

Table S1. Mass spectrometry confirmation of P1 peptide.

Peptide	Molecular weight	Theoretical value	Measured value
P1	1072.26	[M+H] ⁺ 1073.26	[M+H] ⁺ 1073.21
		[M+2H] ²⁺ 537.13	[M+2H] ²⁺ 537.33

Table S2. Summary of phase behavior of peptides at different pH values.

peptides	pH		
	5.8	7.4	9.2
P0	SG	UG	UG
P1	FL	SG	SG
P2	SG	UG	UG

FL: Fluid liquid; SG: Stable gel; UG: Unstable gel.

Table S3. Summary of phase behavior of peptides in different concentration.

Peptides	Concentration (mg/mL)			
	5	10	15	20
P1	VL	SG (17 min)	SG (3 min)	SG (instantly)
P2	VL	UG (3 min)	UG (3 min)	UG (3 min)

VL: Viscous liquid; SG: Stable gel; UG: Unstable gel.

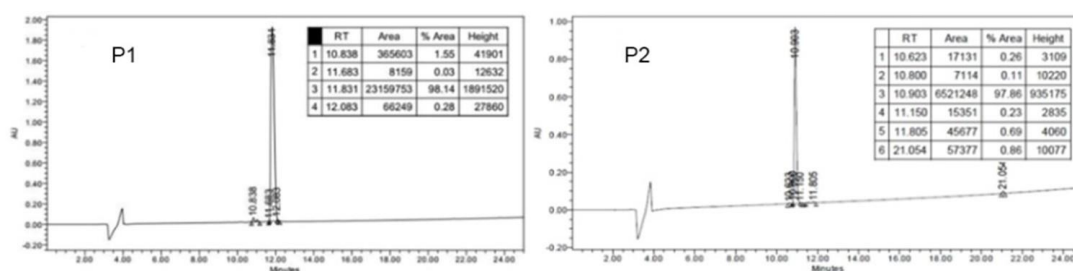


Figure S1. The UPLC chromatograms and peak data of designed nonapeptides.

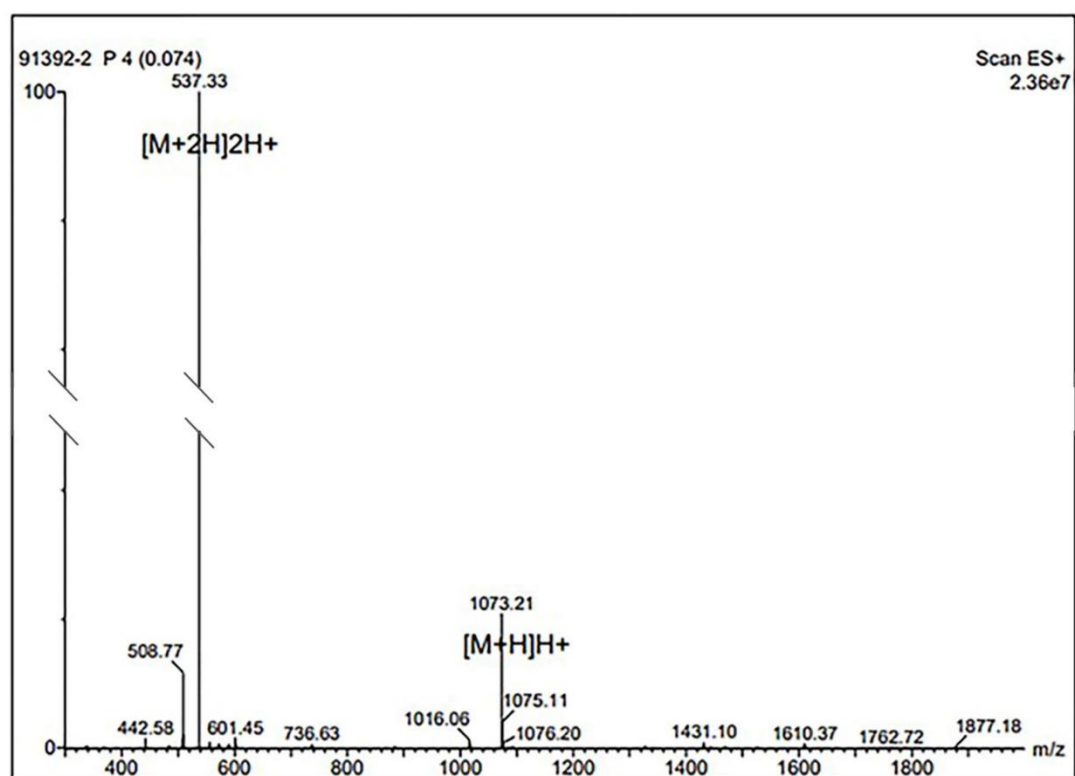


Figure S2. The mass spectrum of P1 peptide.

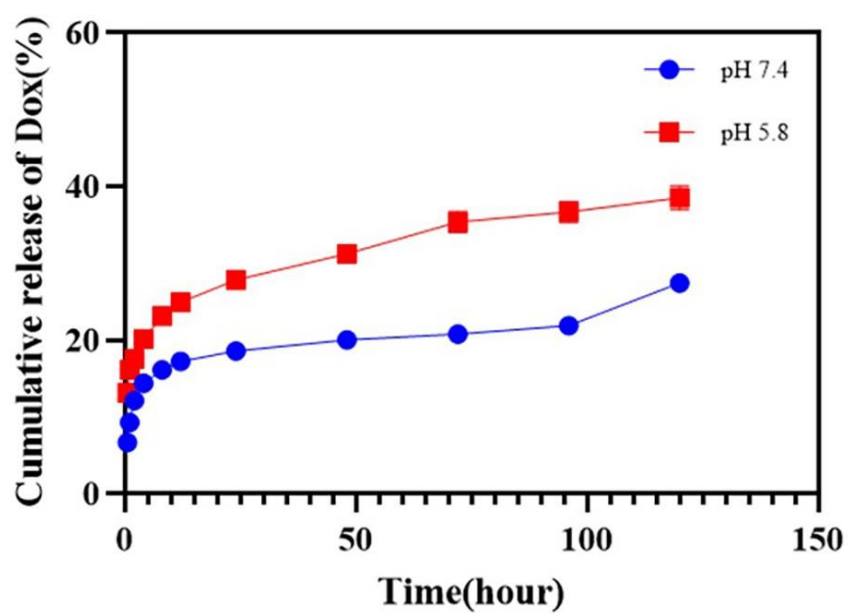


Figure S3. Cumulative release of Dox from DOX-P2 hydrogel.

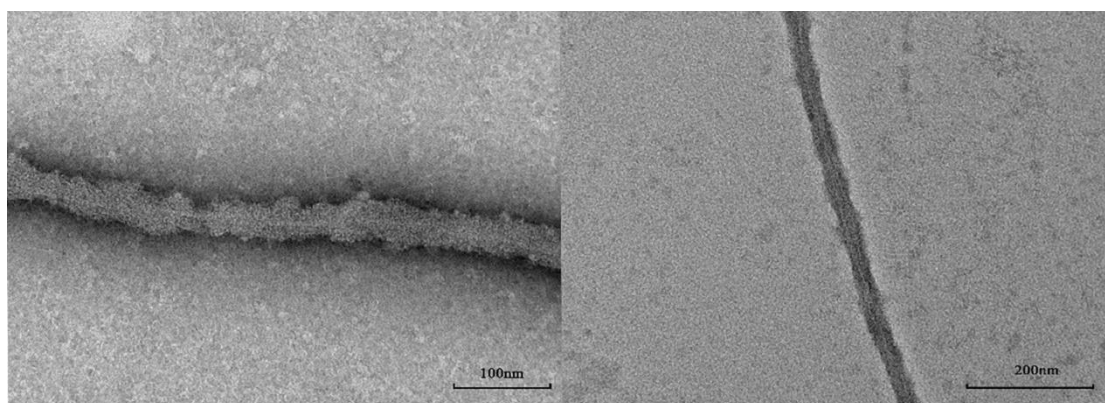


Figure S4. Transmission electron microscopy of drug loaded nanofiber.