## **Supporting Information**

## Radiopaque Poly(E-caprolactone) as Additive for X-Ray Imaging of Temporary

## **Implantable Medical Devices**

*Rémi Samuel*,<sup>1</sup> Edouard Girard,<sup>2,3,4</sup> Grégory Chagnon<sup>3,4</sup> Stéphane Dejean,<sup>1</sup> Denis Favier<sup>3,4</sup> Jean Coudane,<sup>1</sup> Benjamin Nottelet <sup>1</sup>\*

<sup>1</sup>Institute of Biomolecules Max Mousseron (IBMM) UMR 5247, Department of Artificial

Biopolymers, CNRS, University of Montpellier, ENSCM.

Faculté de Pharmacie, 15 avenue Charles Flahault BP14491, 34093 Montpellier cedex 5, France

<sup>2</sup> CHU de Grenoble, TIMC-IMAG F-38000 Grenoble, France

<sup>3</sup> Univ. Grenoble Alpes, TIMC-IMAG, F-38000 Grenoble, France

<sup>4</sup> CNRS, TIMC-IMAG, F-38000 Grenoble, France

\* benjamin.nottelet@umontpellier.fr



**Figure S1.** FT-IR spectra of 2,3,5-triiodobenzoic acid (TIBA, black line) and 2,3,5-triiodobenzoyl chloride (TIBC, blue line)



Figure S2. <sup>1</sup>H NMR (CDCl<sub>3</sub>, 300 MHz) spectrum of 2,3,5-triiodobenzoyl chloride.



Figure S3. <sup>1</sup>H NMR (CDCl<sub>3</sub>, 300 MHz) spectrum of PCL-TIB<sub>8</sub>.



**Figure S4.** Thermograms of poly( $\varepsilon$ -caprolactone-*co*- $\alpha$ -iodo- $\varepsilon$ -caprolactone) (PCL-I<sub>10</sub>, blue line) and poly( $\varepsilon$ -caprolactone-*co*- $\alpha$ -triiodobenzoate- $\varepsilon$ -caprolactone) (PCL-TIB<sub>3.5</sub>, green line)



**Figure S5.** *In vitro* X-ray images of films (0.5 mm thickness) prepared from PCL-TIB/PCL blends. X-radiographs were obtained using Elitys (Trophy radiology) X-ray machine (Imaging parameters were as follow: sample-amplificator distance 5 cm, angle 90°, 70kV, 4 mA, 0.1 s). Percentages correspond to iodine weight ratios



Figure S6. Dogbone-style tensile specimens used for tensile tests ( $\approx 15 \times 2 \times 0.5 \text{ mm}^3$ , section =  $1.10^{-6} \text{ m}^2$ )



**Figure S7.** Binary X-ray images of PCL-TIB/PLA<sub>50</sub>-*b*-PEG-*b*-PLA<sub>50</sub> blends containing 5 and 10 wt% iodine. Images correspond to Figure 4 of the manuscript. Binarization was used to make the phase separation between PCL-TIB and PLA<sub>50</sub>-*b*-PEG-*b*-PLA<sub>50</sub> clear.