

Reactive Oxygen Species Scavenging and Inflammation Mitigation Enabled by Biomimetic Prussian Blue Analogues Boycott Atherosclerosis

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Supplementary Figures

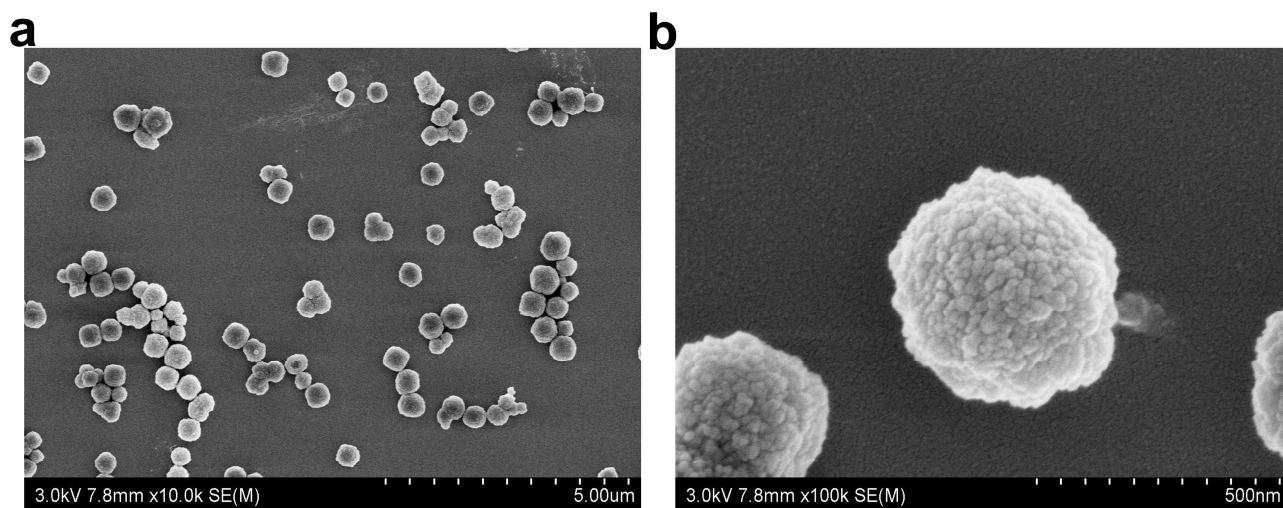


Figure S1 SEM images of PMPB NC at low (a) and high (b) magnification folds, respectively.

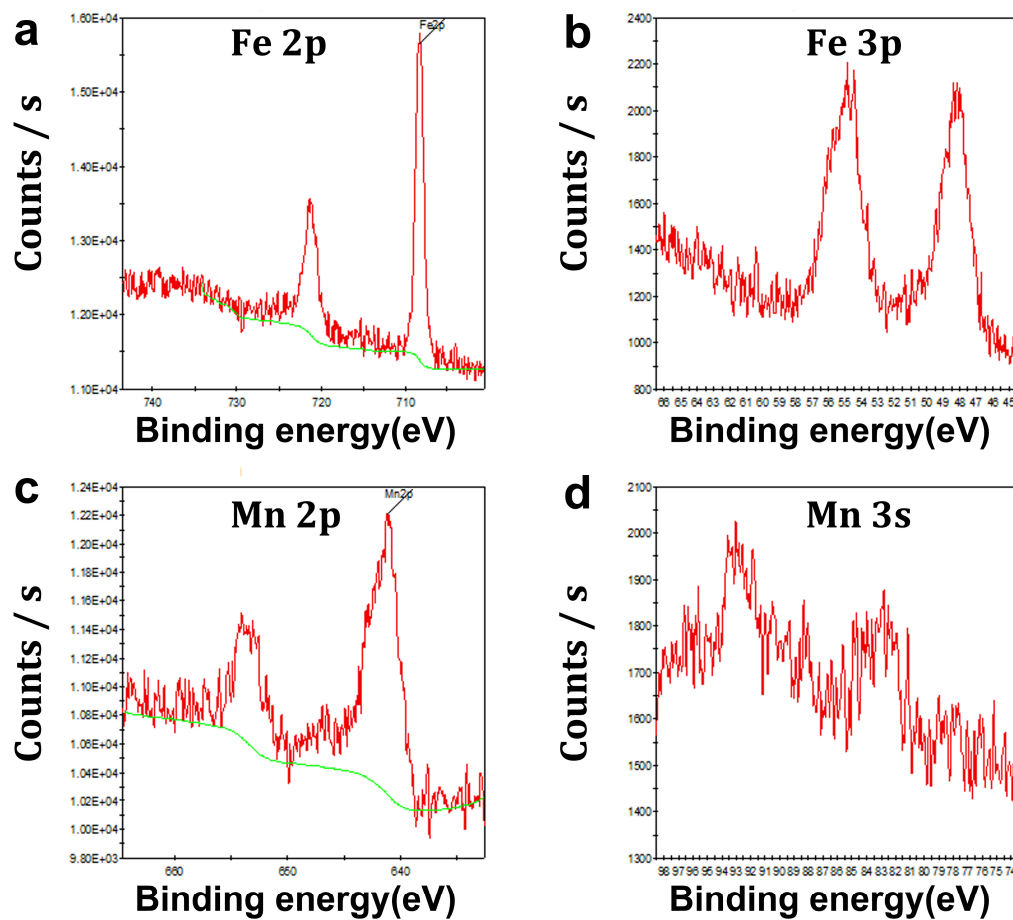


Figure S2 Narrow-window XPS spectra of Fe and Mn atoms in PMPB NC at different electron orbits: (a) Fe 2p, (b) Fe3p, (c) Mn 2p and (d) Mn 3s.

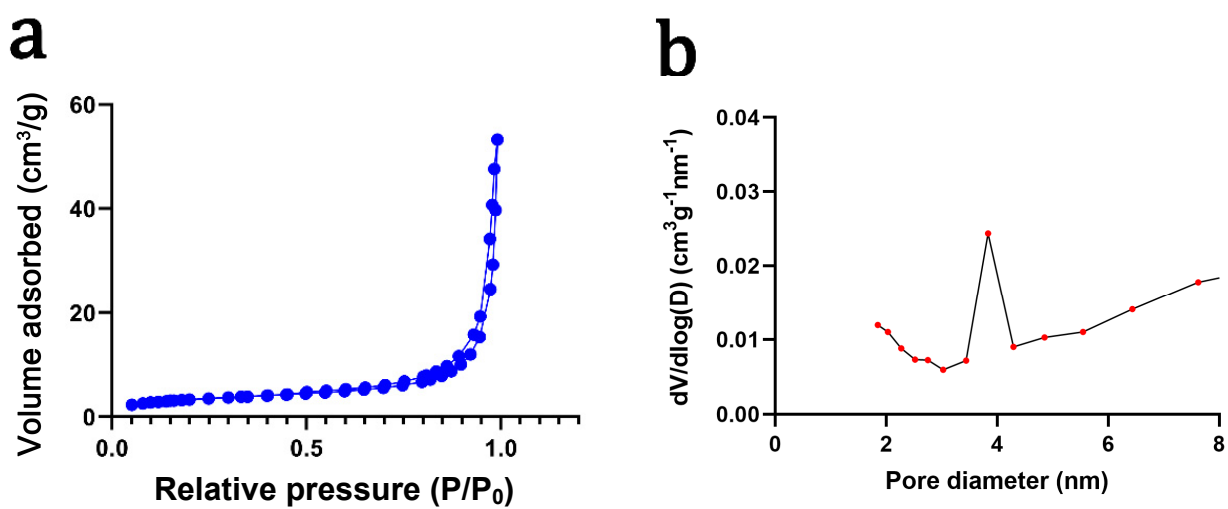


Figure S3 (a) N_2 adsorption and desorption isotherms of PMPB NC, and (b) Pore diameter distributions of PMPB NC.

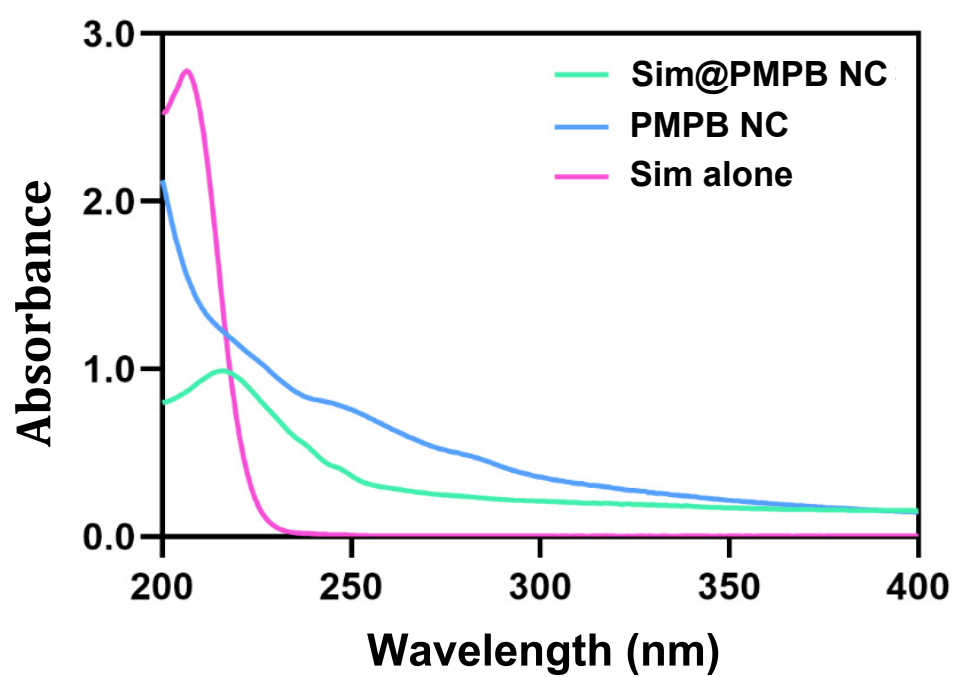
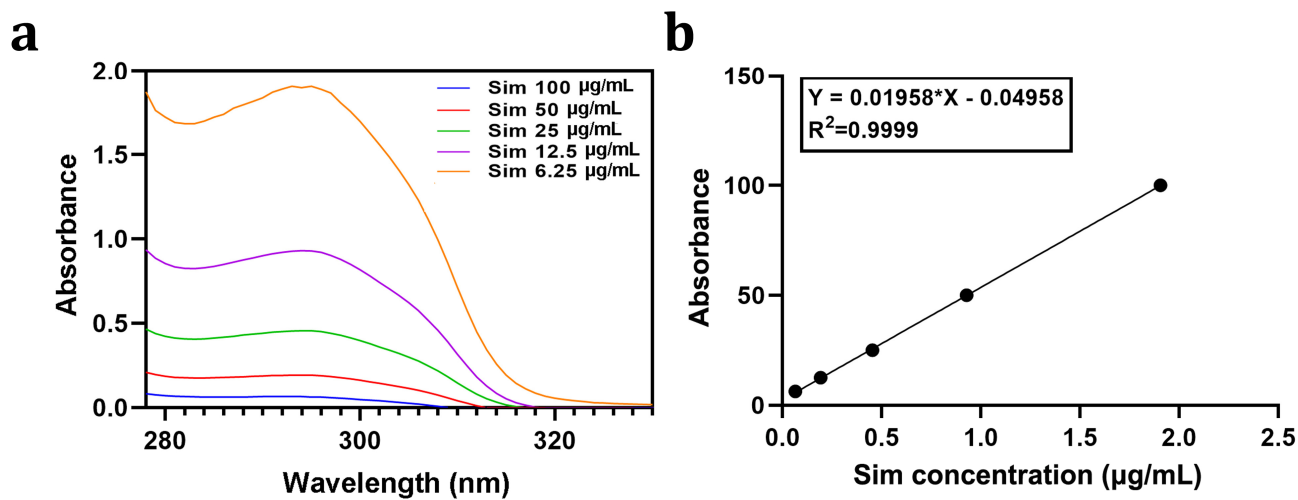


Figure S4 UV-vis spectra of free Sim alone, PMPB NC, Sim@ PMPB NC.



a.

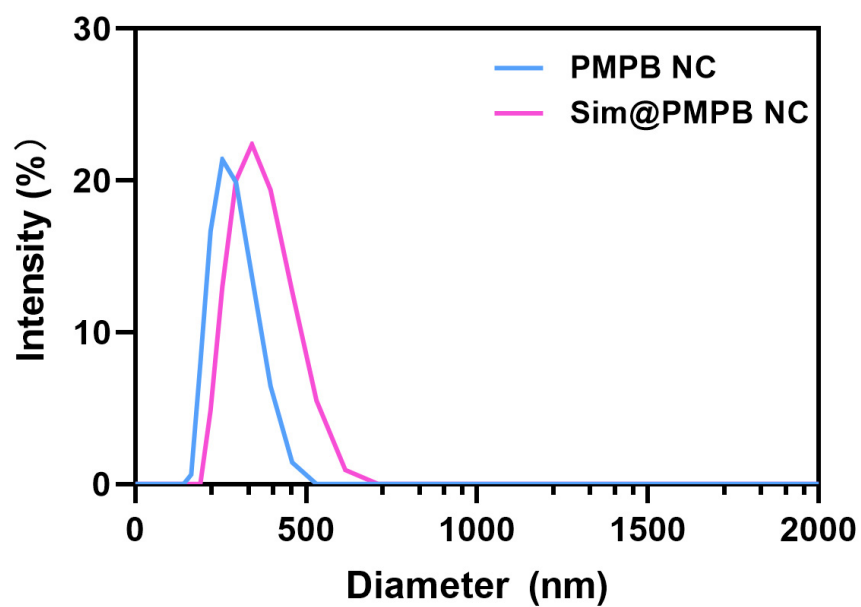


Figure S6 Hydrodynamic diameter distribution curves of PMPB NC and Sim@PMPB NC with polydispersity indexes: 0.189 and 0.231, respectively.

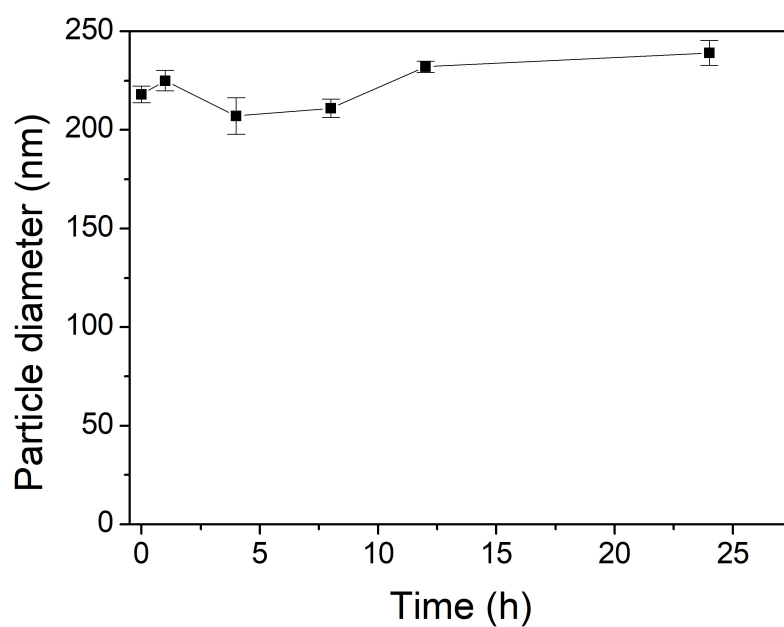


Figure S7 Time-dependent particle size of Sim@PMPB NC in PBS, which is available for evaluating colloidal stability. Data are expressed as mean $\pm$ standard deviation (SD) (n=3).

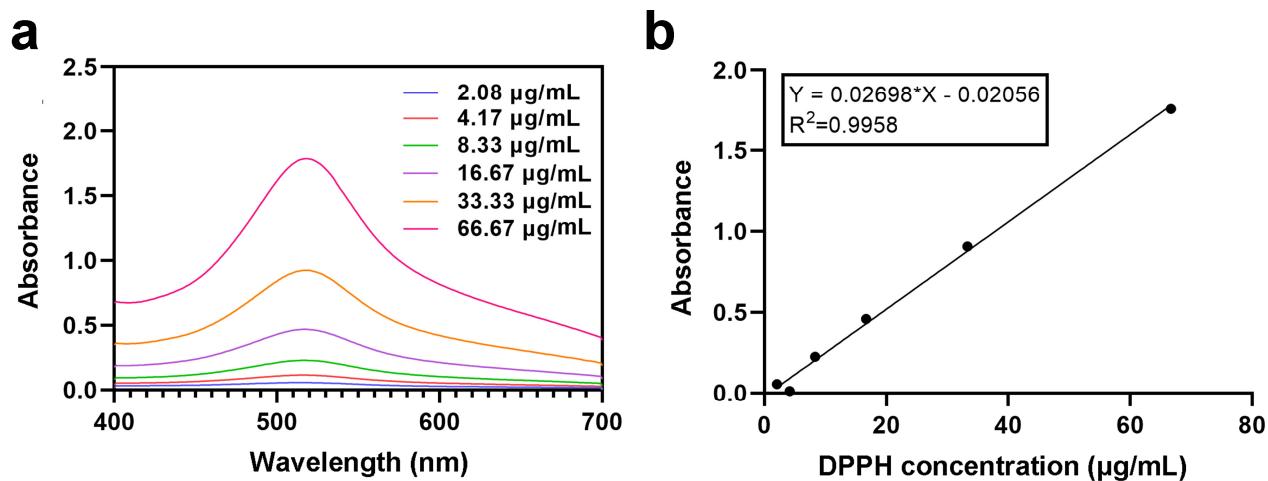


Figure S8 (a) UV–vis spectra of DPPH at different concentrations. (b) Concentration-dependent standard curve of DPPH that was obtained according to the absorbance intensity peaking at 525 nm from a.

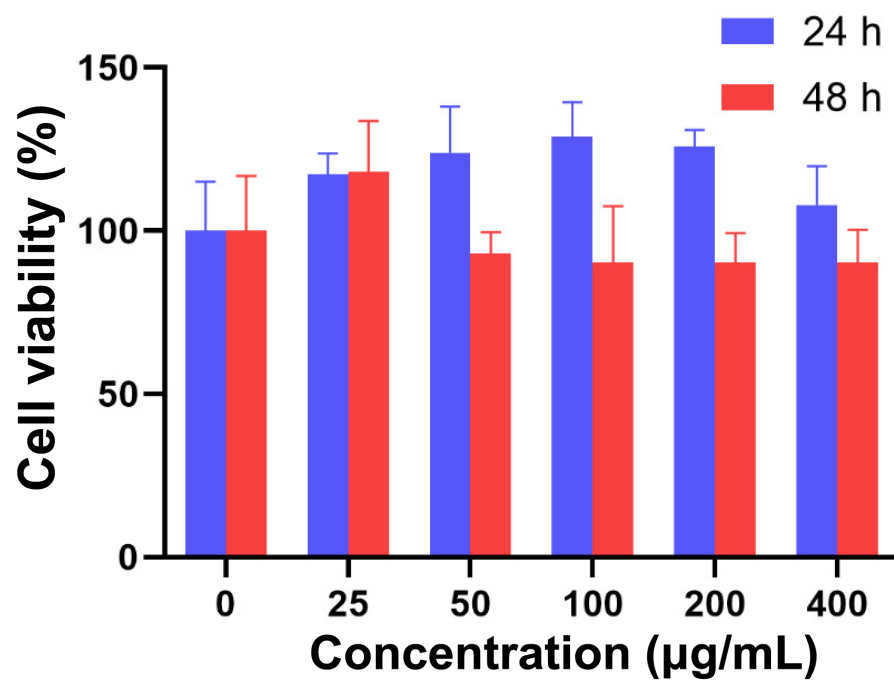


Figure S9 Cytotoxicity of Sim@PMPB NC after incubation with RAW 264.71 cells for 24 h and 48 h at varied mass concentrations (0, 25, 50, 100, 200, 400 µg/mL).

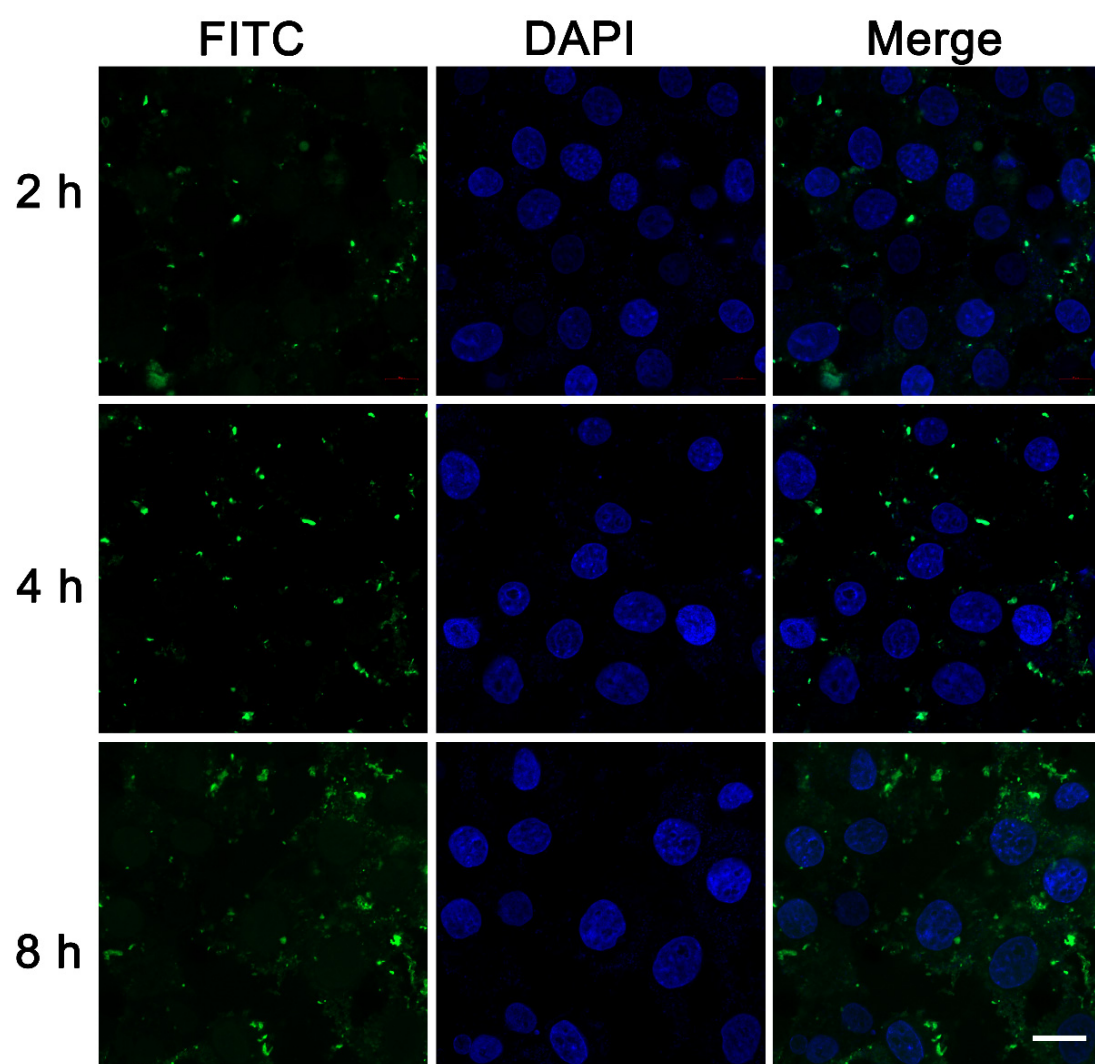


Figure S10 CLSM images of RAW264.7 cells after incubation with FITC-labeled Sim@PMPB NC for 2 h, 4 h and 8 h, respectively. The nuclei of RAW264.7 cells were stained by DAPI (blue) (Scale bar: 10 μ m).

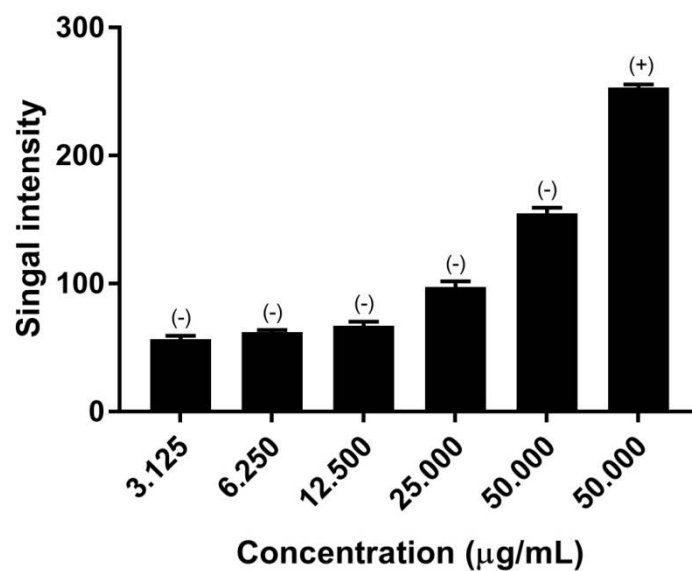


Figure S11 T1-weighted MRI signal of PMPB NC with varied concentrations, note. (-) and (+) represent H₂O₂-free and H₂O₂-included circumstances, respectively, and the H₂O₂ concentration was fixed at 20 μM. Data are expressed as mean ± SD (n=3).

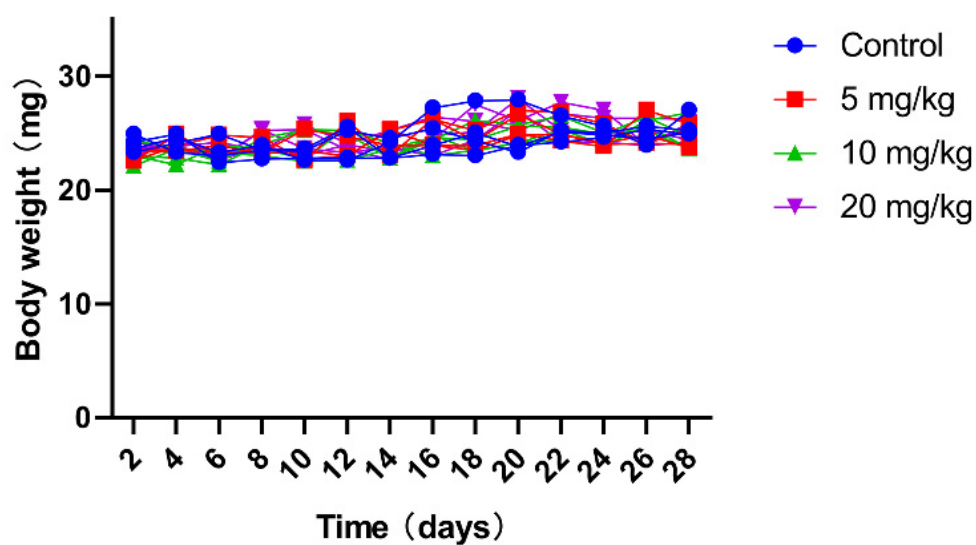


Figure S12 Time-dependent body weight curves of Kunming mice that experienced intravenous injection of Sim@PMPB NC with different concentrations (0 mg/kg, 5 mg/kg, 10 mg/kg and 20 mg/kg). Data were expressed as mean value $\pm$ SD (n=4).

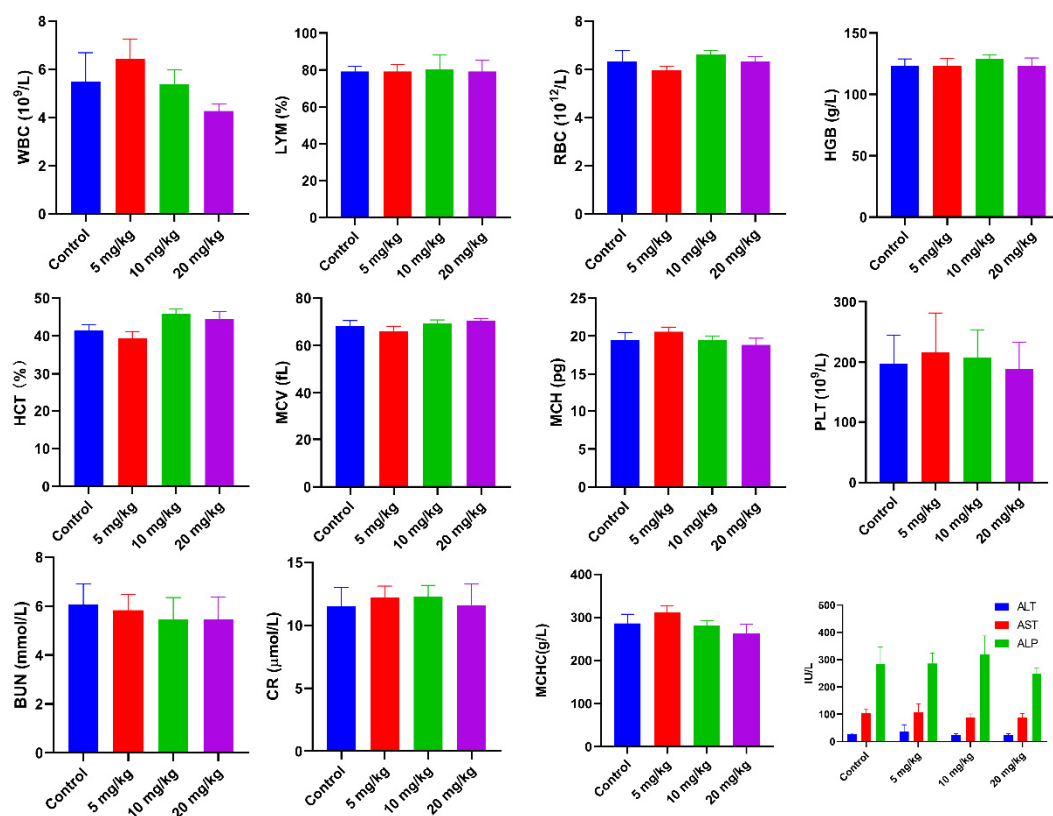


Figure S13 Blood biochemical indexes of mice in Control group and three other treated groups wherein Sim@PMPB NC with varied concentrations of 5 mg/kg, 10 mg/kg and 20 mg/kg were intravenously administrated into mice and another 28-days incubation was implemented. Data were expressed as mean value $\pm$ SD (n=4)

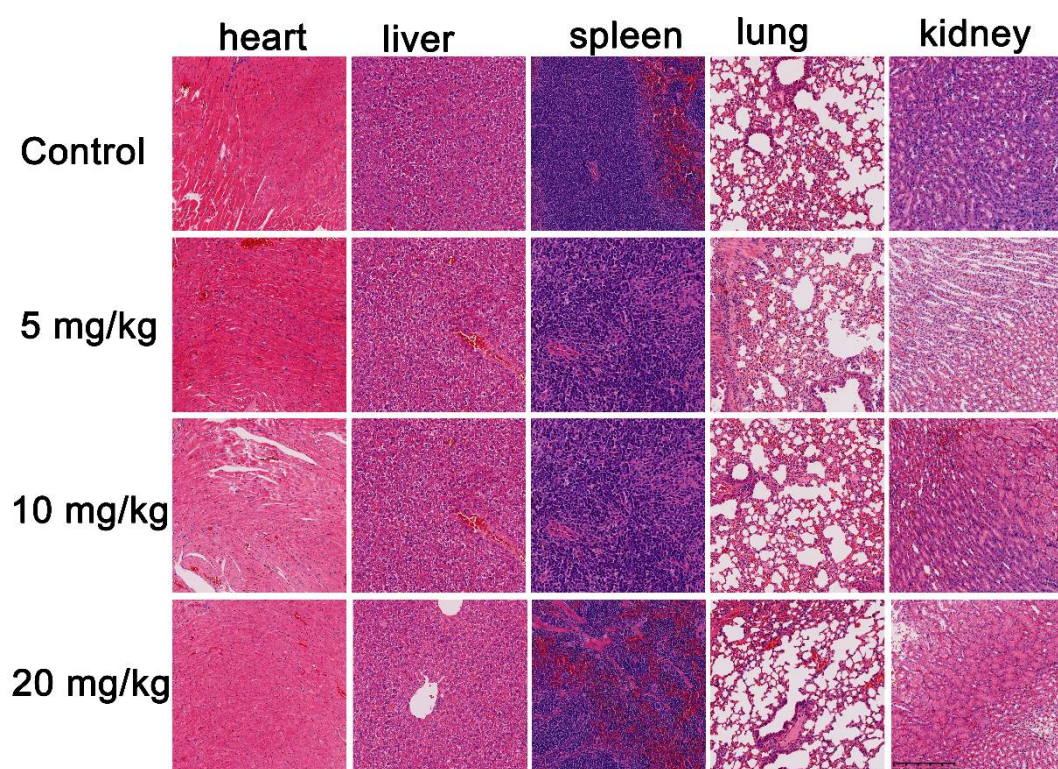


Figure S14 H&E staining microscopic images of normal organs (*i.e.*, heart, liver, spleen, lung and kidney) in mice that experienced *i.v.* injection of Sim@PMPB NC with varied concentrations (*i.e.*, 5 mg/kg, 10 mg/kg, 20 mg/kg) and another 28 days feeding. (Scale bar: 200 μ m).