

Supporting Information

Highly Stable and Biocompatible Hyaluronic acid-rehabilitated nanoscale MOF-Fe²⁺ Induced Ferroptosis in Breast Cancer Cells

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Fe²⁺ loading content measurement: 5 mg HA@MOF was dispersed in 5 mL pH 2 HCl solution under vigorous stirring. Then, the mixture was transferred into a 10 mL size volumetric flask and replenished to 10 mL with pH 2 HCl solution. After the mild shake, the solution was filtered with 0.45 μ m membranes and measured by the o-phenanthroline method to determine the Fe²⁺ content.

Fe²⁺ validation: 20 mg of HA@MOF NPs were transferred to three beakers with 5 mL different phosphate-buffered saline (with pH 7.4, 6.5, and 5.0). Afterward, the beakers were sealed and vigorously stirred for 1 h. Then, several drops from each beaker were withdrawn and dripped into the o-phenanthroline solution. The appearance was recorded after the gentle shake.

Fluorescence spectrums: FITC loaded MOF and HA@MOF NPs were prepared and dispersed in the same amount of deionized water. Then, both dispersions were scanned under a fixed excitation wavelength of 495 nm via Cary Eclipse Fluorescence Spectrophotometer (Agilent Technologies).

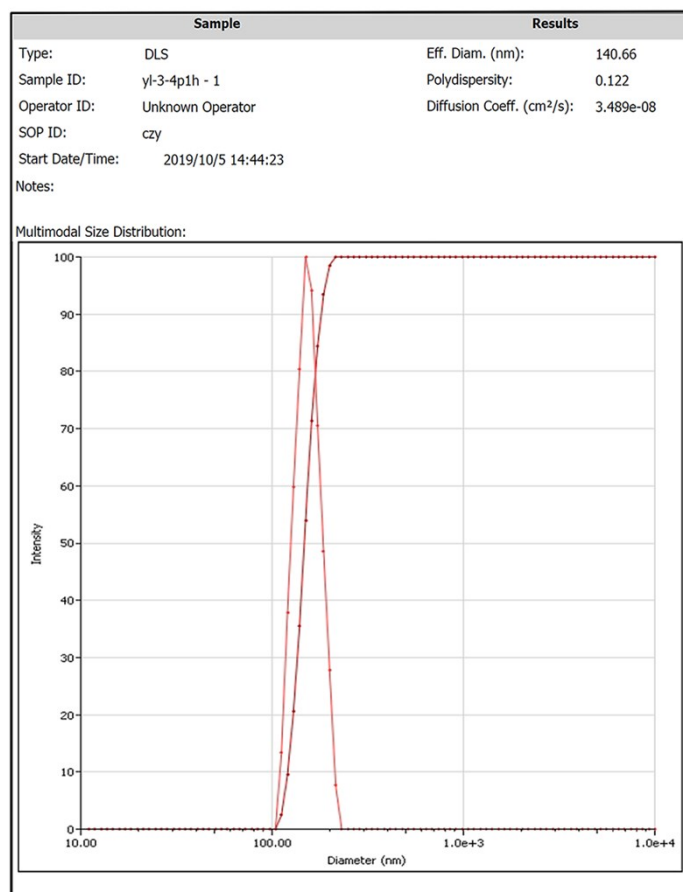


Fig. S1. Original DLS report of HA@MOF

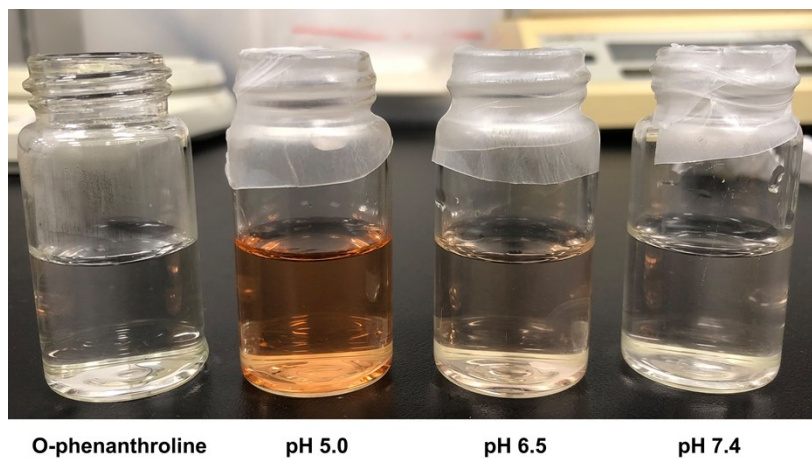


Fig. S2. Fe²⁺ validation: Red-brown color represents the Fe²⁺- phenanthroline complex.

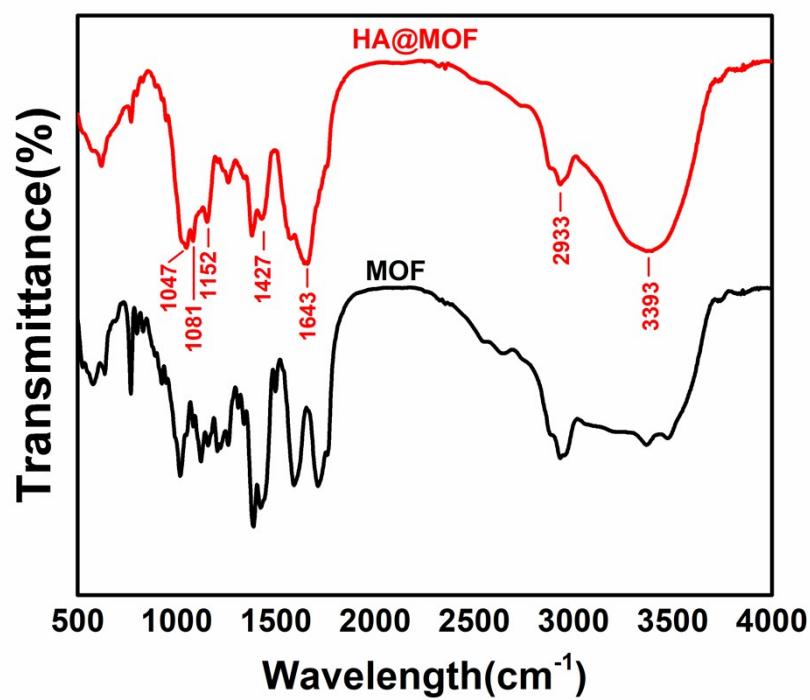


Fig. S3. FTIR results of MOF and HA@MOF

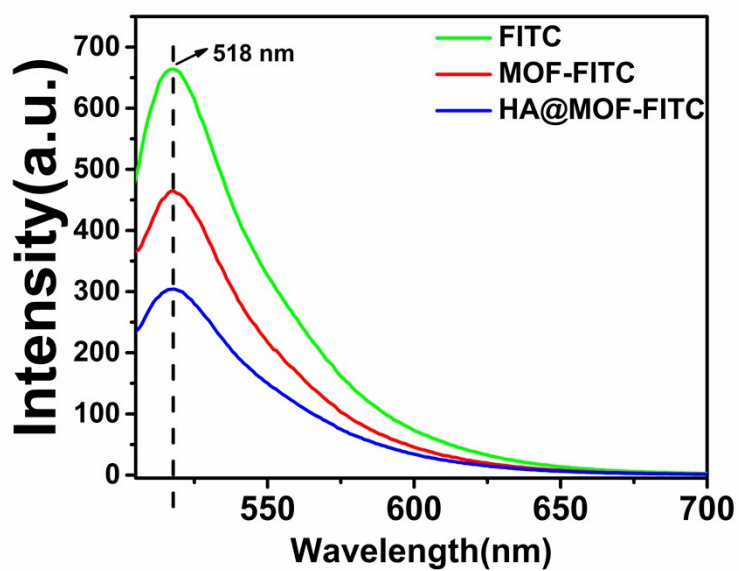


Fig. S4. Fluorescence spectrums of FITC, MOF-FITC, and HA@MOF-FITC.

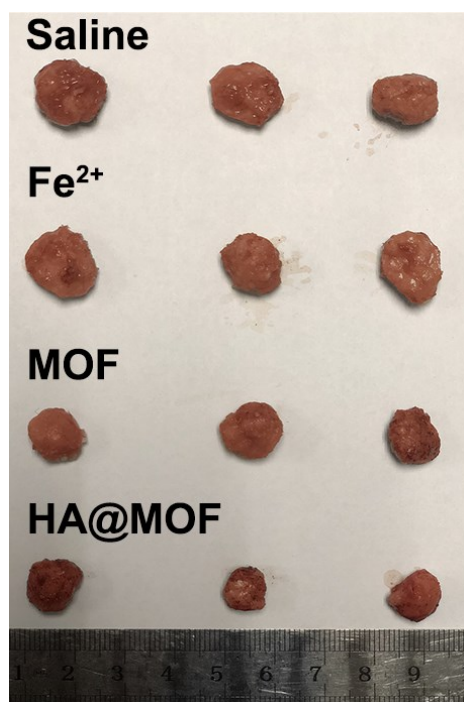


Fig. S5. *In vivo* anti-tumor efficacy: Pictures of excised tumors from tested mice.