# Supplementary Data

### Verification of Acrylation

The acrylation of aPCL was verified using a Michael-type addition with fluorescently tagged poly(ethylene glycol) (PEG)-thiol. aPCL was cut into squares ($5 \times 5\,mm^2$) and placed in a 96-well plate. PEG-thiol (SH-PEG-FITC; Nanocs, New York, NY) was added to each well in increasing concentrations (0–10 mM in phosphate-buffered saline [PBS], 50 μL/well). Irgacure 2959 (I2959; Sigma-Aldrich, St. Louis, MO) was added to each well to reach a final concentration of 0.3%. The wells were exposed to UV light (365 nm, 10 W/$cm^2$) for 5 min and then washed four times for 15 min and four times for 30 min with PBS to remove excess PEG-thiol. The fluorescent intensities of these scaffolds ($n = 5$ scaffolds at each concentration) were next measured using a plate reader (SpectraMax M2; Molecular Devices, Sunnyvale, CA) at wavelengths of 495/519 excitation/emission. The fluorescent intensities of aPCL without PEG-thiol, as well as plain ePCL with and without 10 mM PEG-thiol, were measured as controls. For statistical analysis on the effect of concentration of PEG-thiol to fluorescent intensity of the scaffold, a logarithmic regression was performed.

At 10 mM, the fluorescent intensity of aPCL scaffolds was significantly higher than for unmodified ePCL scaffolds mixed with PEG-thiol (Supplementary Fig. S1B, $p < 0.05$) and both aPCL and ePCL scaffolds without PEG-thiol, verifying that aPCL was acrylated. The fluorescent intensity of aPCL as a function of PEG-thiol concentration (0–10 mM) was fit to a logarithmic regression (Supplementary Fig. S1C, $r^2 = 0.463$, $p < 0.01$) that saturated around 1.25 mM. Given a volume of 50 μL of PEG-thiol solution within the well, it can be inferred that the aPCL had $6.25 \times 10^{-11}$ M of acrylate groups within the scaffold.