Degradable Fe₃O₄-Based Nanocomposite for Cascade

Reaction-Enhanced Anti-Tumor Therapy

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Fig. S1 FTIR spectra of Fe₃O₄-PLGA, PLGA and F127



Fig. S2 TEM images (a-c) and AFM images (d-f) of Fe₃O₄-PLGA nanocomposites with different PLGA/Fe₃O₄ mass ratio (2:1(a, d),3:1(b, e) 4:1(c, f))



Fig. S3 VSM for Fe₃O₄-OA and Fe₃O₄-PLGA



Fig. S4 Time-course absorbance of Fe₃O₄-PLGA-H₂O₂-TMB systems upon the addition of varied concentrations of H_2O_2



Fig. S5 EPR spectra of •OH trapped by DMPO under different conditions: (1) control,
(2) Fe₃O₄-PLGA nanocomposite with 10 mM H₂O₂ at pH 5.0, (3) Fe₃O₄/GOx-PLGA nanocomposite with 5 mM β-D-glucose at pH 5.0



Fe₃O₄/GOx-PLGA NPs

Fig. S6 Fluorescence images of viable and dead cell distributions after separate incubation with Fe₃O₄-PLGA and Fe₃O₄/GOx-PLGA nanocomposites under neutral (pH = 7.4) at varied concentrations for 6 h



Fig. S7 CLSM images of HeLa cells after co-incubation with $Fe_3O_4/GOx-PLGA$ nanocomposite under neutral (pH = 7.4) conditions at varied concentrations for 6 h



Fig. S8 CLSM images of HeLa cells after co-incubation with $Fe_3O_4/GOx-PLGA$ nanocomposite under acidic (pH = 6.0) conditions at varied concentrations for 6 h