Supporting Information for

Ruthenium(II) Arene Complexes Showing DNA Photobinding: The Role of the Basicity of Monodentate Ligand

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Figure S1. Absorption spectrum changes of 1 (40 µM) in PBS buffer (pH = 7.4) after standing in the dark for 24 h at room temperature.

Figure S2. Absorption spectrum changes of 2 (40 µM) in PBS buffer (pH = 7.4) after standing in the dark for 24 h at room temperature.

Figure S3. Absorption spectrum changes of 3 (40 µM) in PBS buffer (pH = 7.4) after standing in the dark for 24 h at room temperature.
Figure S4. Absorption spectrum changes of 4 (40 μM) in PBS buffer (pH = 7.4) after standing in the dark for 24 h at room temperature.

Figure S5. Absorption spectra changes of 1 (40 μM) in PBS buffer (pH = 7.4) upon irradiation with λ > 400 nm.
Figure S6. The $^1$H NMR spectra of 1 before and after irradiation ($\lambda > 400$ nm) in CD$_3$COCD$_3$:D$_2$O (1:2).

Figure S7. High-resolution ESI mass spectra of 1 in CH$_3$COCH$_3$:H$_2$O (1:2) (top) and after irradiation ($\lambda > 400$ nm) for 12 h in the presence of 9-EtG (bottom).
Figure S8. The $^1$H NMR spectra of 4 before and after irradiation ($\lambda > 400$ nm) in CD$_3$COCD$_3$:D$_2$O (1:2).
Figure S9. High-resolution ESI mass spectra of 4 in CH₃COCH₃:H₂O (1:2) (top) and after irradiation (λ > 400 nm) for 12 h in the presence of 9-EtG (bottom).
Figure S10. The $^1$H NMR spectra of 3 before and after irradiation ($\lambda > 400$ nm) in CD$_3$COCD$_3$:D$_2$O (1:2).
Figure S11. High-resolution ESI mass spectra of 3 in CH$_3$COCH$_3$·H$_2$O (1:2) (top) and after irradiation (λ > 400 nm) for 12 h in the presence of 9-EtG (bottom).
Figure S12. The $^1$H NMR spectra of 2 before and after irradiation ($\lambda > 400$ nm) in CD$_3$COCD$_3$:D$_2$O (1:2).
Figure S13. High-resolution ESI mass spectra of 2 in CH$_3$COCH$_3$:H$_2$O (1:2) (top) and after irradiation ($\lambda > 400$ nm) for 12 h in the presence of 9-EtG (bottom).

Figure S14. $^1$H NMR spectrum of 1 in CD$_3$CN.
Figure S15. $^1$H NMR spectrum of 2 in CD$_3$CN

Figure S16. $^1$H NMR spectrum of 3 in CD$_3$CN.
Figure S17. $^1$H NMR spectrum of 4 in CD$_3$CN.

Table S1. IC$_{50}$ values of 1-4 against A549 cells in the dark or under irradiation.

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<td>light IC$_{50}$ [μM]</td>
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<td>dark IC$_{50}$ [μM]</td>
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Table S2. IC$_{50}$ values of monodentate ligands against A549 cells.

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<td>IC$_{50}$ [μM]</td>
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