Supplementary Data

Responsive hydrogel modulator with self-regulated polyphenol release for accelerating diabetic wound healing via precise immunoregulation

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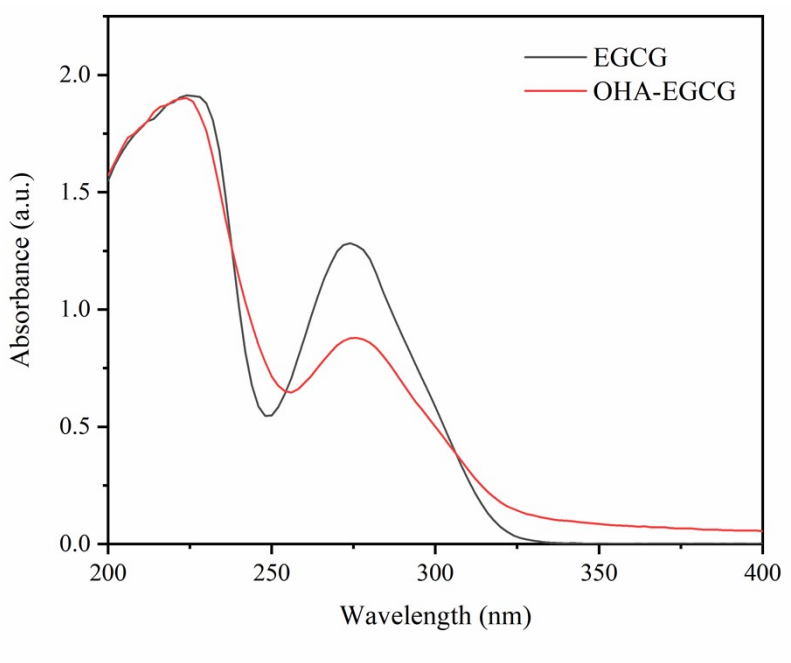

Fig. S1 The UV spectra of EGCG and OHA-EGCG.

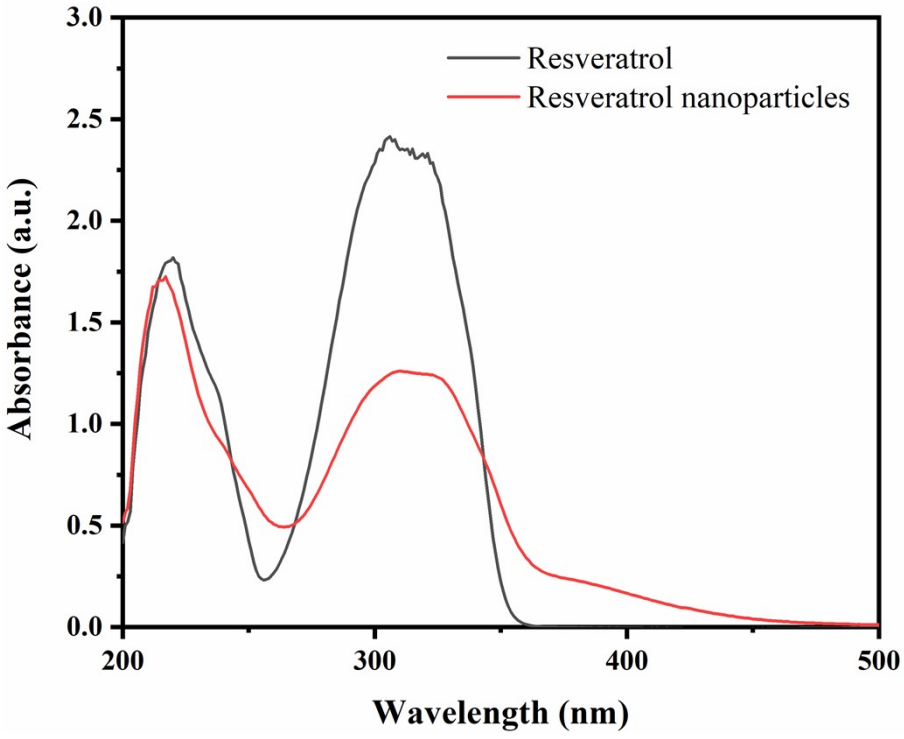

Fig. S2 The UV spectra of resveratrol and synthetic nanoparticles.

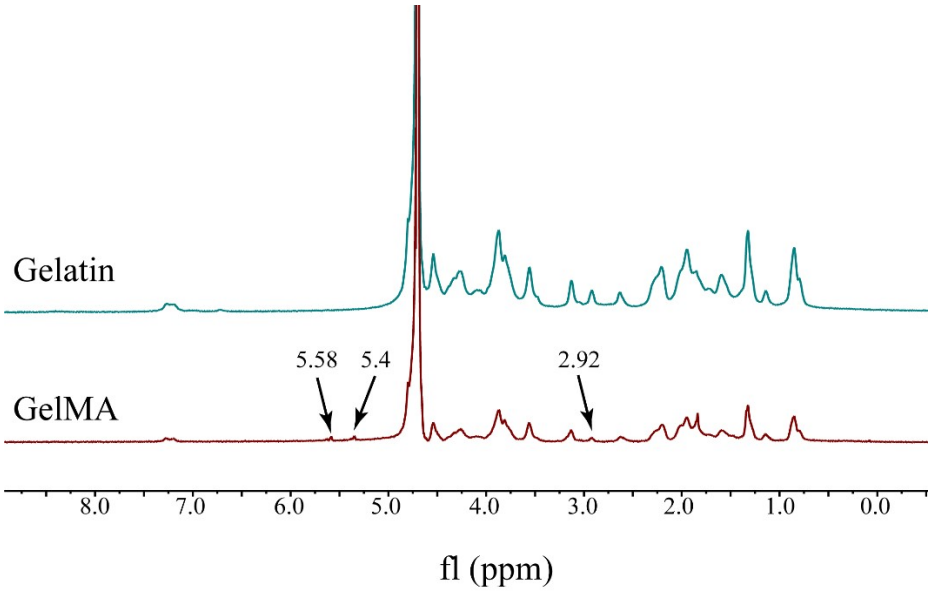

Fig. S3 The ^{1}H NMR spectra of GelMA and gelatin.

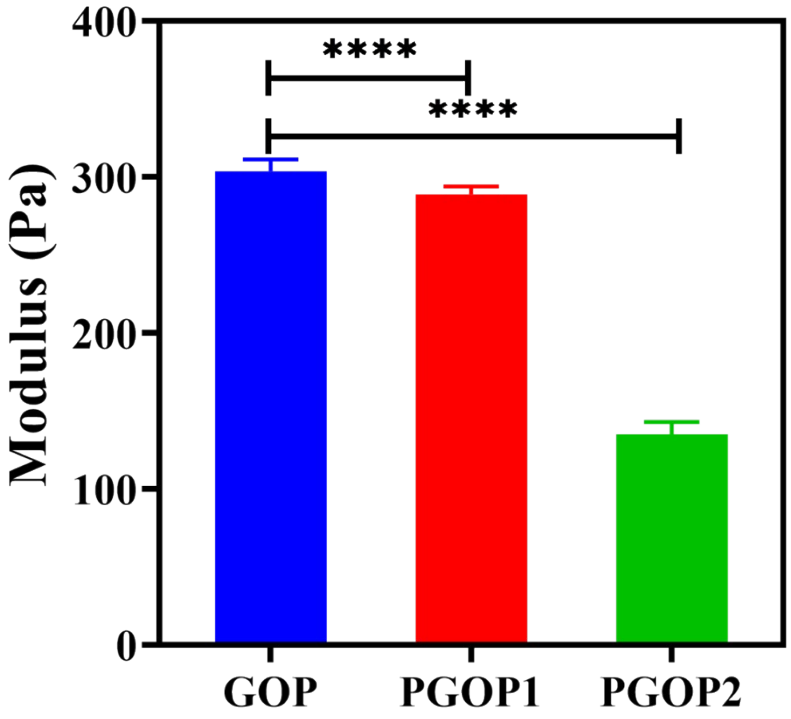

Fig. S4 The average storage modulus of hydrogels.

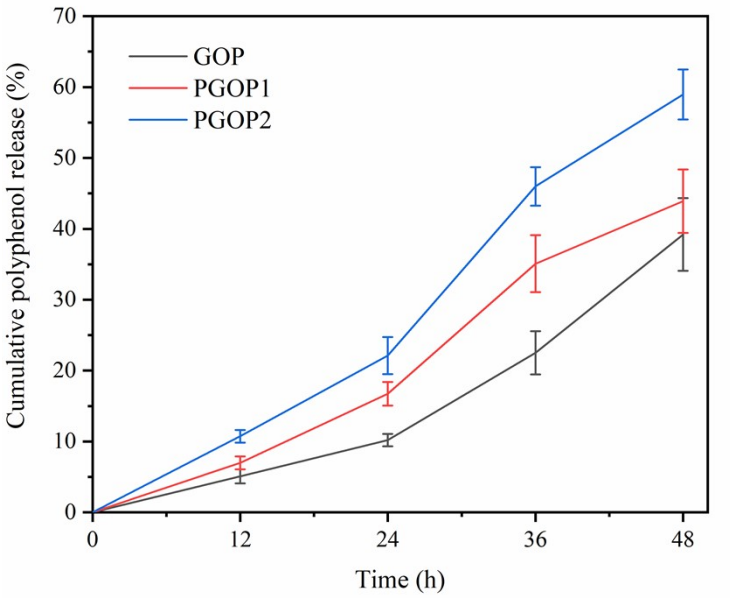

Fig. S5 Polyphenol release evaluation of hydrogels treated with MMP solution.

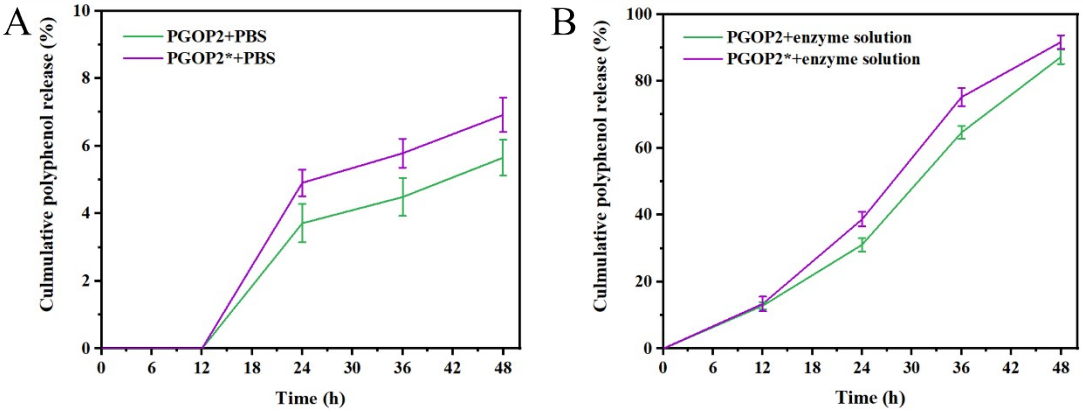

Fig S6. The comparison of polyphenol release of PGOP2 and PGOP2* group treated with (A) PBS solution or (B) enzyme solution (PGOP2* group refers to the hydrogel with equal EGCG and resveratrol nanoparticle contents, but EGCG was not graft on OHA polymers).

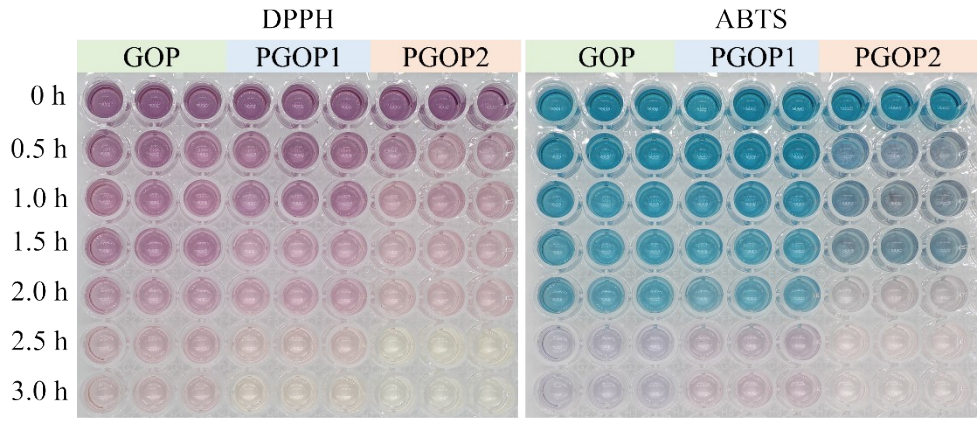

Fig S7. DPPH and ABTS free radicals scavenging capacity investigation of hydrogels (Protease was added at 1.5h to trigger hydrogel degradation for further releasing polyphenol to scavenge free radicals).

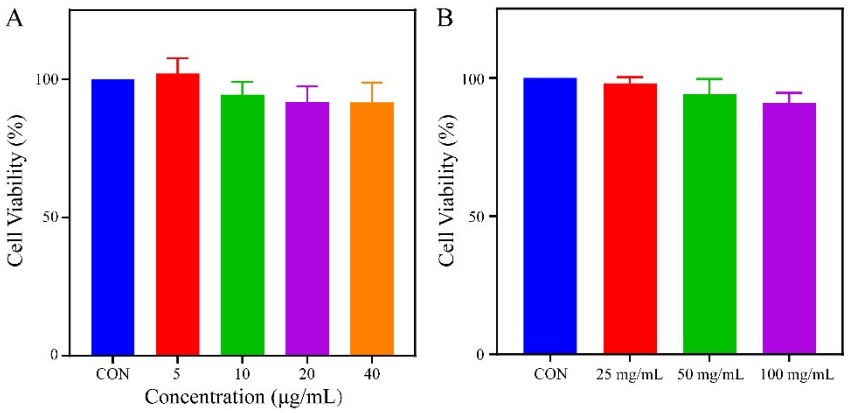

Fig. S8 The cytocompatibility evaluation of hydrogels on L929 cells. The effect of (A) resveratrol nanoparticles at varying concentration and (B) PGOP2 hydrogel extract obtained from MMP-treated hydrogel on cell viability.

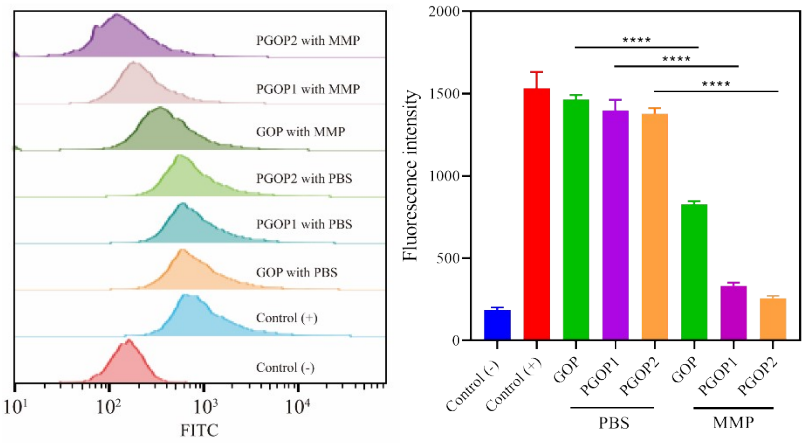

Fig. S9 The ROS scavenging ability of hydrogel extracts obtained from MMP-treated hydrogel detected by flow cytometry.

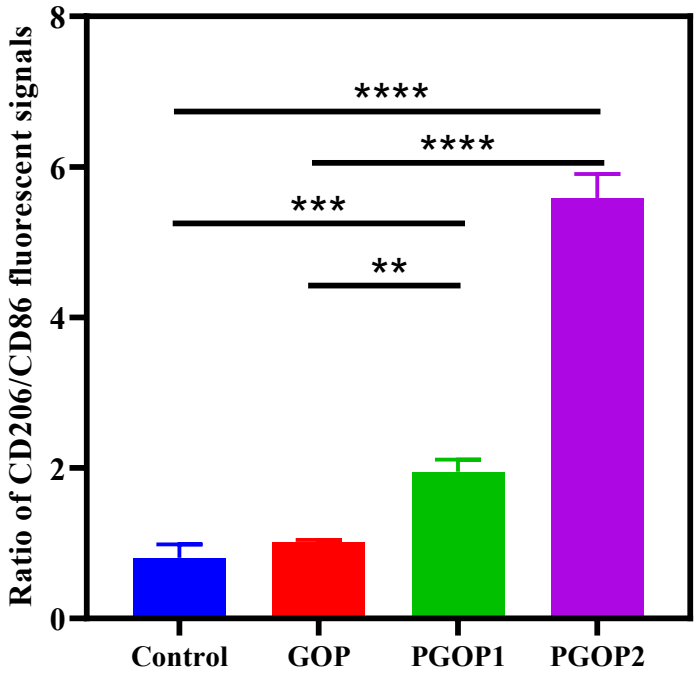

Fig. S10 The ratio of CD206/CD86 (macrophages M2 phenotype/macrophages M1 phenotype) fluorescent signals.