Supporting Information for

Multifunctional Silica-Coated Iron Oxide Nanoparticles: A Facile Four-in-One System for In-Situ Study of Neural Stem Cells Harvesting

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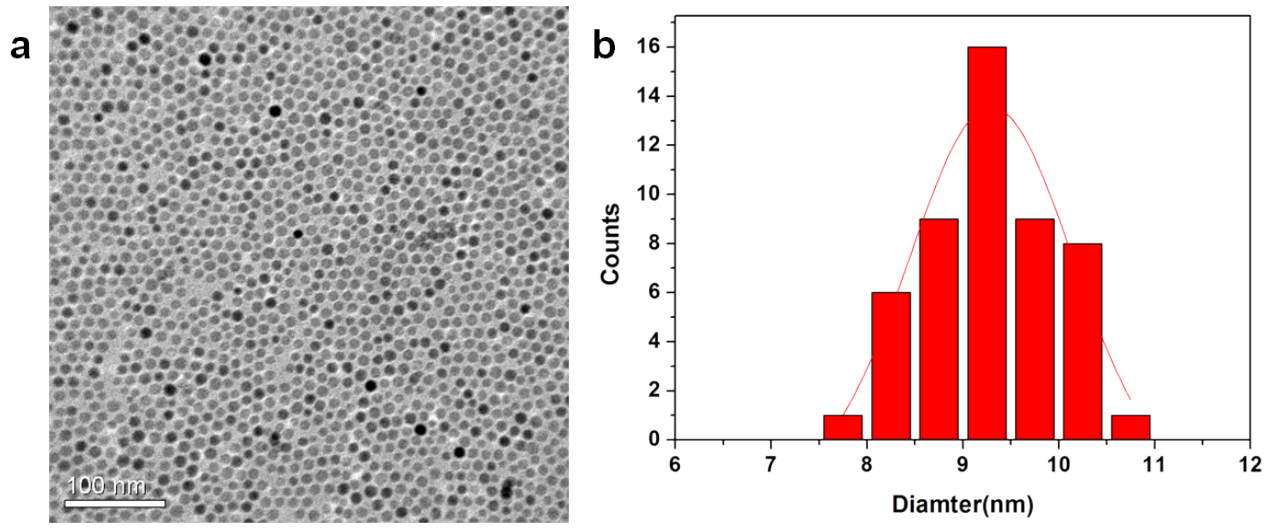

Figure S1. (a) Low magnification TEM image of Fe_3O_4 NPs (cf. high magnification TEM image shown in Figure 1a). (b) The corresponding histogram analysis (50 particles are used in this histogram). The average diameter of the NPs is 9.28±0.71nm

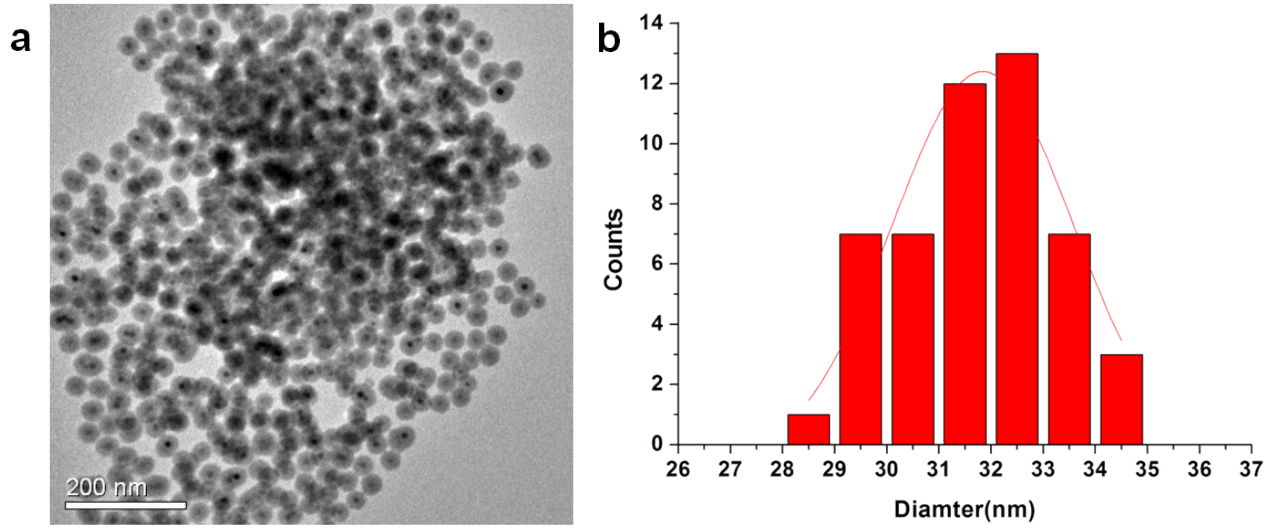

Figure S2. (a) Low magnification TEM image of Fe_3O_4@SiO_2(FITC) NPs (cf. high magnification TEM image shown in Figure 1b). (b) The corresponding histogram analysis (50 particles are used in this histogram). The average diameter of the NPs is 31.71±1.54nm

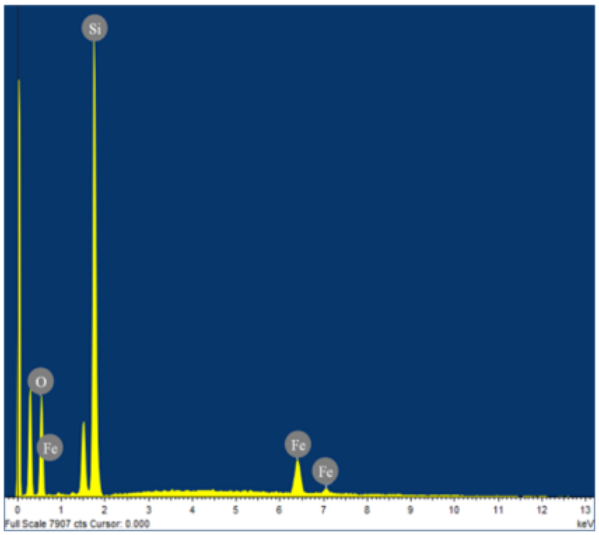

Figure S3. The energy-dispersive X-ray (EDX) spectra of Fe_3O_4@SiO_2(FITC) which confirms the existence of silicon, oxygen and iron elements

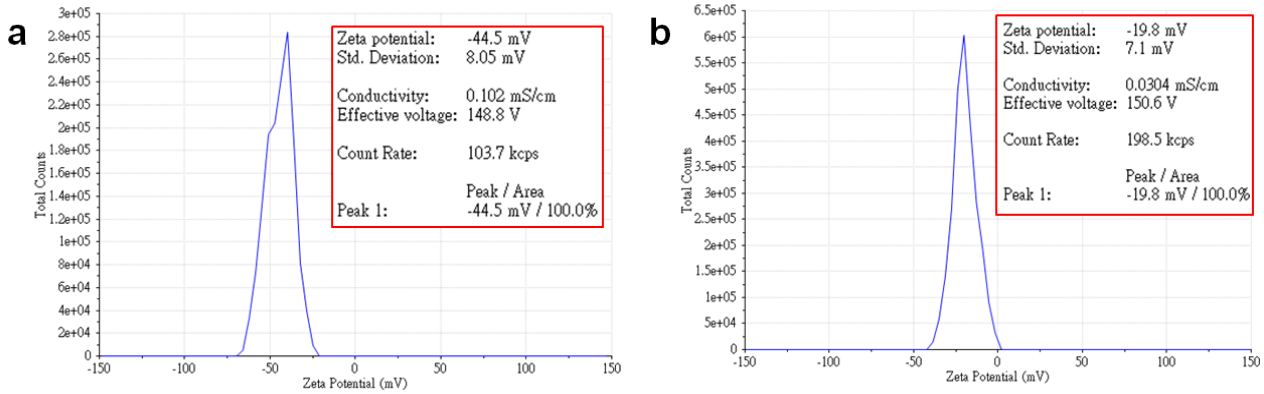

Figure S4. Zeta potential distribution shows the surface charge of (a) Fe_3O_4@SiO_2(FITC) and (b) Fe_3O_4@SiO_2(FITC)-NH_2

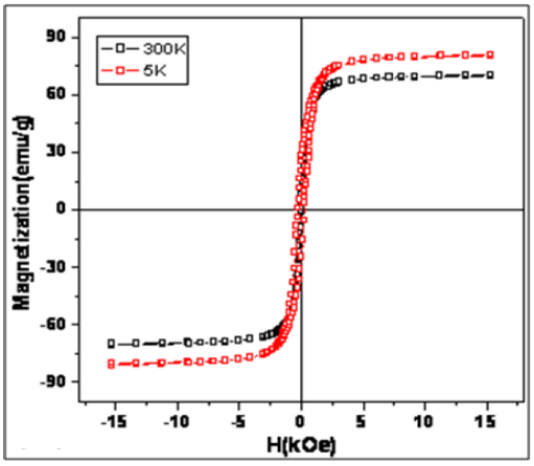

Figure S5. Field-dependent magnetization curves (at 5K and 300 K) of Fe_3O_4@SiO_2(FITC)-CD133

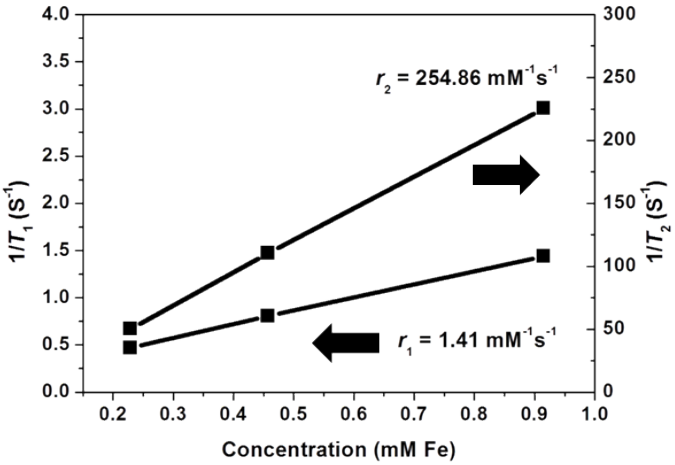

Figure S6. Relaxation property of Fe_3O_4@SiO_2(FITC)-CD133 at 0.47T

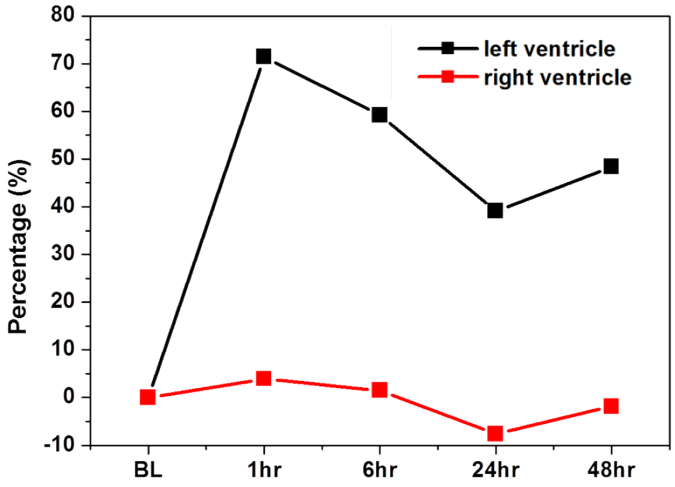

Figure S7. A time course *T*2 signal of selected area in rat brain (row 3 in figure 3) at different time intervals