Supporting Information

Size and surface controllable metal-organic frameworks (MOFs) for fluorescence imaging and cancer therapy

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The particle size of UIO-66-NH$_2$ used is 50 nm.

Figure S9. (a) SEM-EDX mapping of UIO-66-NH$_2$; (b) SEM-EDX mapping of UIO-66-NH$_2$-FA-5-FAM/5-FU; (c) SEM-EDX mapping of UIO-66-NH$_2$-FA-5-FAM/5-FU after drug release. The particle size of UIO-66-NH$_2$ used is 50 nm

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Figure S13. The excised tumors from mice groups treated with free 5-FU at 28nd day
Experimental Section

Preparation of UIO-66-NH$_2$-FA-5-FAM

Typically, 0.1 g UIO-66-NH$_2$, 0.2 g FA and 0.2 g 5-FAM were added to aqueous solution. Afterwards, 0.1 g N-(3-dimethylaminopropyl)-N-ethylcarbodiimide hydrochloride (EDC) was added to the above solution, which was subsequently stirred in the dark at room temperature for 16 h to allow the FA and 5-FAM to conjugate onto the UIO-66-NH$_2$. The obtained UIO-66-NH$_2$-FA-5-FAM nanocomposite was isolated from solution through centrifugation, followed by washing with water and then kept in water for drug release study and then dried under vacuum at 25 °C.

Preparation of UIO-66-NH$_2$-5-FAM/5-FU

Typically, 0.1 g 5-FU loaded UIO-66-NH$_2$, 0.2 g 5-FAM were added to saturated aqueous solution of 5-FU. Afterwards, 0.1 g N-(3-dimethylaminopropyl)-N-ethylcarbodiimide hydrochloride (EDC) was added to the above solution, which was subsequently stirred in the dark at room temperature for 16 h to allow the 5-FAM to conjugate onto the UIO-66-NH$_2$. The obtained UIO-66-NH$_2$-5-FAM/5-FU nanocomposite was isolated from solution through centrifugation, followed by washing with water and then dried under vacuum at 25 °C.
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Figure S2. The calibration curve of 5-FU

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<th>BET surface area of UIO-66-NH$_2$</th>
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Figure S7. TGA curves of UIO-66-NH$_2$ with different sizes (A-D)

Figure S8. Nitrogen adsorption-desorption isotherms of UIO-66-NH$_2$/5-FU (A) and UIO-66-NH$_2$-FA-5-FAM/5-FU (B). The particle size of UIO-66-NH$_2$ used is 50 nm.
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