Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting information

NOAEL Cancer Therapy: Tumor Targetable Docetaxel-Inorganic Polymer Nanohybrid Prevents Drug-Induced Neutropenia

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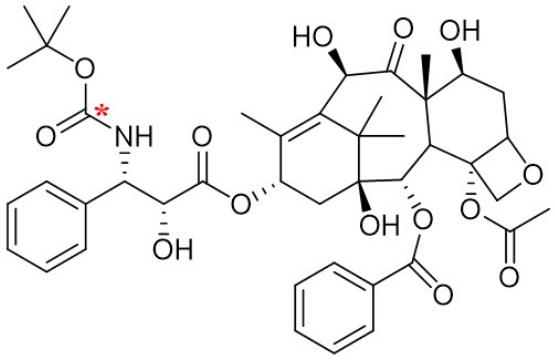

[^{14}C]Docetaxel (DTX)

Fig. S1. Chemical structure of ^{14}C-labeled DTX

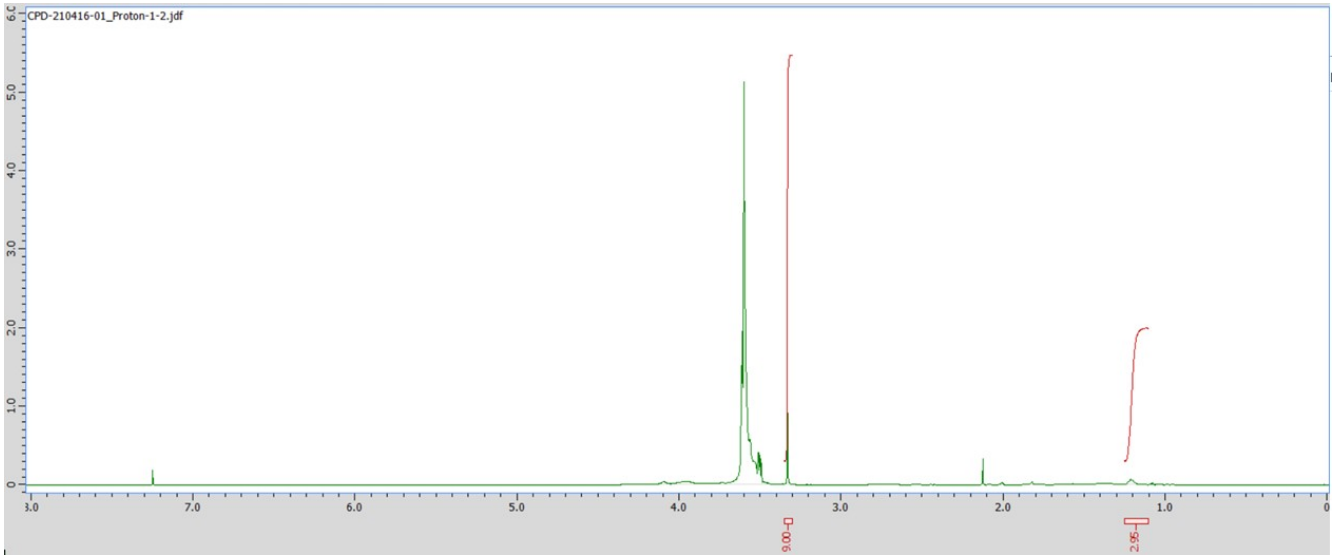

Fig. S2. ^{1}H-NMR spectrum of CP.

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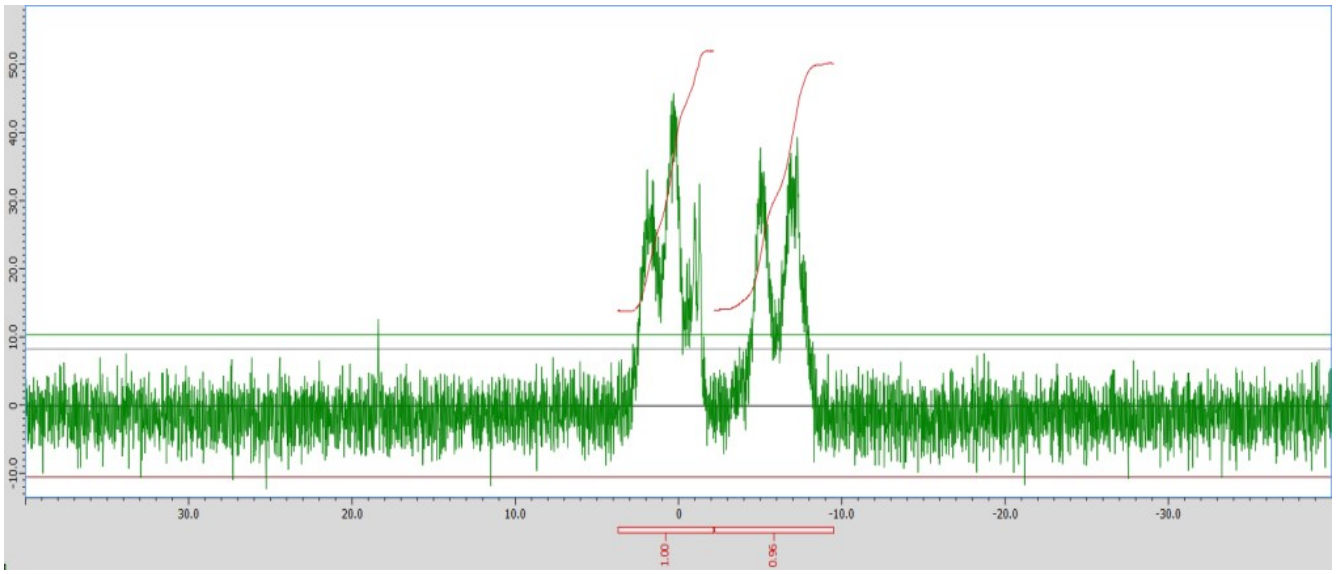

Fig. S3. ^{31}P-NMR spectrum of CP.

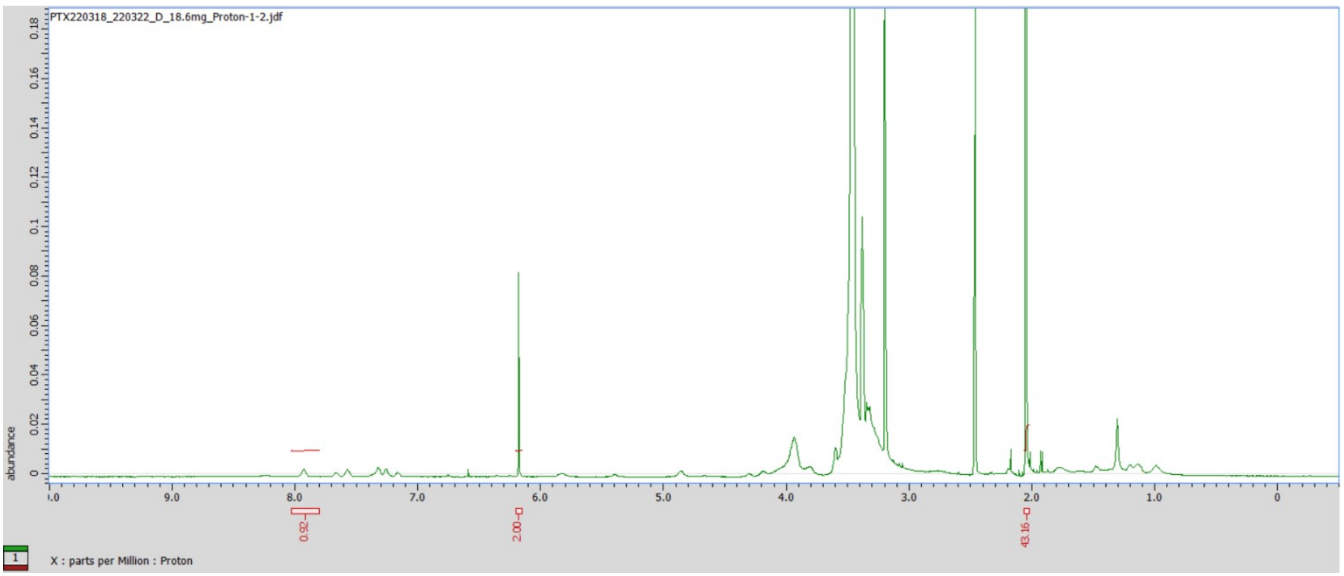

Fig. S4. ^{1}H-NMR spectrum of PTX (internal standard: maleic acid).

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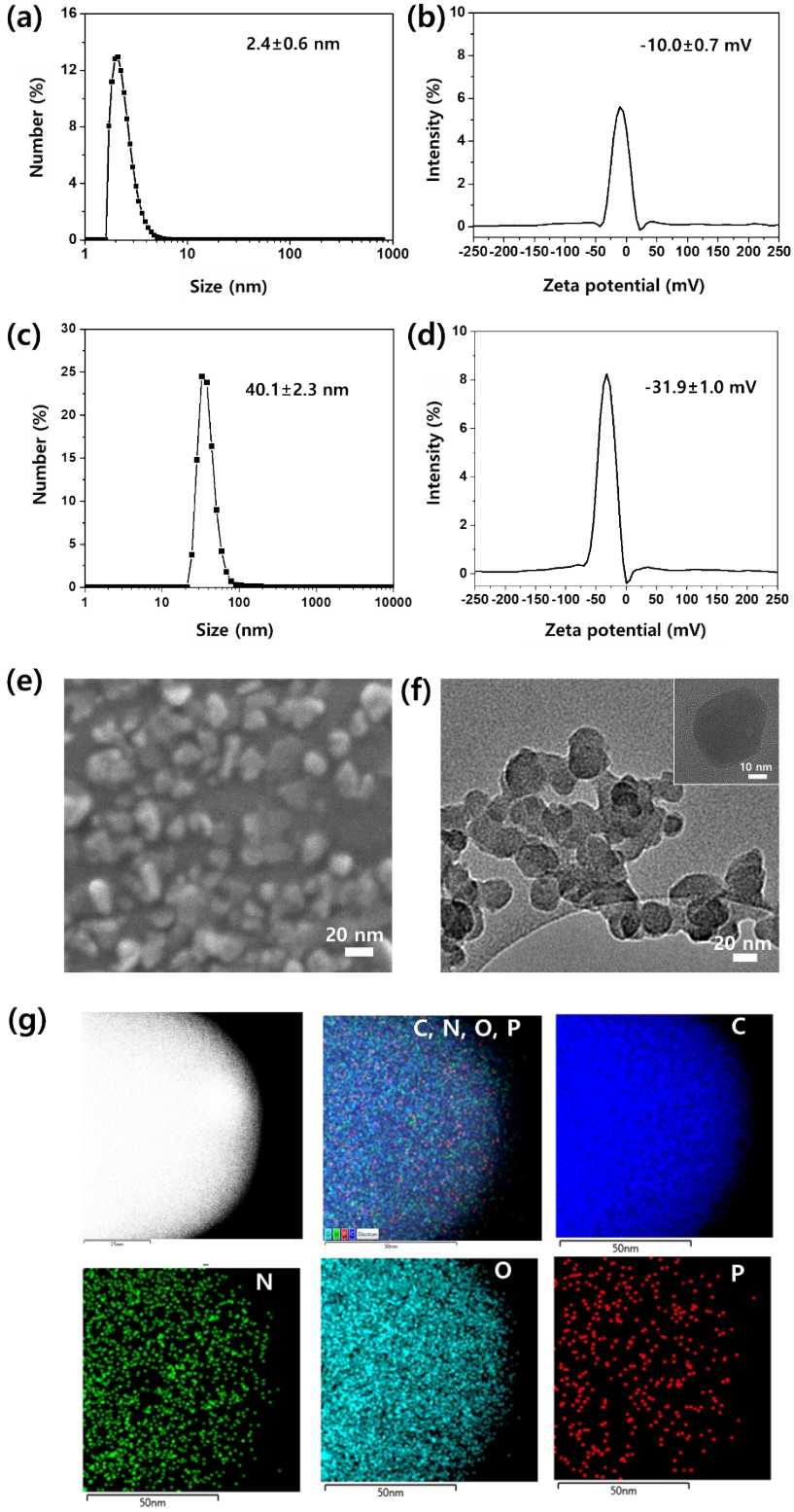

Fig. S5. (**a**) Particle size distribution and (**b**) zeta potential of CP, (**c**) Particle size distribution, (**d**) zeta potential, and (**e**) gentle beam super-high-resolution (GBSH) mode scanning electron microscopy (SEM) images of PTX. (**f**) Cs-HRTEM image of PTX and spherical primary particle (inset). (**g**) High-angle annular dark-field scanning transmission electron microscopy (HAADF-STEM) image of PTX taken for mapping analysis, and characteristic mapping results of the mixture of elements C, N, O, and P, respectively.

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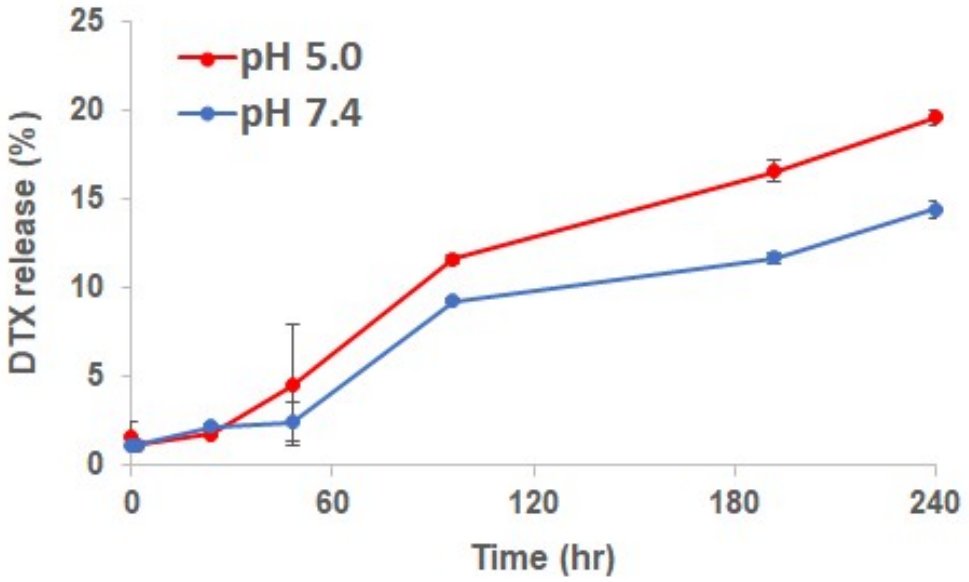

Fig. S6. *In vitro* stability study of PTX.

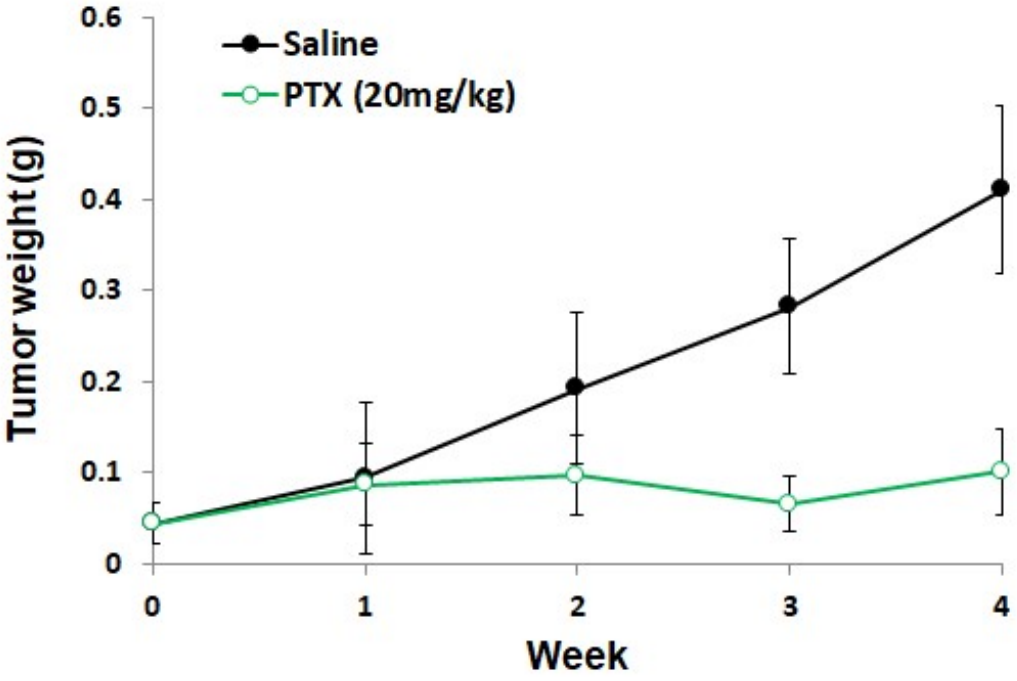

Fig. S7. The anti-tumor activity of PTX against pancreatic cancer model (PANC-1 orthotopic mouse model). (n=11)

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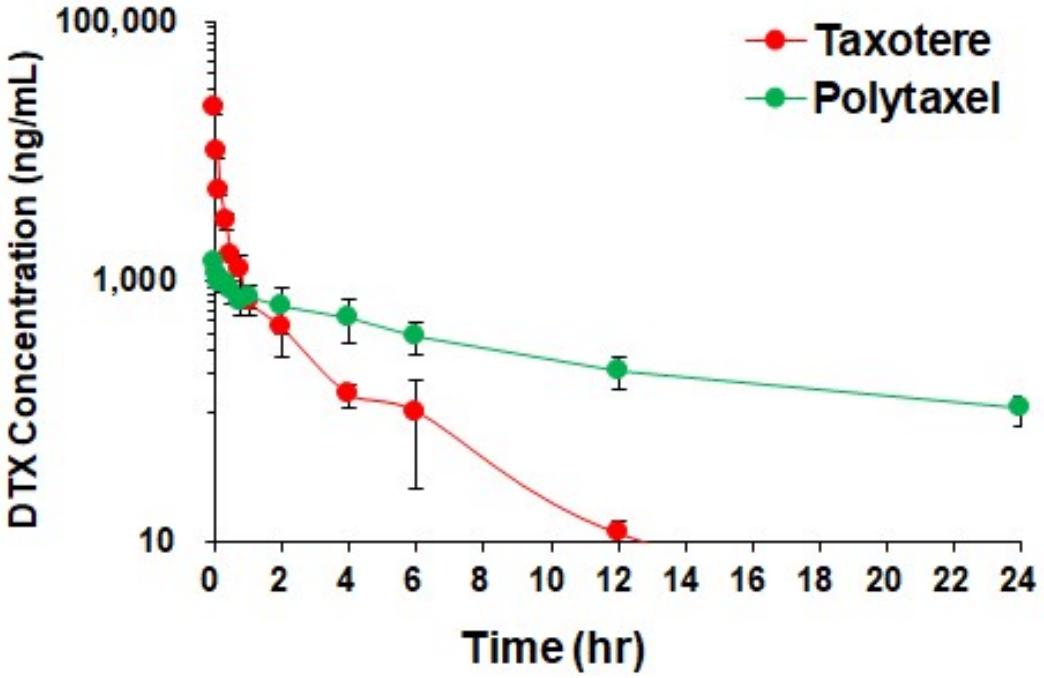

Fig. S8. Pharmacokinetic profile of PTX and Taxotere®.

Table S1. Derived PK parameters from the PK profiles of PTX and Taxotere®.

Drug dose (mg/kg)	AUC_{all} (ng·hr/mL)	C_{max} (ng/mL)	V_d (mL)	CL_t (mL/hr)	$t_{1/2}$ (hr)
Taxotere® (15 mg/kg)	4919.4	21465.3	14283.0	3043.1	3.25
PTX (15 mg/kg)	7099.3	1413.9	20978.4	1801.4	8.07