Supplementary Material

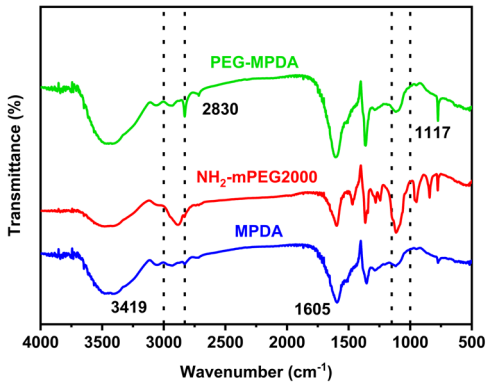

Figure S1. FT-IR spectra of MPDA, NH_2-mPEG2000, and PEG-MPDA.

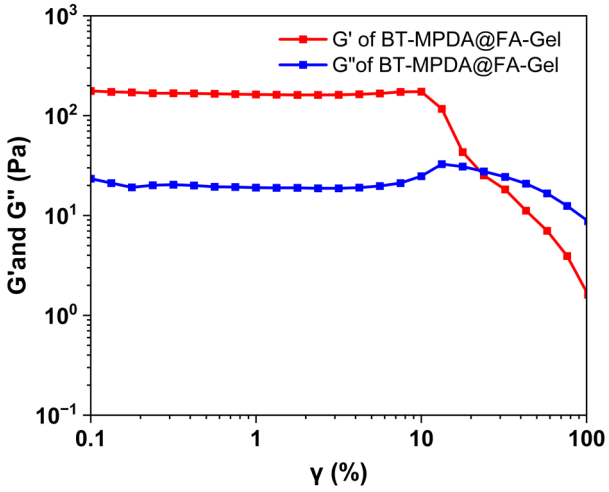

Figure S2. Strain-amplitude sweep of the BT-MPDA@FA-Gel hydrogel, showing G′ and G″ as a function of strain.

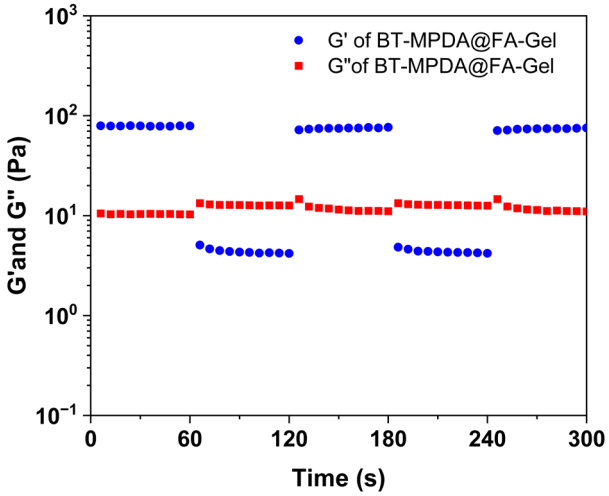

Figure S3. Step-strain rheological test of the BT-MPDA@FA-Gel hydrogel, showing the changes in G′ and loss modulus G″ during repeated high-strain perturbation and subsequent recovery under low-strain conditions.