## **Supporting Information**

## P(EO-*co*-LLA) Functionalized Fe<sub>3</sub>O<sub>4</sub>@mSiO<sub>2</sub> Nanocomposites for Thermo/pH Responsive Drug Controlled Release and Hyperthermia

Wei Guo<sup>1</sup>, Chunyu Yang<sup>1</sup>, Huiming Lin<sup>1,2\*</sup> and Fengyu Qu<sup>1\*</sup>

1 Laboratory for Photon and Electronic Bandgap Materials, Ministry of Education, College of Chemistry and Chemical Engineering, Harbin Normal University, Harbin 150025, China.

2 Institute of Functional Material Chemistry, Faculty of Chemistry, Northeast Normal University, Changchun, 130024, P. R. China.

To whom all correspondence should be addressed. Tel: (+86) 451-88060653. E-mail: *qufengyu2013@gmail.com* and *linhuiming@hrbnu.edu.cn* 



**Fig. S1.** The NMR spectrum of as-synthesized P(EO-*co*-LLA) in DMSO. The peaks at 5.20 and 1.55 ppm were assigned to a methine proton and methyl protons of PLLA block, respectively. And the peak at 3.65 ppm was assigned to the methylene protons of the oxyethylene unit in the PEO block. The methylene proton of PEO at the linkage between PEO and PLLA appeared at 4.3 ppm.



**Fig. S2.** Small-angle X-ray diffraction (SAXRD) patterns of a)  $Fe_3O_4@mSiO_2$ , b)  $Fe_3O_4@mSiO_2-P7,250$ , c)  $Fe_3O_4@mSiO_2-P8,750$ , d)  $Fe_3O_4@mSiO_2-P10,000$ .



**Fig. S3.** (A) Nitrogen adsorption-desorption isotherms and (B) Pore size distribution for a)  $Fe_3O_4@mSiO_2$ , b)  $Fe_3O_4@mSiO_2-P7,250$ , c) $Fe_3O_4@mSiO_2-P8,750$ , d)  $Fe_3O_4@mSiO_2-P10,000$ .



Fig. S4. Time-dependent curves of the temperature of the sample at 250 kHz AC magnetic field.