Supplementary materials

DNA Photocleavage in the Near-Infrared Wavelength Range by 2-Quinolinium Dicarbocyanine Dyes

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Contents:

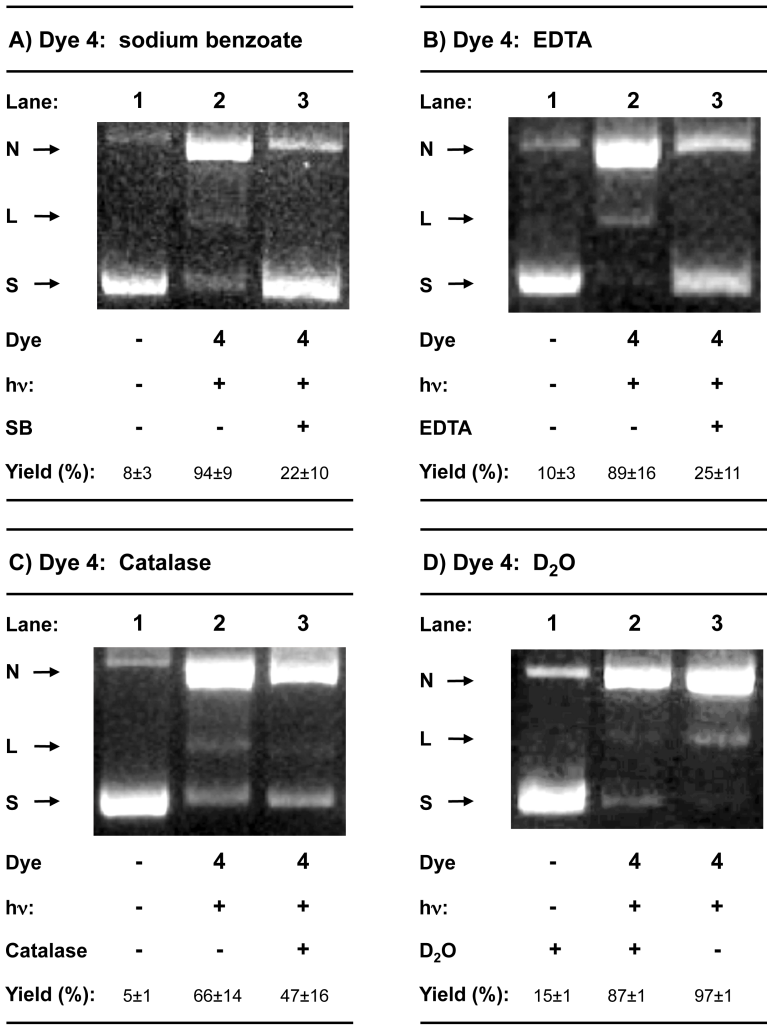

Figure S1. Representative agarose gels comparing levels of cyanine dye-sensitized photocleavage of pUC19 plasmid DNA generated in the absence and presence of: (**A**) 100 mM sodium benzoate; (**B**) 100 mM ethylenediaminetetraacetate (EDTA); (**C**) 100 U/μL catalase; (**D**) 72% D_2O *(v/v)* (741 nm hν for 60 min at 22 °C). All reactions contained 10 mM sodium phosphate buffer pH 7.0, 24 μM of dye **4** and 38 μM bp DNA. Yields are averaged over two to three trials. Errors represent standard deviation. Abbreviations: **L** = linear; **N** = nicked; **S** = supercoiled.

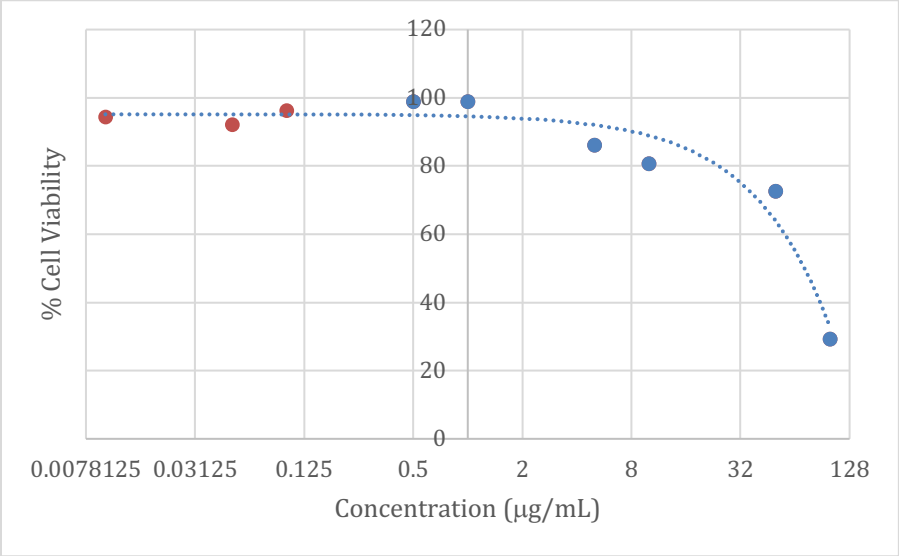

Figure S2. Viability of ES2 cells incubated for 24 h under dark conditions with different concentrations of dye **4**. ES2 cells were plated in 96-well plates at a density of 10×10^3 cells/well and cultured for 24 h. After that, the cells were incubated in the dark for 24 h in complete DMEM media containing different concentrations of dye **4** (0.01 - 100 µg/mL) dissolved in DMSO (<1%). The dye-containing media was then removed, and the cells were rinsed with DPBS and cultured for 24 h in complete DMEM growth medium prior to viability measurements with Calcein AM as previously described.[1]

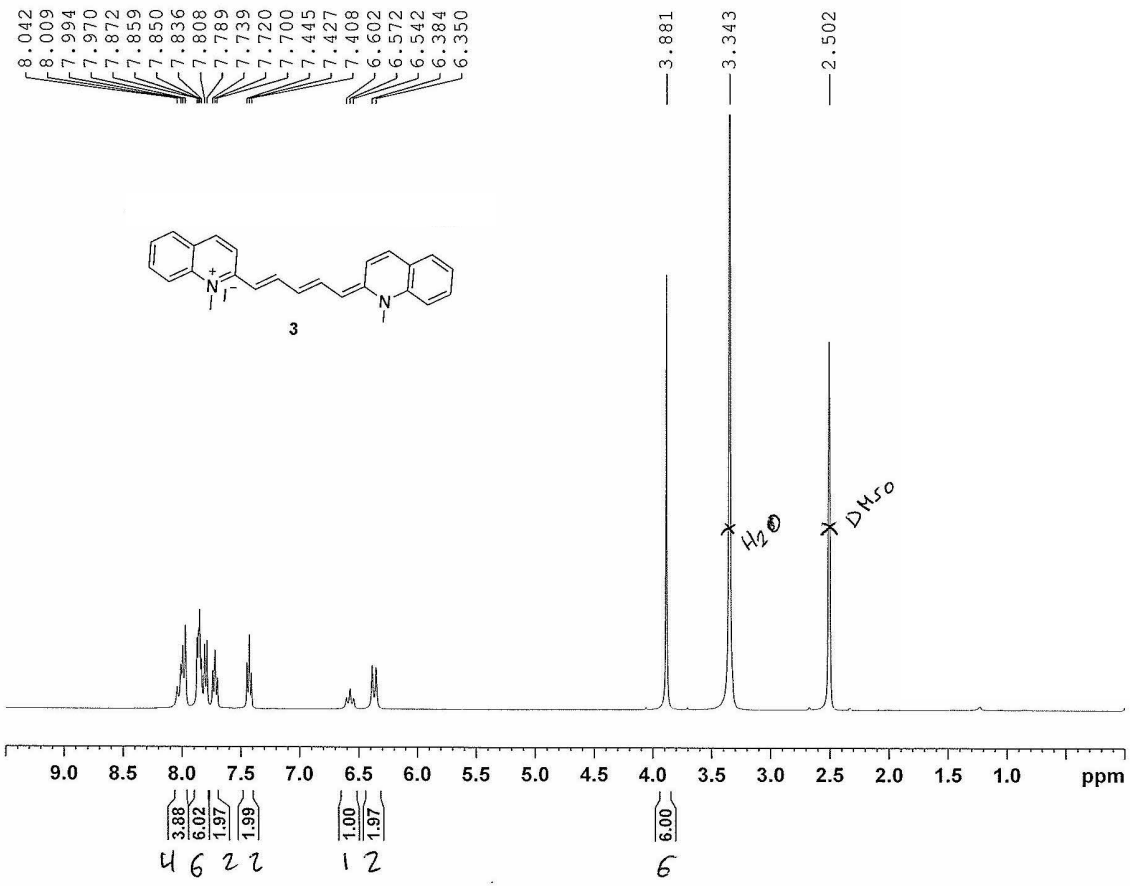

Figure S3. ^{1}H NMR spectrum of dye **3**.

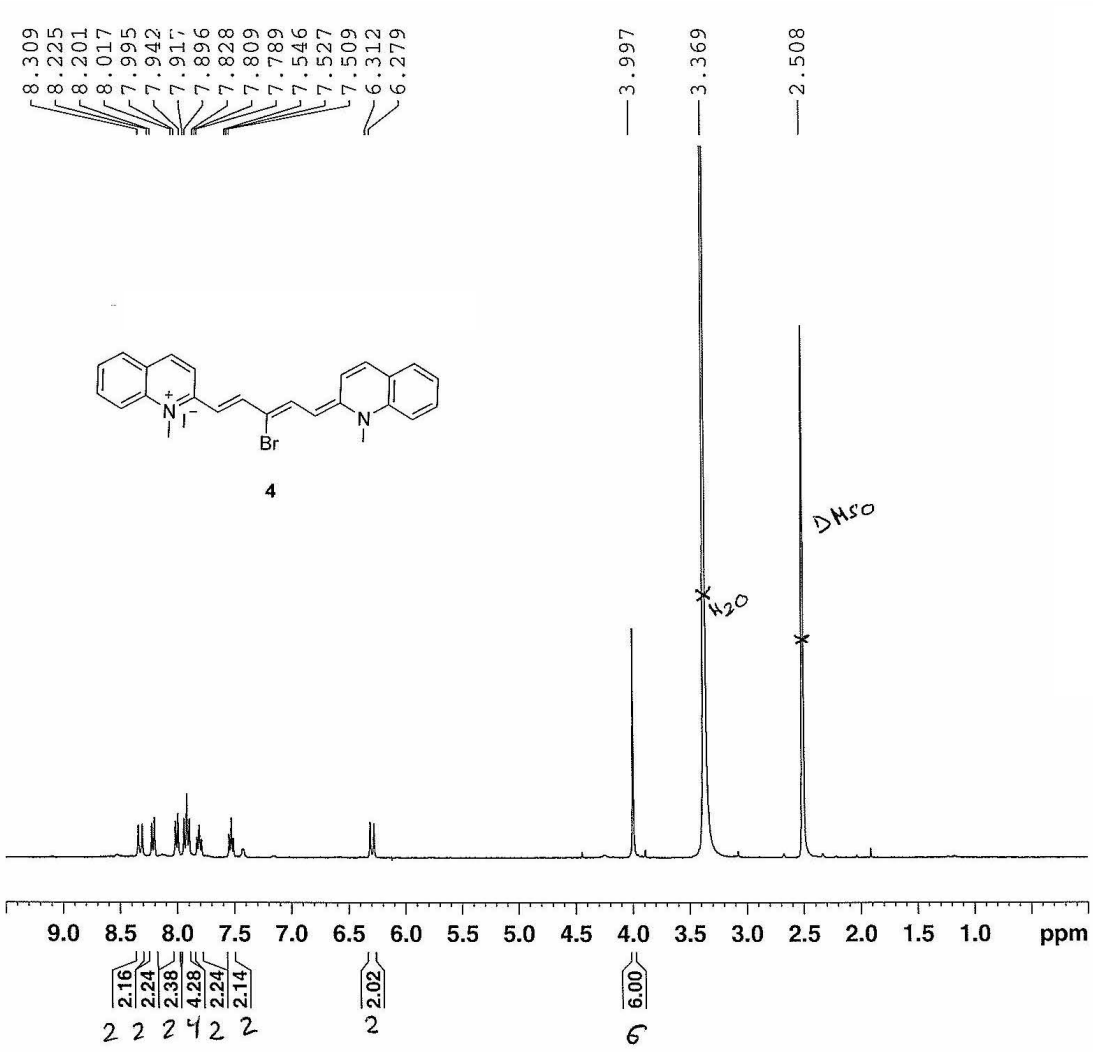

Figure S4. ^{1}H NMR spectrum of dye **4**.

Reference

1. Dani, R. K.; Schumann, C.; Taratula, O.; Taratula, O., Temperature-tunable iron oxide nanoparticles for remote-controlled drug release. *AAPS PharmSciTech* **2014,** 15, (4), 963-972.