

Electronic Supplementary Information

Graphitic-phase C_3N_4 nanosheets as efficient photosensitizers and pH-responsive drug nanocarriers for cancer imaging and therapy

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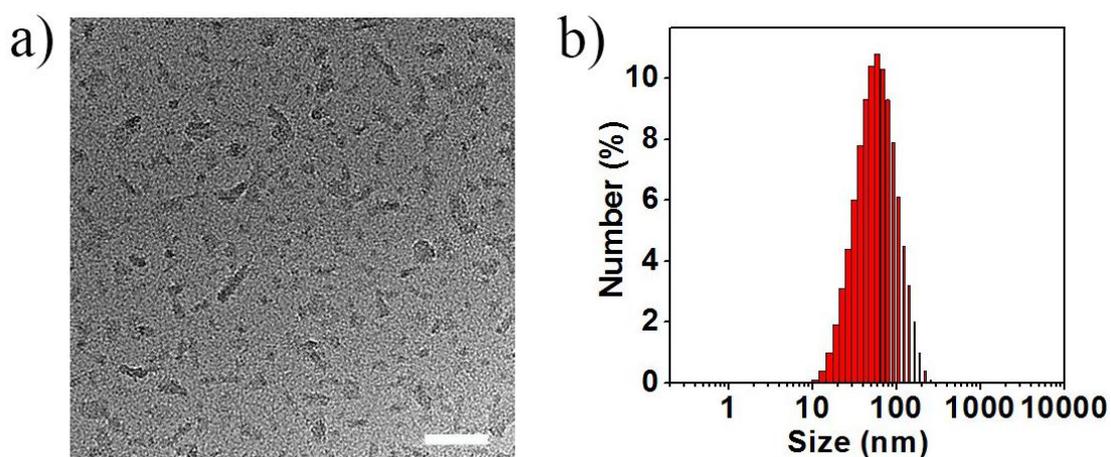


Fig. S1 (a) TEM image of g- C_3N_4 nanosheets. Scale bars are 100 nm. (b) Dynamic light scattering data of g- C_3N_4 nanosheets in an aqueous solution.

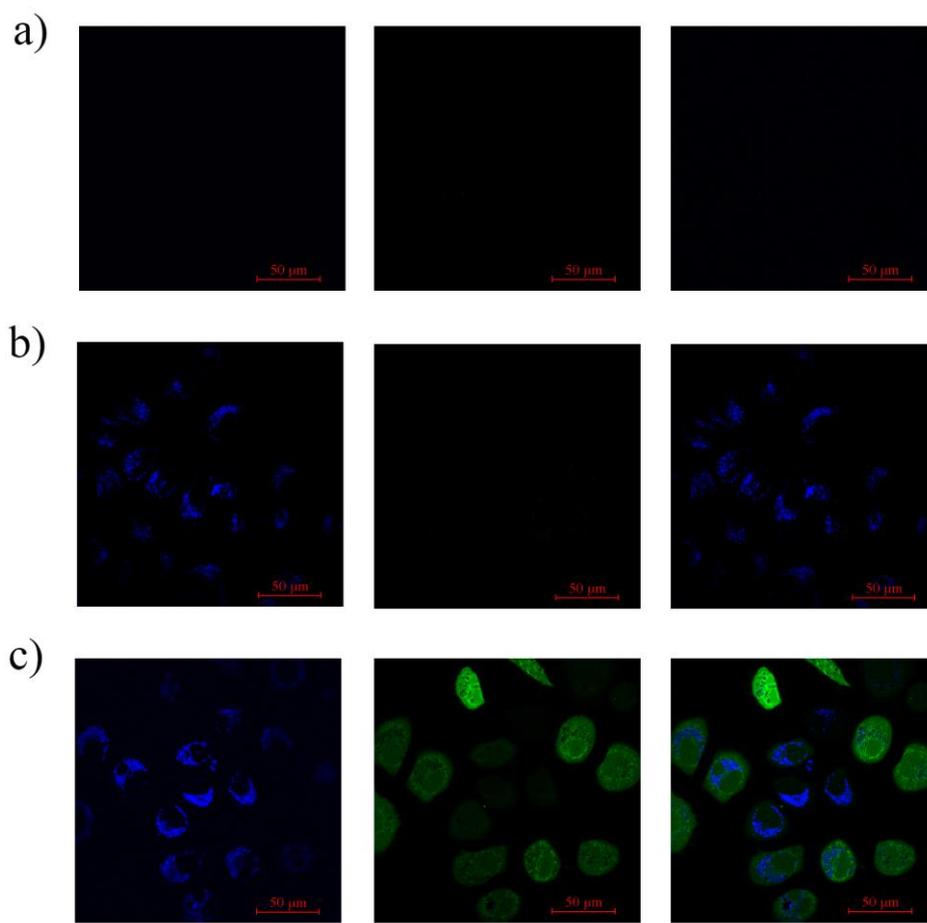


Fig. S2 Detection of intracellular ROS. CLSM imaging of HeLa cells (a) treated with LED irradiation alone, (b) treated with 50 µg mL⁻¹ g-C₃N₄ nanosheets alone, and (c) treated with 50 µg mL⁻¹ g-C₃N₄ nanosheets followed by LED irradiation. (Power density: 20 mW cm⁻²; Irradiation time: 20 min). Left panels are the fluorescence images of g-C₃N₄ nanosheets excited at 405 nm, center panels are the fluorescence images of DCFH excited at 488 nm, and right panels are the overlay of the above panels. Scale bars are 50 µm.

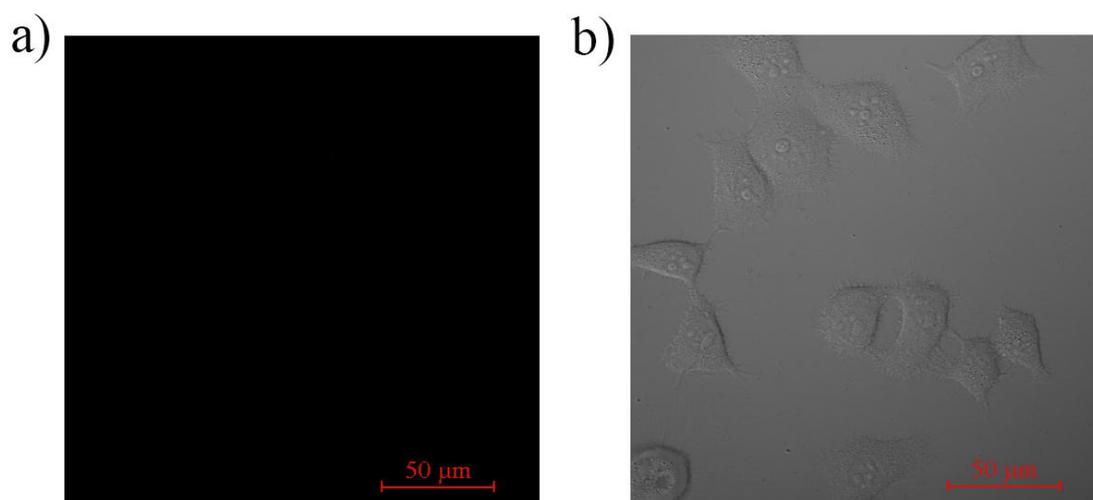


Fig. S3 (a) Confocal fluorescence image and (b) overlay image of bright field and confocal fluorescence image of HeLa cells incubated with $50 \mu\text{g mL}^{-1}$ g-C₃N₄ nanosheets at 4 °C for 4 h. Scale bars are 50 μm.

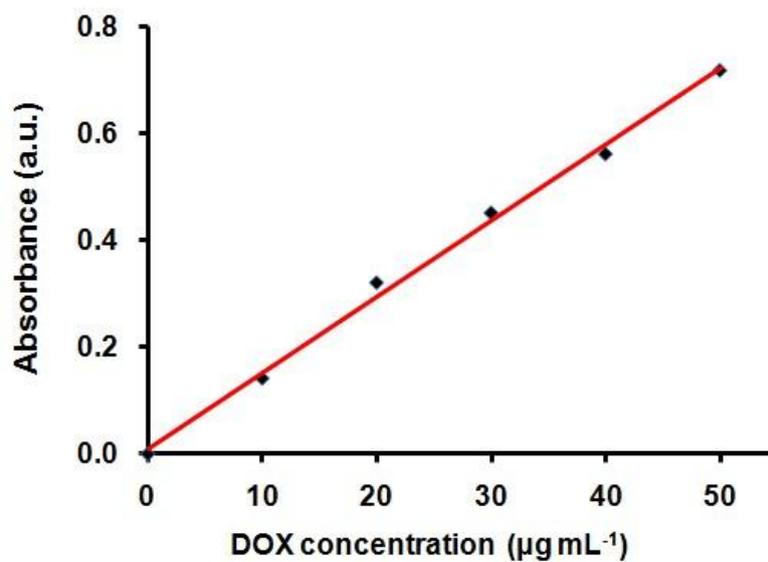


Fig. S4 A linear relationship for the optical absorbance at 490 nm as a function of the concentration of DOX.

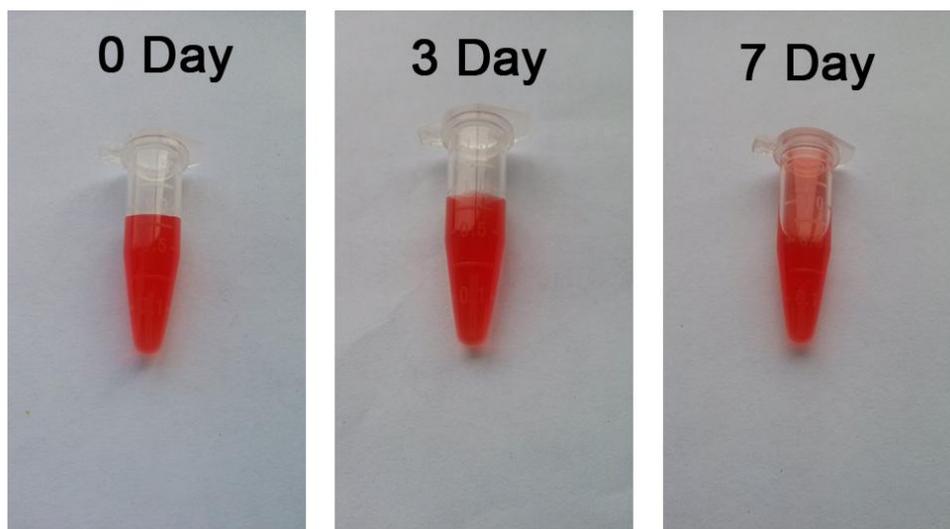


Fig. S5 Photos of the prepared g-C₃N₄-DOX complex aqueous solution after 0-, 3-, and 7-day storage. The g-C₃N₄-DOX complex is stable in ambient environment free of any special protection for over 1-week storage, showing red color without obvious aggregation in the transparent aqueous solution.

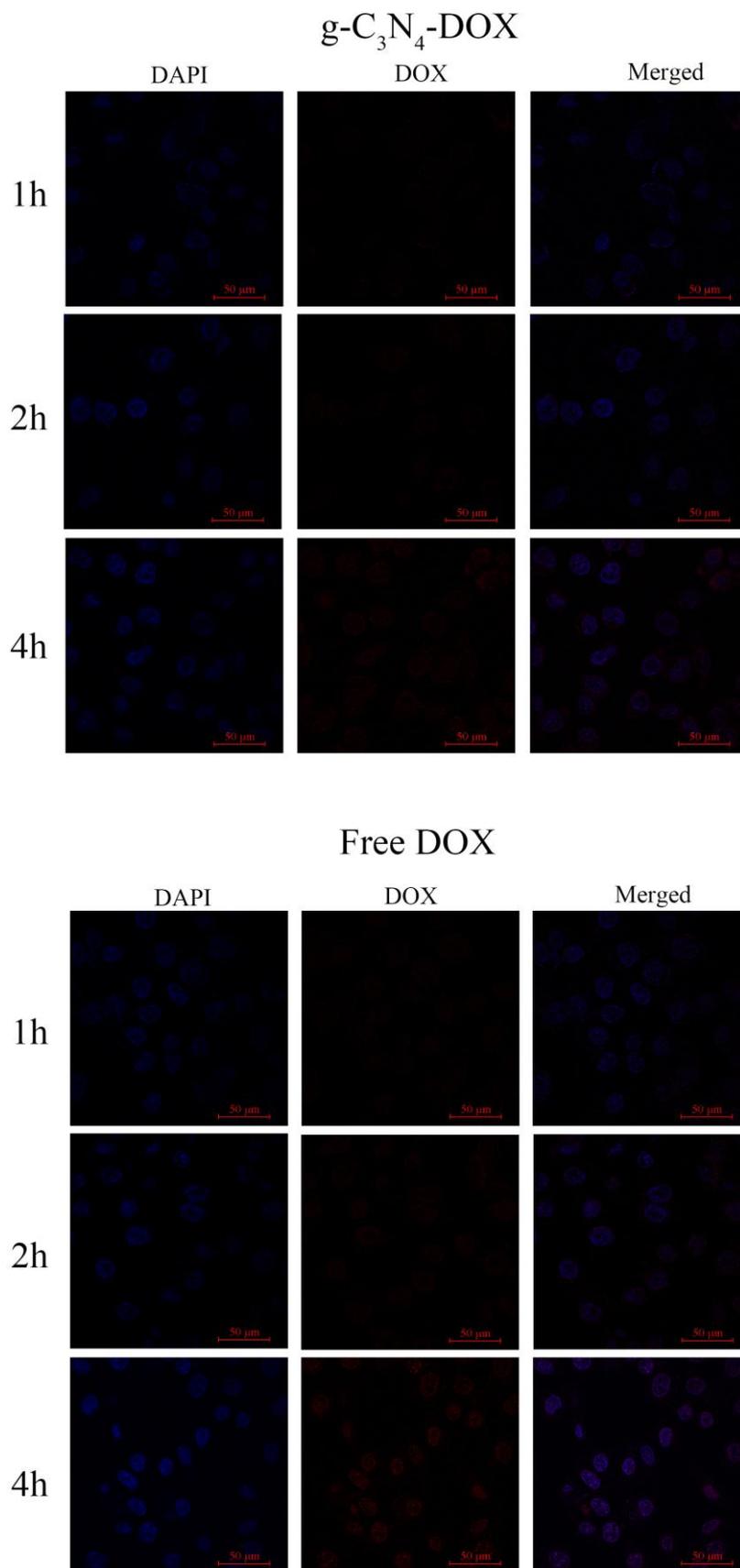


Fig. S6 CLSM imaging of HeLa cells incubated with free DOX and g-C₃N₄-DOX (containing 2 μg mL⁻¹ DOX) at 37 °C for different time.