

Supplementary figure captions

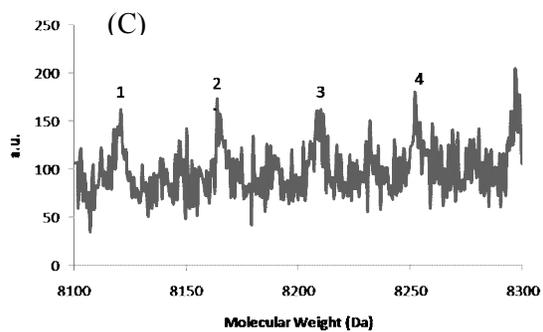
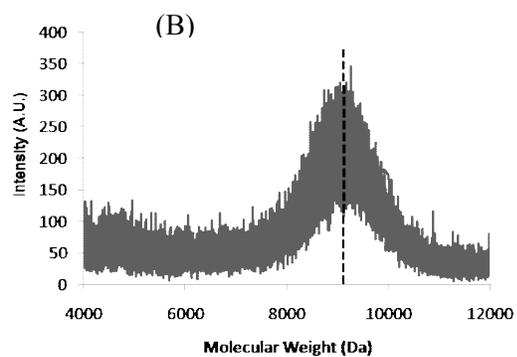
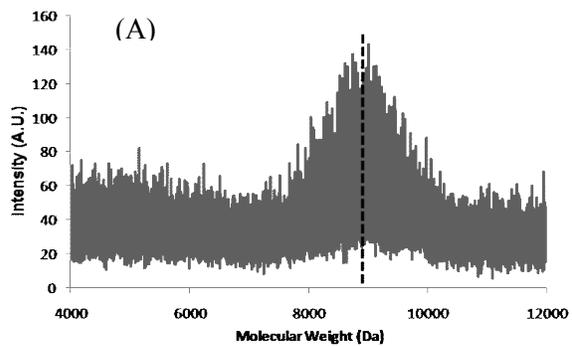
S 1. Validation of PEGDA labeling. A) MALDI-TOF spectrum of unlabeled 8kDa PEGDA. B) MALDI-TOF spectrum of labeled 8kDa PEGDA. C) MALDI-TOF spectrum of labeled 8kDa PEGDA with peaks indicating presence of mono-labeled PEGDA.

S2. A) Representative images of live/dead staining of HUVEC cells encapsulated in PEG hydrogel arrays with varying degradability within spots and a non-degradable background, 7 days after hydrogel preparation (seeding density= 1.0×10^6 cells/ml, 40x magnification, scale bar = 100 μ m). B) Quantitative analysis of HUVEC viability in hydrogel array with varying degradability within spots and a non-degradable background. * Significant difference within the same time points, $p < 0.05$, ANOVA.

S3. Representative images of live/dead staining of HL-1 cells encapsulated in PEG hydrogel arrays with varying degradability, 7 days after hydrogel preparation (seeding density= 1.0×10^6 cells/ml), demonstrating the influence of matrix degradation on viability.

S4. Effect of the amount of time cells remained in PEGDA suspension before and after photo-crosslinking on hMSC viability.

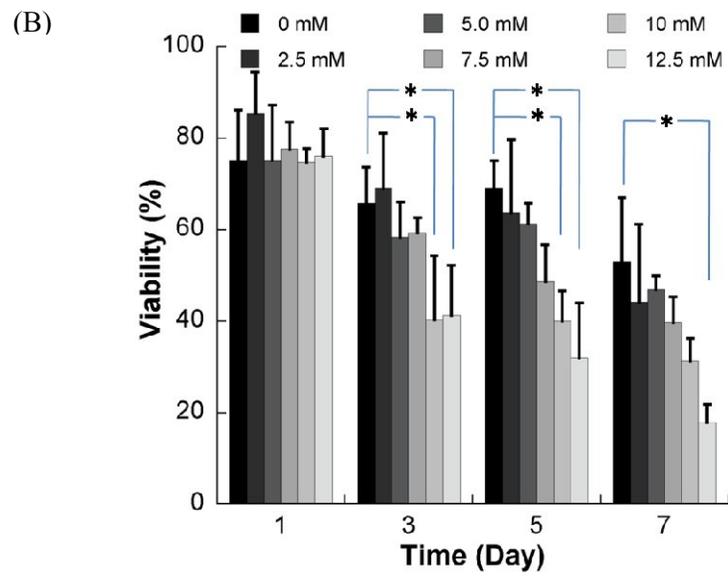
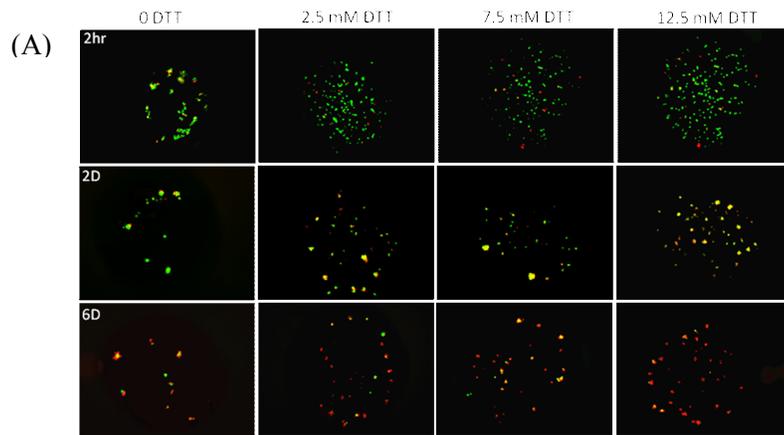
S1.



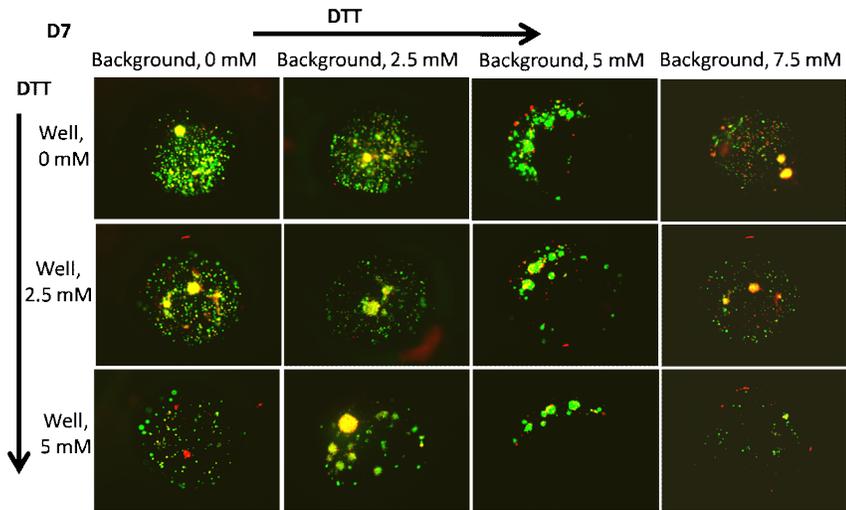
(D)

peak	n monomers	MW PEGDA:Cysteine:Fluorescein
1	174	8119
2	175	8163
3	176	8207
4	177	8251

S2.



S3.



S4.

