Supplementary Information

Table S1. Characterization of synthesized four-branched P(CL-*co*-DLLA) substrates

CL/DLLA unit per branch	In feed		In copolymer[a]		Copolymer			
	CL (mol%)	DLLA (mol%)	CL (mol%)	DLLA (mol%)	Mt[b]	Mn[c]	Mw[c]	Mw/Mn[c]
100	60	40	61.1	38.9	39100	40900	59600	1.46
500	60	40	59.9	40.1		50261	119142	2.37

[a] Determined by 1H NMR (solvent: CDCl3).

[b] Theoretical molecular weight.

[c] Estimated by GPC (solvent: DMF, standard: PEG).

Table S2. Characterization of synthesized four-branched non-crosslinked P(CL-*co*-DLLA) substrates

CL/DLL Unit per branch	G′(kPa)	G″ (kPa)	Tan δ	G* (kPa)
100	10.8	33	3.06	34.7
500	21.1	30.8	1.53	38.8

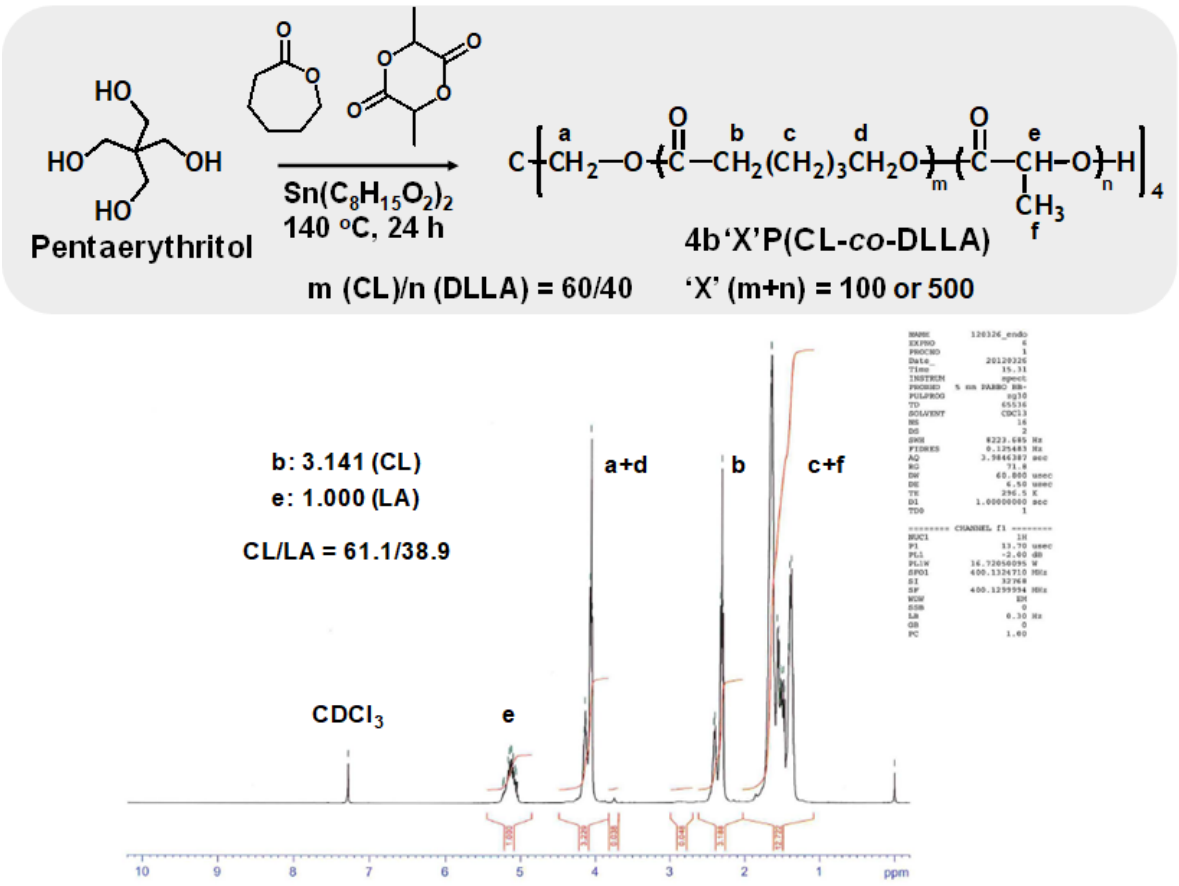


Figure S1. Synthesis of four branched P(CL-*co*-DLLA) with 60/40 CL/DLLA composition and ^{1}H NMR of synthesized P(CL-*co*-DLLA) in $CDCl_3$.

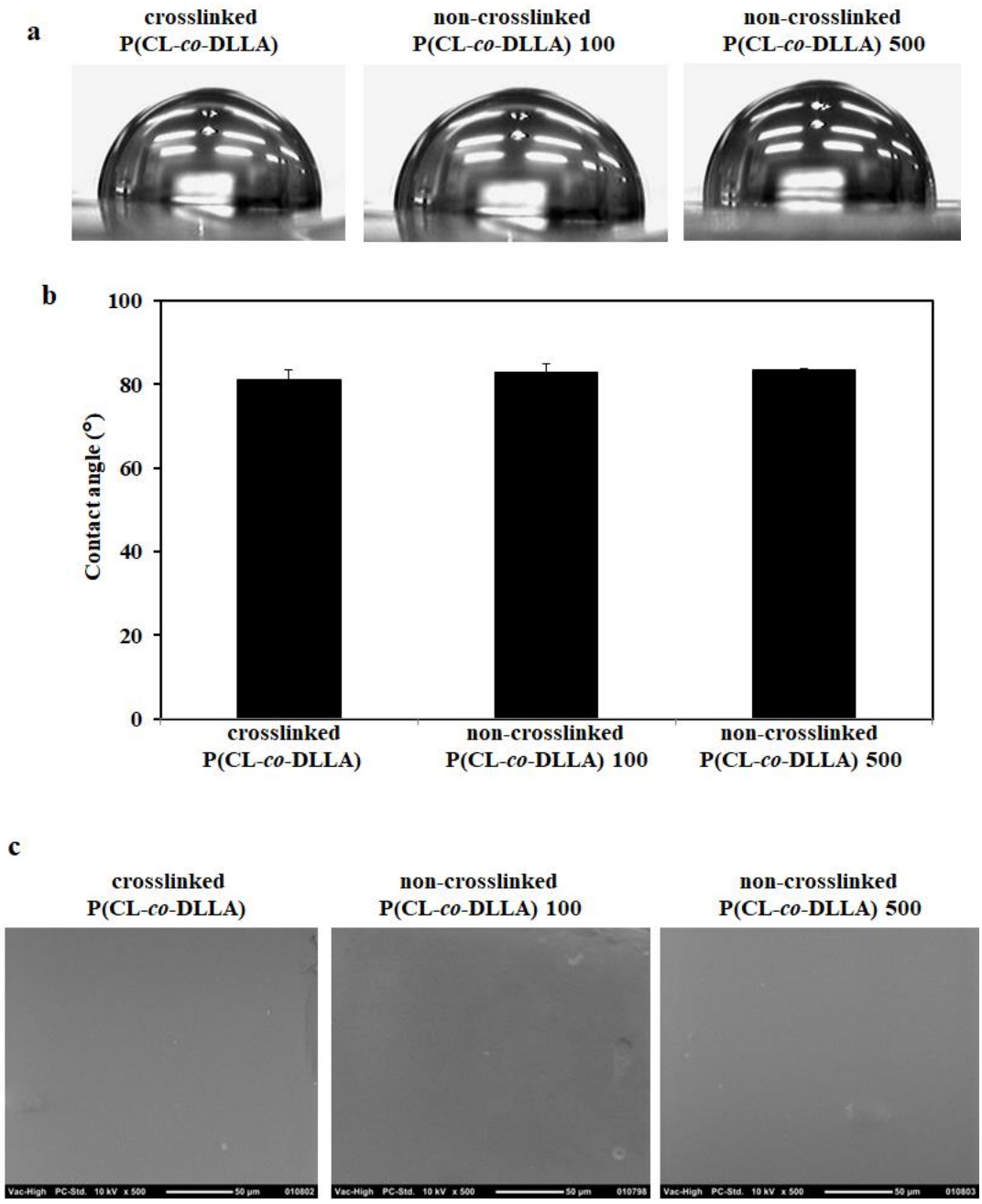


Figure S2. Water contact angle for crosslinked and non-crosslinked P(CL-*co*-DLLA) substrates. (a) The wettability of the substrates was measured by contact angle of meter. (b) Graphical representation of contact angle of crosslinked and non-crosslinked P(CL-*co*-DLLA) substrates. Each bar represents mean ± SD, where n=3 per sample and five different areas where measures for each sample. (c) Scanning electron microscope (SEM) images of crosslinked and non-crosslinked P(CL-*co*-DLLA) substrates (scale bars 50 μm).

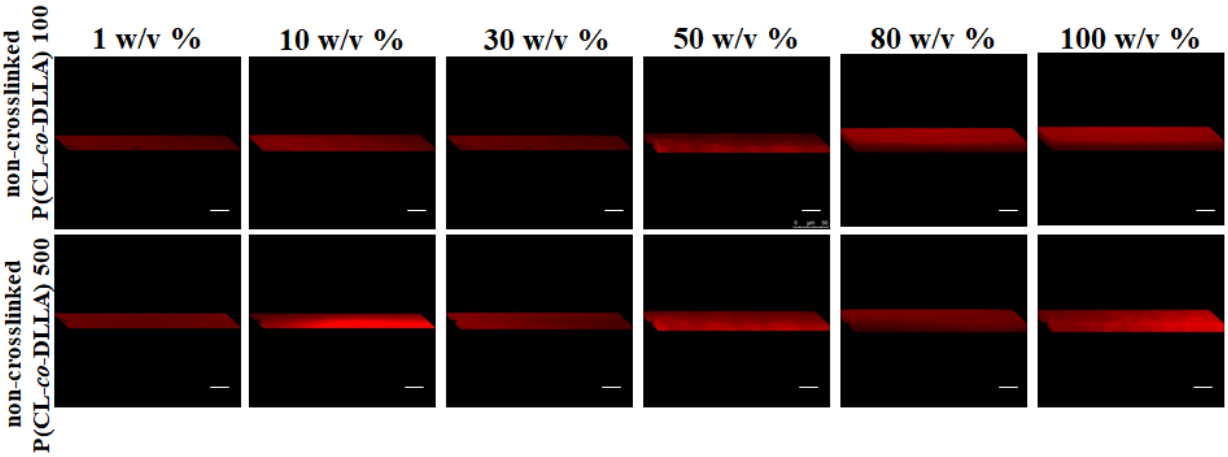
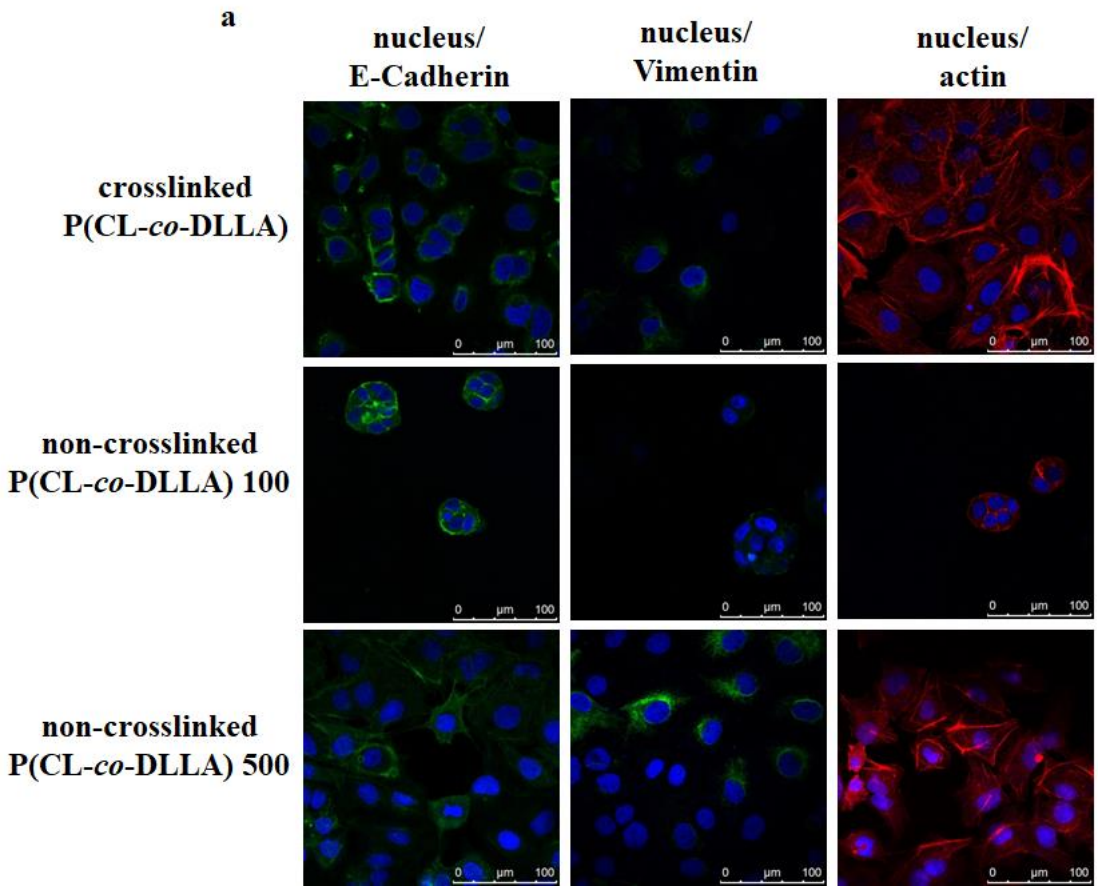


Figure S3. Thickness of spin coated non-crosslinked P(CL-*co*-DLLA) 100 (top images) and 500 (bottom images) substrates at different concentrations (scale bars 50μm).



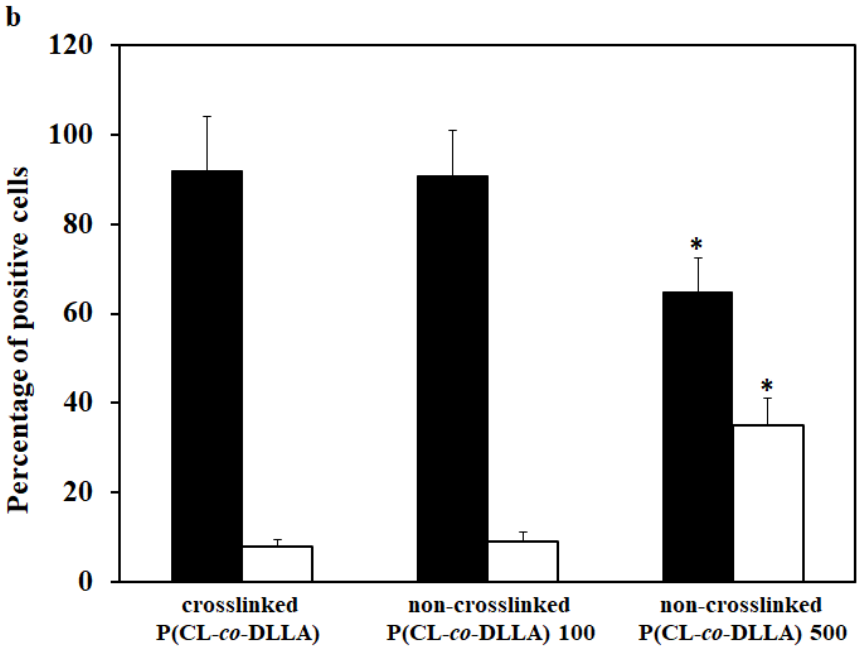


Figure S4. Biochemical evaluation of epithelial (E-cadherin) and mesenchymal (vimentin) markers in MCF 7 cells cultured on crosslinked or non-crosslinked P(CL-*co*-DLLA) 100 and 500 substrates. The images represent the expression of E-Cadherin and Vimentin in MCF 7 cells at 24 h. (a) Confocal microscopic images and (b) Percentage of E-cadherin and vimentin positive cells. Each bar represents mean ± SD, where n=3, *p=0.05 for non-crosslinked P(CL-*co*-DLLA) substrate corresponding to crosslinked P(CL-*co*-DLLA) substrate of the same experiment.

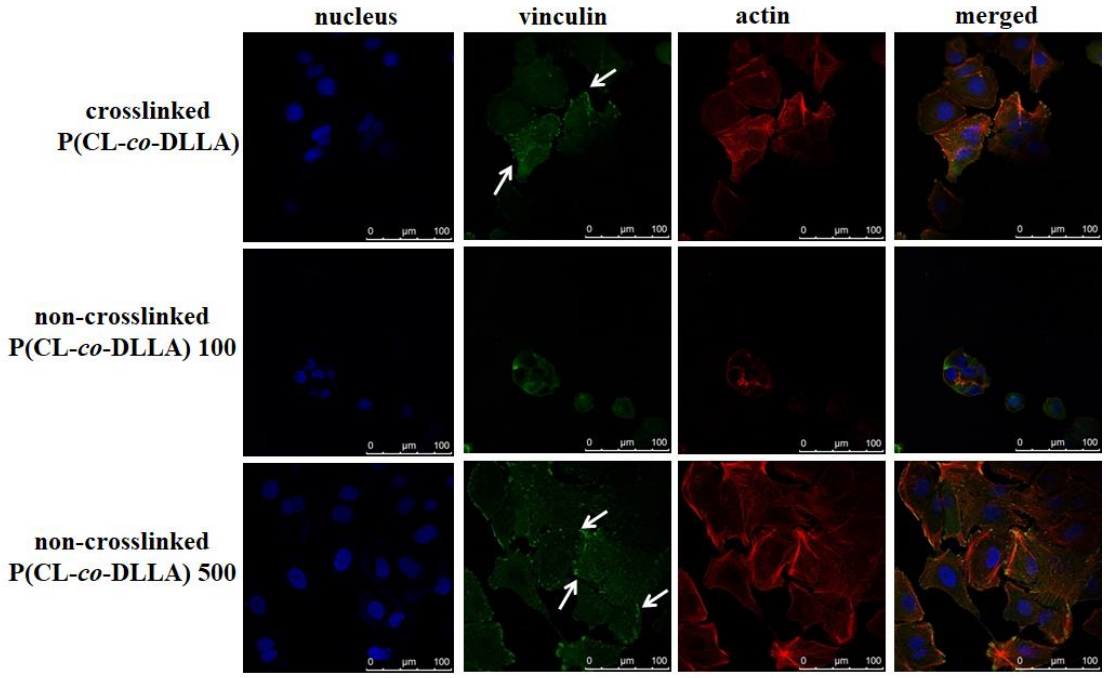


Figure S5. Focal adhesion of MCF 7 cells on P(CL-*co*-DLLA) crosslinked (top images) and P(CL-*co*-DLLA) non-crosslinked 100 (middle images) or 500 (bottom images) substrates at 24 h. The white arrows indicated the focal adhesion protein vinculin.