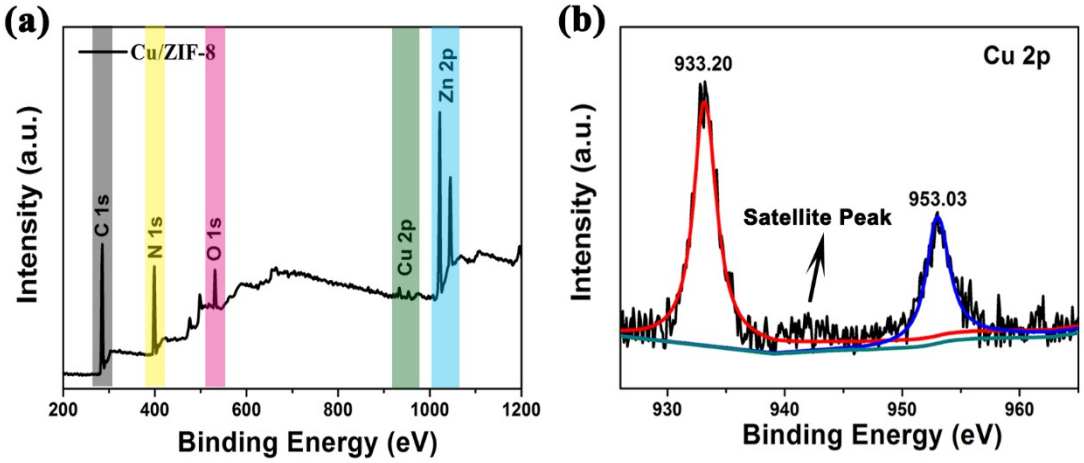

Fig. S1 (a) XPS survey spectrum of Cu/ZIF-8. (b) The high-resolution Cu(2p) XPS spectrum of Cu/ZIF-8.

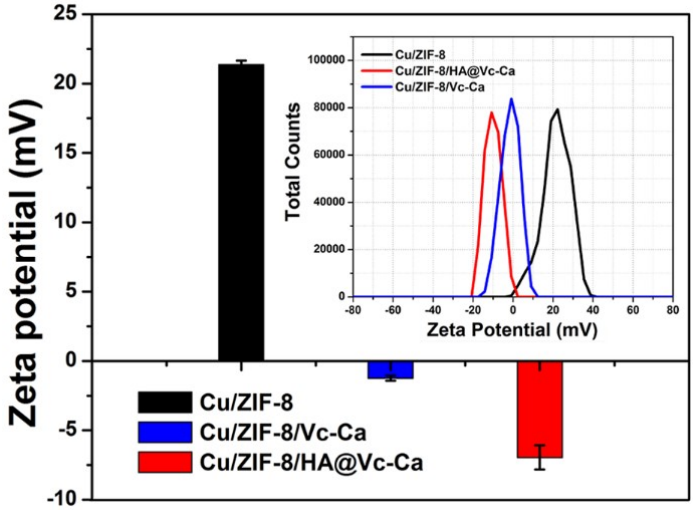

Fig. S2 Zeta potentials of Cu/ZIF-8, Cu/ZIF-8/HA, Cu/ZIF-8/Vc-Ca, and Cu/ZIF-8/HA@Vc-Ca.

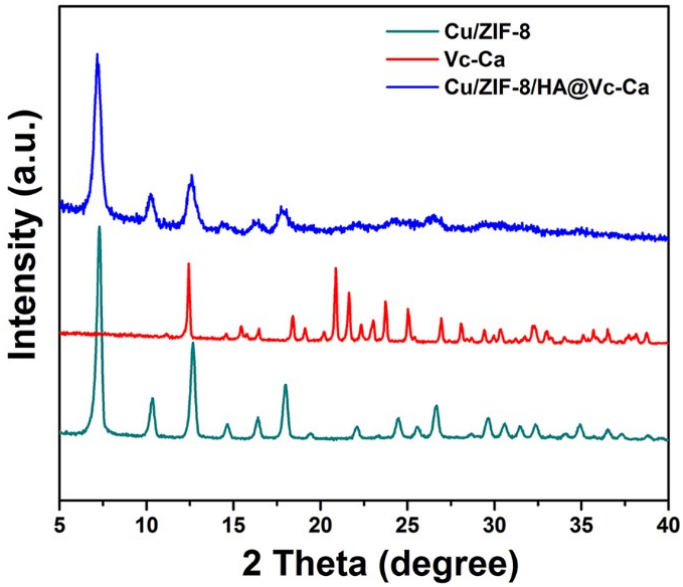

Fig. S3 XRD patterns of the simulated Cu/ZIF-8, Vc-Ca, and Cu/ZIF-8/HA@ Vc-Ca.

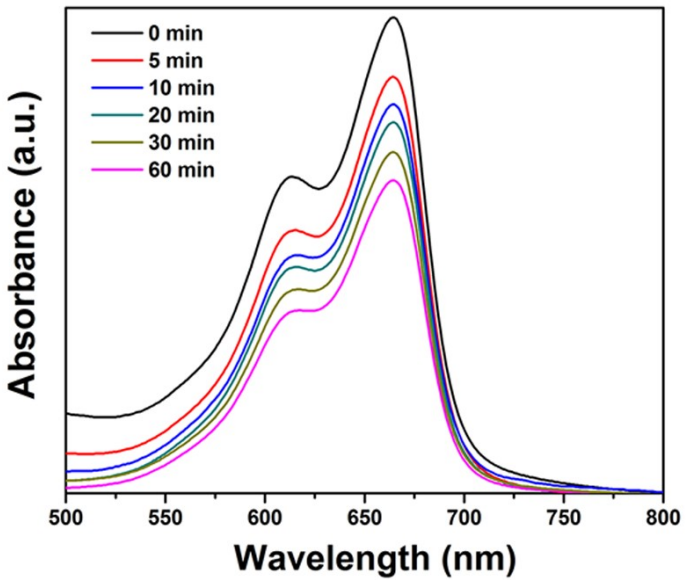

Fig. S4 The MB degradation carried out with Cu/ZIF-8/HA@Vc-Ca at different times.

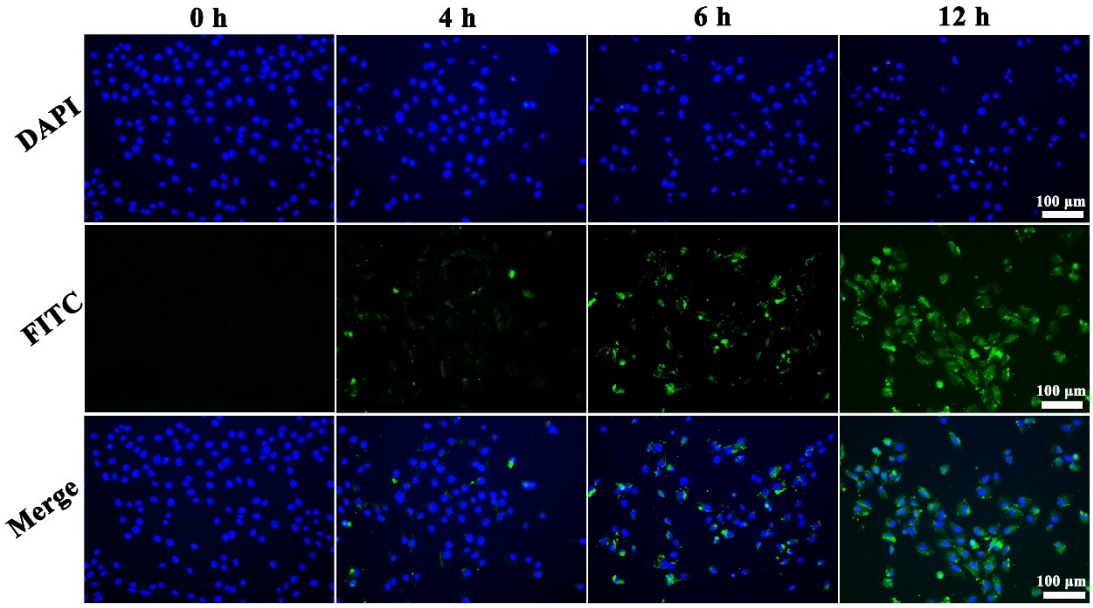

Fig. S5 Fluorescence microscopy images of MG63 cells cultured with FITC-labeled Cu/ZIF-8/HA@Vc-Ca for 0 h, 4 h, 6 h, and 12 h. Green fluorescence represents the FITC dye and blue fluorescence represents the nucleus.

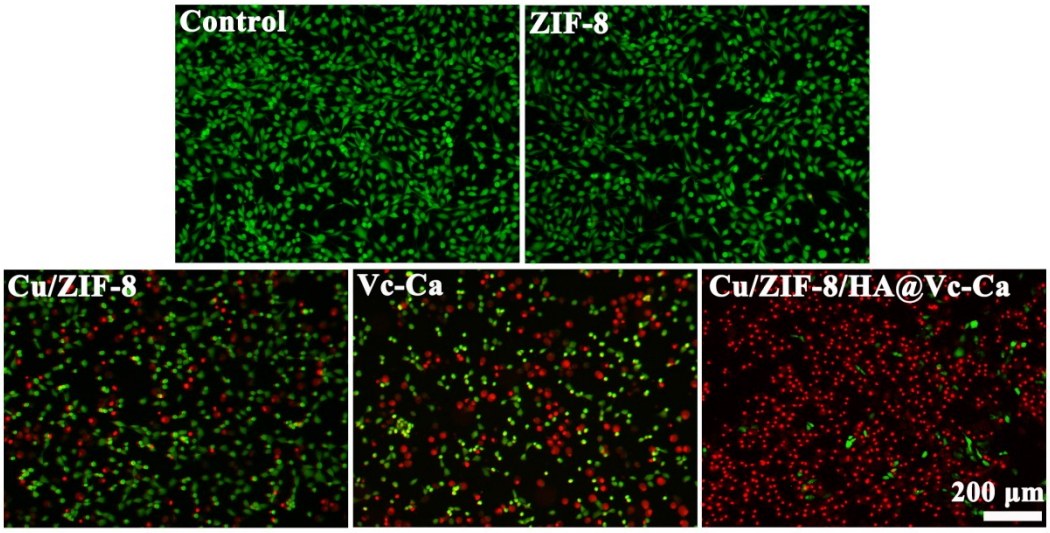

Fig. S6 Live/dead stain images of MG63 cells after various treatments. Live and dead cells were stained with Calcein-AM (green) and EthD-I (red), respectively.