

**Electronic Supplementary Information (ESI) for**  
**Lanthanide-Doped Chitosan Nanospheres as Cell Nuclei Illuminator and**  
**Fluorescent Nonviral Vector for Plasmid DNA Delivery**

Wei Wang,<sup>\*a</sup> Xiangpeng Jiang<sup>a</sup> and Kezheng Chen<sup>\*a</sup>

<sup>a</sup> *College of Materials Science and Engineering, Qingdao University of Science and Technology,*

*Qingdao, 266042 (China)*

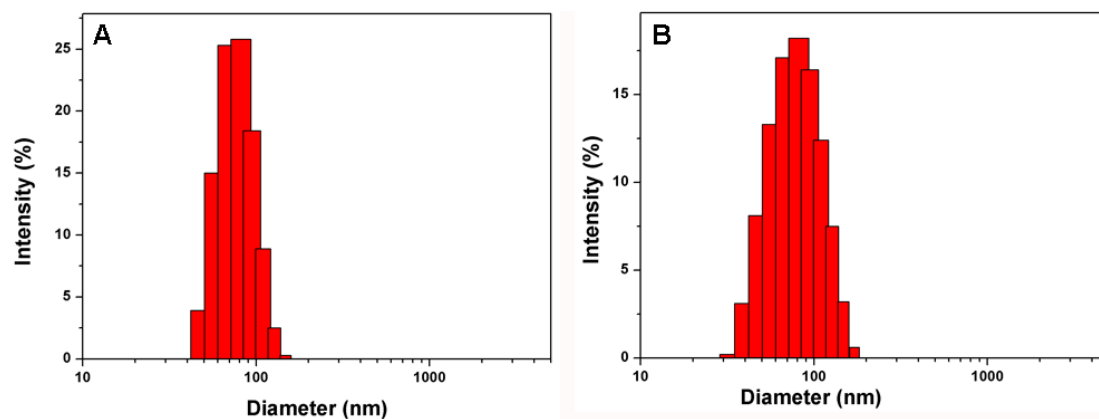
*\*To whom correspondence should be addressed. E-mail: [wangwei@qust.edu.cn](mailto:wangwei@qust.edu.cn),*

*[kchen@qust.edu.cn](mailto:kchen@qust.edu.cn)*

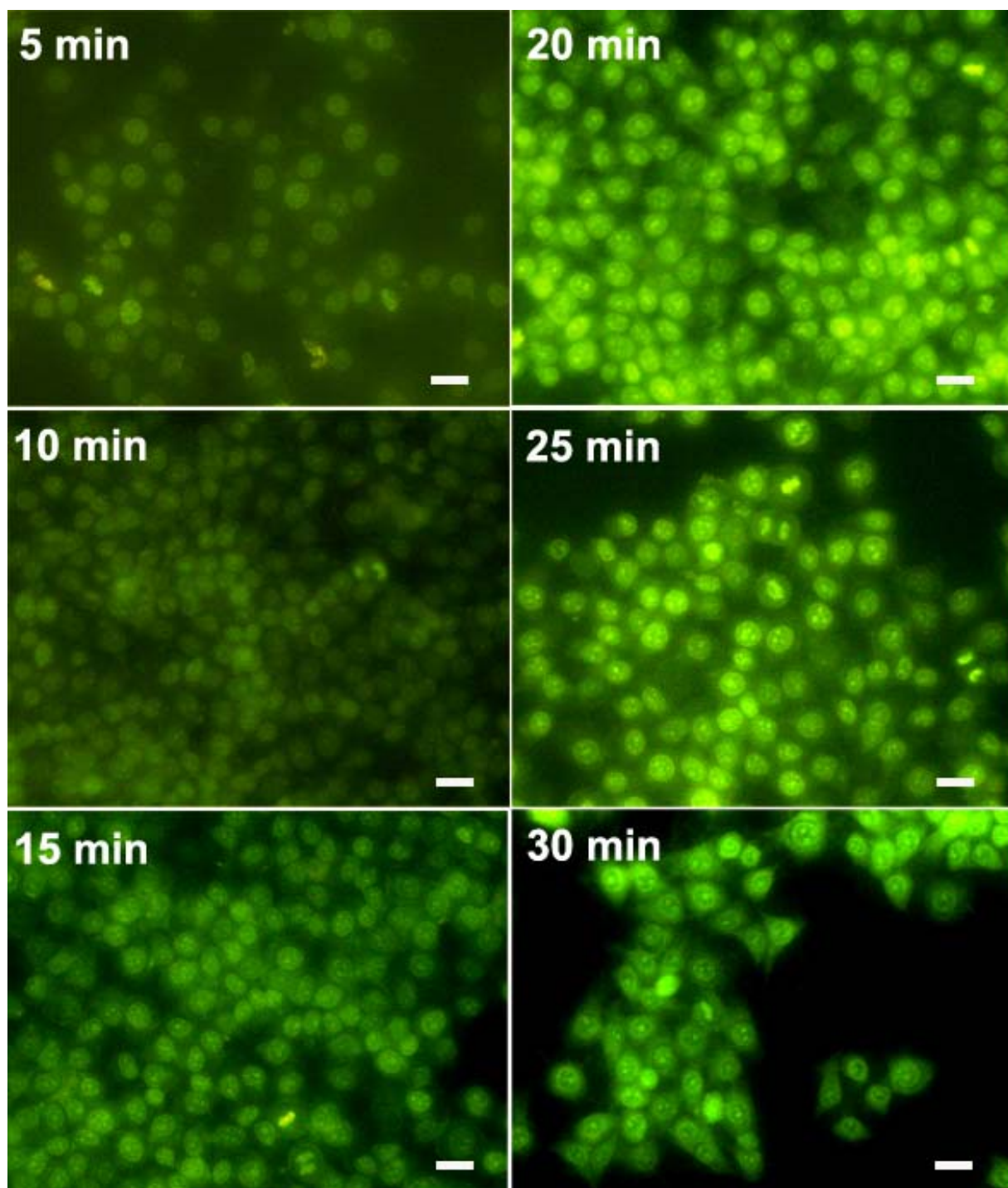
**This PDF file includes:**

**Figure S1 to S3**

**Figure S1 Hydrodynamic diameter distribution of (A) LDCNs and (B)  $\text{Fe}_3\text{O}_4$ -LDCNs.**



**Fig. S2 Time-dependent fluorescent microscopy images of HeLa Cells after incubation with Gd,Tb-co-doped chitosan nanospheres. The scale bars are 10  $\mu\text{m}$ .**



**Fig. S3** More fluorescent microscopy images of HeLa Cells after incubation with Gd,Tb-co-doped chitosan nanospheres is finished. The scale bars are 10  $\mu\text{m}$ .

