

The biocompatibility evaluation of iron oxide nanoparticles synthesized by one pot process for intravenous iron supply

Juanjuan Li^{†, a, b}, Yang Liu^{†, a, b}, Ruitao Cha,^{*, a} Bei Ran,^{a, c} Kaiwen Mou,^{a, d} Huashan Wang,^b Qian Xie,^{*, e} Jiashu Sun,^a Xingyu Jiang^{*, a}

^a *Beijing Engineering Research Center for BioNanotechnology and CAS Key Laboratory for Biological Effects of Nanomaterials and Nanosafety, National Center for NanoScience and Technology, Beijing 100190, China;*

^b *School of Chemical Engineering and Material Science, Tianjin University of Science and Technology, Tianjin 300457, China;*

^c *State Key Laboratory of Biotherapy/Collaborative Innovation Center for Biotherapy, West China Hospital, Sichuan University, Chengdu, 610041, China;*

^d *Ocean University of China, Qingdao 266100, China;*

^e *Division of Nephrology, Peking University Third Hospital, Beijing 100191, China*
E-mail: chart@nanocr.cn, xieqian_2001@hotmail.com, xingyujiang@nanocr.cn

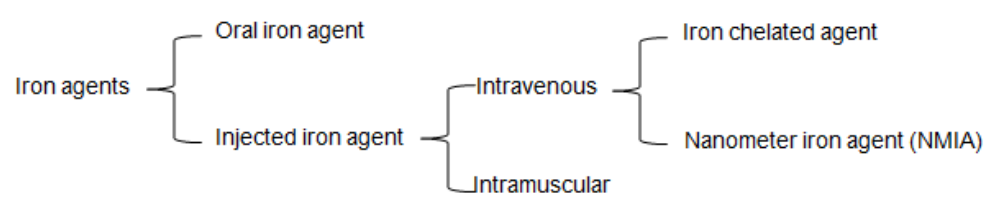


Fig. S1. The classification diagram of iron agents.

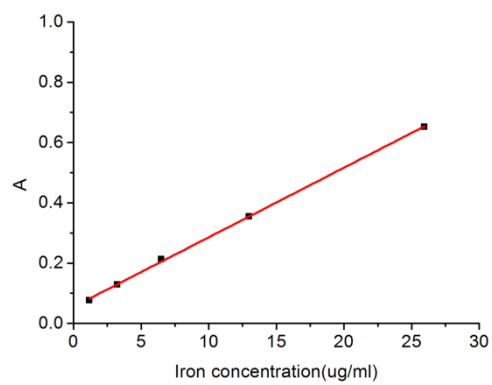


Fig. S2 Standard curve of iron ion concentrations from 25.94 $\mu\text{g/ml}$ to 1.18 $\mu\text{g/ml}$ measured at 478 nm by multimode reader.

$$Y=0.023X+0.055, R^2=0.9998$$

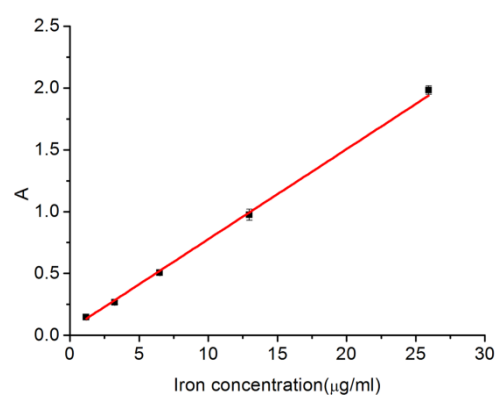


Fig. S3 Standard curve of iron ion concentrations from 25.94 $\mu\text{g/ml}$ to 1.18 $\mu\text{g/ml}$
measured by Uv-vis.
 $Y=0.072X+0.046$, $R^2=0.9995$

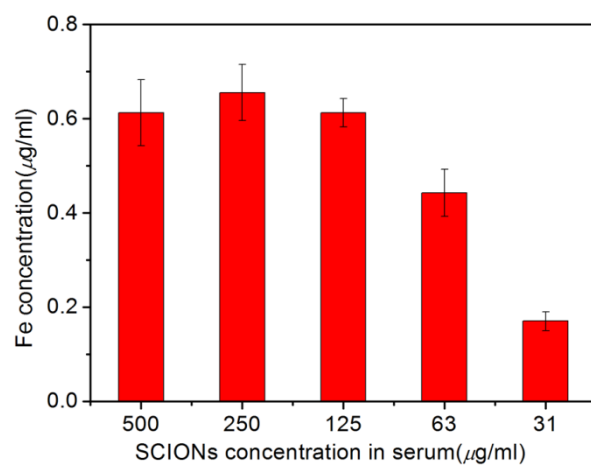


Fig. S4 Iron concentration in water through ultrafiltration after the addition of SCIONs

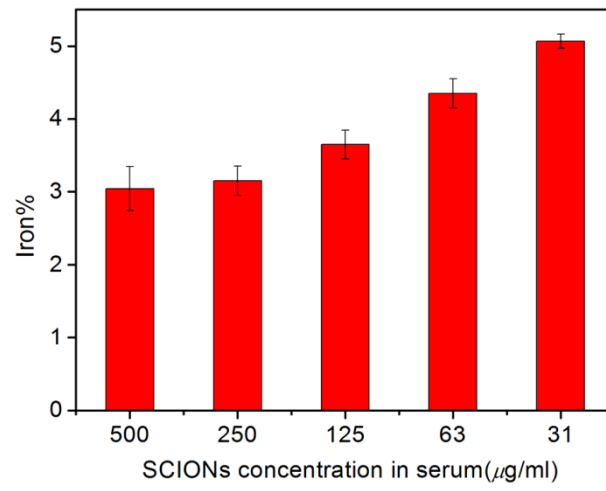


Fig. S5 Dissolved percent of SCIONs in serum after 24 h.