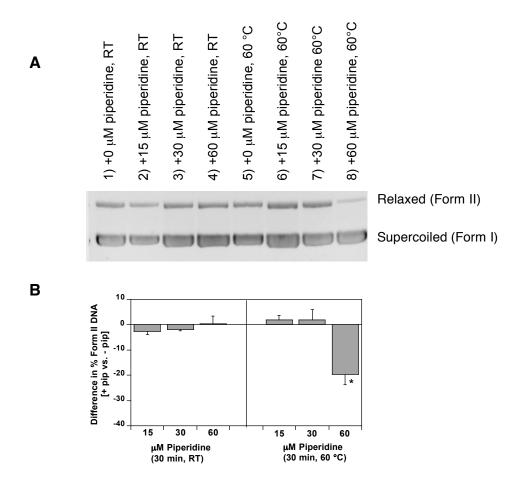


Figure S2. Optimization of piperidine concentrations for post-treatment exposures of pBR322 plasmid DNA (0.2 mM DNA-P in 25 mM ACES, pH 7.4). (A) Representative gel illustrating affect of piperidine concentration, $0 - 60 \mu$ M, on untreated pBR322 plasmid DNA degradation after 30 min incubation at RT (left) or 60 °C (right). (B) Quantification of DNA degradation as differences in % DNA plasmid relaxation (Form II) for [piperidine incubation – water incubation]. Data represent mean ± SEM for *n* = 3 independent experiments. Difference in % Form II DNA for [30 μ M piperidine – 0 μ M piperidine] significantly different than 0 by Student's t-test (**p*<0.05).