Supplementary Materials

Programmed pH-responsive core-shell nanoparticles for precisely targeted therapy of ulcerative colitis

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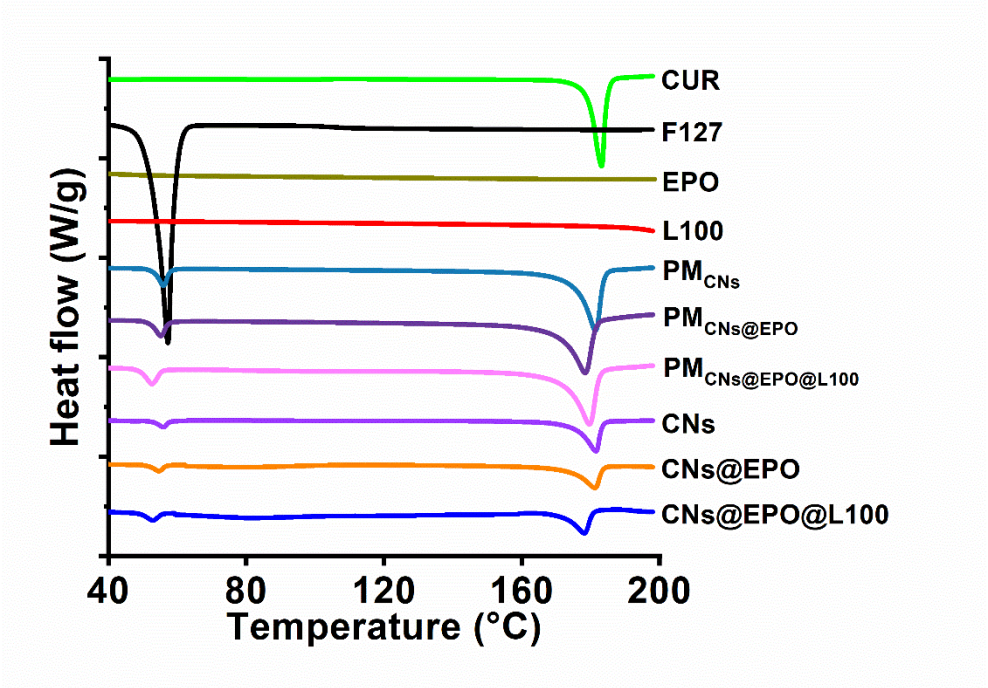

Fig. S1 DSC thermograms of CUR, F127, EPO, L100, physical mixture, CNs, CNs@EPO, and CNs@EPO@L100.

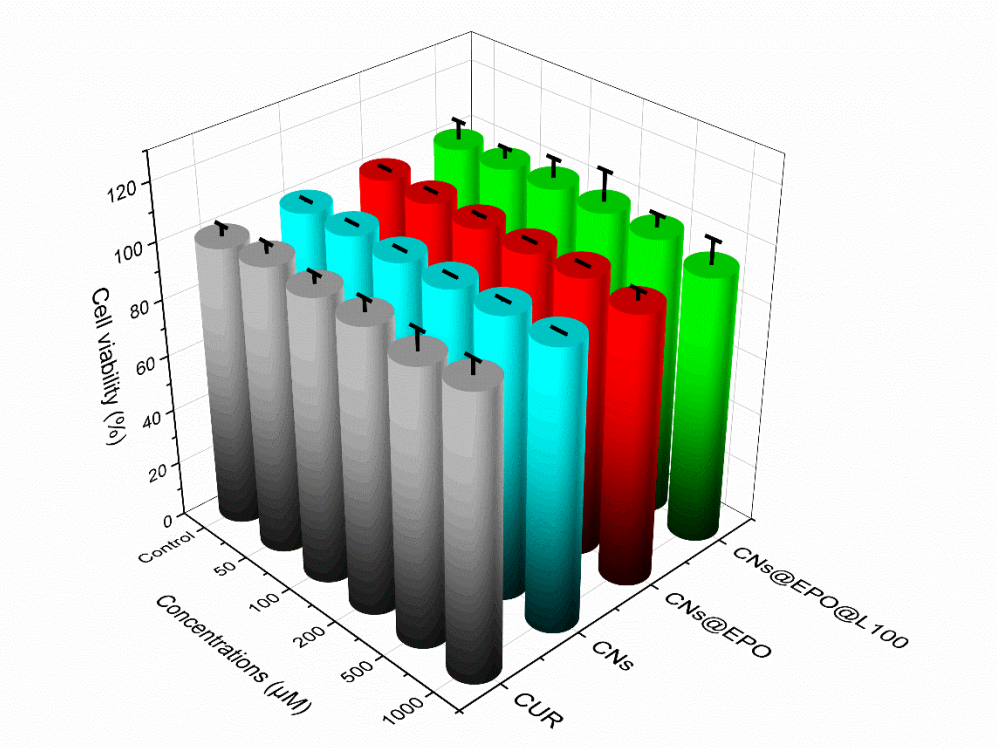

Fig. S2 The cytotoxicity of CUR suspension, CNs, CNs@EPO, and CNs@EPO@L100 on RAW 264.7 cells at different concentrations after incubation for 12 h (mean ± SD, n = 6).

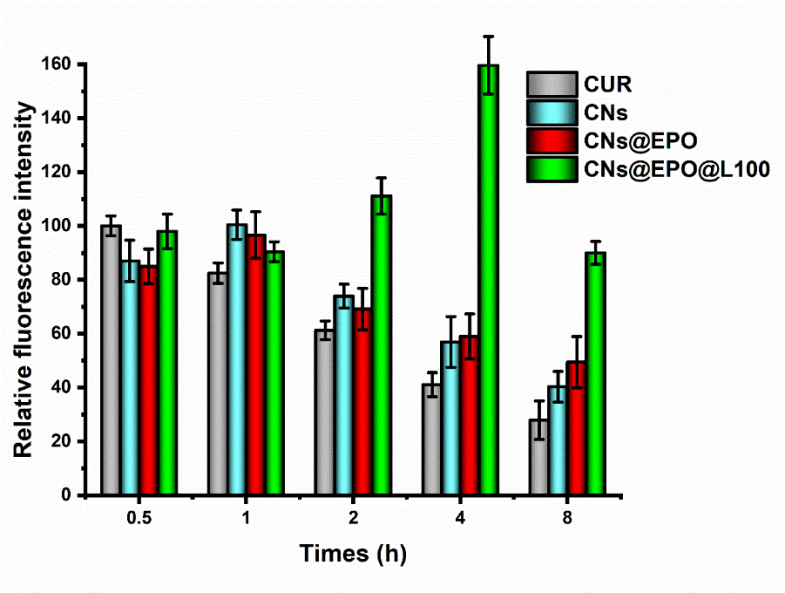

Fig. S3 Relative fluorescence intensity in the colon after intragastric administration of CUR suspension, CNs, CNs@EPO, and CNs@EPO@L100 at a dose of 100 mg/kg to UC mice. The fluorescence intensity of mice treated with CUR suspension for 0.5 h was used as a control.

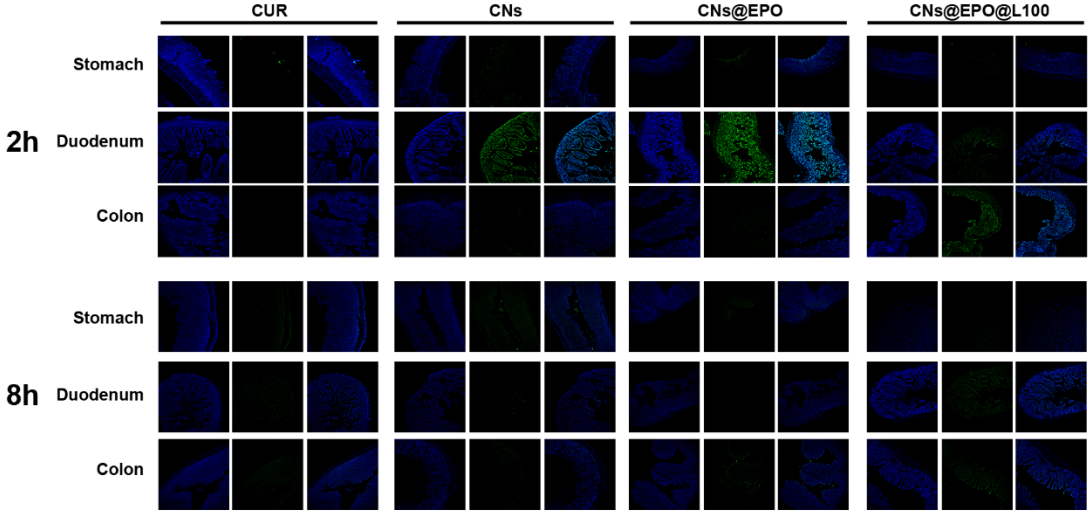

Fig. S4 Confocal microscopy images of cryosections of stomach, duodenum, and colon after intragastric administration of CUR suspension, CNs, CNs@EPO, and CNs@EPO@L100 at a dose of 100 mg/kg to UC mice for 2 and 8 h. Blue: Hoechst; Green: CUR.

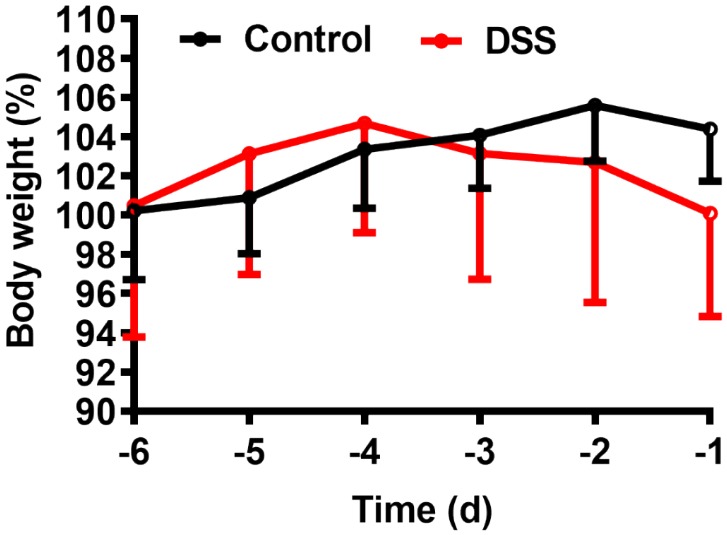

Fig. S5. The body weights of mice during modeling. The day of first administration was set to day 0. Mean ± SD (n = 5 for control group, n = 25 for DSS group).

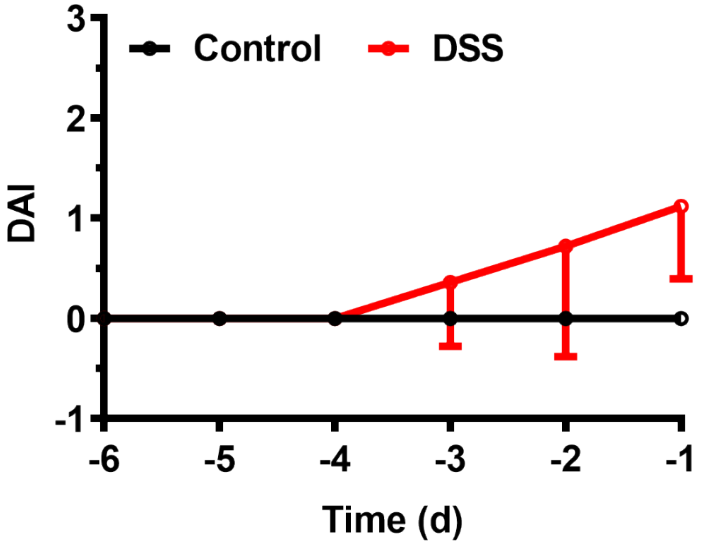

Fig. S6. The DAI of mice during modeling. The day of first administration was set to day 0. Mean ± SD (n = 5 for control group, n = 25 for DSS group).

Table S1 The particle sizes, PDIs, and zeta potentials of CNs, CNs@EPO, and CNs@EPO@L100 (mean ± SD, n=3).

Samples	Particle sizes (nm)	PDIs	Zeta potentials (mV)
CNs	313.2 ± 12.83	0.215 ± 0.03	-8.98 ± 0.7039
CNs@EPO	324.2 ± 4.05	0.355 ± 0.04	18.3 ± 1.435
CNs@EPO@L100	571.8 ± 16.25	0.348 ± 0.089	-18.1 ± 1.17

Table S2 Scoring system for the disease activity index (DAI)

Score	Weight loss (%)	Stool consistency	Rectal bleeding
0	< 1	Normal stools	None
1	1 ~ 5	-	Small spots of blood stool dry anal region
2	5 ~ 10	Semi-formed stool	Large spots of blood in stool blood appear through the anal orifice
3	10 ~ 15	-	Deep red stool blood spreads largely around the anus
4	> 15	liquid stool	Gross blood