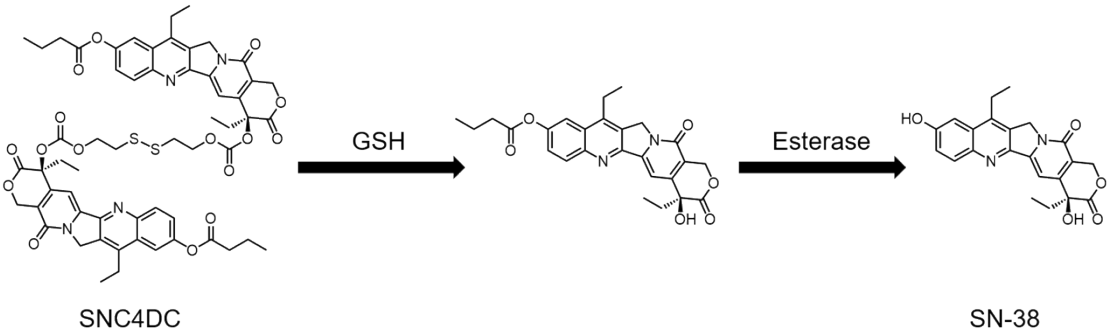
Support Information



Scheme S1. The conversion pathway of SNC4DC into SN-38.

In vitro experiment

IC_{50} values for BxPC-3 cells, as well as the corresponding data for normal CCD-18Co cells, have been added.

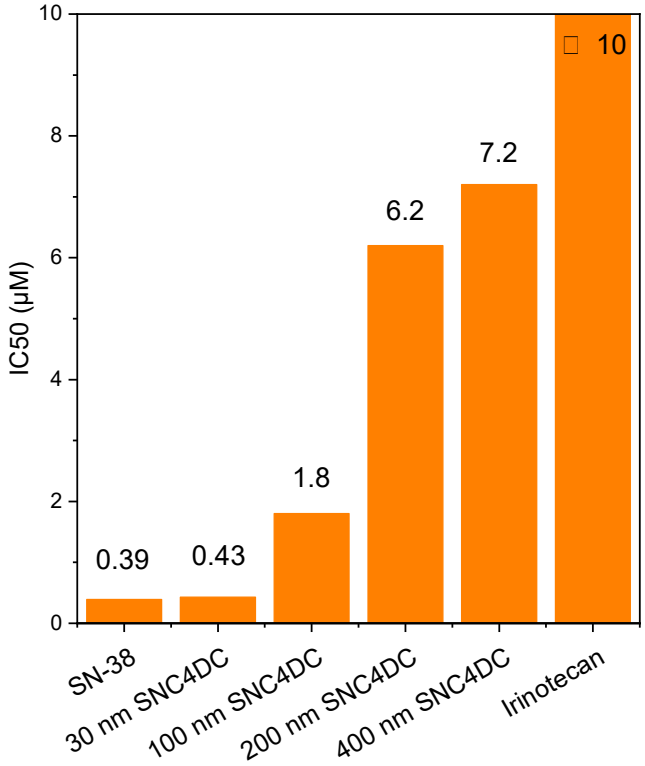


Figure S2. BxPC-3 细胞的 IC50 of SN-38 不同粒径 SNC4DC 和伊立替康

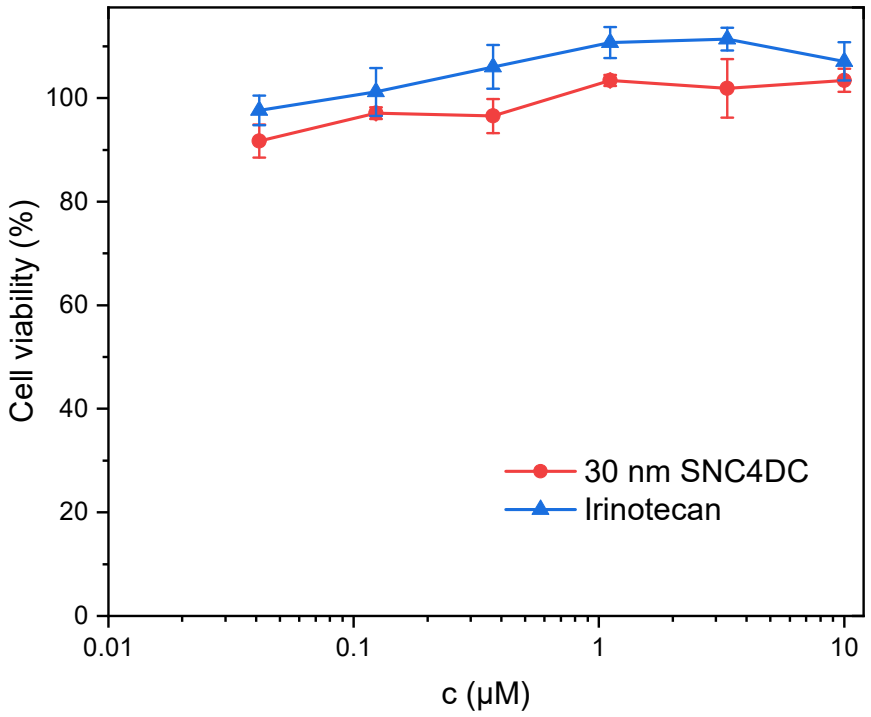


Figure S3. CCD-18Co cell viability curve of 30 nm SNC4DC NPDs and irinotecan.

Experimental Section

Preparation of nanoparticle dispersions

The nanoparticle dispersions were prepared using the reprecipitation method.[9] The SNC4DC prodrug was transformed into a nanoparticle dispersion by inducing a rapid change in solubility using a 10 mM solution of SNC4DC in a good solvent (THF; 100 μL) and distilled water as the poor solvent. Using a 250-μL microsyringe, the SNC4DC solution was rapidly injected into water while stirring at a speed of 1,500 rpm, followed by the cessation of stirring shortly after. The final concentration of the dispersion after reprecipitation was 0.1 mM (equal to that of SN-38).

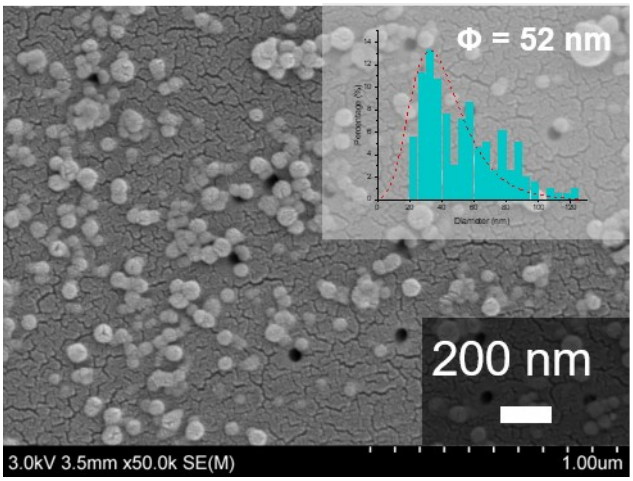


Figure S4. SEM image of nanoparticles with an average diameter of ~50 nm.

Dispersion stability of nanoparticles

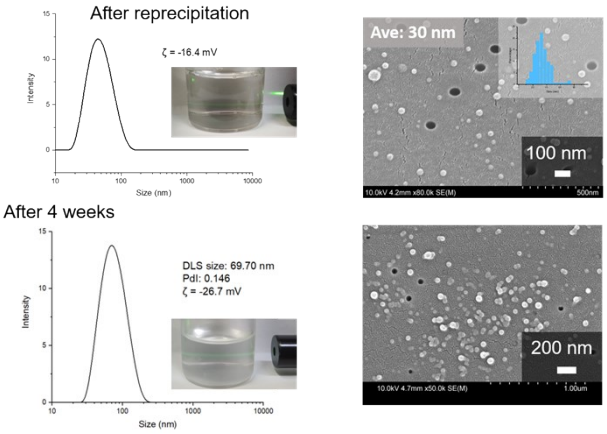


Figure S5. SEM images and DLS size distributions of 30 nm nanoparticles immediately after reprecipitation and after 4 weeks of storage.

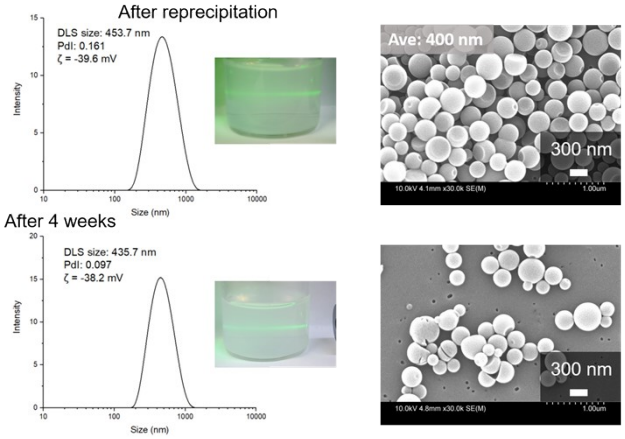


Figure S6. SEM images and DLS size distributions of 400 nm nanoparticles immediately after reprecipitation and after 4 weeks of storage.

The prepared nanoparticles were evaluated using DLS (Zetasizer Nano series Nano-ZS; Malvern Instruments, Ltd.) and SEM (S-4800; Hitachi). After performing the DLS and SEM measurements, the samples were stored in a refrigerator at 4 °C for four weeks, before the measurements were repeated.