Supporting Information

Preparation and Biological Characterization of Fe₃O₄@C Nanocapsules as Drug Carriers with pH-Triggered Drug Release and MRI Properties

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Fig. S1 (a) XPS spectrum of sample; (b) The expanded XPS spectrum of Fe 2p.



Fig. S2 (a) Nitrogen adsorption-descrption isotherm of $Fe_3O_4@C$ nanocapsules; (b) mesopore distribution of $Fe_3O_4@C$ calculated by BJH method.



Fig. S3 Magnetic hysteresis loop of the $Fe_3O_4@C$ nanocapsules and the insert is the enlarged drawing around the original point.



Fig. S4 Raman spectrum of Fe₃O₄@C nanocapsules



Fig. S5 Confocal laser microscopic observation of MCF-7 cells cultured with free DOX or DOX-HMNPs for 24h. The dose of DOX or its equivalent was 5 μ g/mL in the cell culture. The cells were counterstained with DAPI (blue) for the cell nucleus.