Supporting Information

In situ microenvironment remodeling using a dual-responsive system

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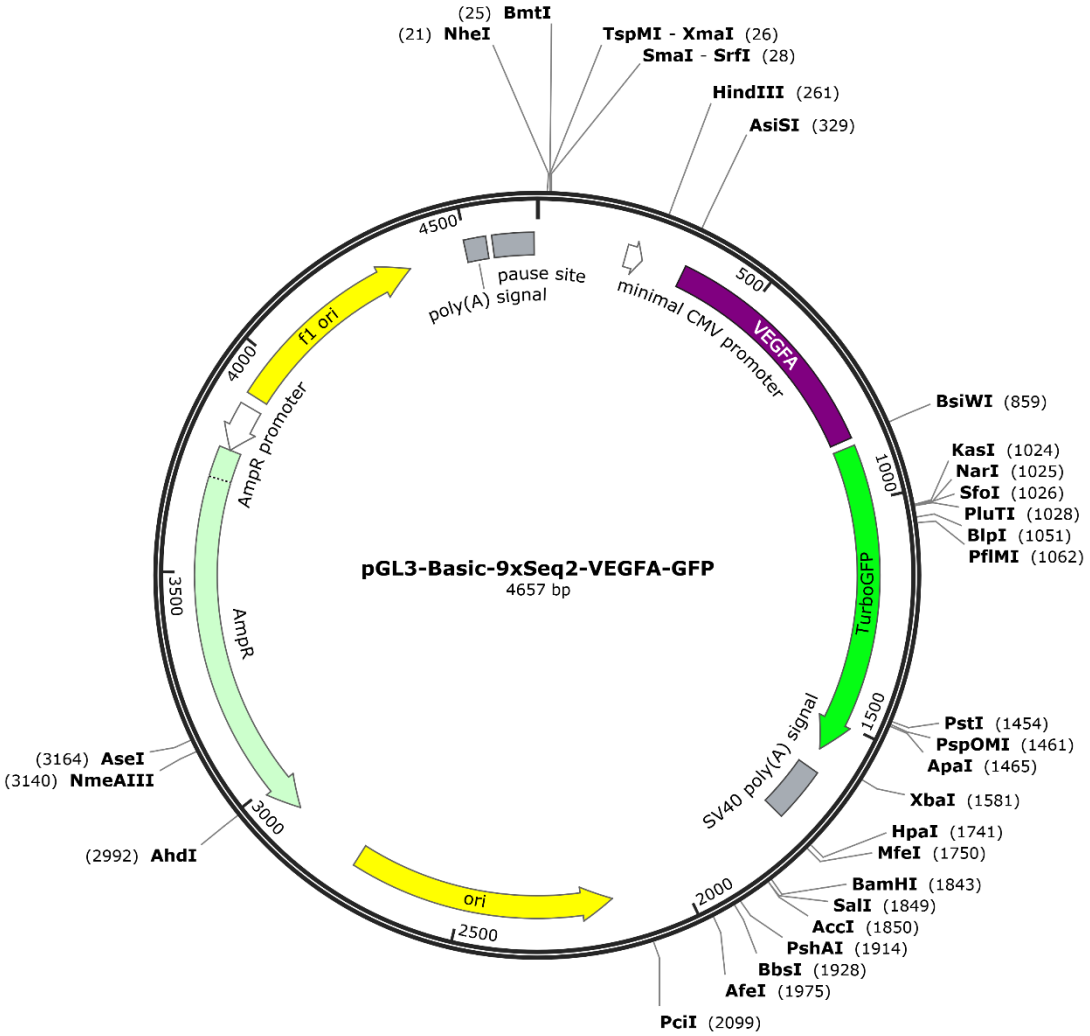
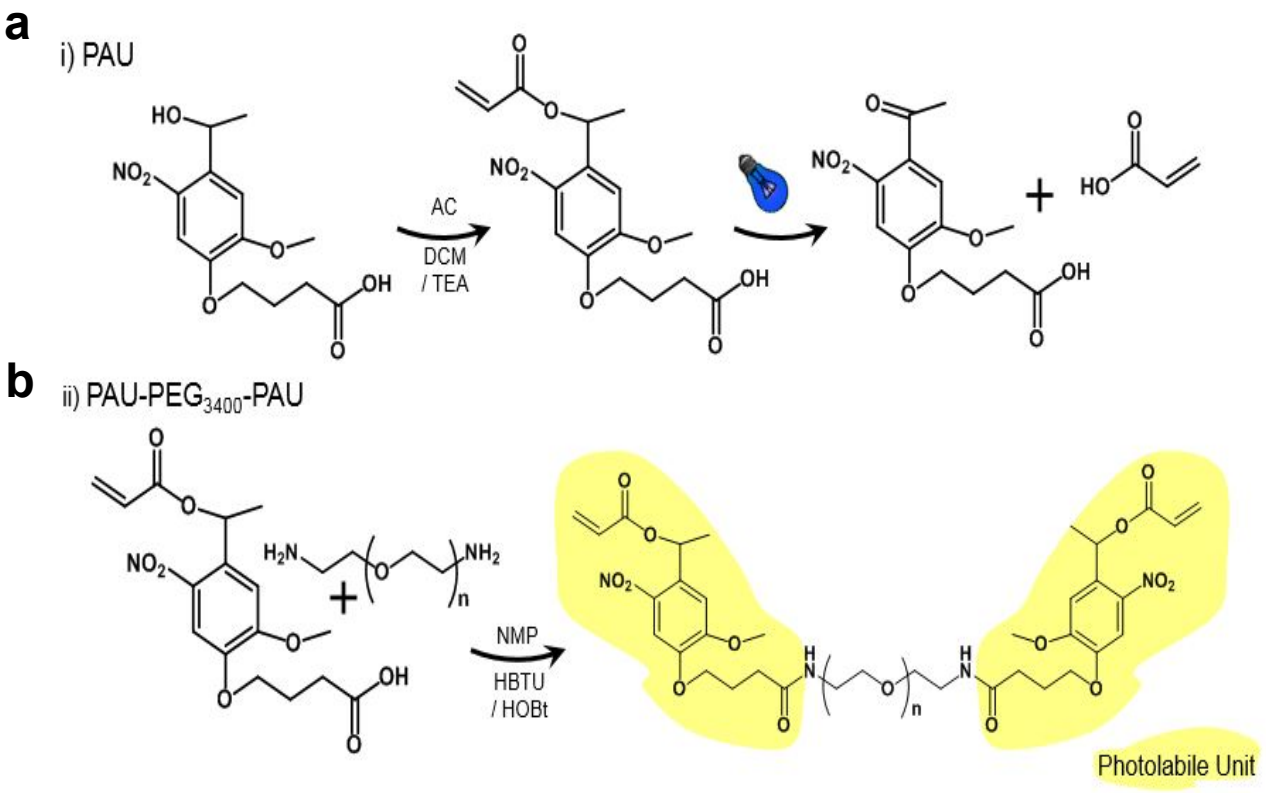
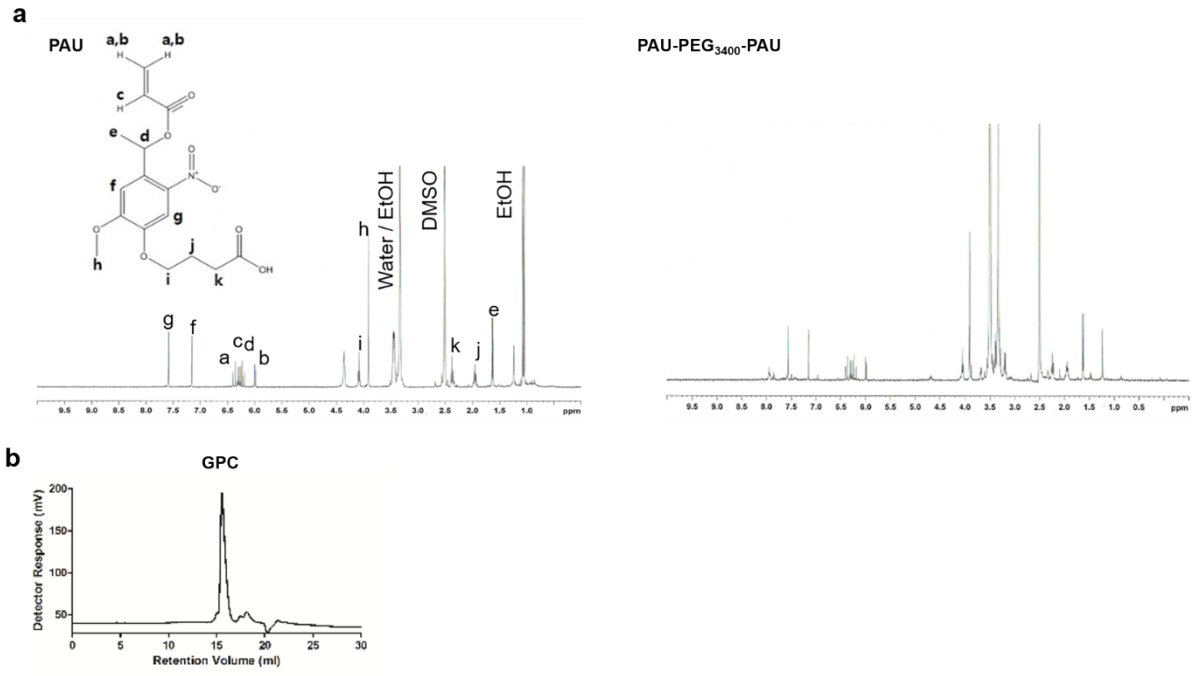
Supplemental Figures



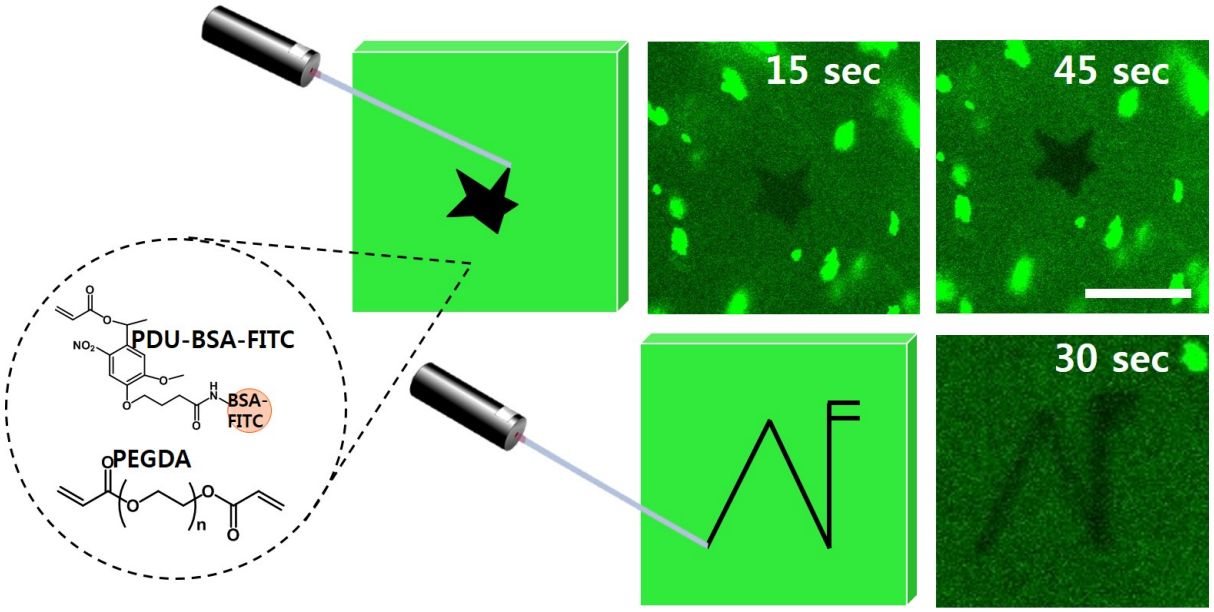
Supplementary Figure 1 Schematic Composition of pGL3-Basic-9xSeq2-VEGFA-GFP



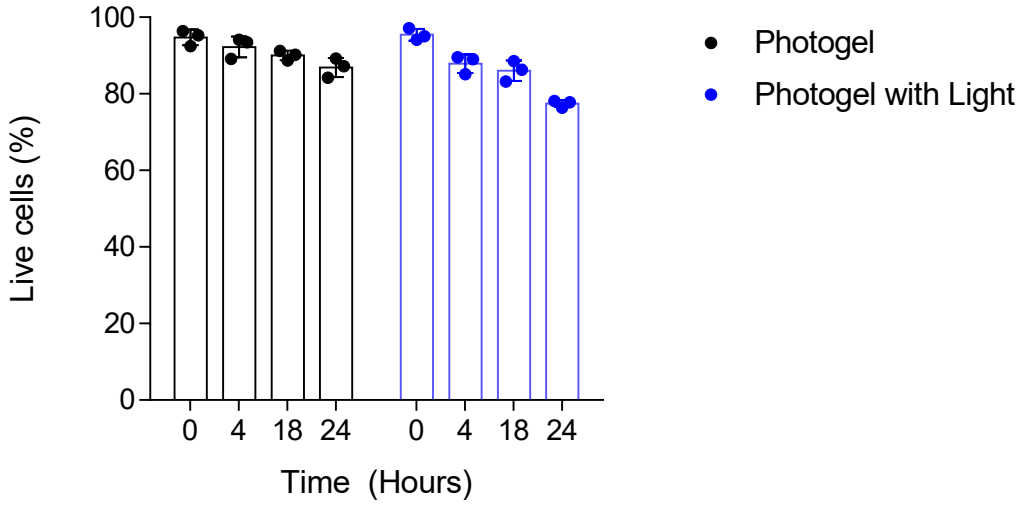
Supplementary Figure 2 Schematic illustration of (a) **s**ynthesis of photocleavable acrylate unit (PAU) and (b) its conjugation to PEG-bis-amine (PAU-PEG_{3400}-PAU) polymer chain, with photolabile units highlighted in yellow.



Supplementary Figure 3 (a) H^1-NMR spectra of modified PAU and PAU-conjugated PEG polymer (PAU-PEG_{3400}-PAU) chain and (b) gel permeation chromatogram of PAU-PEG_{3400}-PAU synthesized *via* HBTU-mediated 1-hydroxy benzotriazole (HOBt) conjugate addition.



Supplementary Figure 4 Owing to light irradiation through the laser, fluorescence does not appear at 15, 30, and 45 s in the star or university logo shape in the middle of the photogel, which was synthesized using PDU-BSA-FITC units. Scale bar = 0.5 mm.



Supplementary Figure 5 Cell viability at different time points (0, 4, 18, and 24 h) in photogel before and after light exposure. Data represent means ± S.D. (n = 3 per group). n.s: not significant, *p < 0.05, **p < 0.01, ***p < 0.001, and ****p < 0.0001