Gelatin-Oxidized Alginate and Chitosan-Coated Zein Nanoparticles Hydrogel Composite to Enhance Breast Cancer Cytotoxicity in Dual-Drug Delivery

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Supporting Information

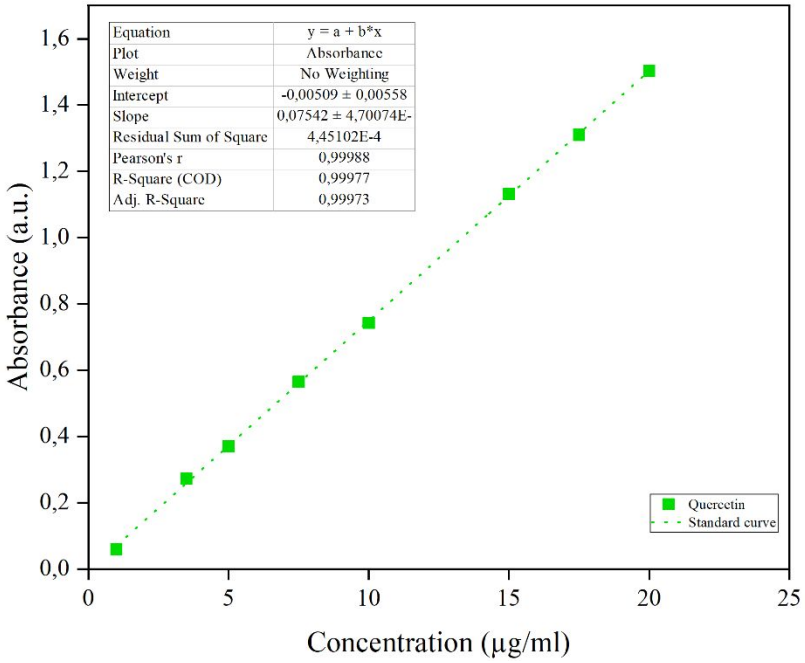

Figure S1. Quercetin calibration curve (λ = 373 nm) for loading capacity and efficiency and release.

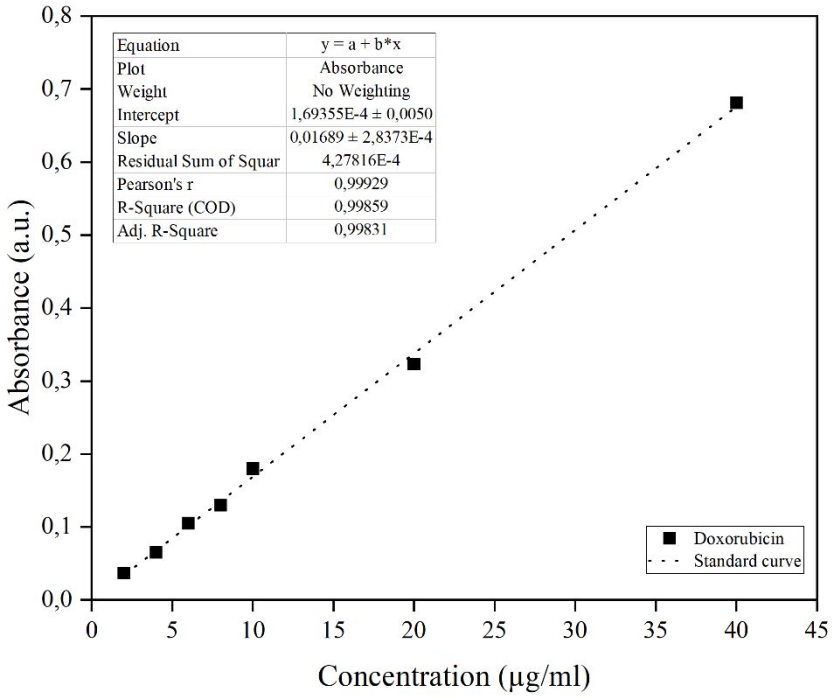

Figure S2. Doxorubicin calibration curve (λ = 478 nm) for drug release experiments.

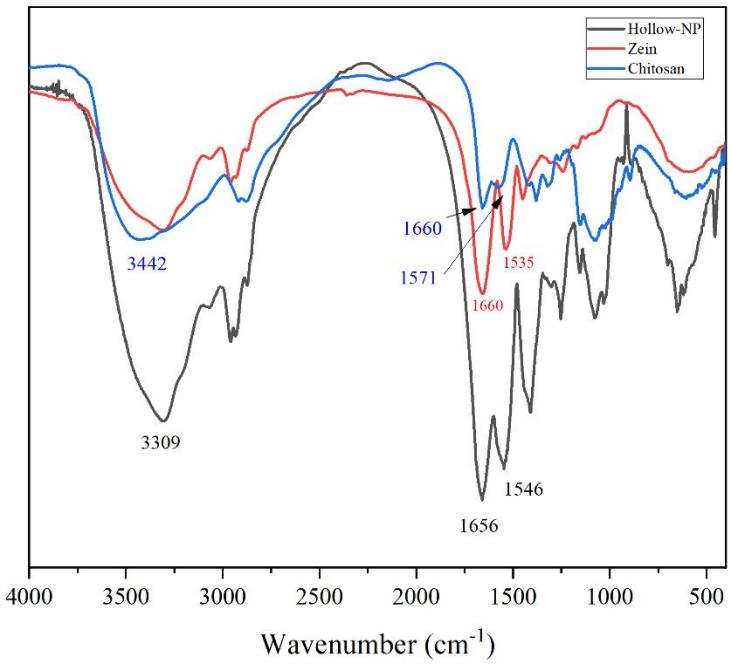

Figure S3. FTIR spectra of hollow chitosan-coated zein nanoparticles (NP) and its raw materials: Zein and chitosan.

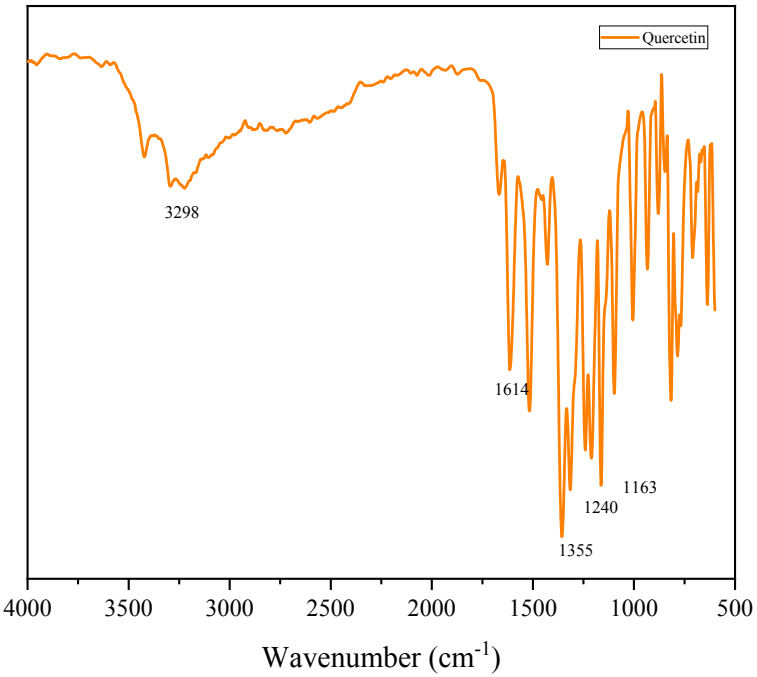

Figure S4. FTIR spectrum of quercetin.

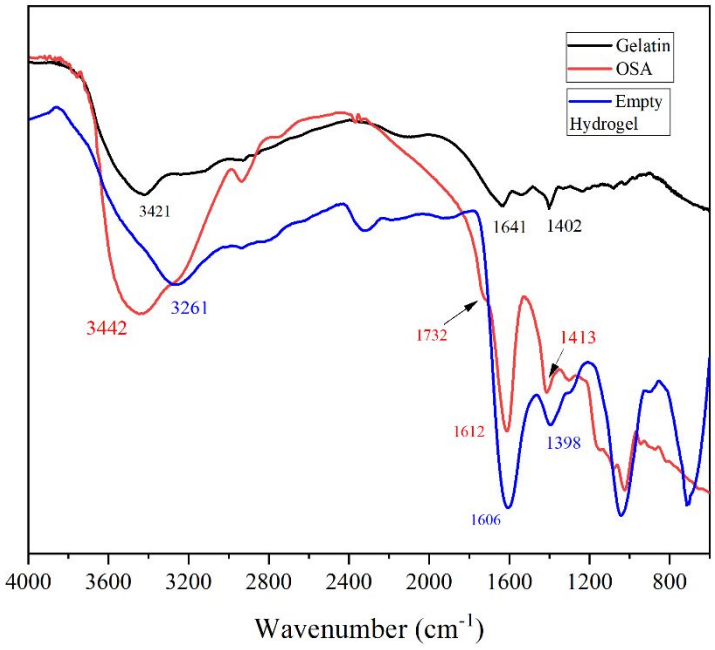

Figure S5. FTIR spectra of the empty Oxidized Alginate-Gelatin (OG) hydrogel and its raw materials: gelatin and oxidized alginate (OSA).

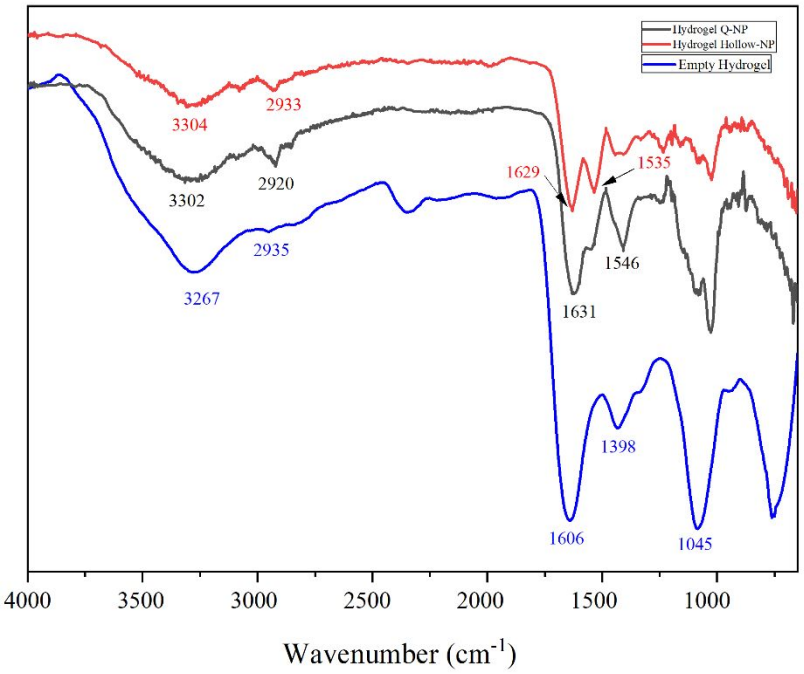

Figure S6. FTIR spectra of OG hydrogels: empty, loaded with hollow-nanoparticle (Hollow-NP), and loaded with quercetin-loaded nanoparticle (Q-NP).

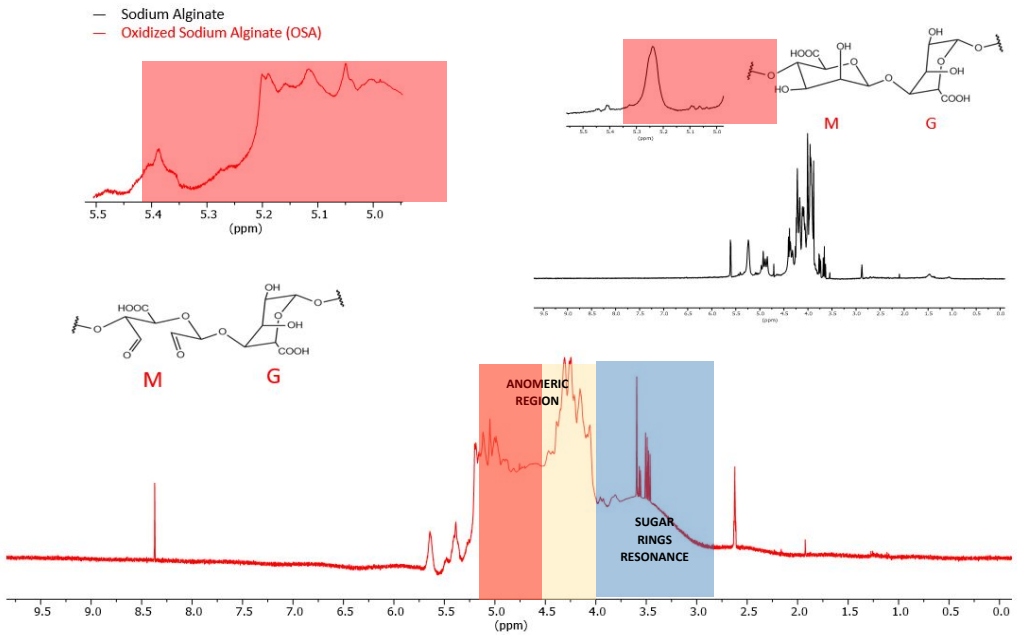

Figure S7. Sodium alginate and Oxidized Sodium Alginate ^{1}H-Nuclear magnetic resonance (^{1}H-NMR, D2O) spectra.

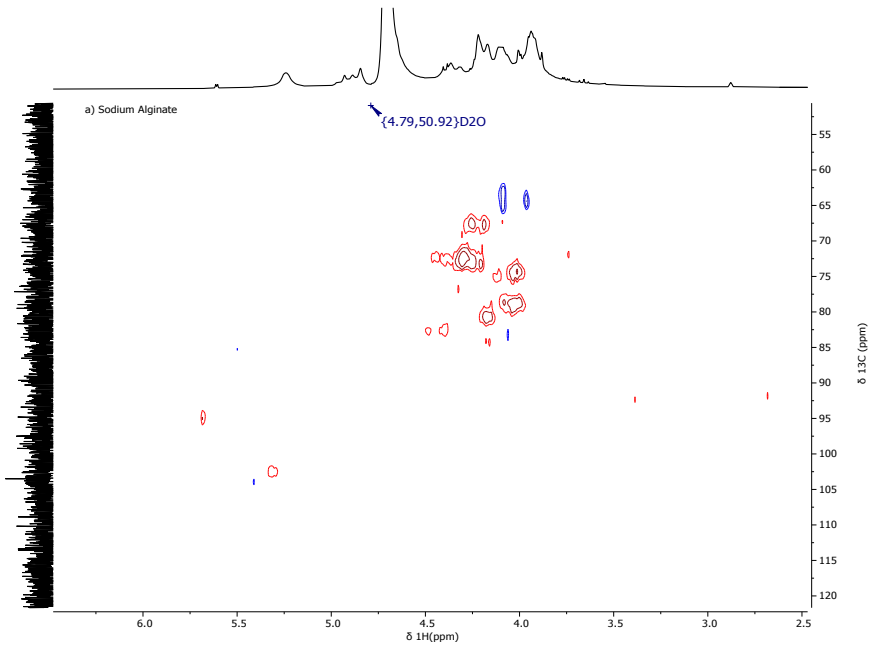

Figure S8. ^{1}H–^{13}C HSQC spectra of sodium alginate (SA) (a) and oxidized sodium alginate (OSA) (b) in D2O/DMSO-d6 at RT (400 MHz NMR spectrometer).

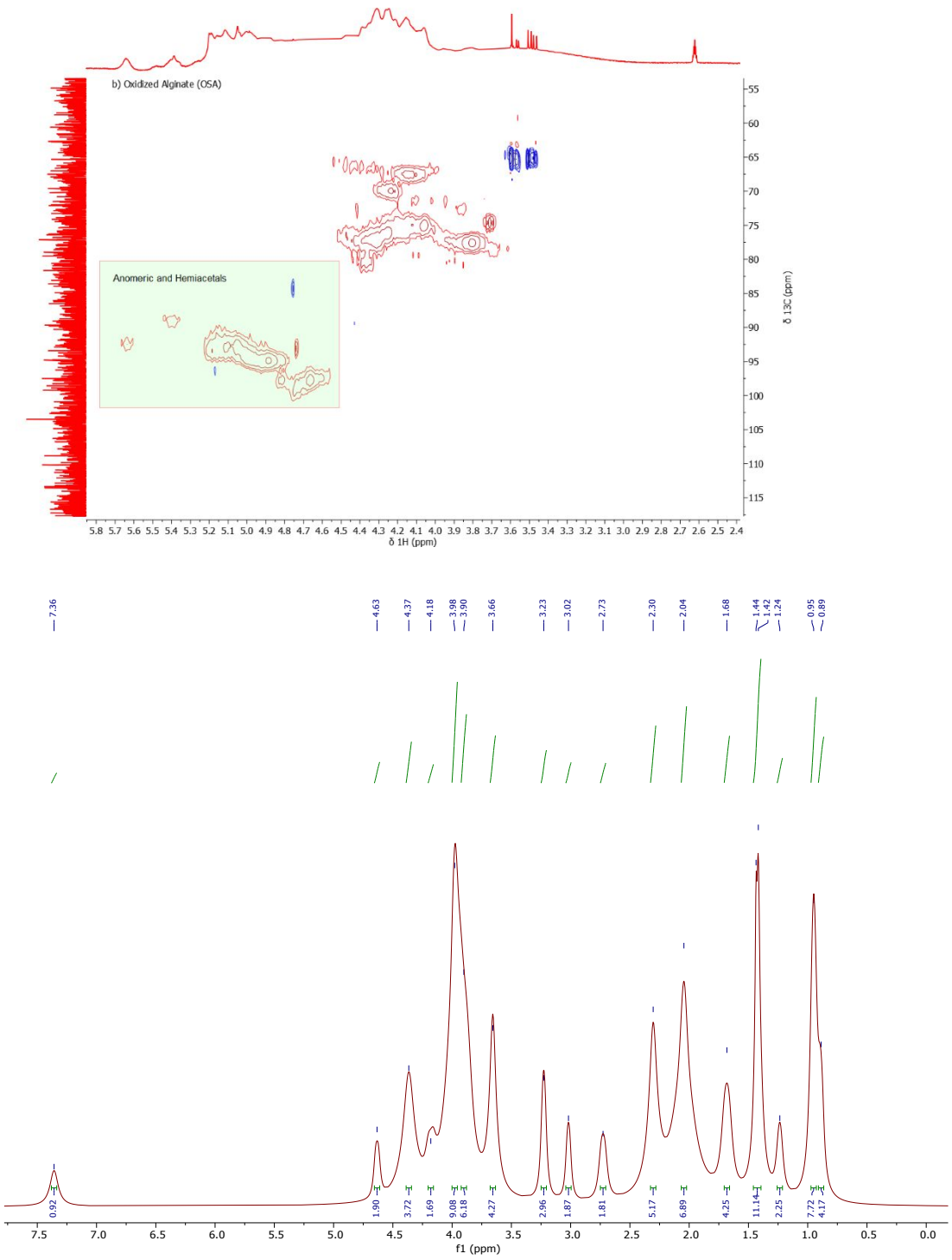

Figure S9. Gelatin ^{1}H-Nuclear magnetic resonance (^{1}H-NMR) spectrum in D2O at RT in a 400 MHz NMR spectrometer.