

## Supporting Information

### The multifunctional magnetic nanoparticles for simultaneous cancer near-infrared imaging and targeting photodynamic therapy

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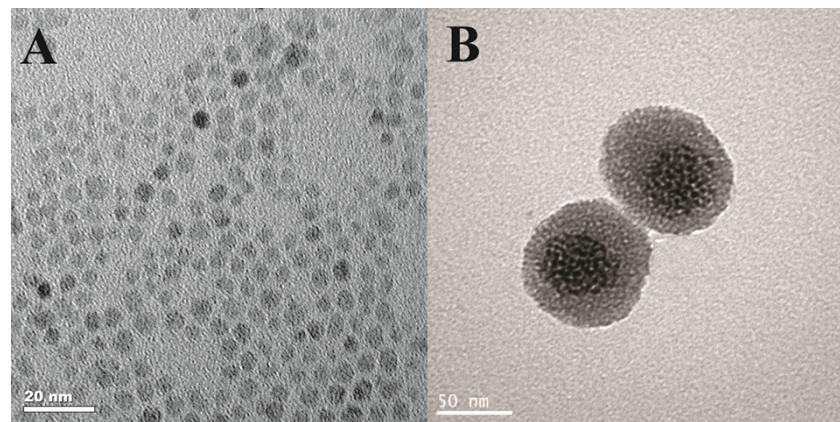


Fig. S1 TEM images of  $\text{Fe}_3\text{O}_4$  (A) and  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$  (B) nanoparticles.

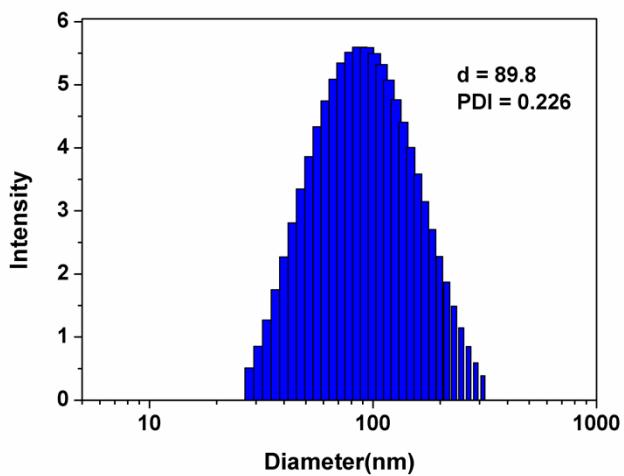


Fig. S2 Particle size distributions of  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$  nanoparticles.

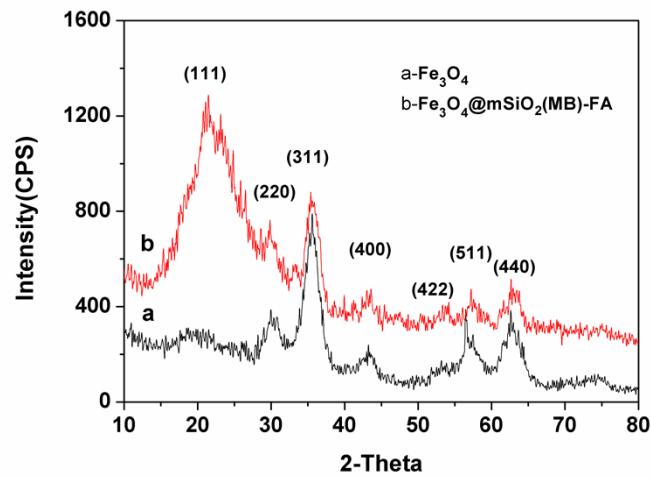


Fig. S3 XRD patterns of  $\text{Fe}_3\text{O}_4$  (a) and  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$  (b)

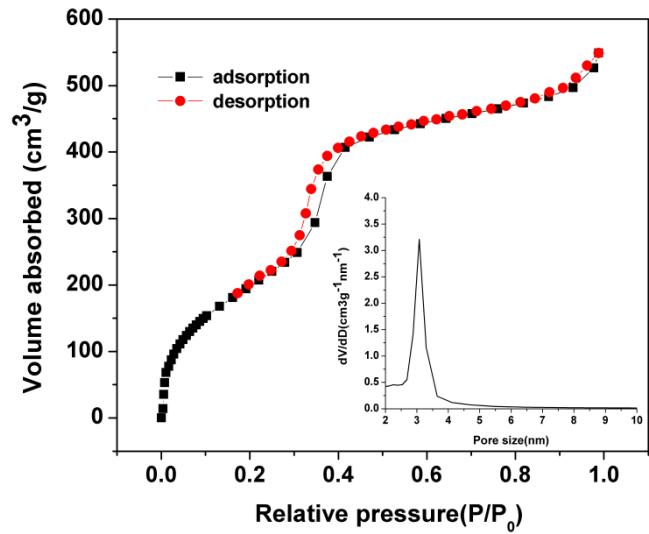


Fig. S4 The  $N_2$  adsorption/desorption isotherm and pore size distribution curve (inset) of  $\text{Fe}_3\text{O}_4@\text{mSiO}_2\text{-FA}$

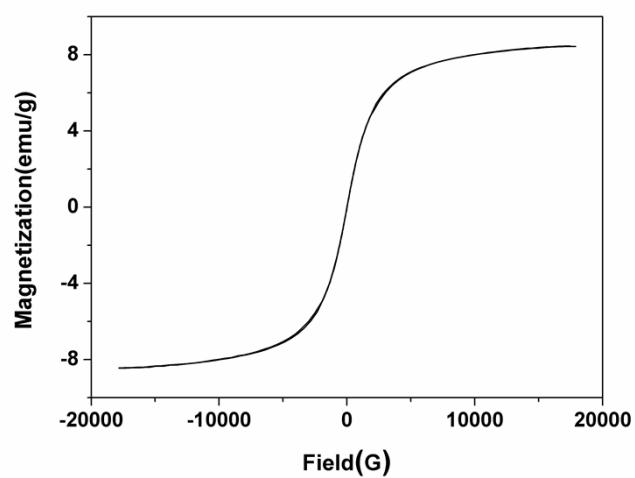


Fig. S5 Magnetization curve of  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$

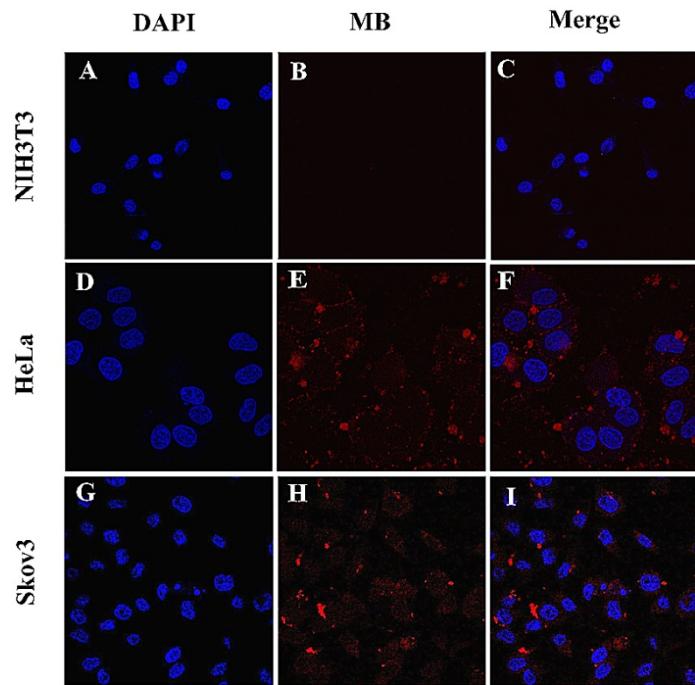


Fig. S6 Confocal laser micrographs of NIH 3T3 (A, B, C ), HeLa (D, E, F) and SK-OV-3 (G, H, I) cells incubated with  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$ .

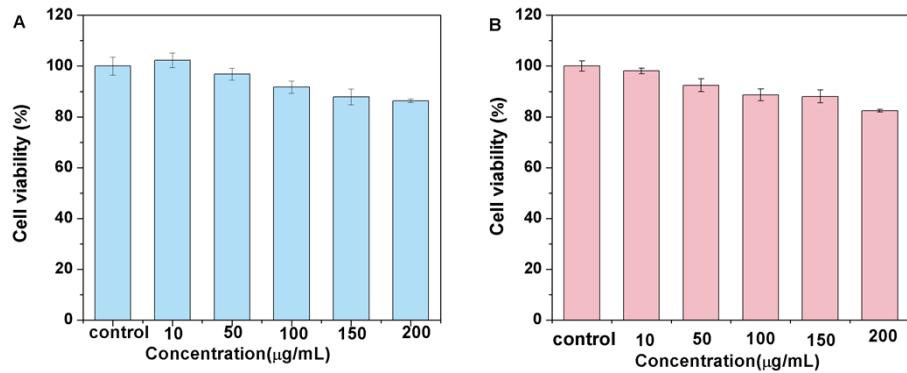


Fig. S7 *In vitro* cytotoxicity of  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$  for different concentrations to SK-OV-3 cells at (A) 24 h and (B) 48 h.

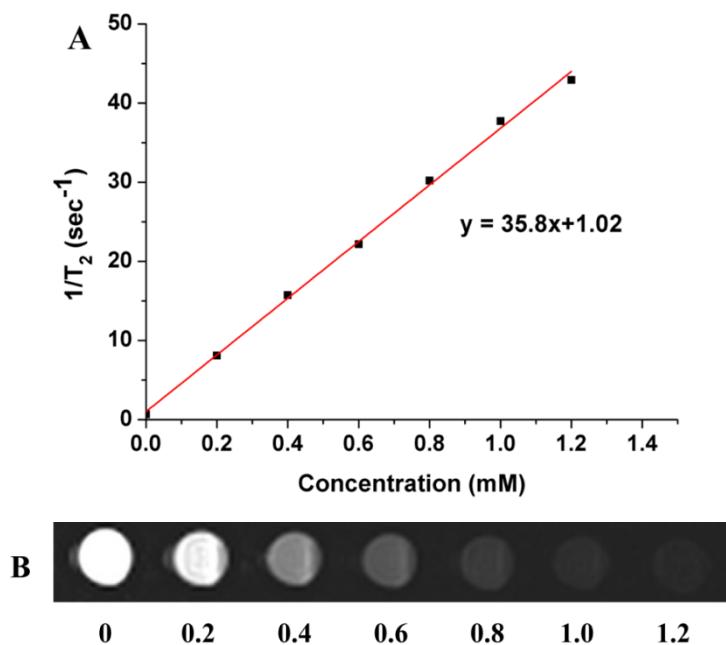


Fig. S8 (A) Relaxivity plot for  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$  and (B) Phantom MR images of  $\text{Fe}_3\text{O}_4@\text{mSiO}_2(\text{MB})\text{-FA}$  showing T<sub>2</sub> weighted bright contrast.