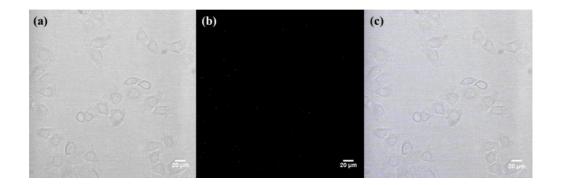
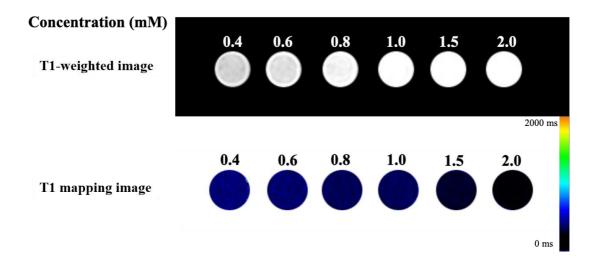


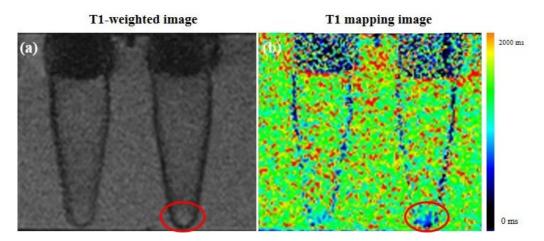
Fig. S1 The color of Gd-CDs aqueous solutions after different hydrothermal treated conditions.



**Fig. S2** (a) Bright-field microphotograph; (b) Wide-field optical microphotograph; (c) Overlap of corresponding bright-field image and FL image of HeLa cells incubated without Gd-CDs.



**Fig. S3** T1-weighted and T1 mapping MR images of Gd-DTPA at different Gd<sup>3+</sup> concentrations.



**Fig. S4** T1-weighted (a) and T1 mapping (b) MR images of HeLa cells labelled (right) or unlabelled (left) with Gd-CDs.