

Electronic Supplementary Information (ESI)

One step reduction and PEIylation of PEGylated nanographene oxide for high-efficient chemo-photothermal therapy

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Supplementary table and figures:

	Total Injected Volume (μL)	Average Weight of Body (g)	Concentration of GO (μg/mL)	Concentration of DOX (μg/mL)
Group 1 (PBS)	200	19.6±2.4	—	—
Group 2 (DOX)	200	18.6±1.1	—	472.5
Group 3 (nrGO-PEG/PEI)	200	18.9±1.2	190	—
Group 4 (nrGO-PEG/PEI+Laser)	200	18.2±1.8	185	—
Group 5 (nrGO-PEG/PE/DOX)	200	19.3±2.2	195	487.5
Group 6 (nrGO-PEG/PEI/DOX+Laser)	200	19.8±2.5	200	500

Table S1 Corresponding concentrations of the drugs (PBS, DOX solution, nrGO-PEG/PEI suspension, nrGO-PEG/PEI/DOX suspension) before injection.

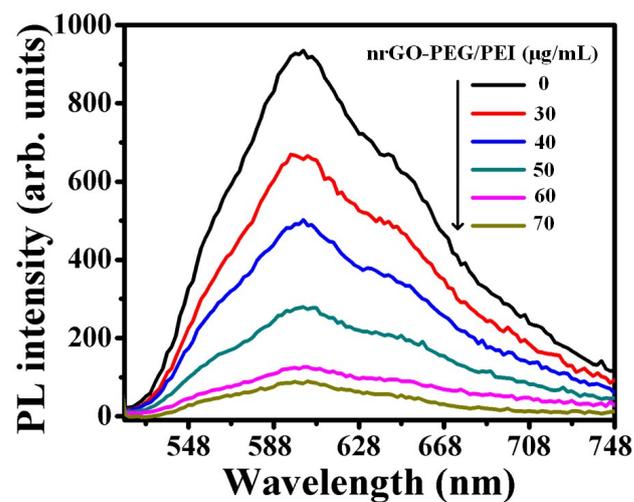


Fig. S1 Fluorescence spectra of DOX (160 µg/mL, final concentration) mixed with different concentrations of nrGO-PEG/PEI (0, 30, 40, 50, 60, 70 µg/mL, final concentration).

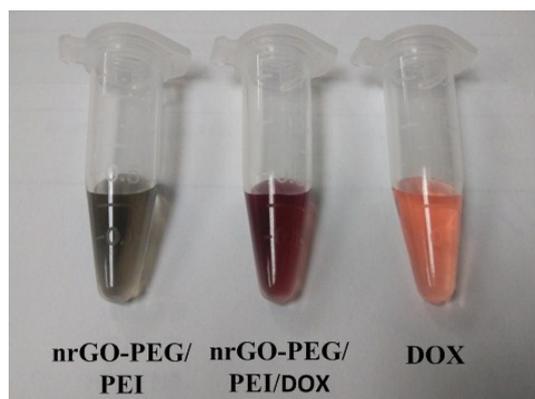


Fig. S2 Photos of DOX, nrGO-PEG/PEI and nrGO-PEG/PEI/DOX solutions (containing 50 µg/mL of GO and 130 µg/mL DOX).

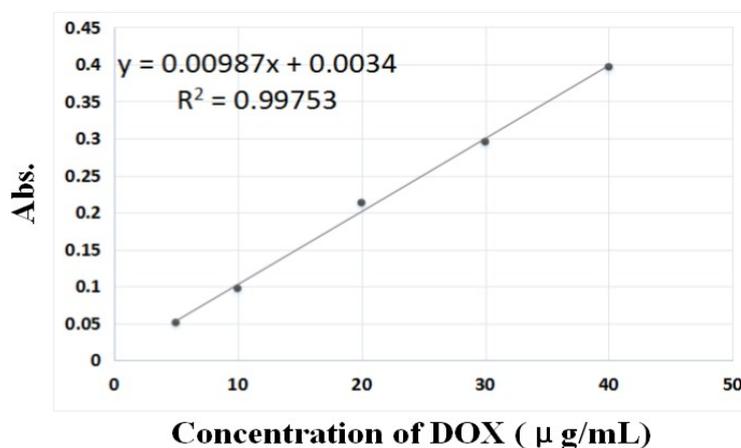


Fig. S3 The linear absorbance curve of DOX.

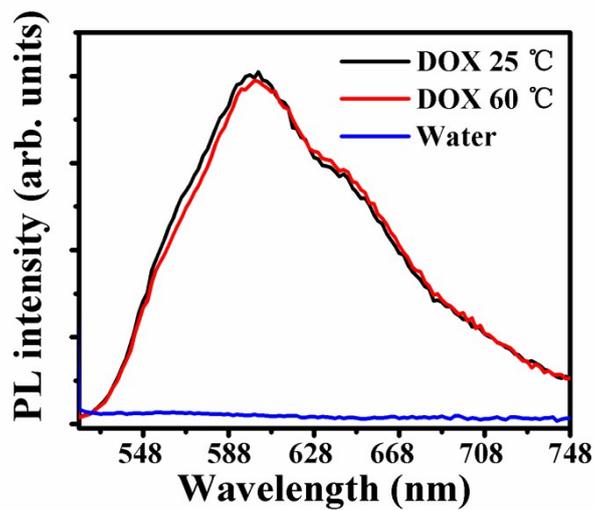


Fig. S4 The fluorescence intensity of DOX at the concentration of 160 $\mu\text{g}/\text{mL}$ under 25 and 60 $^{\circ}\text{C}$ for 600s.

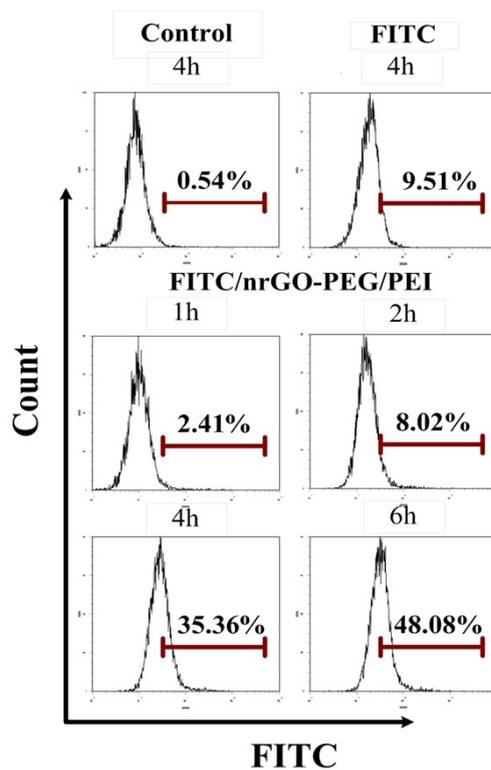


Fig. S5 Cellular uptake ratio of nrGO-PEG/PEI. Cells were cultured with 50 $\mu\text{g}/\text{mL}$ of FITC/nrGO-PEG/PEI for various times (1, 2, 4 and 6 h) before FCM analysis.

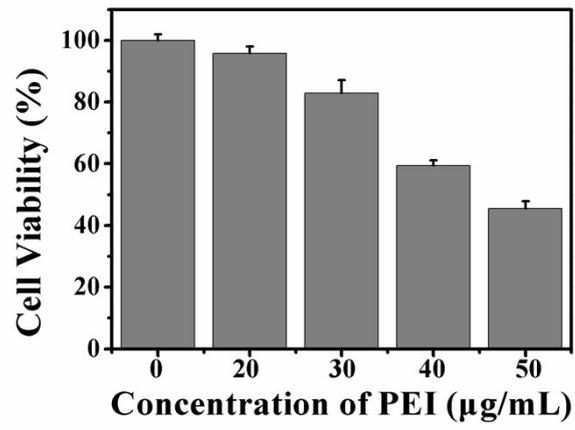


Fig. S6 Rose-dependent toxic effect of PEI in 4T1 cells at 24 h.