

Supporting Information

Phthalocyanine-cRGD Conjugate: Synthesis, Photophysical Properties and *in vitro* Cell Study for Targeting Photodynamic Therapy

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Figure S17. Absorption change of **4** (4 μM) and DPBF (80 μM) in RPMI medium 1640 formulated with 0.1% of Cremophor EL (v/v) upon exposure to red light ($\lambda > 610$ nm, fluence rate 0.2 mW/cm²). The insert shows the rates of photodegradation of DPBF with irradiation time.

Figure S18. Absorption change of **6** (2 μM) and DPBF (40 μM) in DMF upon exposure to red light ($\lambda > 610$ nm, fluence rate 0.2 mW/cm²). The insert shows the rates of photodegradation of DPBF with irradiation time.

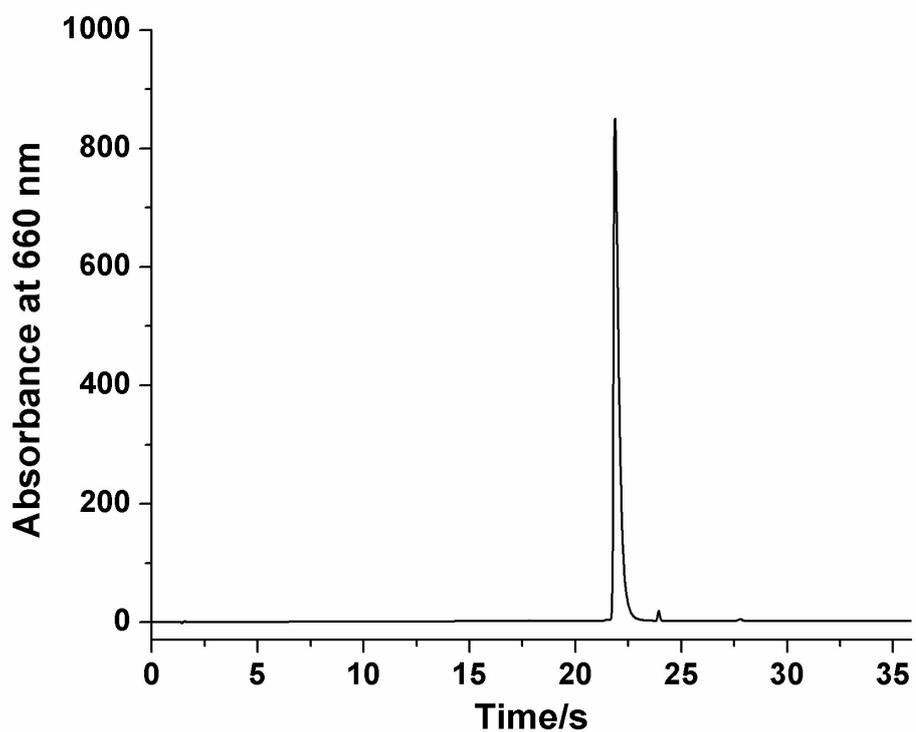


Figure S1. HPLC chromatogram of the phthalocyanine-peptide conjugate **6** (solvent A = H₂O and solvent B = DMF, gradient: solvent A from 50% to 0 in 25 minutes, flow rate 1 mL/min).

In the following spectra, the residual solvent signals are marked with asterisks.

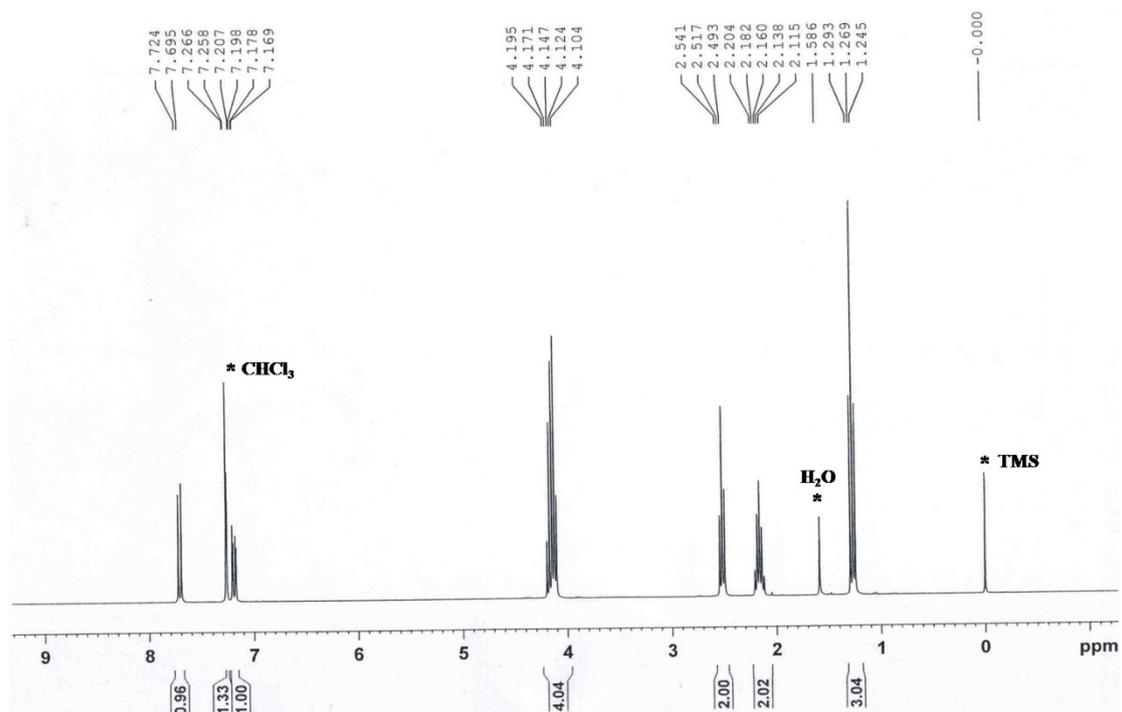


Figure S2. ^1H NMR spectrum of **1** in CDCl_3

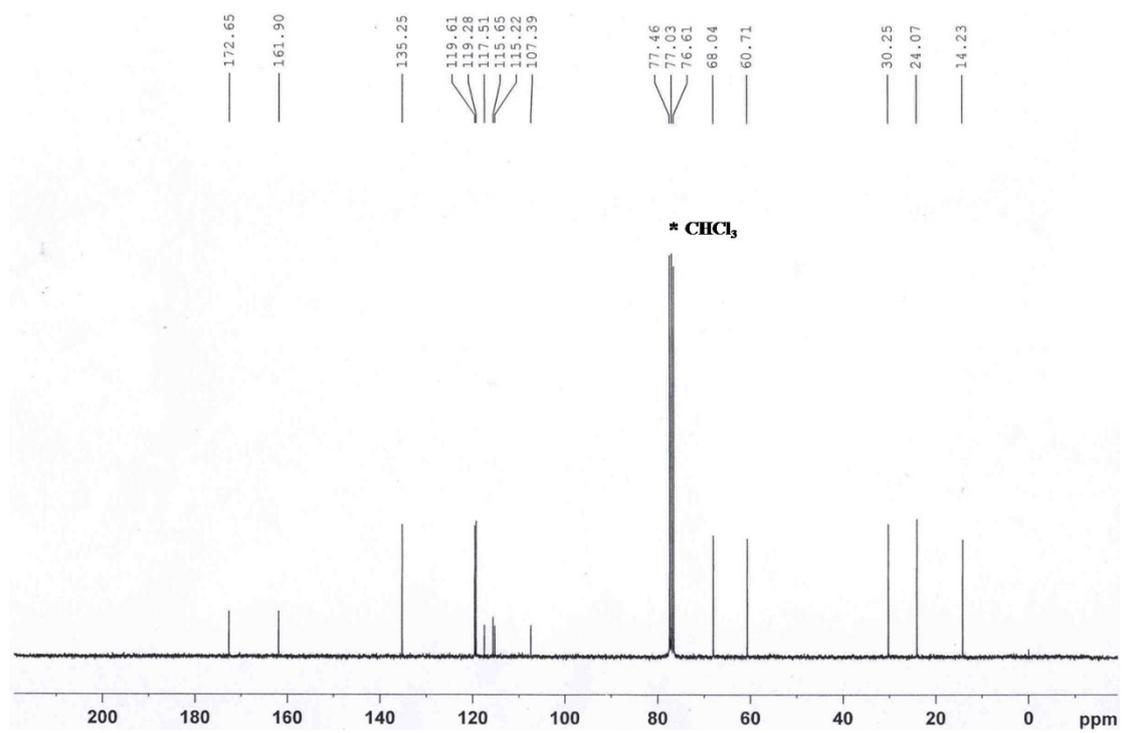


Figure S3. ¹³C NMR spectrum of **1** in CDCl₃.

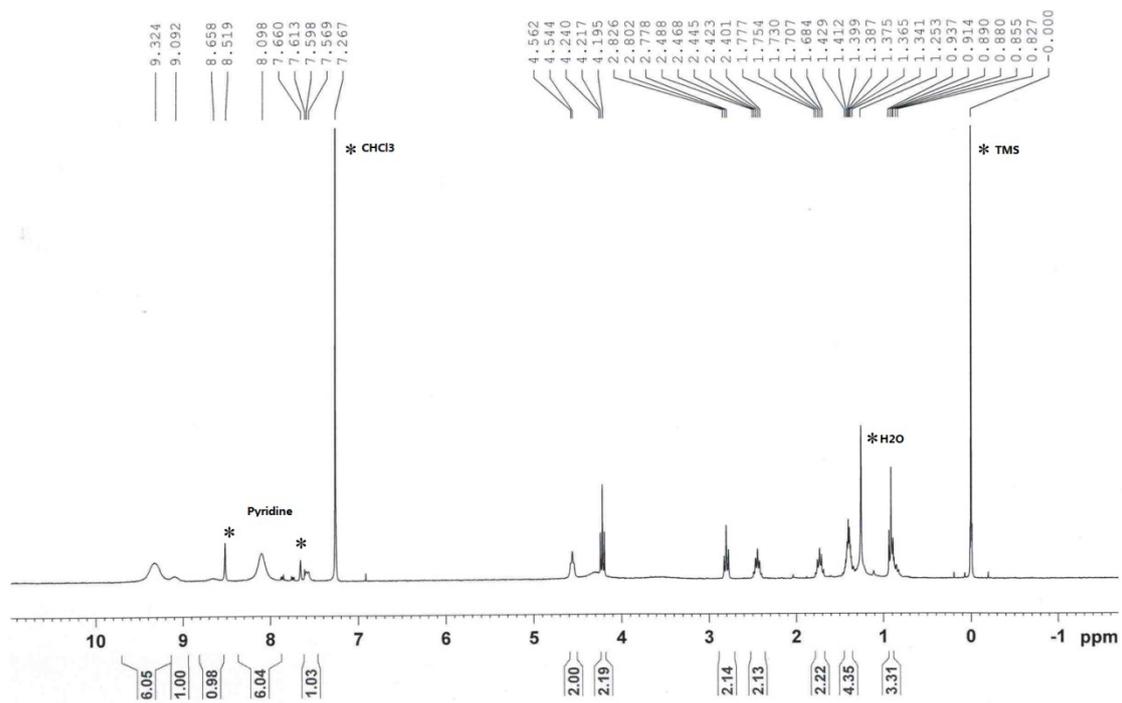


Figure S4. ¹H NMR spectrum of **3** in CDCl₃ with a trace amount of pyridine-d₅.

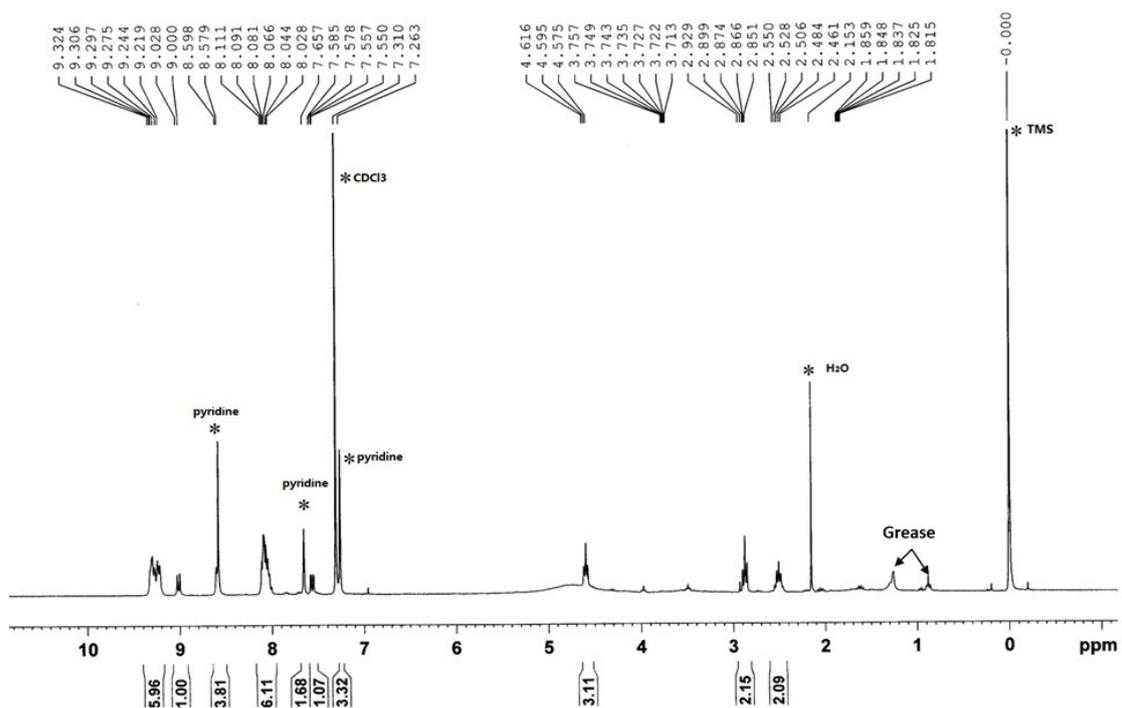


Figure S5. ¹H NMR spectrum of **4** in CDCl₃ with a trace amount of pyridine-d₅ (the compound was recrystallized from THF).

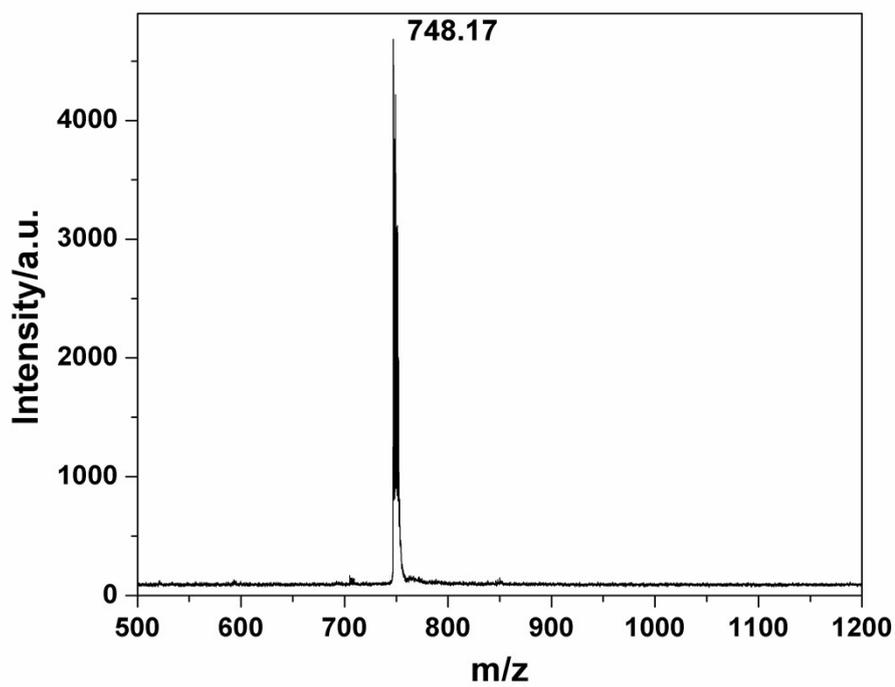


Figure S6. MALDI-TOF mass spectra of **3**.

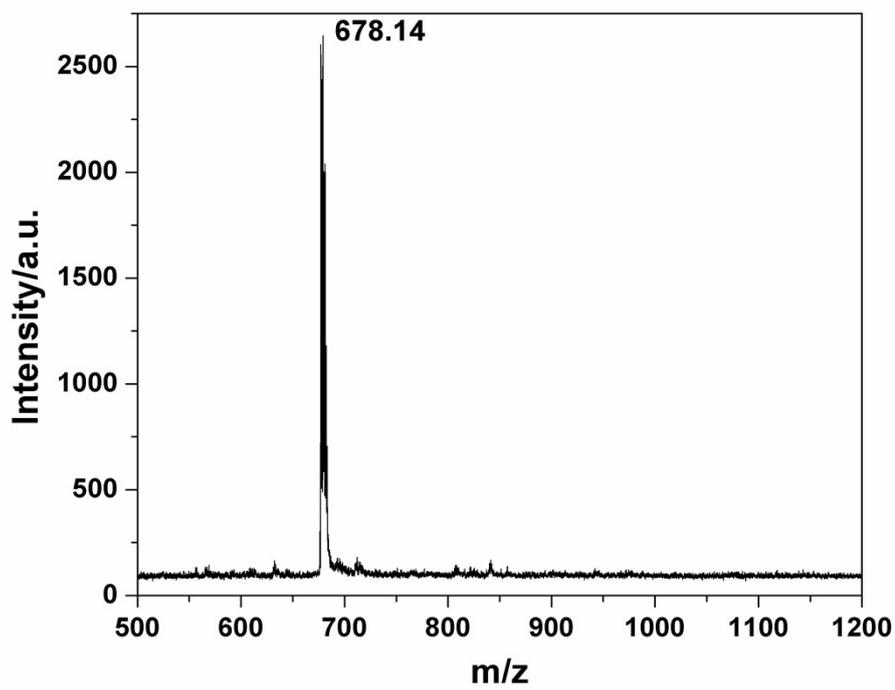


Figure S7. MALDI-TOF mass spectra of 4.

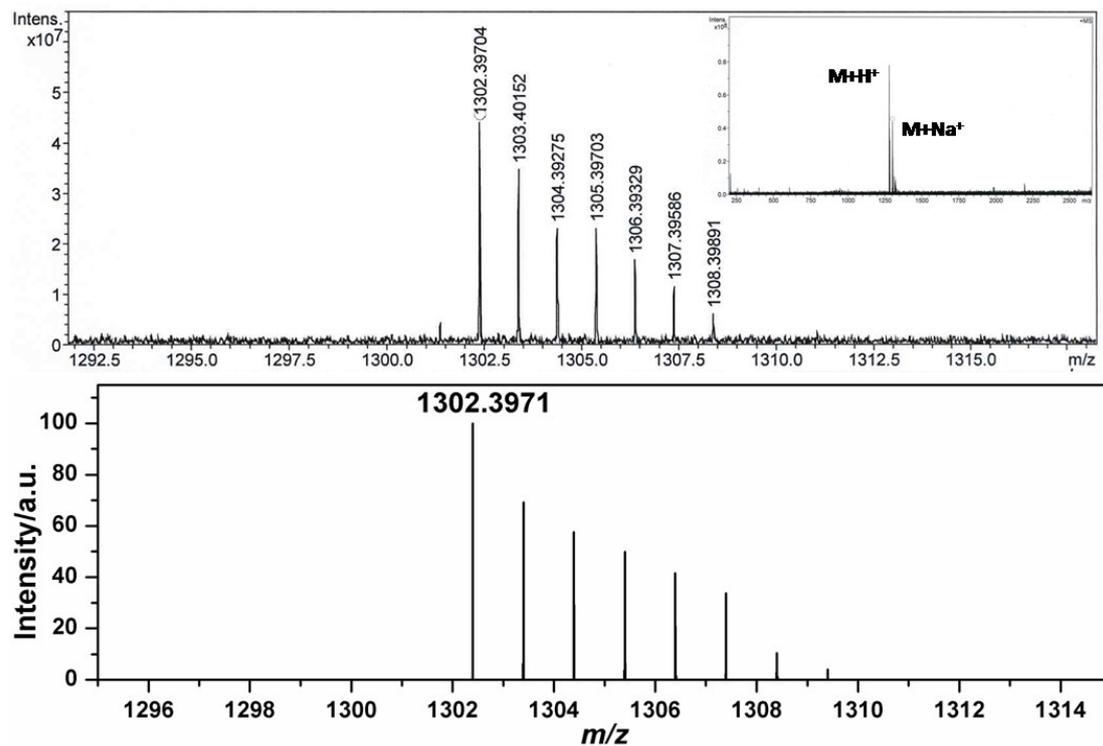


Figure S8. The measured HRMS (upper) and simulated (lower) mass spectra by Chemdraw of **6**. The insert gives a broad view of the HRMS spectra.

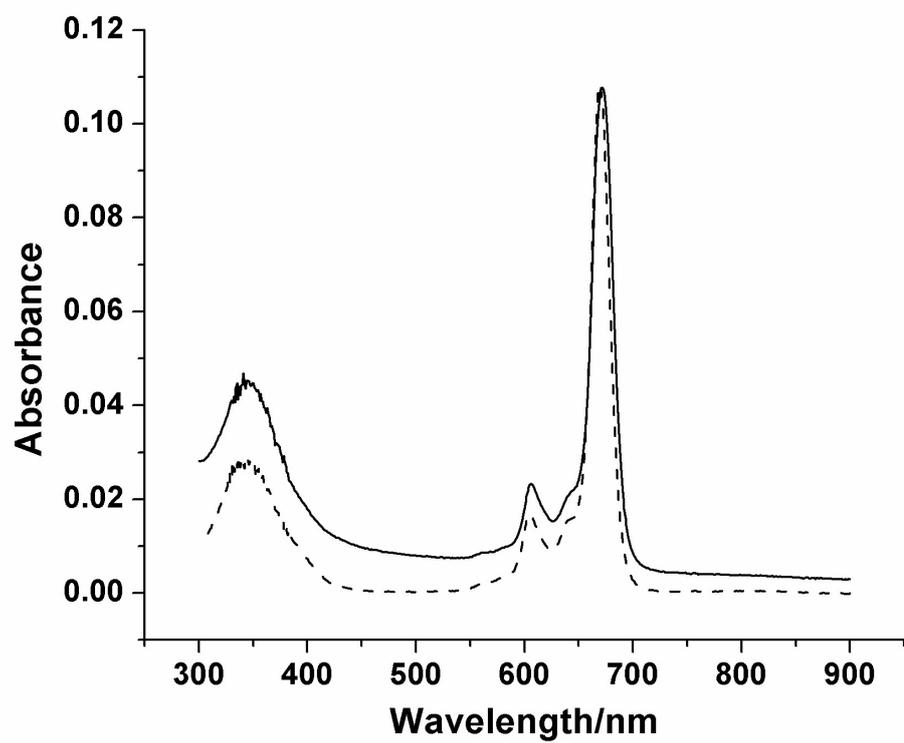


Figure S9. Electronic absorption spectra of **6** (solid) and **4** (dash) in DMF at concentration of $\sim 0.5 \mu\text{M}$.

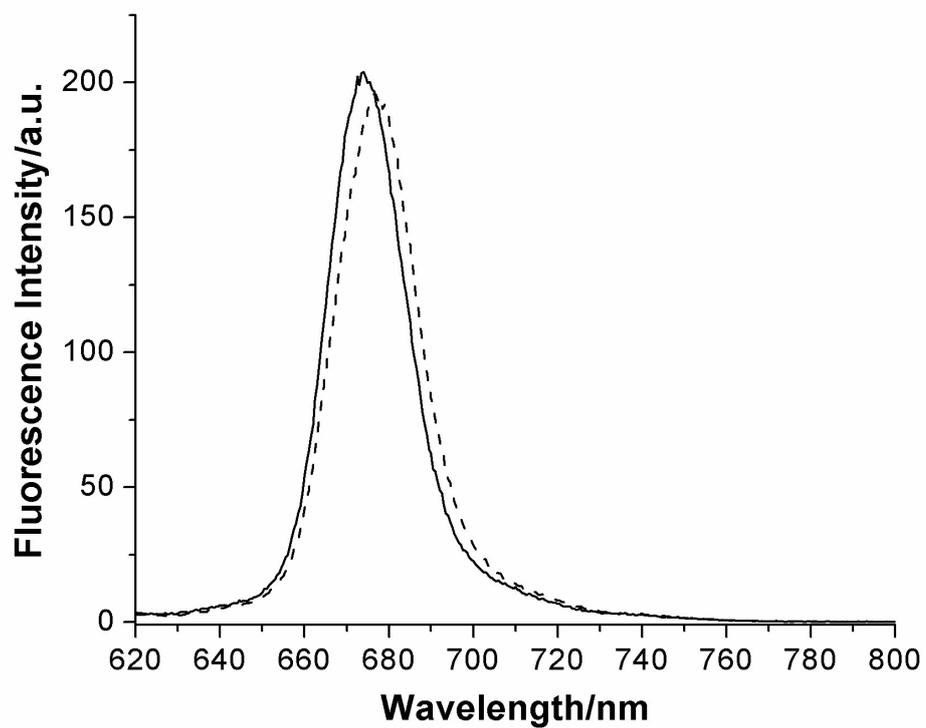


Figure S10. Fluorescence spectra of **6** (solid) and **4** (dash) in DMF excited at 610 nm. Both compounds were at concentration of $\sim 0.5 \mu\text{M}$.

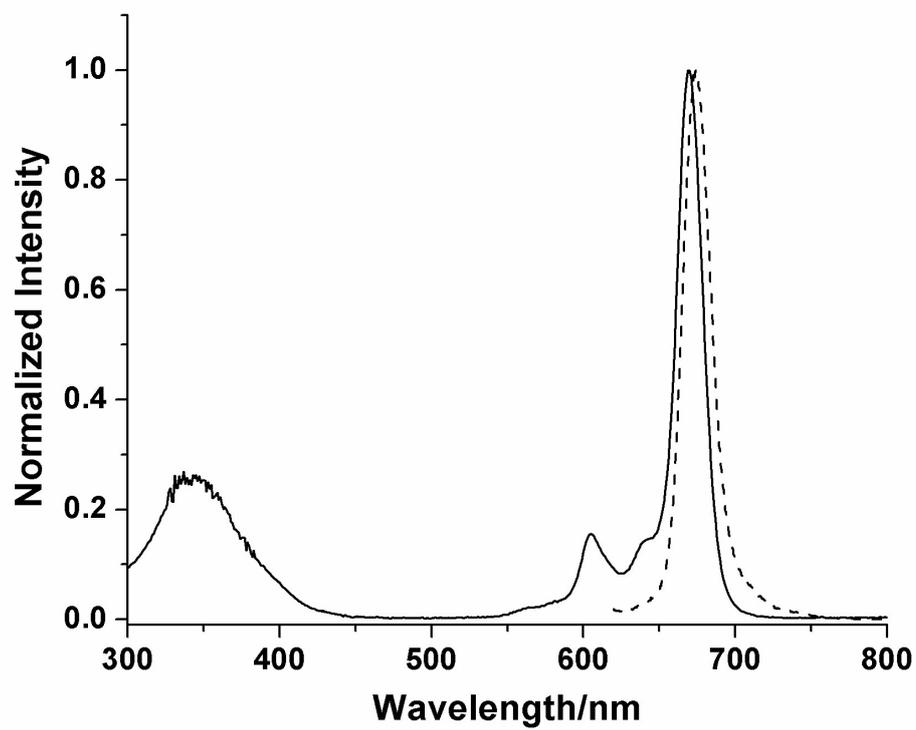


Figure S11. Normalized electronic absorption (solid) and fluorescence (dash) spectra of **4** in DMF.

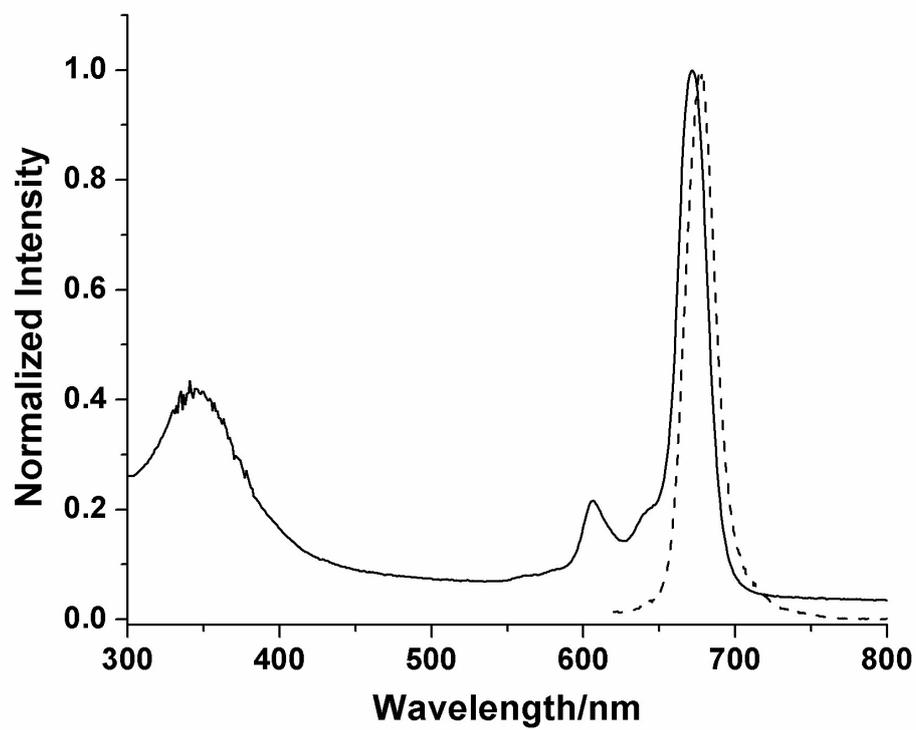


Figure S12. Normalized electronic absorption (solid) and fluorescence (dash) spectra of **6** in DMF.

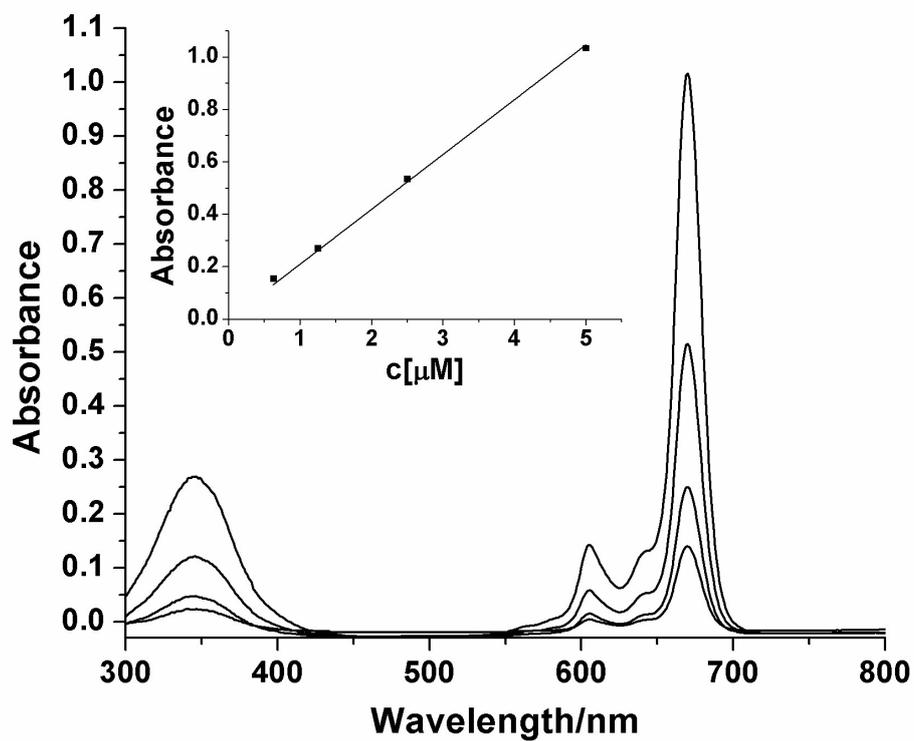


Figure S13. Electronic absorption spectra of 4 at different concentration in DMF. The insert plots the Q band absorption at 670 nm versus the concentration of 4.

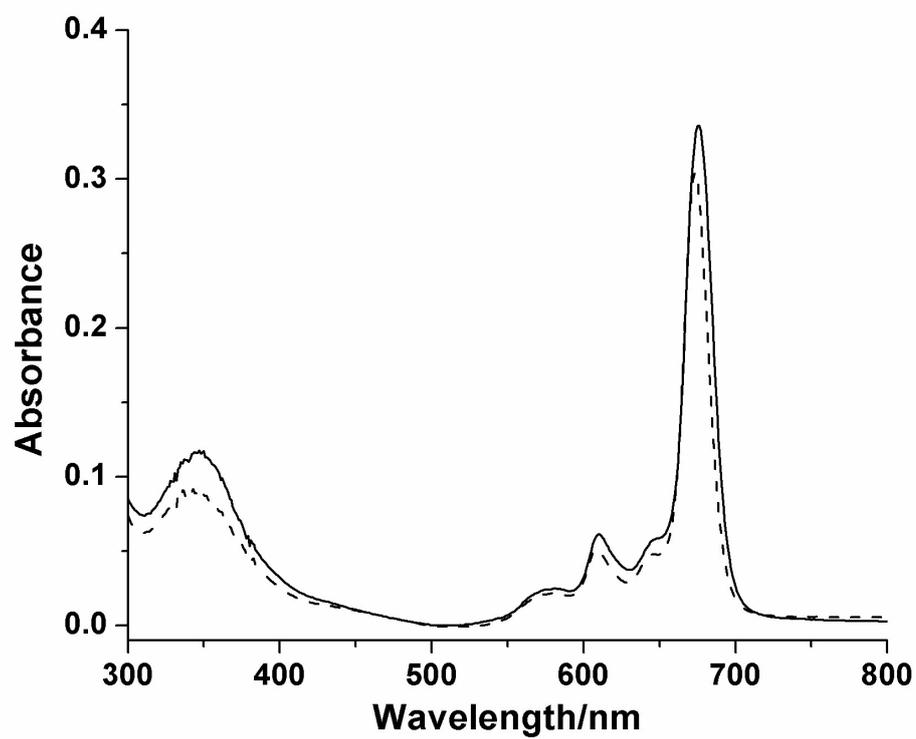


Figure S14. Electronic absorption spectra of **6** (solid) and **4** (dash) in RPMI medium 1640 formulated with 0.1% of Cremophor EL (v/v). Both compounds were at concentration of 2 μ M.

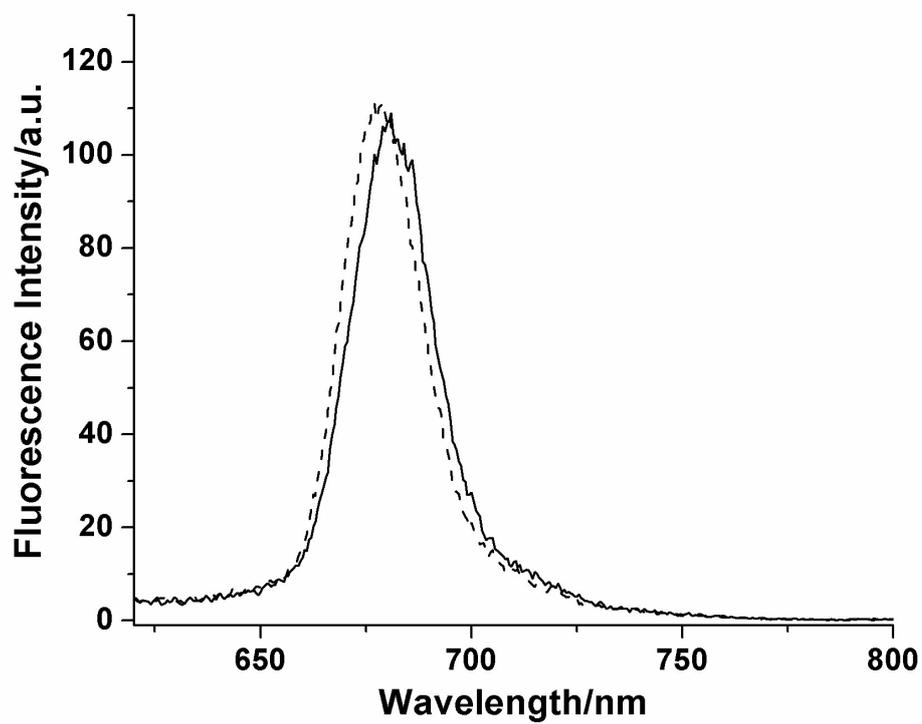


Figure S15. Fluorescence spectra of **6** (solid) and **4** (dash) in RPMI medium 1640 formulated with 0.1% of Cremophor EL (v/v) excited at 610 nm. Both compounds were at concentration of 2 μ M.

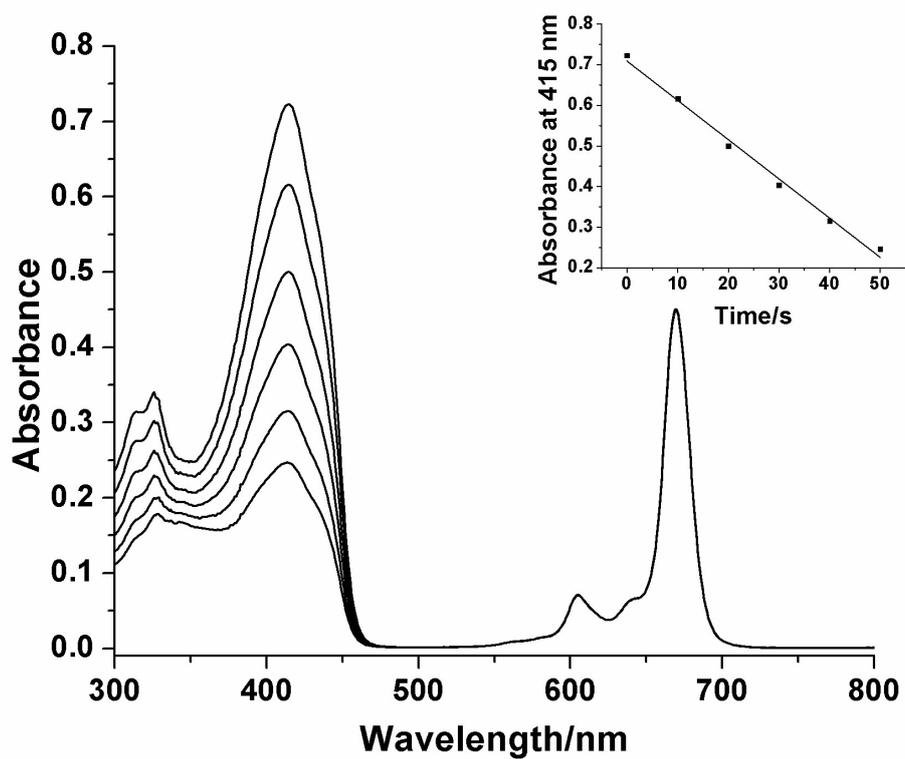


Figure S16. Absorption change of **4** (2 μM) and DPBF (40 μM) in DMF upon exposure to red light ($\lambda > 610$ nm, fluence rate 0.2 mW/cm²). The insert shows the rates of photodegradation of DPBF with irradiation time.

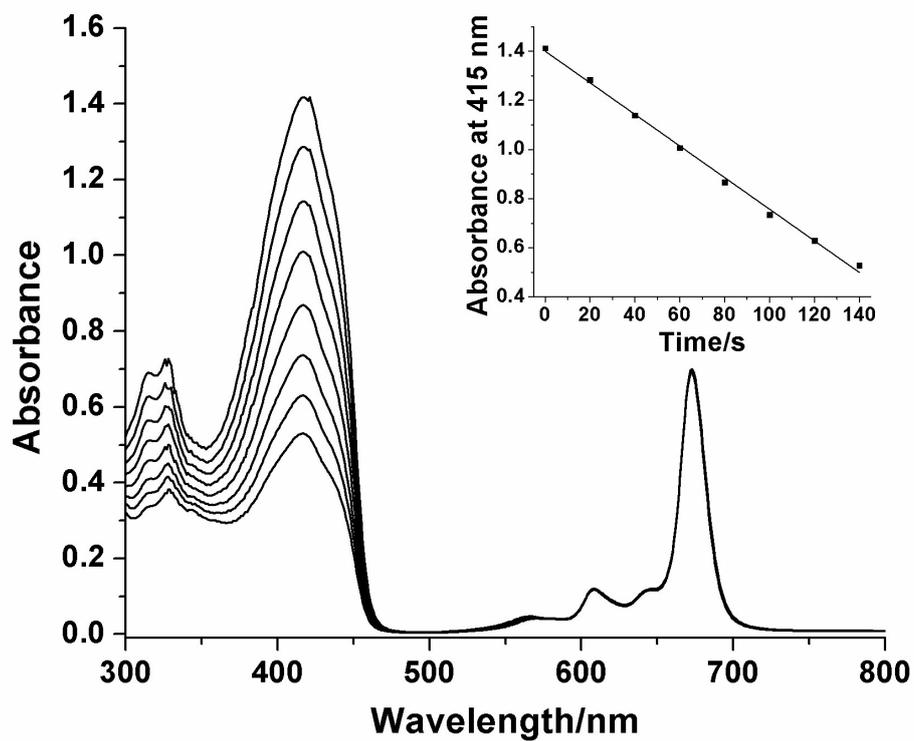


Figure S17. Absorption change of 4 (4 μM) and DPBF (80 μM) in RPMI medium 1640 formulated with 0.1% of Cremophor EL (v/v) upon exposure to red light ($\lambda > 610 \text{ nm}$, fluence rate 0.2 mW/cm^2). The insert shows the rates of photodegradation of DPBF with irradiation time.

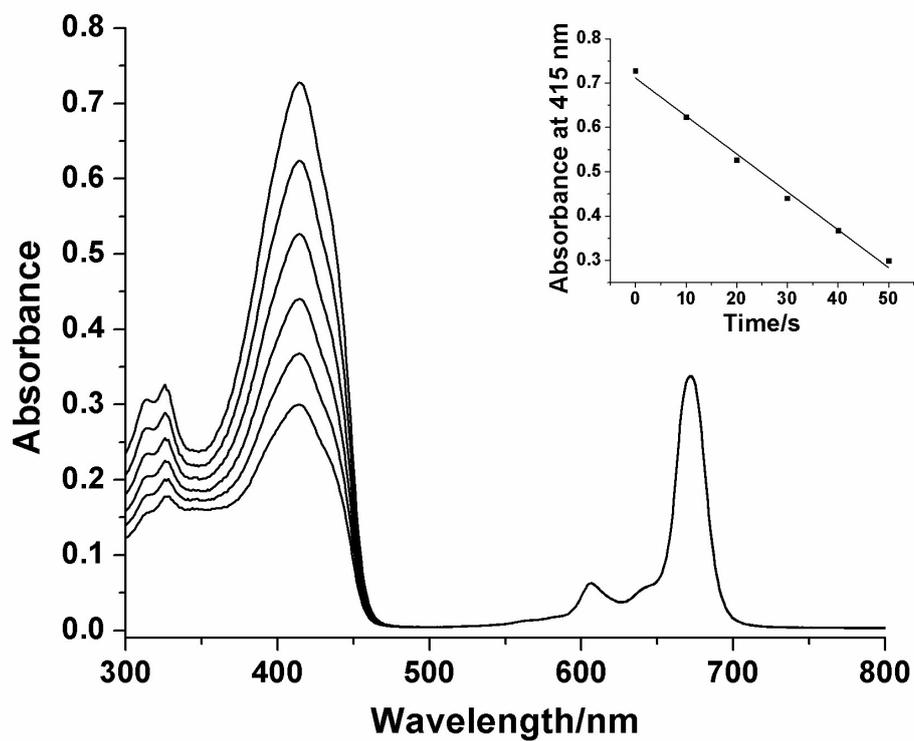


Figure S18. Absorption change of **6** (2 μM) and DPBF (40 μM) in DMF upon exposure to red light ($\lambda > 610$ nm, fluence rate 0.2 mW/cm²). The insert shows the rates of photodegradation of DPBF with irradiation time.