

Figure S2

CD2 PM and (f) spray

Table S1. The number average molecular weight (M_n), the weight average molecular weight (M_w) and the dispersity (M_w/M_n), as determined by $^1\text{H-NMR}$ and GPC.

Copolymer	M_n (theoretical) [g mol ⁻¹]	M_n ($^1\text{H-NMR}$) [g mol ⁻¹]	M_n (GPC) [g mol ⁻¹]	M_w (GPC) [g mol ⁻¹]	(M_w/M_n , GPC)
mPEG -PCL	24,000	25,000	19,000	32,600	1.71

Table S2. Equivalent amounts of the different components used for the encapsulation of SP within mPEG-PCL NPs.

Formulation	Equivalent amount used for encapsulation		
	mPEG-PCL [mg]	SP [mg]	TA β CD [mg]
Pristine SP	50	1	-
		2	-
1		8.5	
2		17	
1		17	
2		34	
1		8.5	
2		17	
1		17	
2		34	

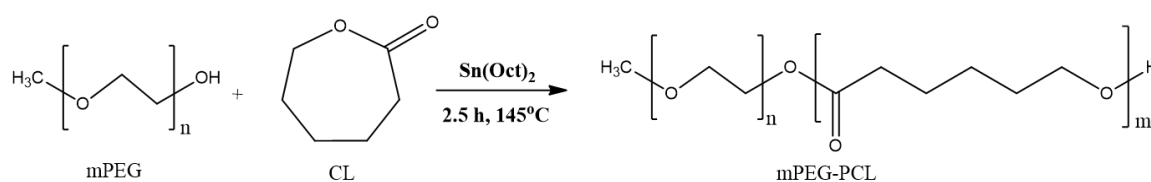


Figure S3. Ring opening polymerization reaction of CL initiated by the terminal hydroxyl group of mPEG with a molecular weight of 4000 g mol⁻¹.

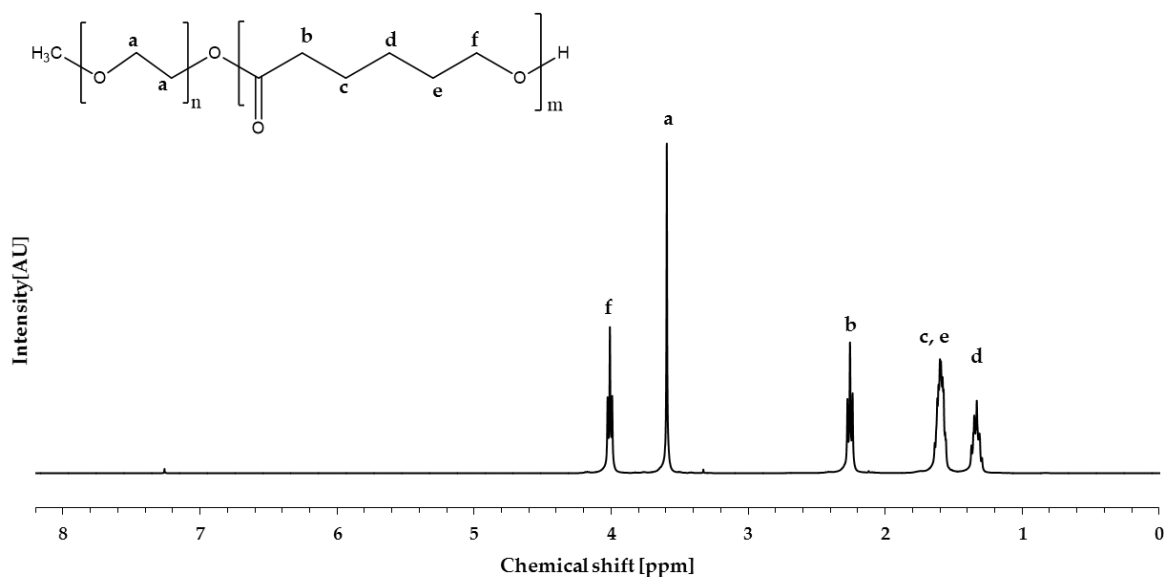


Figure S4. ¹H-NMR spectrum of the mPEG-PCL copolymer in CDCl₃.

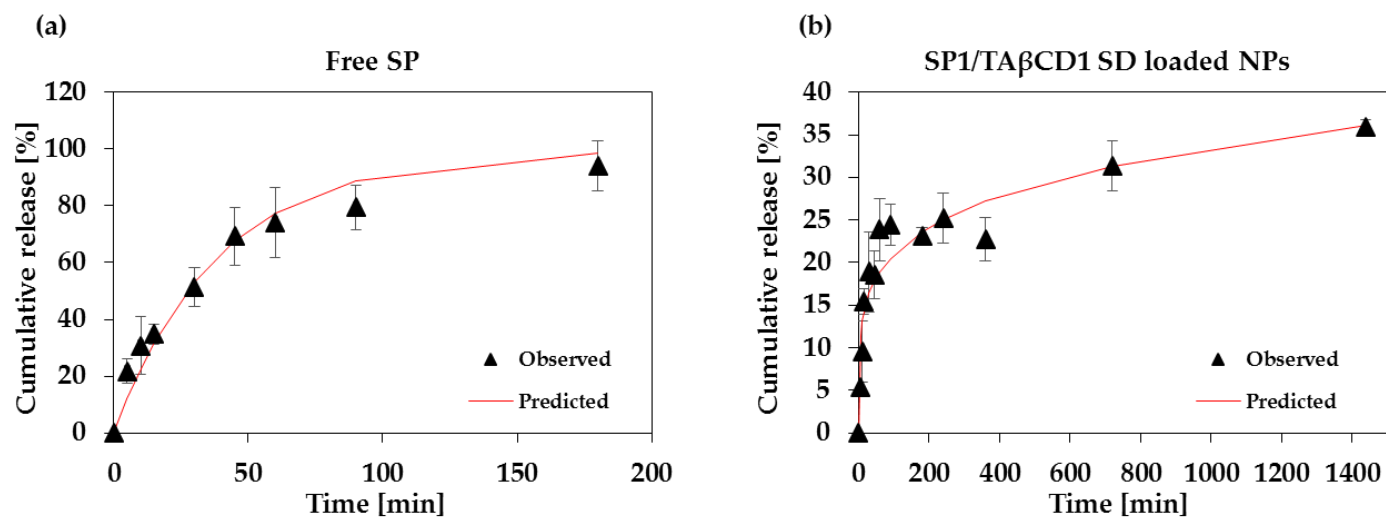


Figure S5. Fitting of average release data of (a) free SP to a first-order kinetics and (b) SP from SP1/TA β CD1 encapsulated PEG-PCL NPs to the Korsmeyer-Peppas model, as determined with DDSolver Software 1.0 [41].