

Supporting Information

Gadolinium-labelled iron/iron oxide core/shell nanoparticles as T_1 - T_2 Contrast Agent for Magnetic Resonance Imaging

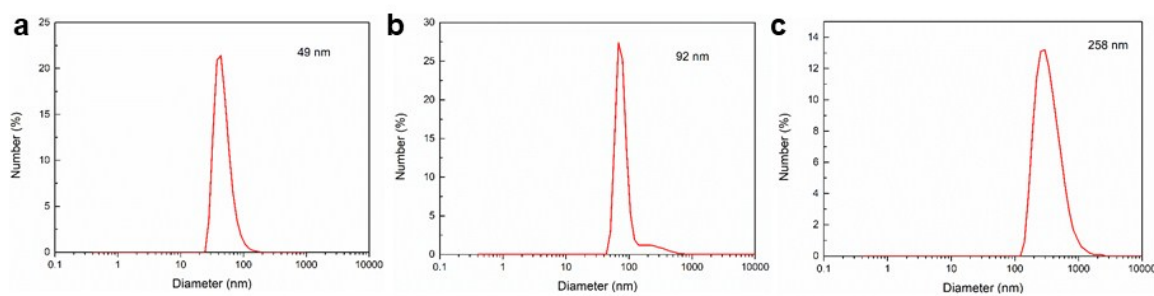


Figure S1. The hydrodynamic diameter of a) ALA coated Fe@Fe₃O₄, b) DOTA-Fe@Fe₃O₄ and c) DOTA(Gd)-Fe@Fe₃O₄ NPs, respectively.

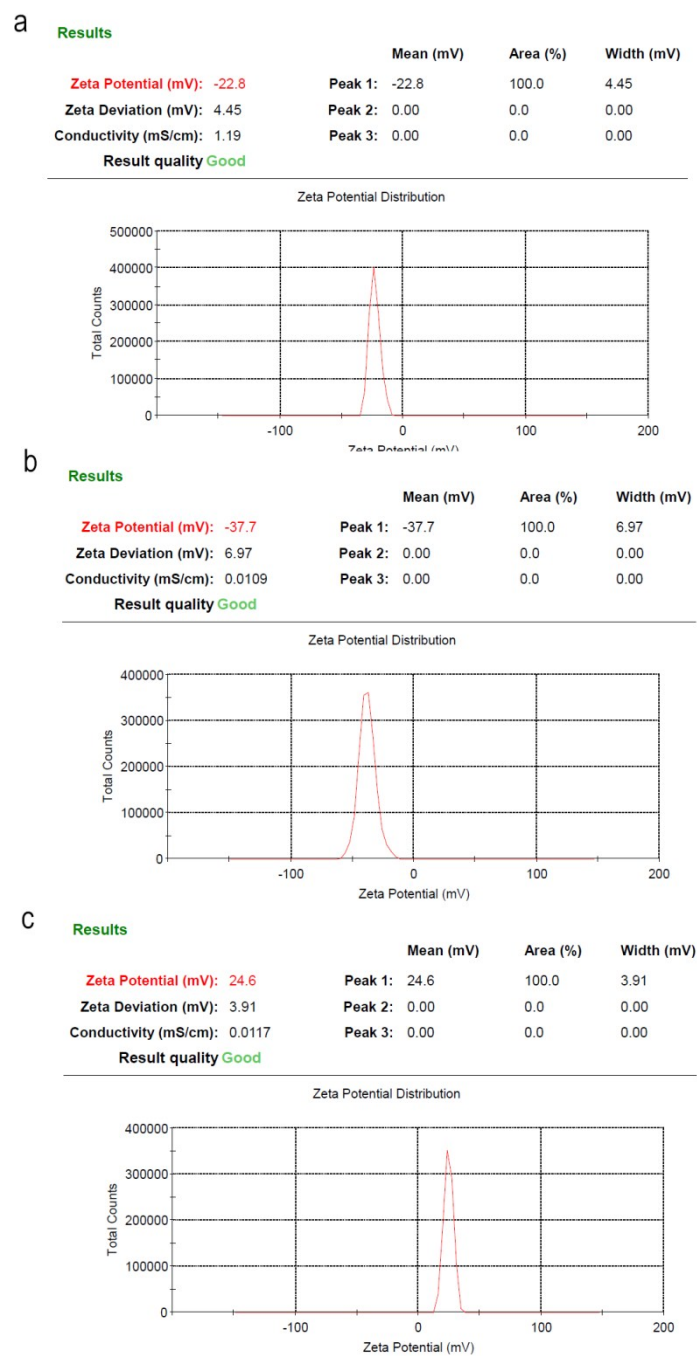


Figure S2. Zeta potentials of a) ALA coated Fe@Fe₃O₄, b) DOTA-Fe@Fe₃O₄ and c) DOTA(Gd)-Fe@Fe₃O₄ NPs, respectively.

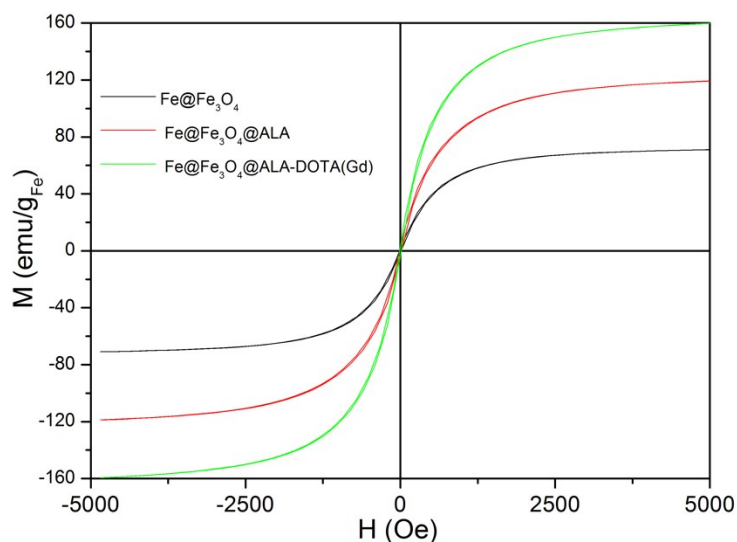


Figure S3. Magnetization curves of bcc-Fe/Fe₃O₄ (black line), ALA coated Fe@Fe₃O₄ (red line), DOTA(Gd)-Fe@Fe₃O₄ (green line) based on the terms of per gram Fe.

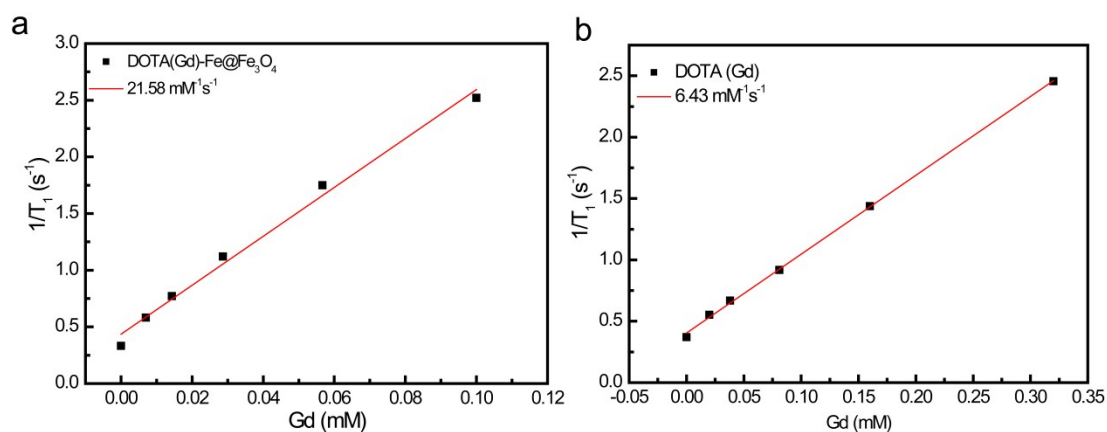


Figure S4. r_1 relaxation rates of a) DOTA(Gd)-Fe@Fe₃O₄ NPs and b) DOTA(Gd) measured at various Gd concentrations with a 0.5 T system.

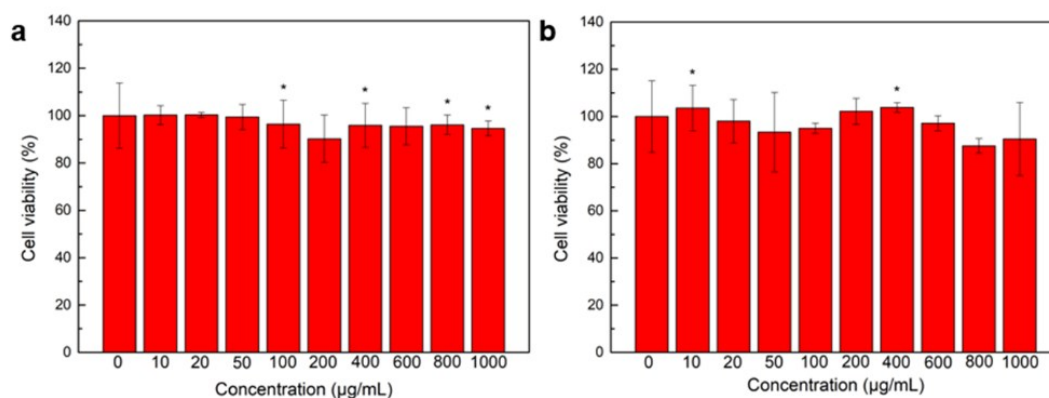


Figure S5. The viability of a) 4T1 and b) HUVEC cell lines incubated with DOTA(Gd)-Fe@Fe₃O₄ NPs with different concentrations for 24 h at 37 °C, respectively (* $p < 0.05$, $n = 3$).