Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

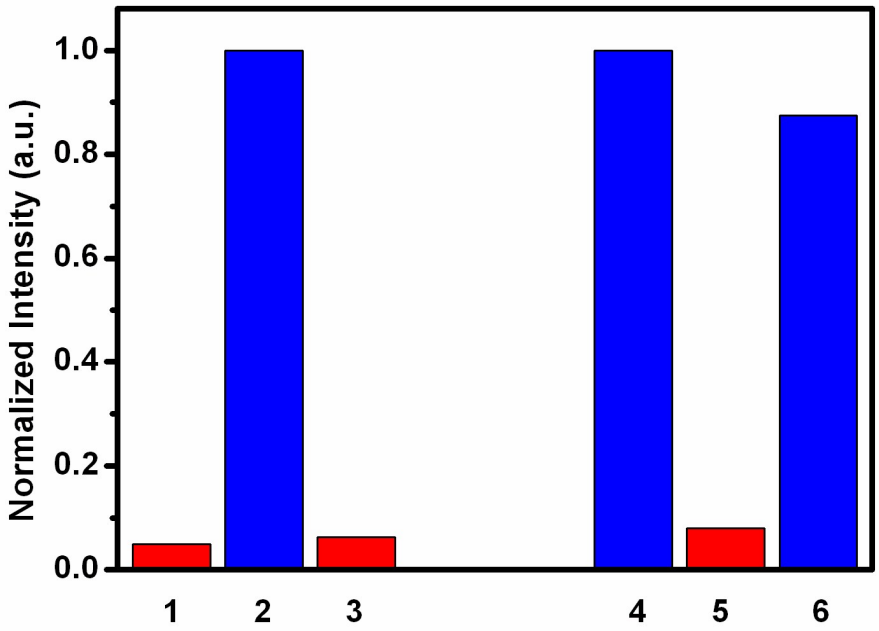

Figure S1. Fluorescence emission response profiles of solutions containing 1) ligand 1, 2) ligand 1/ssDNA/Fe^{2+}, 3) ligand 1/ssDNA/Fe^{2+}/H_2O_2, and 4) ligand 2, 5) ligand 2/ssDNA/Fe^{2+}, 6) ligand 2/ssDNA/Fe^{2+}/H_2O_2. [ligand 1] = 0.1 μM, [ligand 1] = 1 μM, [DNA] = 0.15 μM, [H_2O_2] = 0.2 mM, [Fe^{2+}] = 30 μM.

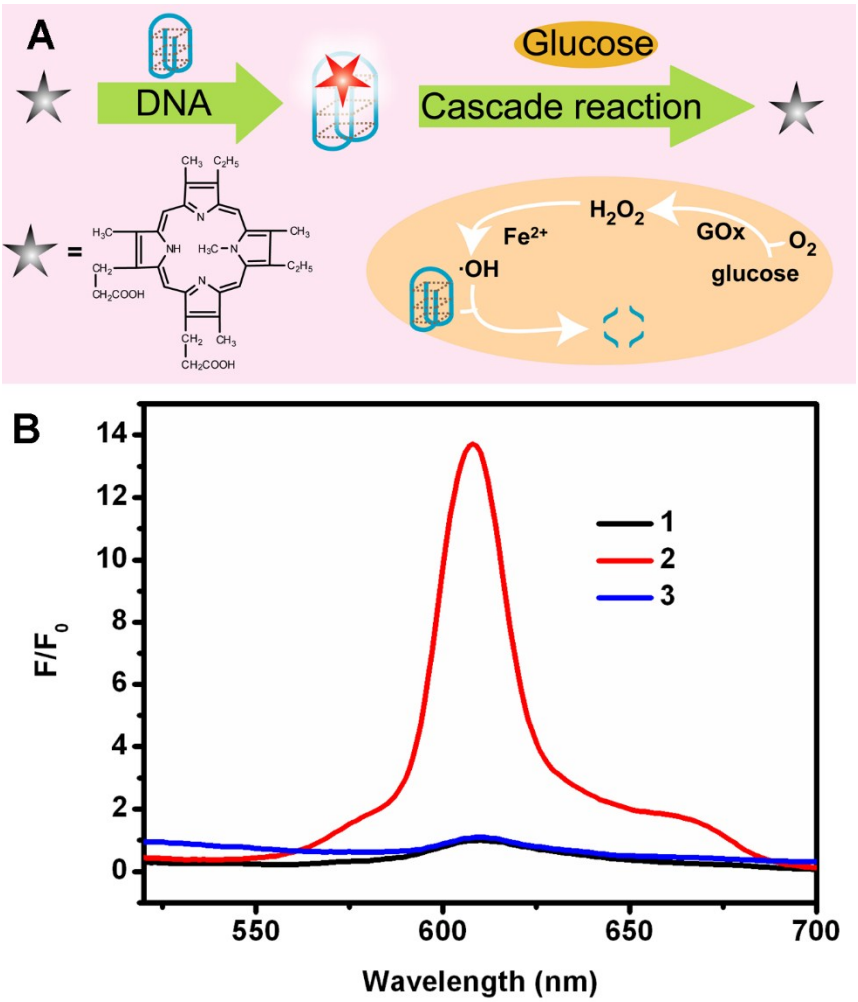

Figure S2. A) A turn-off response pattern of glucose using G-quadruplex and N-methyl mesoporphyrin IX dye (NMM). Fluorescence spectra of solutions containing 1) NMM, 2) NMM/G-quadruplex, 3) NMM/G-quadruplex /Fe^{2+}/glucose/GOx.

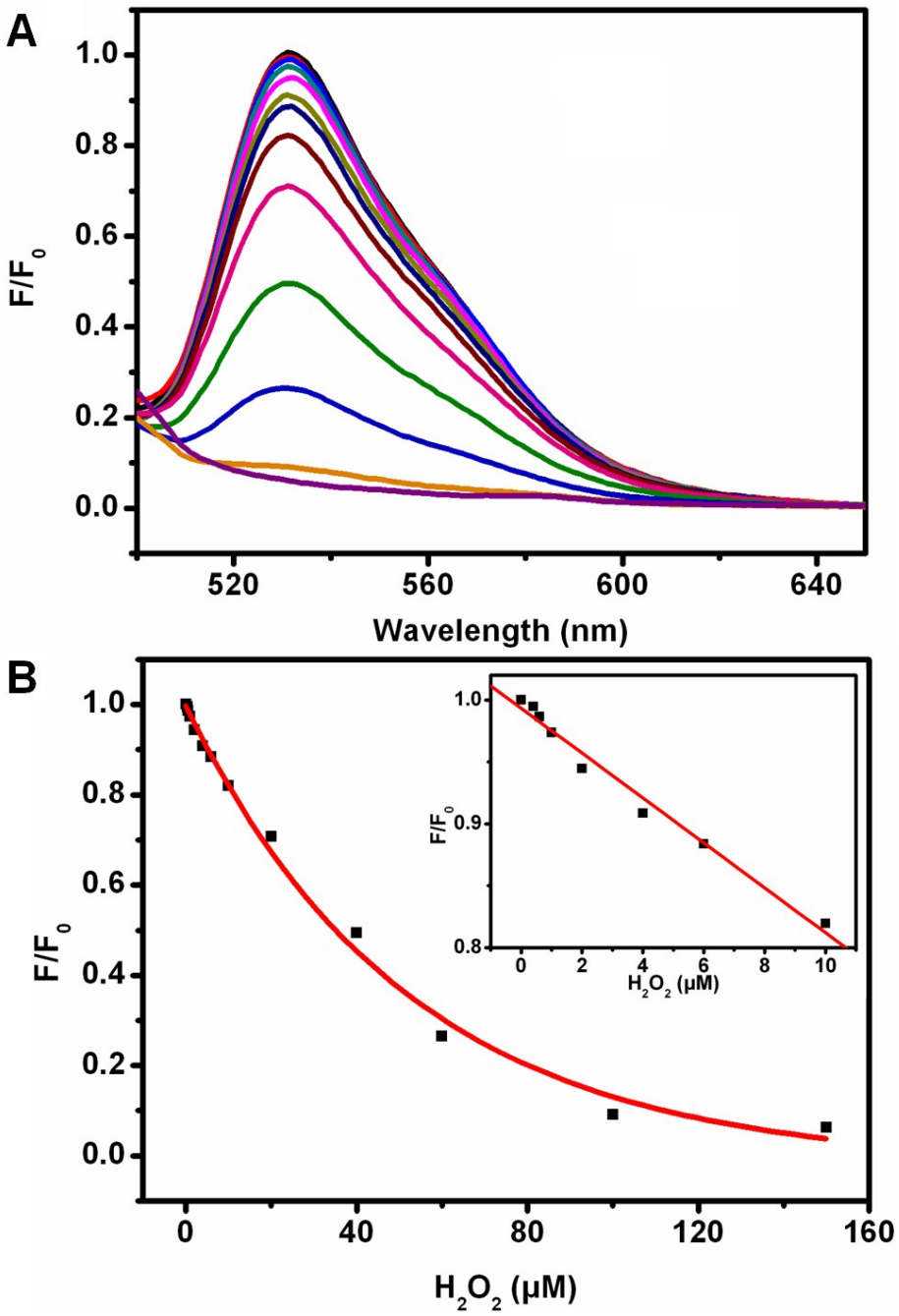

Figure S3. (A) Fluorescence emission spectra of the ligand 1 and ssDNA complex in the presence of increasing H_2O_2 concentrations (0–160 μM). (B) Plots of the fluorescence intensity of the ligand 1-ssDNA complex at 530 nm as a function of the H_2O_2 concentration (0–160 μM). [ligand 1] = 0.1 μM, [DNA] = 0.15 μM, [Fe^{2+}] = 30 μM Inset: the linear plot.

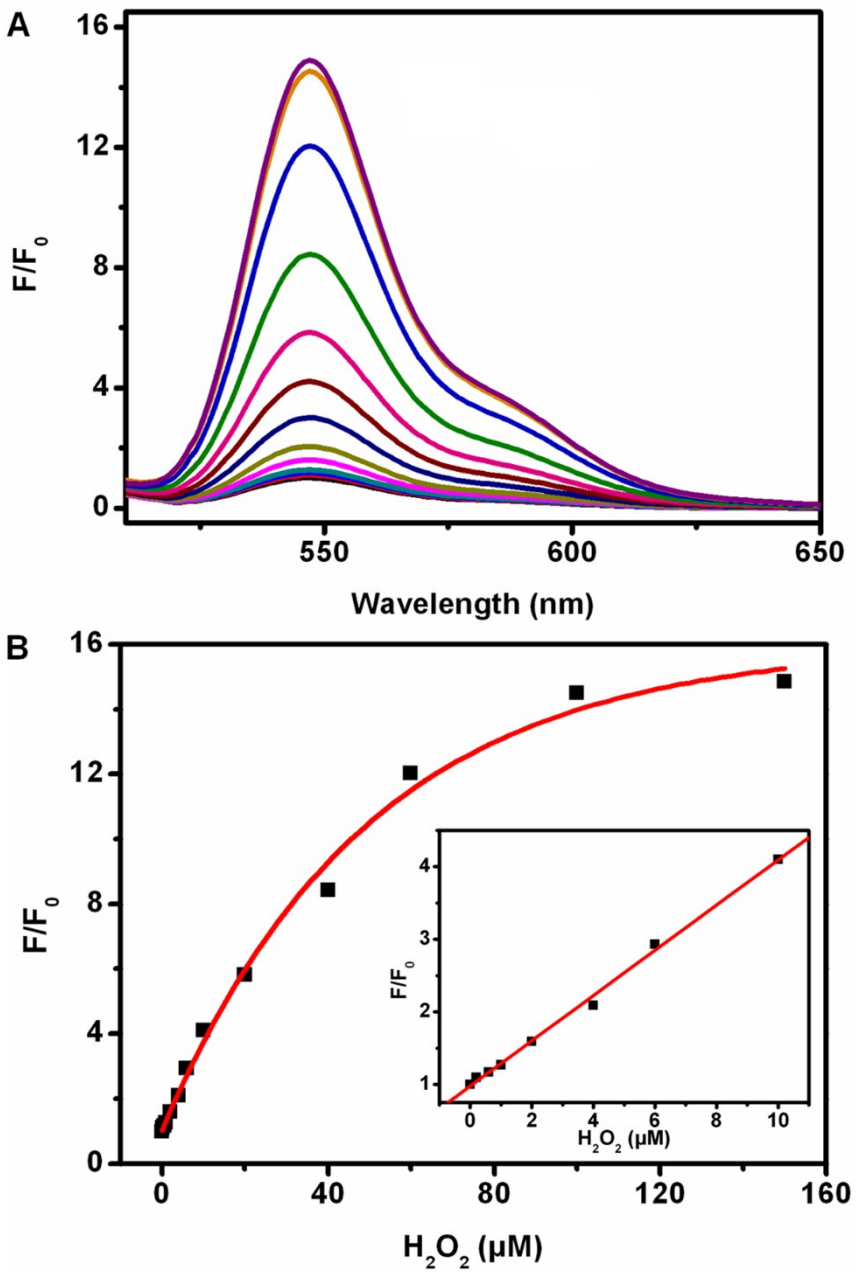

Figure S4. (A) Fluorescence emission spectra of the ligand 2 and ssDNA complex in the presence of increasing H_2O_2 concentrations (0–160 μM). (B) Plots of the fluorescence intensity of the ligand 2-ssDNA complex at 548 nm as a function of the H_2O_2 concentration (0–160 μM). [ligand 2] = 1 μM, [DNA] = 0.15 μM, $[Fe^{2+}]$ = 30 μM Inset: the linear plot.