

Hydrogels generated by low-molecular-weight PEGylated luteolin and α -cyclodextrin through self-assembly for 5-fluorouracil delivery

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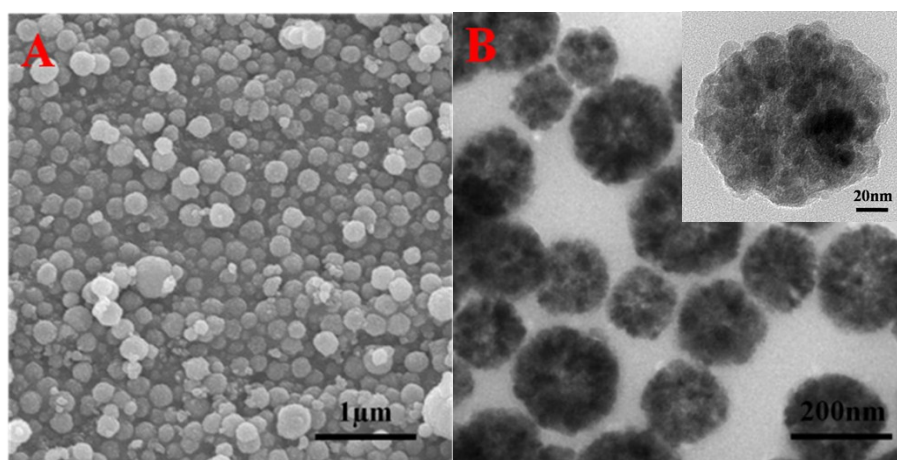
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1. Characterizations of Fe_3O_4 particles

The SEM and TEM images, XRD and magnetization of Fe_3O_4 particles are shown in Fig.S1. It is clear that Fe_3O_4 particles are well dispersed and spherical in shape with average diameter of about 150 nm. Fig.S1C shows the XRD patterns of Fe_3O_4 and all diffraction peaks are easily indexed and assigned to the typical cubic structure of Fe_3O_4 (JCPDS Card 75-1609) [1]. The magnetization curve (Fig.S1D) implies that the saturation magnetization value of Fe_3O_4 particles is about $80.0 \text{ emu} \cdot \text{g}^{-1}$.

[1] R. Zheng, S. Wang, Y. Tian, X. G. Jiang, D. L. Fu, S. Shen, W. L. Yang, Polydopamine-coated magnetic composite particles with an enhanced photothermal effect. *ACS Appl. Mater. Inter.*, 2015, 7, 15876-15884.



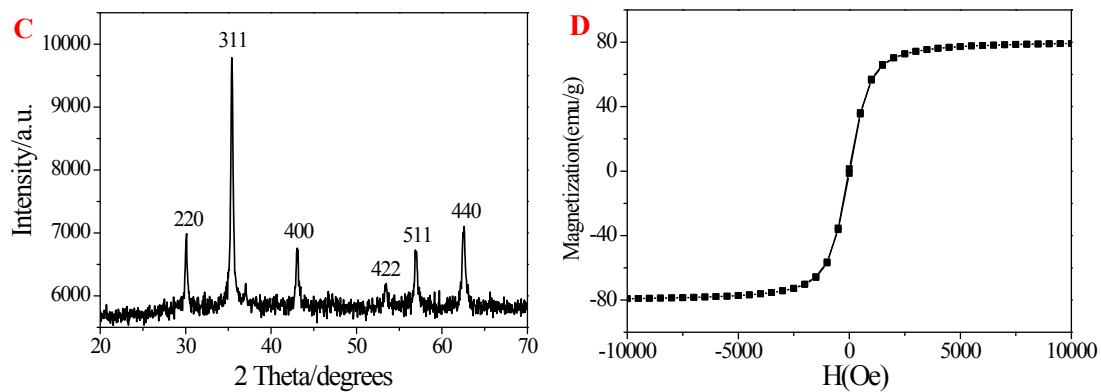


Fig.S1. SEM (A), TEM images (B), XRD (C) and magnetization (D) of Fe₃O₄ particles.

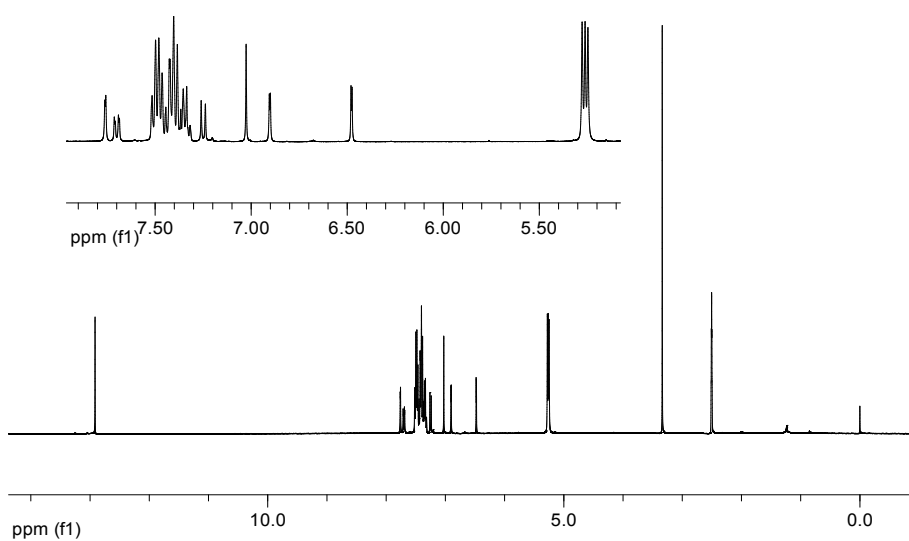


Fig.S2 ¹H NMR spectrum of **2** in DMSO-*d*₆.

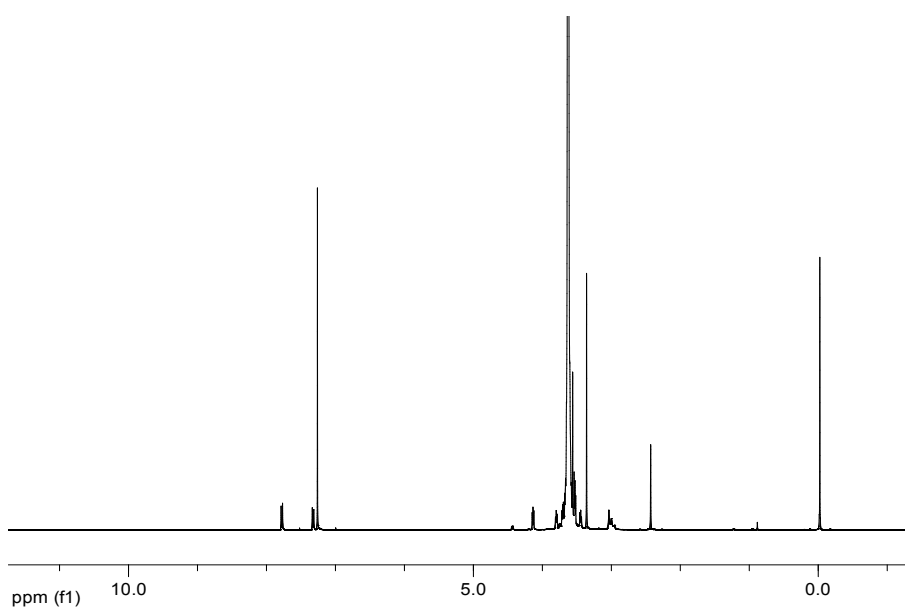


Fig.S3 ¹H NMR spectrum of **3** in CDCl₃.

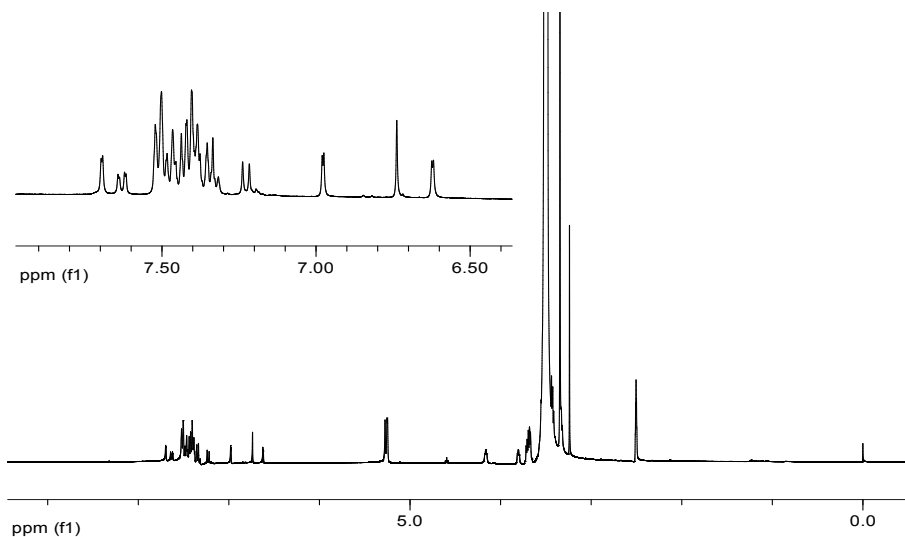


Fig.S4 ^1H NMR spectrum of **4** in $\text{DMSO-}d_6$.

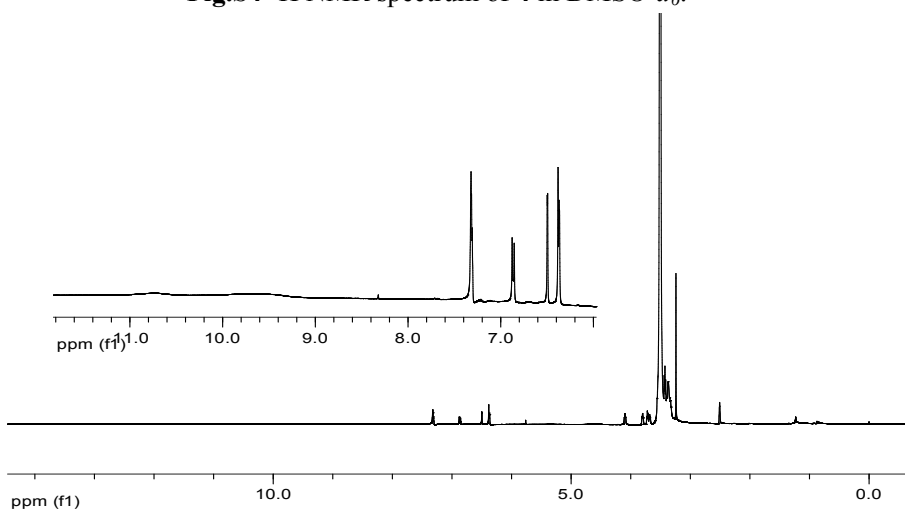


Fig.S5 ^1H NMR spectrum of **5** in $\text{DMSO-}d_6$.

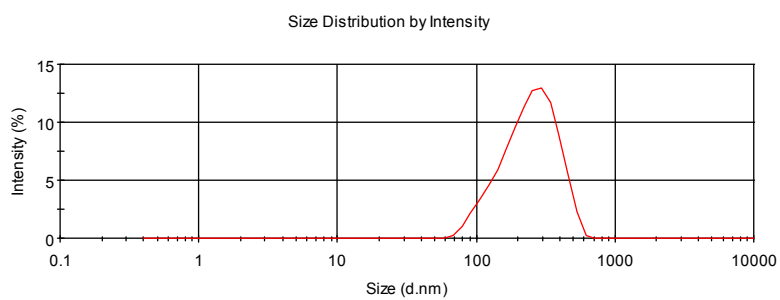
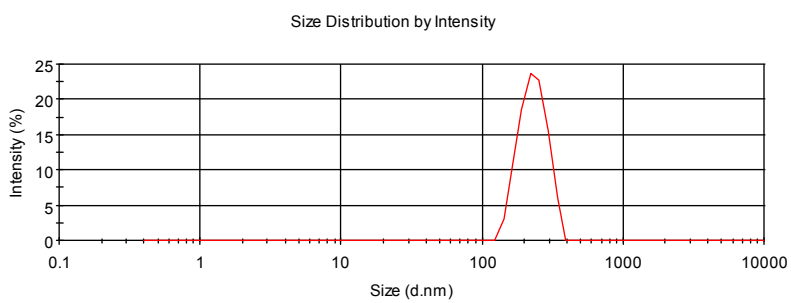


Fig.S6. The distributions of mPEG-LUT and mPEG-LUT- Fe_3O_4 conjugates