

Figure S1. The initial SEC elution profiles of the re-precipitation-purified product mixture, obtained at the second stage.



Figure S2a. ¹H-NMR spectrum of the initial polylactide. ¹H-NMR ((CDCl₃) 600 MHz) δ , ppm: 1.48 – 1.66 (m, 3H, CH3), 4.37 (d, 1H, CH), 5.27 – 5.16 (m, 1H, CH).



Figure S2b. ¹H-NMR spectrum of the initial 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate.

¹H-NMR ((CDCl₃) 600 MHz) δ, ppm: 0.99, 1.01 (d, 9H, CH3_{c,d}), 1.05, 1.08 (d, 6H, CH2_e), 1.09 – 1.94 (15H, CH3_{c,d}, CH2_e), 3.07 (s, 2H, CH2_f), 3.3 (q, 2H, CH_f), 3.55, 3.67 (m, 1H, CH_h).



Figure S2c. ¹H-NMR spectrum of the initial ethyleneglycol monomethacrylate. ¹H-NMR ((CDCl₃) 600 MHz) δ , ppm: 1.97 (s, 3H, CH3_n), 2.17 (s, 1H, OH_p), 3.87 (t, 2H, CH2_j), 4.30 (t, 2H, CH2_k), 5.61 (s, 1H, CH2_{l,m}), 6.15 (s, 1H, CH2_{l,m}).