Fenton-like nanoparticles capable of H₂O₂ self-supply and glutathione

consumption for chemodynamic and chemotherapy of cancer

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Fig. S1. The hydrodynamic particle size of (a)MSN and (b)MSN-Cu²⁺-DOX in PBS after sonication treatment. (c) The time-course hydrodynamic particle size of MSN-Cu²⁺-DOX in PBS after sonication treatment.



Fig. S2. The Zeta potential of MSN, MSN-Cu²⁺ and MSN-Cu²⁺-DOX.



Figure S3. In vitro GSH depletion capacity of 200 μ g/mL MSN-Cu²⁺-DOX under acidic condition (pH 4.5).



Figure S4. (a) UV-vis absorption of TMB treated with different concentrations of MSN-Cu²⁺-DOX for 8 h under acidic condition (pH 4.5). (b) UV-vis absorption of TMB treated with MSN-Cu²⁺-DOX (100 μ g/mL) and (c) released Cu²⁺ (7.22 μ g/mL) for different time under acidic condition (pH 4.5).



Figure S5. H&E staining of major organs (heart, liver, spleen, lung and kidney) from different groups after 9 days treatment.