

Supporting Information

Table captions:

Table S1. Molecular weight of diblock copolymers synthesized with different PCL/mPEG ratio.

Table S2. Kinetic analysis of drug release

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Figure caption:

Fig. S1. Particle size distributions of the optimized Riv-NPs measured by Dynamic light scattering

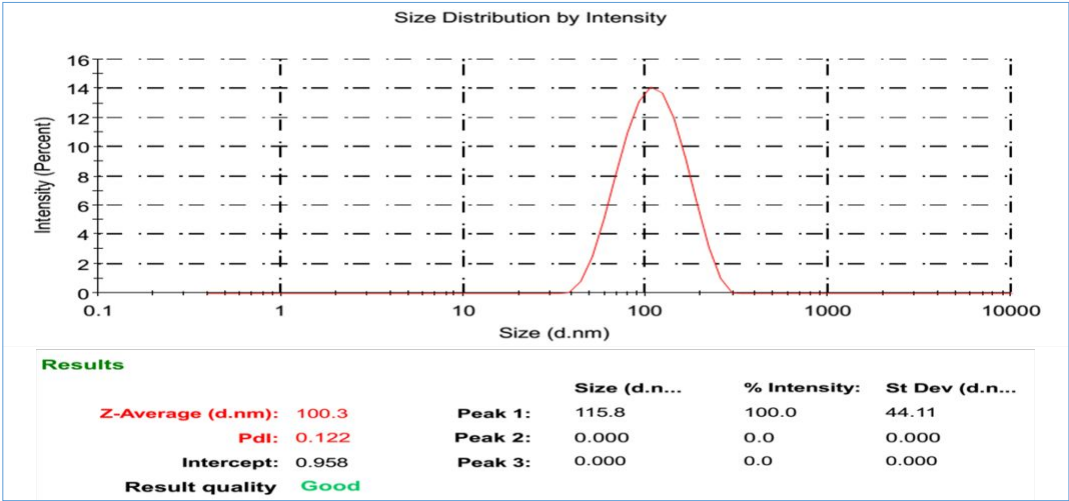


Fig. S1. Particle size distributions of the optimized Riv-NPs measured by Dynamic light scattering

Table S1. Molecular weight of diblock copolymers synthesized with different PCL/mPEG ratio.

Polymer code	feeding ratio (ϵ -CL / M-PEG , w/w)	Mn _{PEG}	DP _{PCL}	Mn _{PCL}	Mn _{PCL} / Mn _{PEG}	Copolymer Mn (Da)
Pol 1	1	5000	37.7	4525	0.9	9525
Pol 2	2	5000	89.3	10722	2.1	15721
Pol 3	3	5000	130.5	15661	3.1	20660
Pol 4	5	5000	196.9	23625	4.7	28625

Table S2. Kinetic analysis of drug release

Goodness of fit	Zero- order	First-order	Higuchi	Korsmeyer- Peppas	Hixson- Crowell	Weibull
Rsqr_adj	-1.457	0.974	0.465	0.864	0.475	0.996
AIC	123.27	68.62	104.97	89.42	104.74	45.58
MSC	-1.07	3.49	0.46	1.76	0.48	5.41

Table S3. HPLC method validation in rat plasma and brain

	Quality control	Nominal concentration (ug/ml)	day	Intra-day (n=3)		Inter-day (n=9)	
				RSD (%)	Accuracy (%)	RSD (%)	Accuracy (%)
plasma	LQC	0.08	1	6.5	111.6	11.1	102.4
			2	11.5	98.1		
			3	12.3	97.5		
	MQC	1	1	5.4	100.7	5.6	102.2
			2	4.3	98.9		
			3	4.8	107.1		
	HQC	3	1	3.1	103.2	5.9	99.5
			2	4.0	102.6		
			3	1.8	92.6		
brain	LQC	0.1	1	8.6	106.8	8.1	107.0
			2	4.7	110.9		
			3	11.5	103.2		
	MQC	1	1	3.6	107.4	7.9	101.2
			2	7.7	95.8		
			3	9.3	100.4		
	HQC	3	1	2.9	99.3	3.5	100.9
			2	5.4	101.4		
			3	2.3	102.1		