

Supporting Information

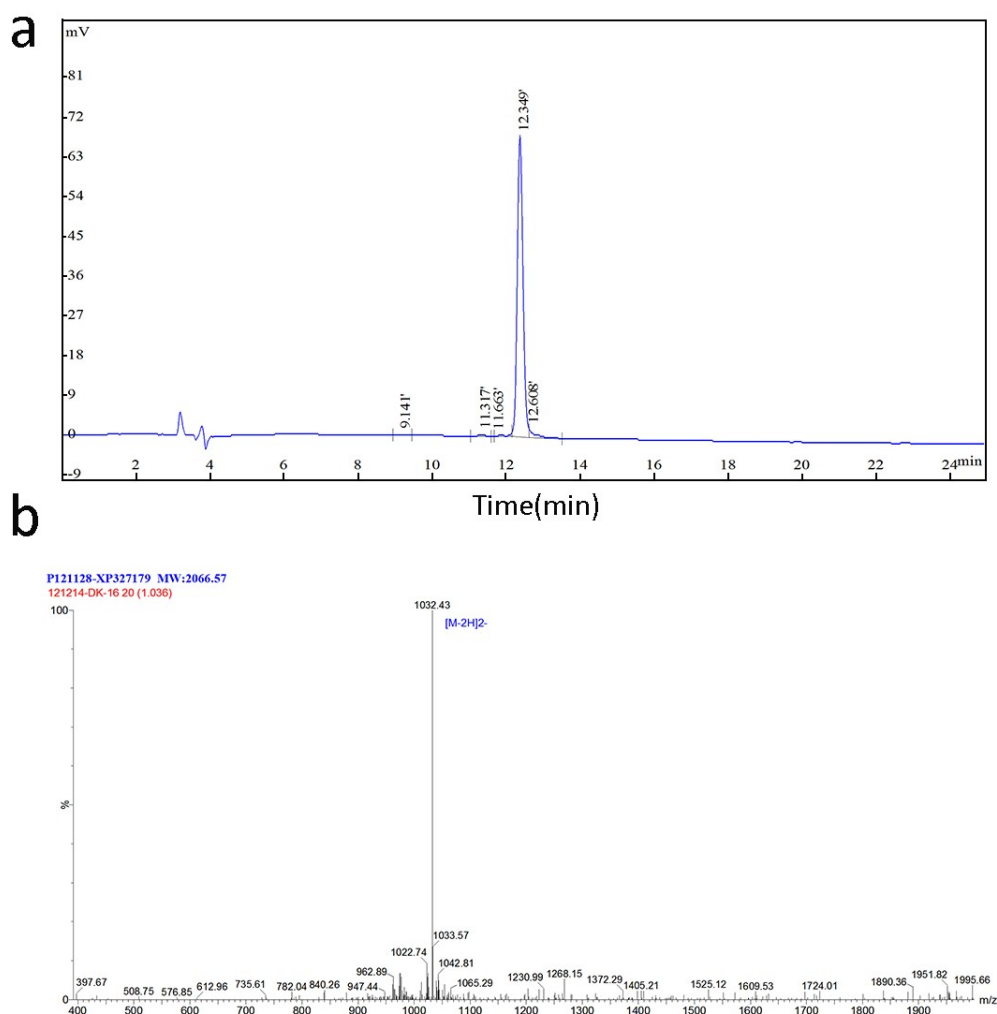


Figure S1: (a) HPLC spectrum of the purified peptide; (b) NMR spectrum of the peptide.

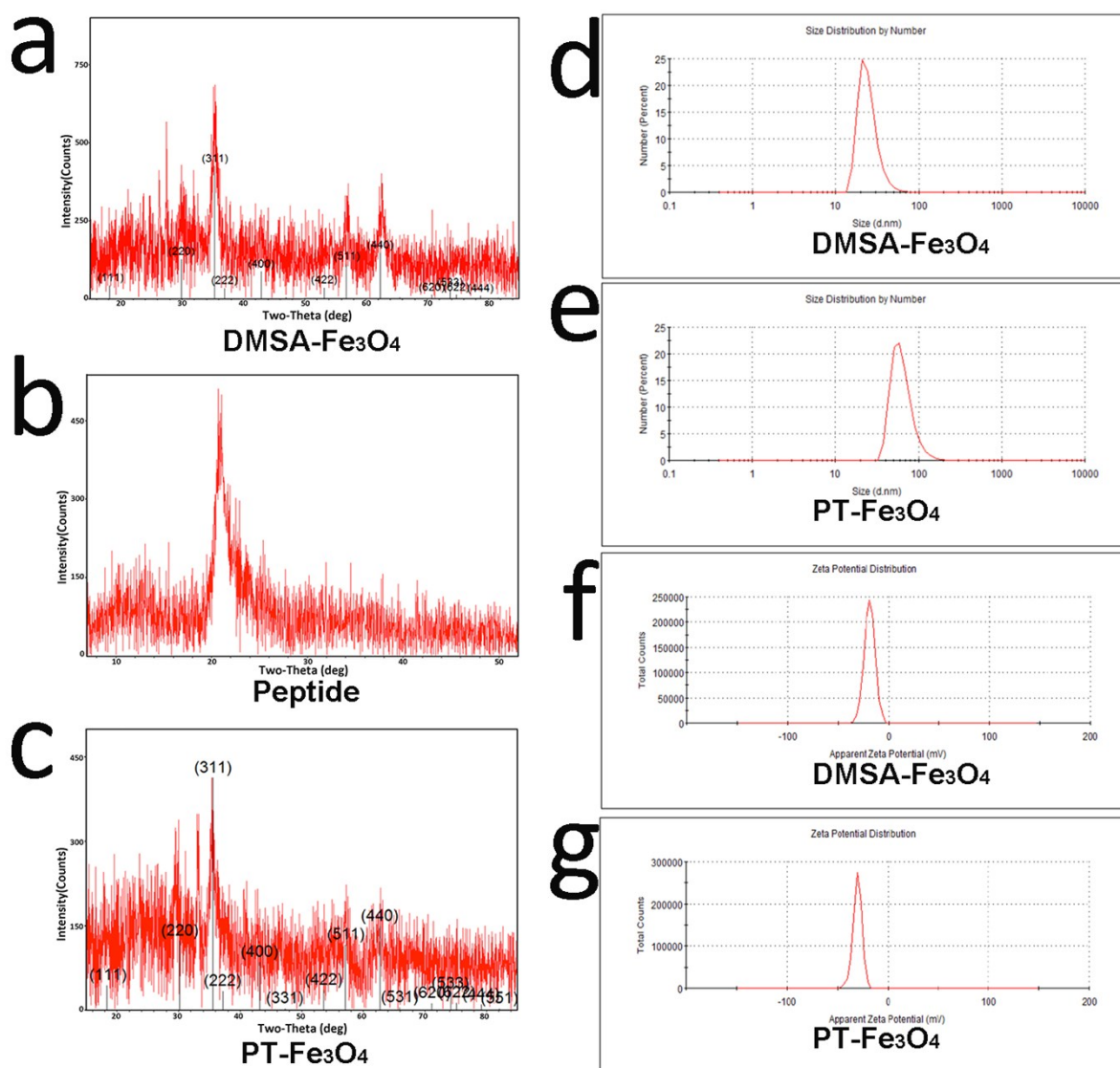


Figure S2: XRD patterns of the DMSA-Fe₃O₄ nanoparticles (a), peptide (b) and peptide-Fe₃O₄ nanoparticles (c), where the vertical bars represent the Fe₃O₄ standard; (d, e) hydrodynamic size distribution of DMSA-Fe₃O₄ and peptide-Fe₃O₄ nanoparticles; (f, g) zeta potential distribution of DMSA-Fe₃O₄ and peptide-Fe₃O₄ nanoparticles.

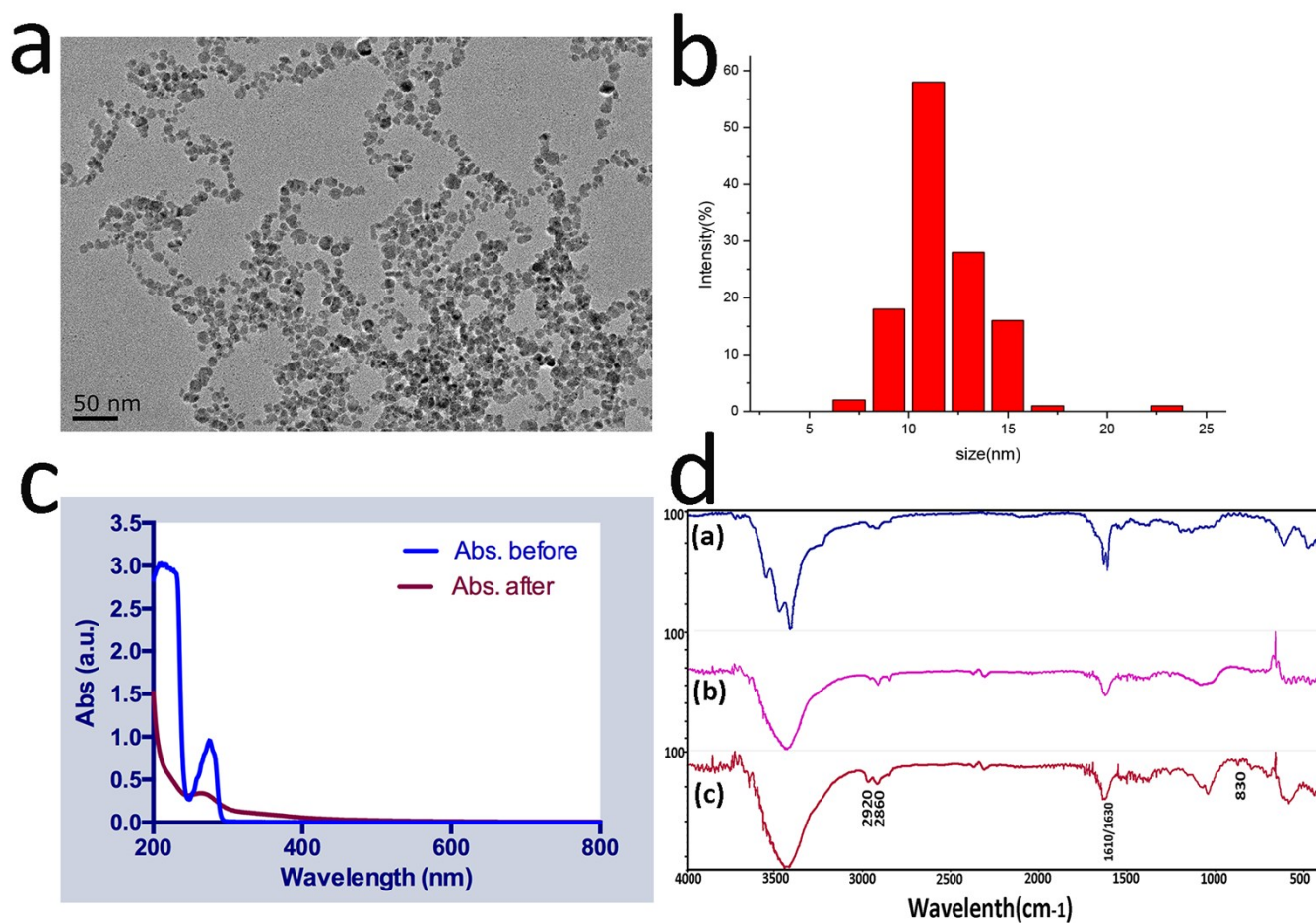


Figure S3: (a) TEM micrograph of DMSA-Fe₃O₄ nanoparticles prepared; (b) and the particle size distribution histograms of DMSA-Fe₃O₄; (c) UV-vis spectra of DMSA-SPIONs and peptide-SPIONs; (d) ATR FTIR spectra of the peptide, Fe₃O₄ and peptide modified Fe₃O₄ nanoparticles.

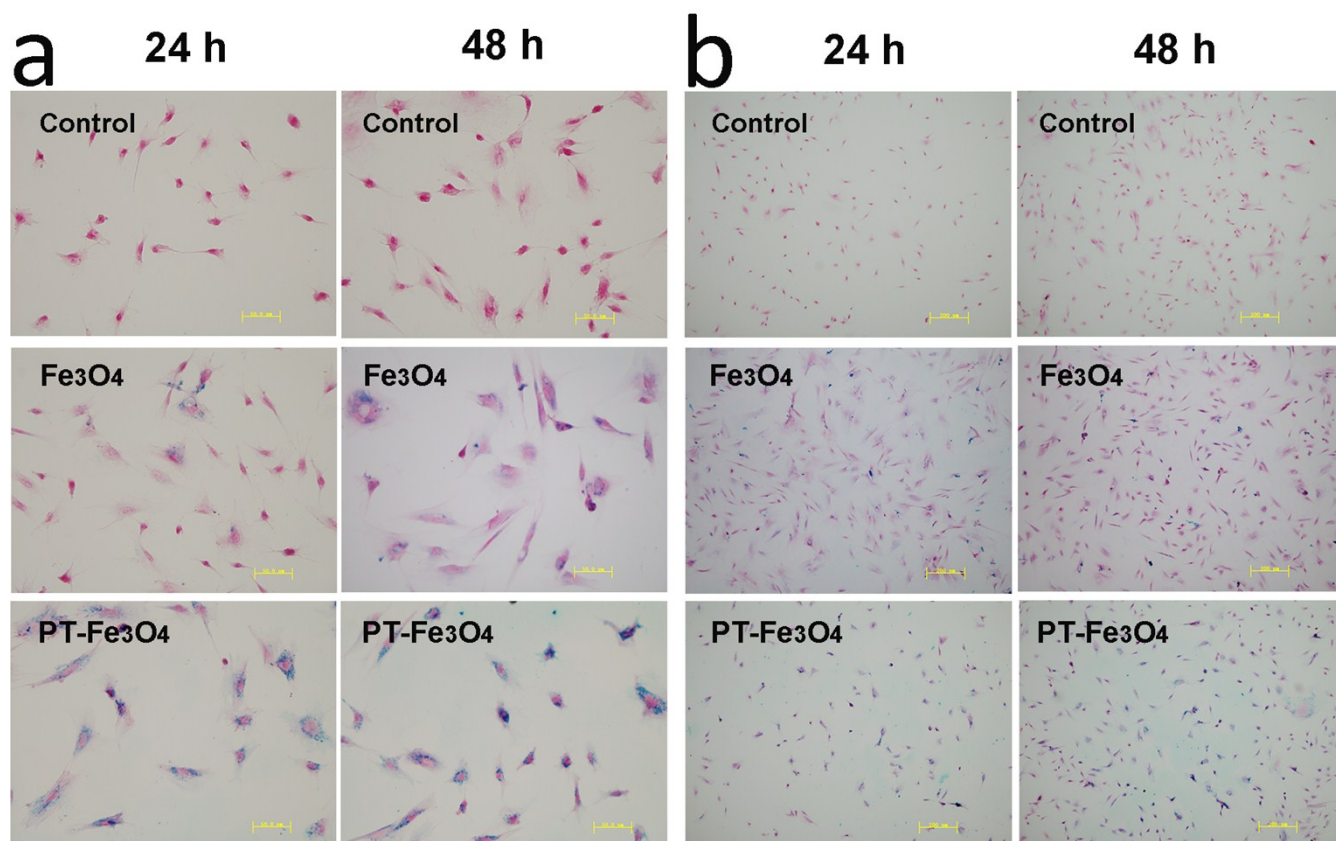


Figure S4: PB staining of the MSCs treated with 40 µg/mL DMSA-SPIONs and peptide-SPIONs at 24 h and 48 h. (a) 400× magnification images; (b) 200× magnification images.