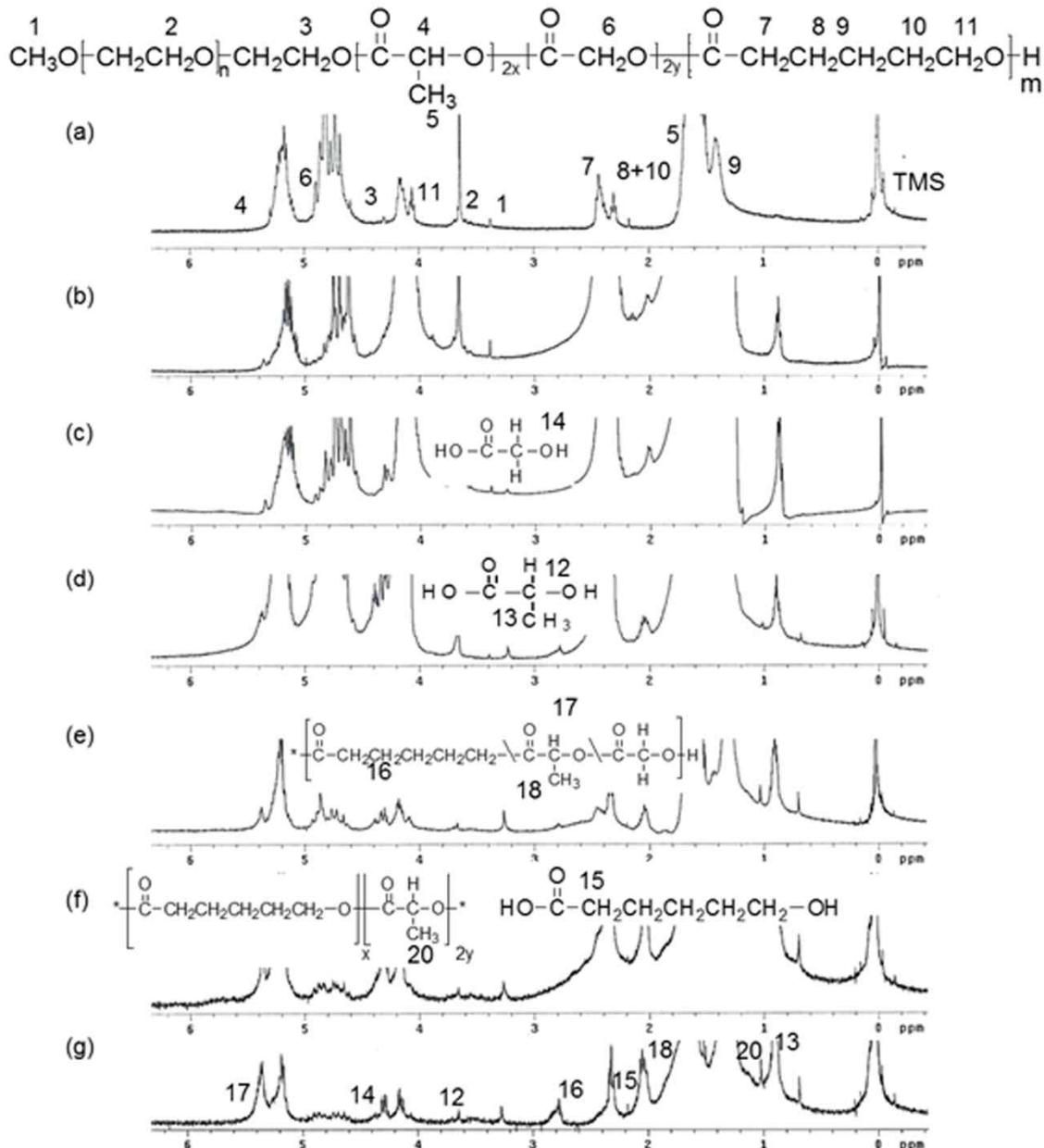


## Supporting Information

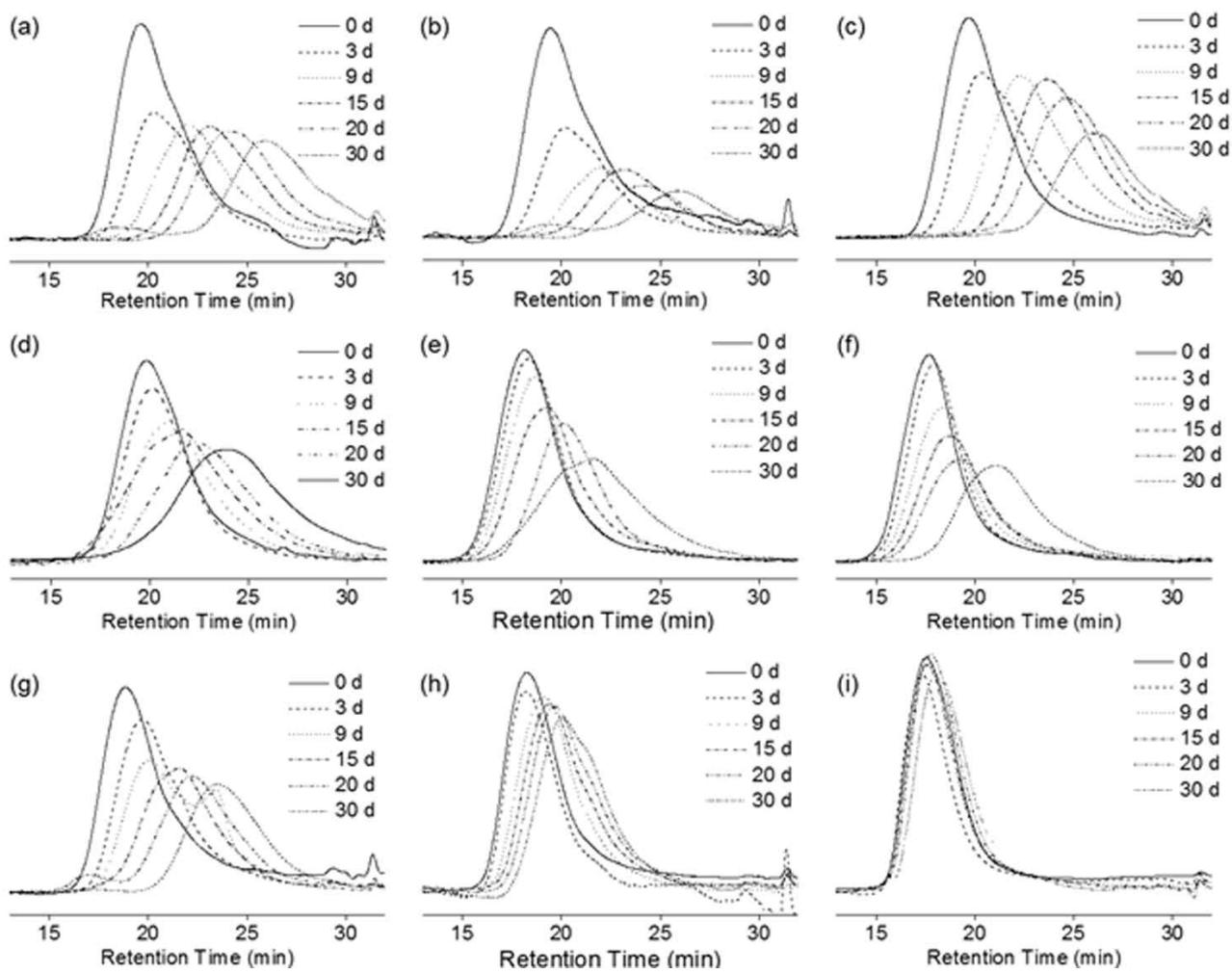
### Biodegradable poly(lactide-co-glycolide-co- $\epsilon$ -caprolactone) block copolymers - evaluation as drug carriers for a localized and sustained delivery system

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**Figure S1.** Proton Nuclear Magnetic Resonance ( $^1\text{H-NMR}$ ) spectra after 4 weeks *in vivo*. Crude mixture; (a) before degradation, (b) 50K L<sub>1</sub>G<sub>1</sub>C<sub>8</sub>, (c) 50K L<sub>2</sub>G<sub>2</sub>C<sub>6</sub>, (d), 50K L<sub>3</sub>G<sub>3</sub>C<sub>4</sub>, (e) 90K L<sub>4</sub>G<sub>4</sub>C<sub>2</sub>, (f) 50K L<sub>4</sub>G<sub>4</sub>C<sub>2</sub>, (g) 20K L<sub>4</sub>G<sub>4</sub>C<sub>2</sub>.



**Figure S2.** Gel permeation chromatograph (GPC) charts of poly(lactide-co-glycolide-co- $\epsilon$ -caprolactone) (PLGC) and poly(lactic acid-co-glycolic acid) (PLGA) in vitro. (a) 20K L4G4C<sub>2</sub>, (b) 50K L4G4C<sub>2</sub>, (c) 90K L4G4C<sub>2</sub>, (d) 20K PLGA, (e) 50K PLGA, (f) 90K PLGA, (g) 50K L<sub>3</sub>G<sub>3</sub>C<sub>4</sub>, (h) 50K L<sub>2</sub>G<sub>2</sub>C<sub>6</sub>, and (i) 50K L<sub>1</sub>G<sub>1</sub>C<sub>8</sub>.

**Table S1.** Thermal properties of poly(lactide-co-glycolide-co- $\epsilon$ -caprolactone) (PLGC) block copolymers.

Polymer	$T_g$ (°C) <sup>a</sup>	$T_m$ (°C)	$\Delta H$	$X_c$ <sup>b</sup>
20K L <sub>4</sub> G <sub>4</sub> C <sub>2</sub>	9	-	-	-
50K L <sub>4</sub> G <sub>4</sub> C <sub>2</sub>	12	-	-	-
90K L <sub>4</sub> G <sub>4</sub> C <sub>2</sub>	3	-	-	-
50K L <sub>3</sub> G <sub>3</sub> C <sub>4</sub>	-8	-	-	-
50K L <sub>2</sub> G <sub>2</sub> C <sub>6</sub>	-26	-	-	2.5
50K L <sub>1</sub> G <sub>1</sub> C <sub>8</sub>	-49	-	-	7.8
20K PLGA <sup>c</sup>	46	76	0.4	-
50K PLGA	50	85	0.6	-
90K PLGA	52	87	3.2	-

<sup>a</sup> Measured by differential scanning calorimeter (*DSC*)

<sup>b</sup>  $X_c$  was calculated as the ratio of the crystalline peak areas to the total areas under the scattering curve

<sup>c</sup> PLGA: poly(lactic acid-co-glycolic acid)