

## ELECTRONIC SUPPLEMENTARY INFORMATION

### **CdSe quantum dots labeled *Staphylococcus aureus* for researches of THP-1 Macrophage Phagocytosis behaviors**

Tian-Yang Lin<sup>a,b</sup>, Zong-Juan Lian<sup>a,b</sup>, Cai-Xia Yao<sup>a,b</sup>, Xin-Ying Liu<sup>a,b</sup>, Xiao-Yan Sun<sup>a,b</sup>,  
Zheng-Yu Yan<sup>a,b\*</sup>, Sheng-Mei Wu<sup>a,b\*</sup>

<sup>a</sup> Department of Analytical Chemistry, China Pharmaceutical University, 24 Tongjia Lane, Gulou District, Nanjing 210009, China

<sup>b</sup> Key Laboratory of Drug Quality Control and Pharmacovigilance, Ministry of Education, 24 Tongjia Lane, Gulou District, Nanjing, 210009, China

\* Corresponding author

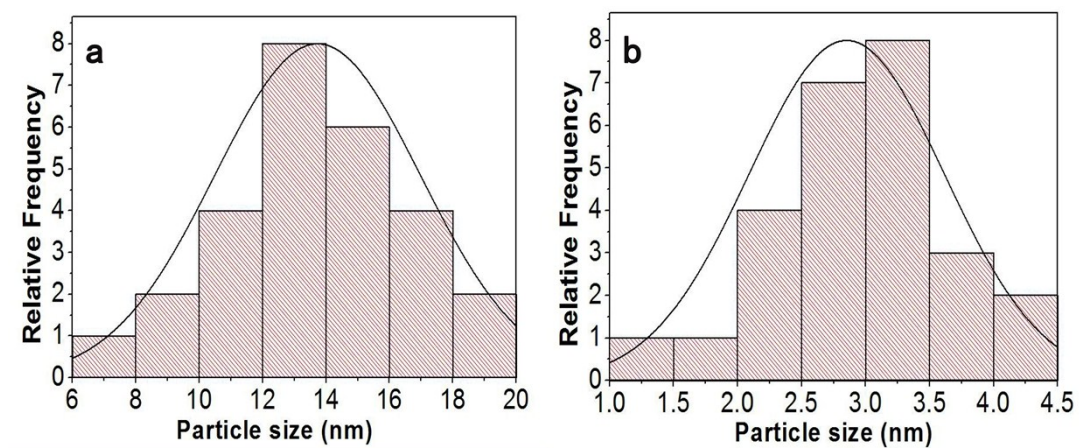
Tel: +86-25-83224365

Fax: +86-25-86185179

E-mail: wushengmei80@163.com (Sheng-Mei Wu),

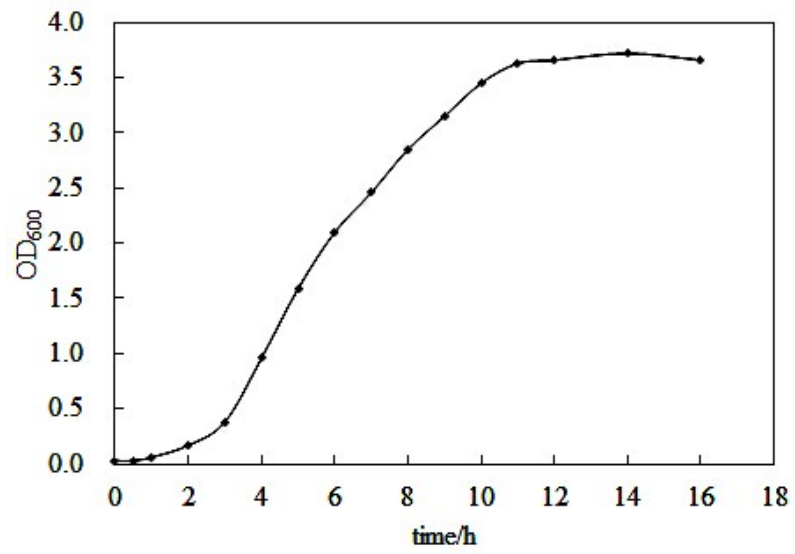
yanzhengyujiang@126.com (Zheng-Yu Yan).

**Fig. S1**



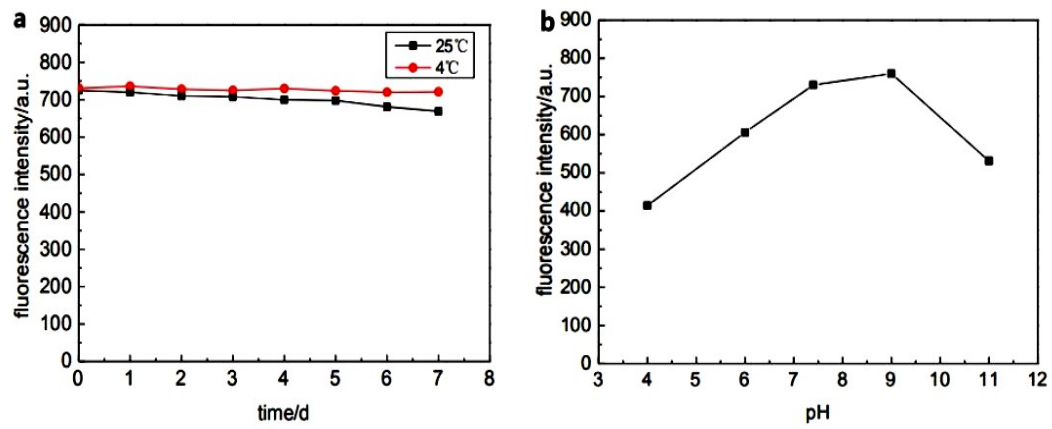
**Fig. S1** Histogram of the nanoparticle size distributions, (a) biosynthesized QDs and (b) hydrothermally synthesized QDs.

**Fig. S2**



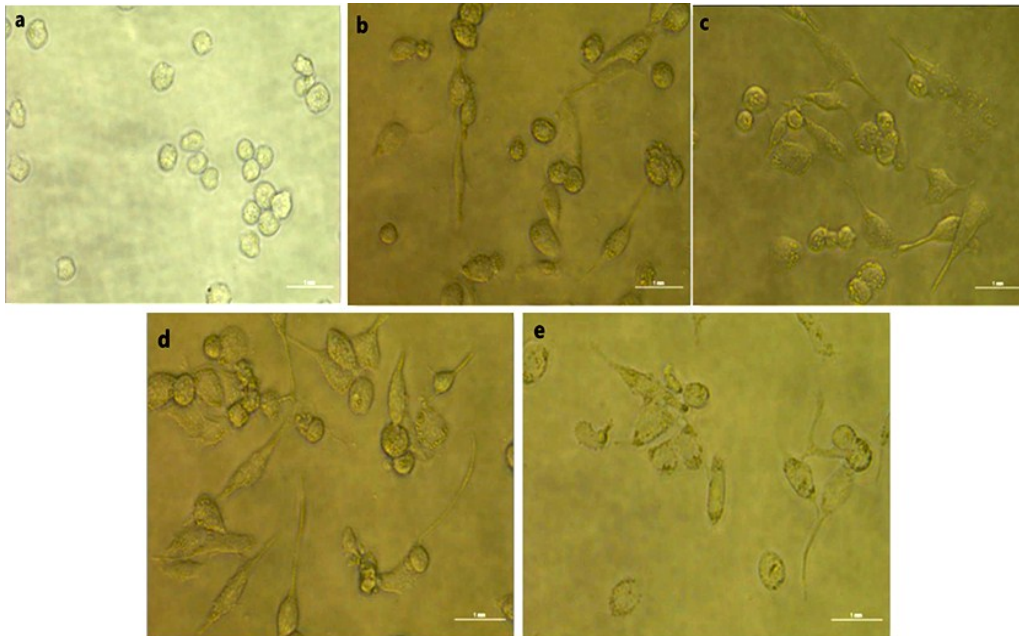
**Fig. S2** *S. aureus* growth curve. It was divided into three stages, lag phase (0-2 h), log phase (3-10 h), and the stationary phase (11-16 h).

**Fig. S3**



**Fig. S3** Influence of temperature and pH on the fluorescence intensity of fluorescent *S. aureus* cells. (a) Fluorescent *S. aureus* cells under 25°C and 4°C for one week (b) Fluorescent *S. aureus* cells under different pH value (4.0, 6.0, 7.4, 9.0, 11.0) PBS buffer for 2 h.

**Fig. S4**



**Fig. S4** Microscopic images of PMA induced THP-1 cell differentiation under different concentration of PMA. (a) blank control, (b) 10 ng/mL, (c) 25 ng/mL, (d) 50 ng/mL, (e) 100 ng/mL.