

Supporting Information

Hypotoxic and Rapidly Metabolic PEG-PCL-C3-ICG Nanoparticles for Fluorescence-Guided Photothermal/Photodynamic Therapy against OSCC

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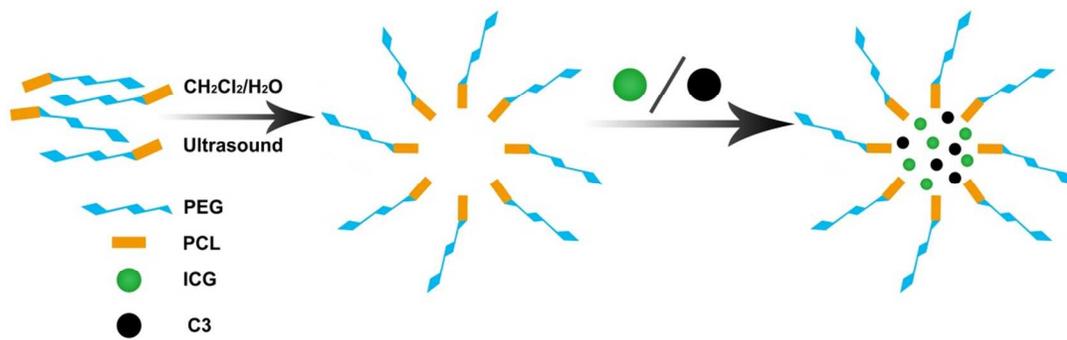
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Scheme S1. Synthesis of PEG-PCL-C3-ICG.

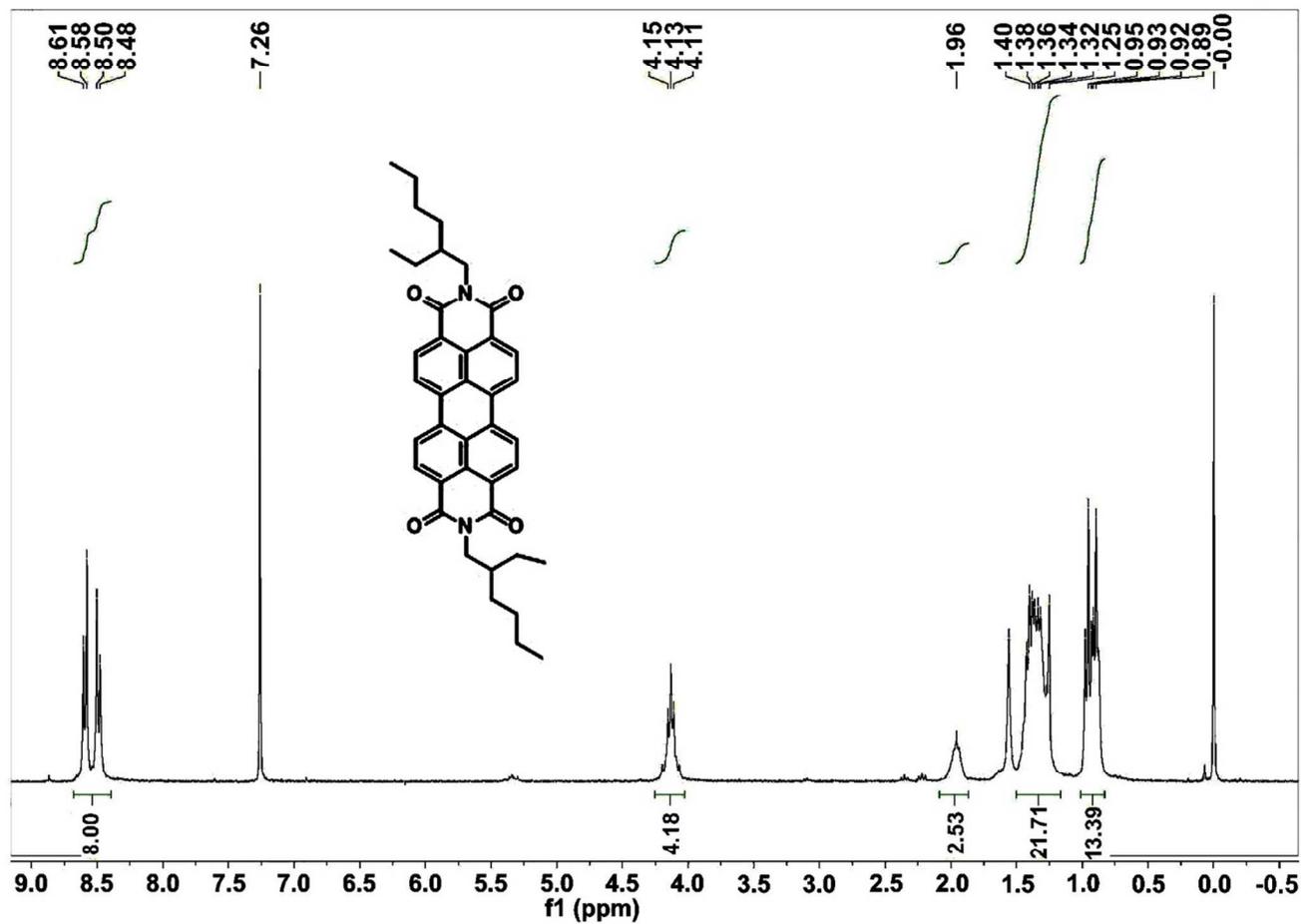


Figure S1. ¹H NMR spectra of compound 1. CDCl₃ was used as the solvent and tetramethylsilane was used as the internal standard.

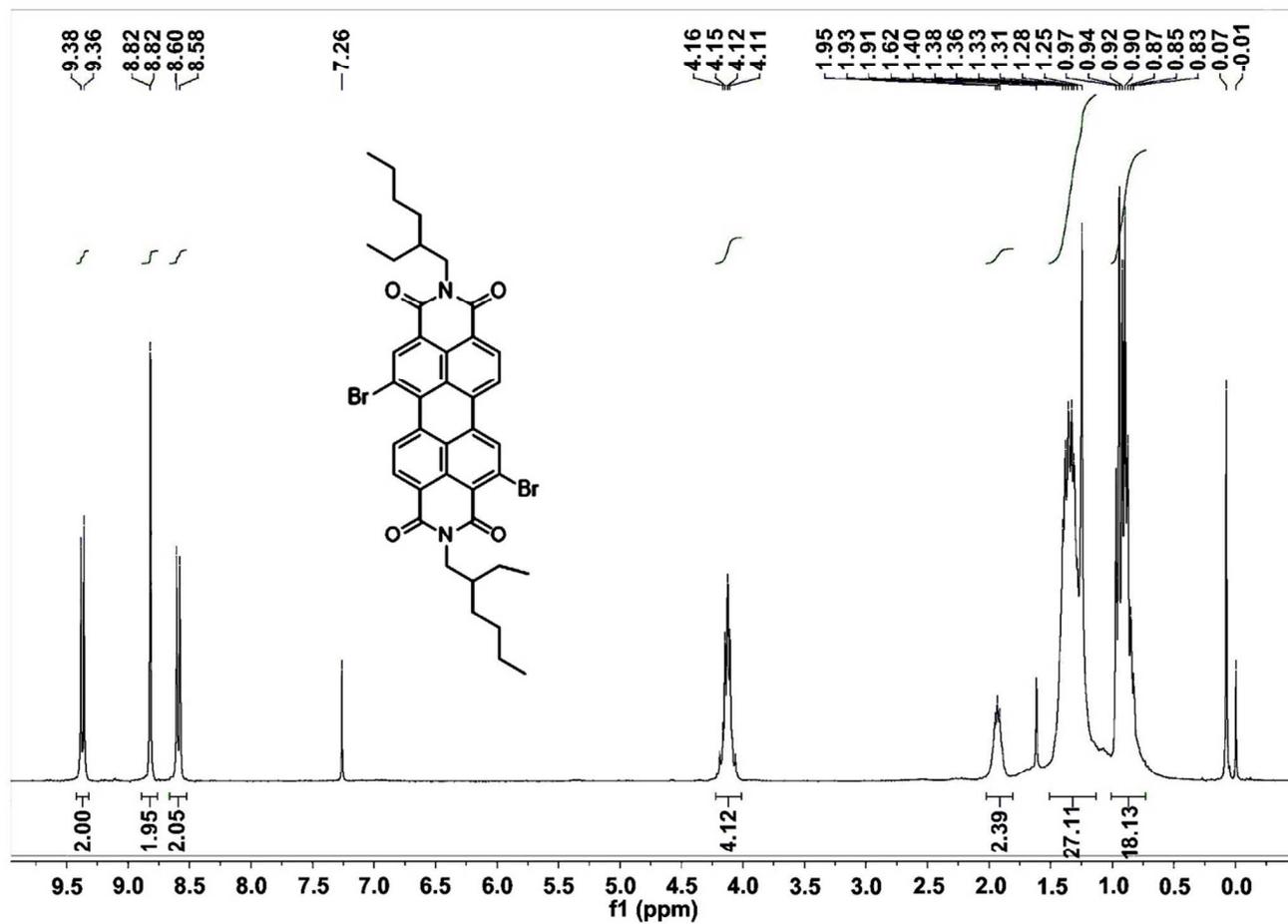


Figure S2. $^1\text{H NMR}$ spectra of compound 2. CDCl_3 was used as the solvent and tetramethylsilane was used as the internal standard.

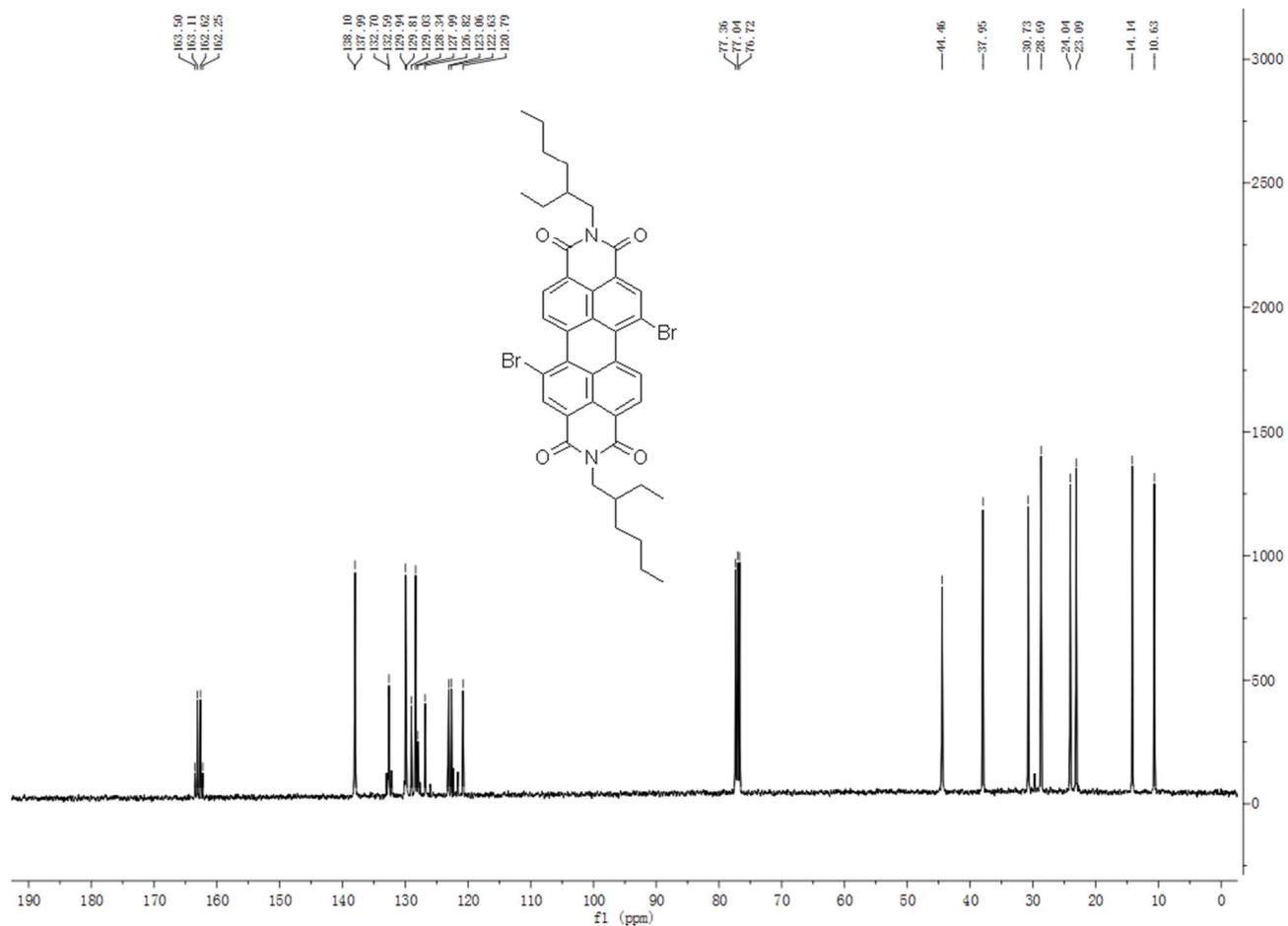


Figure S3. ^{13}C NMR spectra of compound 2. CDCl_3 was used as the solvent and tetramethylsilane was used as the internal standard.

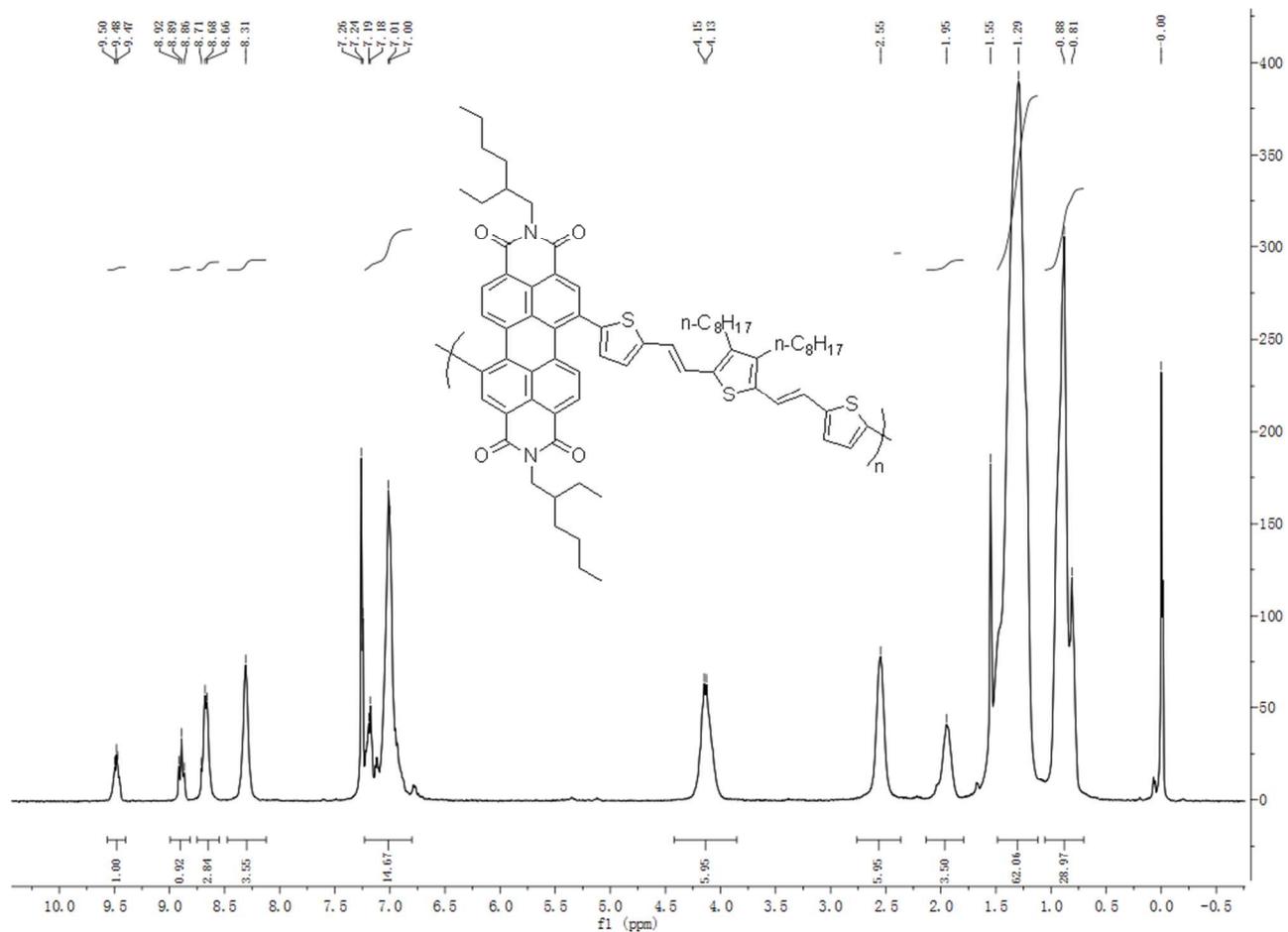


Figure S4. ¹H NMR spectra of compound 3 (C3). CDCl₃ was used as the solvent and tetramethylsilane was used as the internal standard.

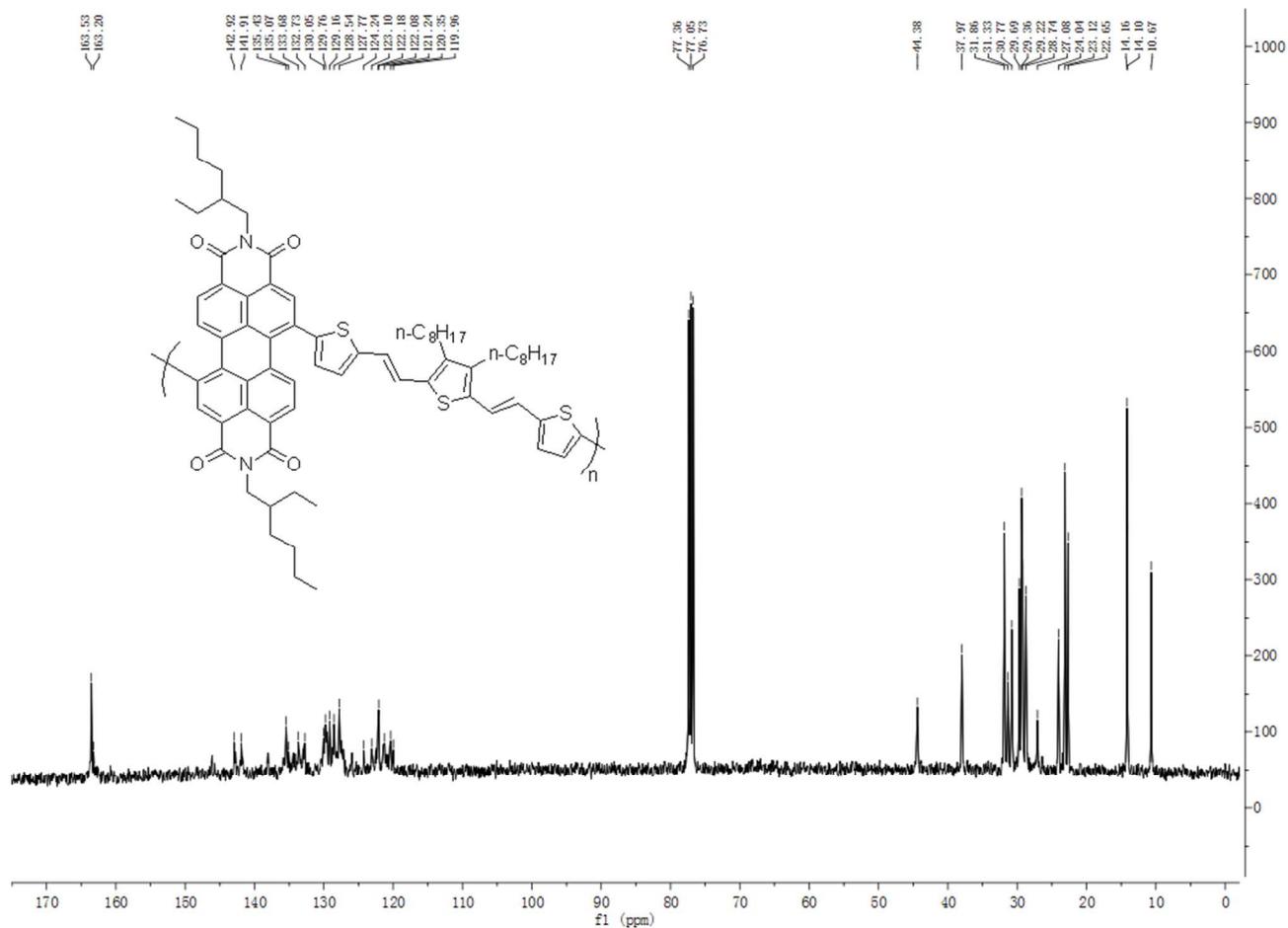


Figure S5. ¹³CNMR spectra of compound 3. CDCl₃ was used as the solvent and tetramethylsilane was used as the internal standard.

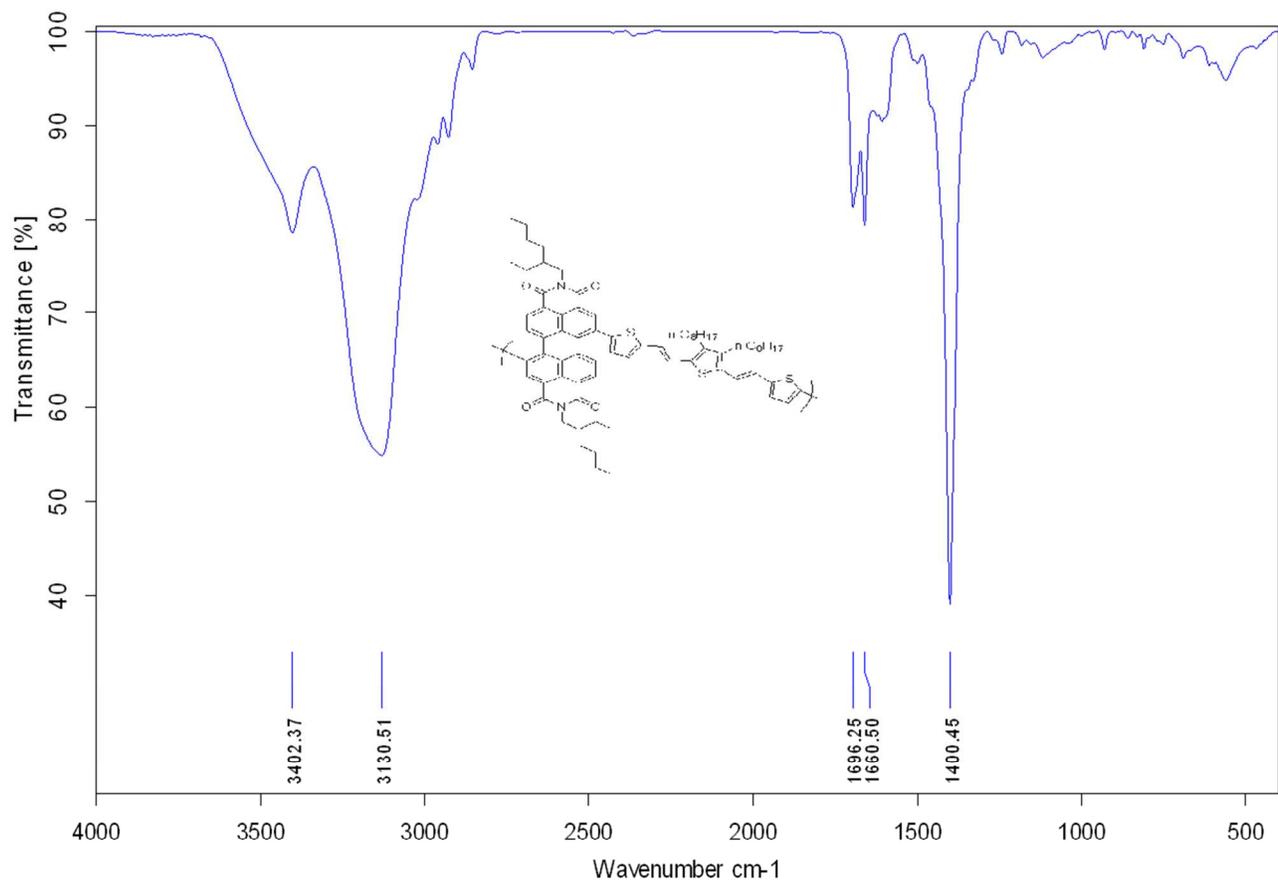


Figure S6. IR (KBr) spectra of compound 3 (C3).

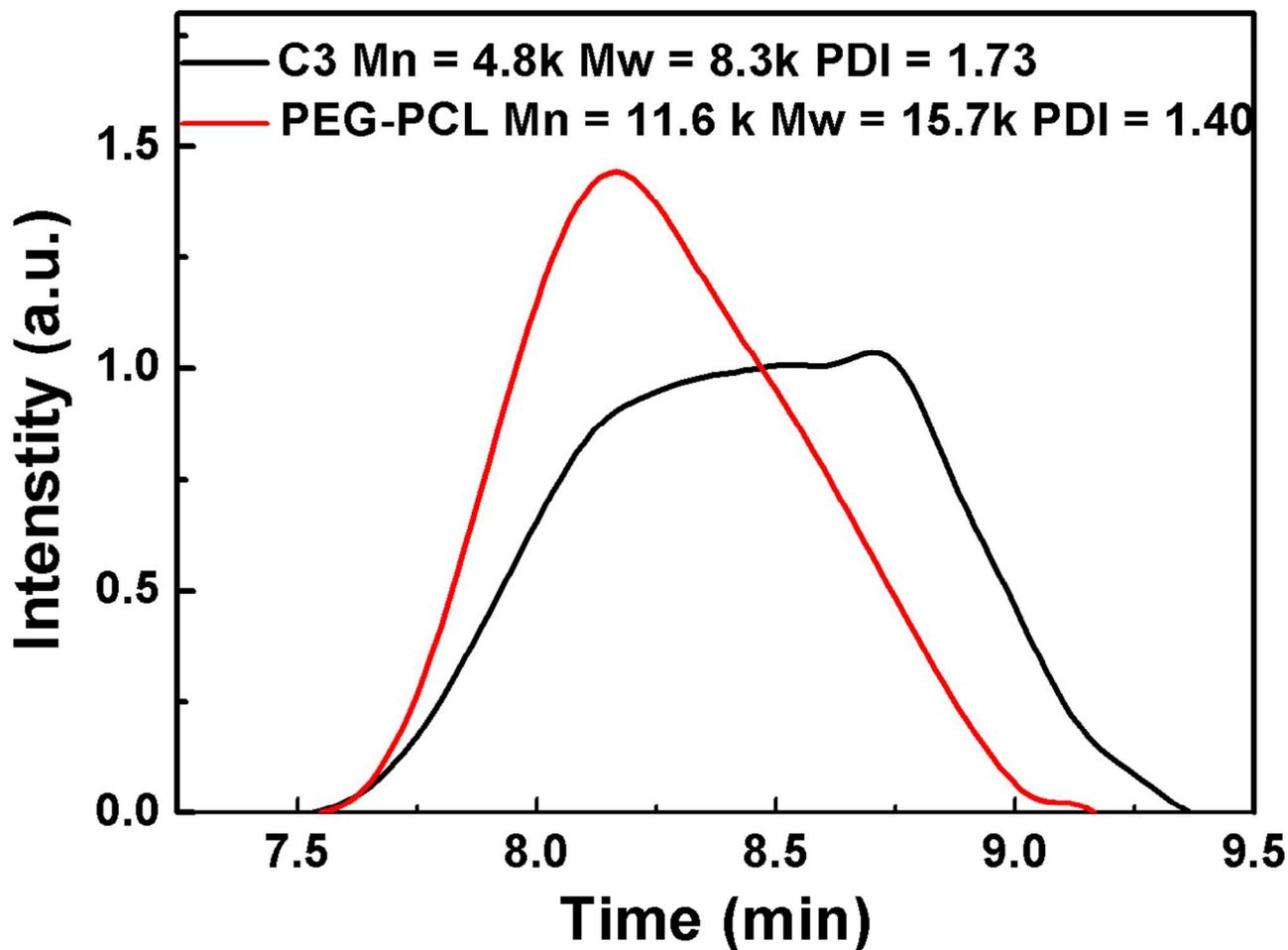


Figure S7. Gel permeation chromatography (GPC) was used to measure the molecular weight and polydispersity of C3 and PEG-PCL. The number-average molecular weights (Mn), weight-average molecular weights (Mw) and polydispersity index (PDI, Mw/Mn) were determined using polystyrene as the reference. Measurements were carried out using a Waters 515 HPLC pump, a Waters 2414 differential refractometer and three Waters Styragel columns (HT2, HT3 and HT4) with THF as the eluent at a flow rate of 1.0 ml min^{-1} at a temperature of $35 \text{ }^\circ\text{C}$.

Table S1. Drug loading content, encapsulation efficiency, diameter and zeta potential for PEG-PCL-ICG NPs, PEG-PCL-C3 NPs and PEG-PCL-C3-ICG NPs.

	Drug loading content %	Encapsulation efficiency %	Diameter (nm)	Zeta potential (mV)
PEG-PCL-C3	5.46	65.50%	72	-16.75
PEG-PCL-ICG	5.87	70.42%	86	-15.98
PEG-PCL-C3-ICG	5.74	68.86%	83	-16.43

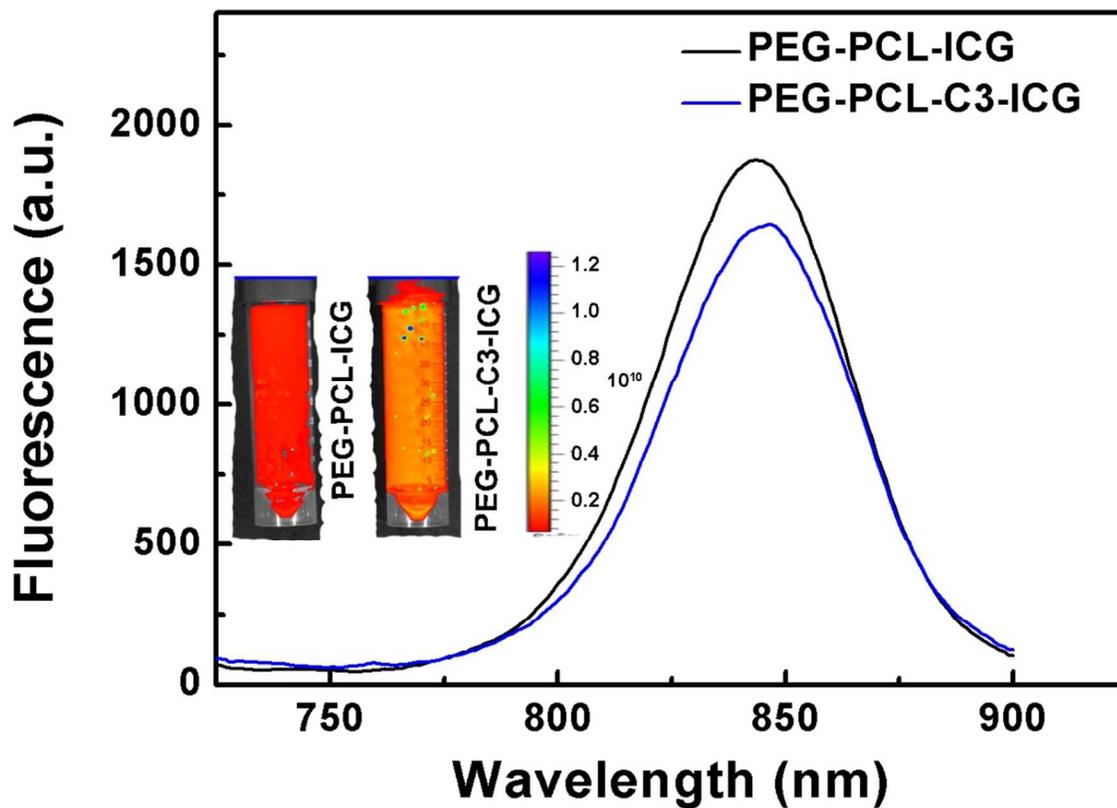


Figure S8. Fluorescence spectrum of PEG-PCL-ICG and PEG-PCL-C3-ICG NPs. Inset shows fluorescence photographs of PEG-PCL-ICG and PEG-PCL-C3-ICG NPs solutions.

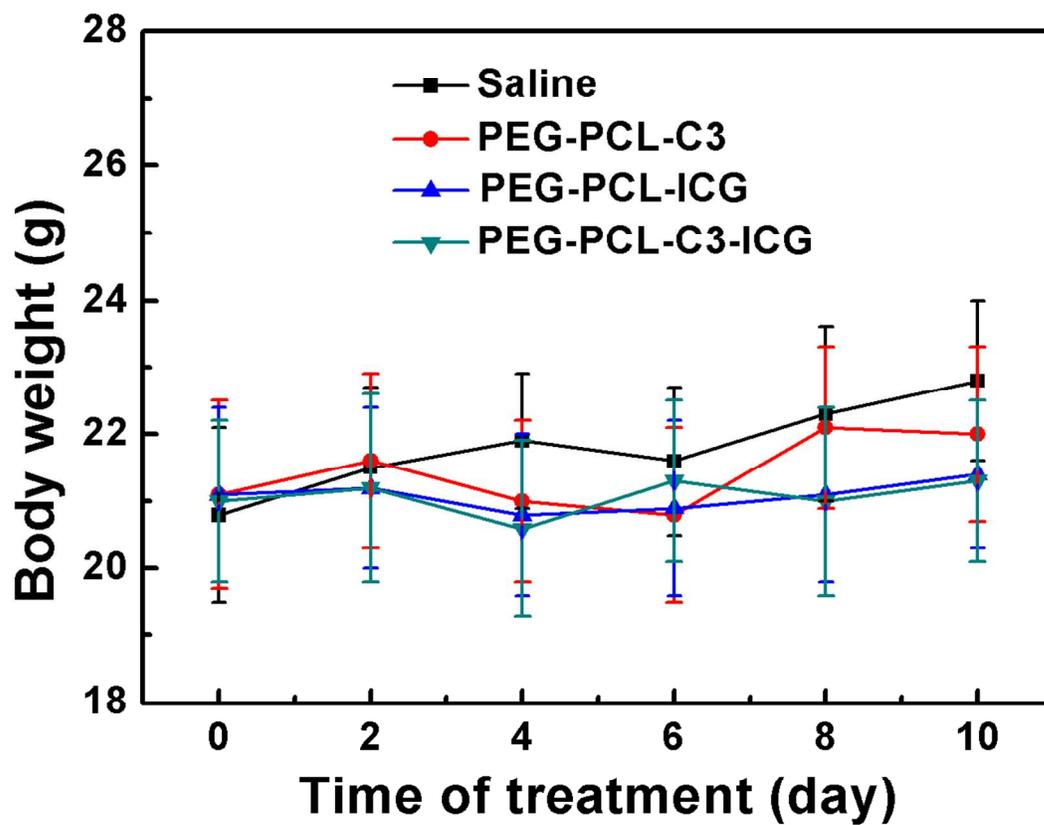


Figure S9. Change in the body weight of the mice during treatment.

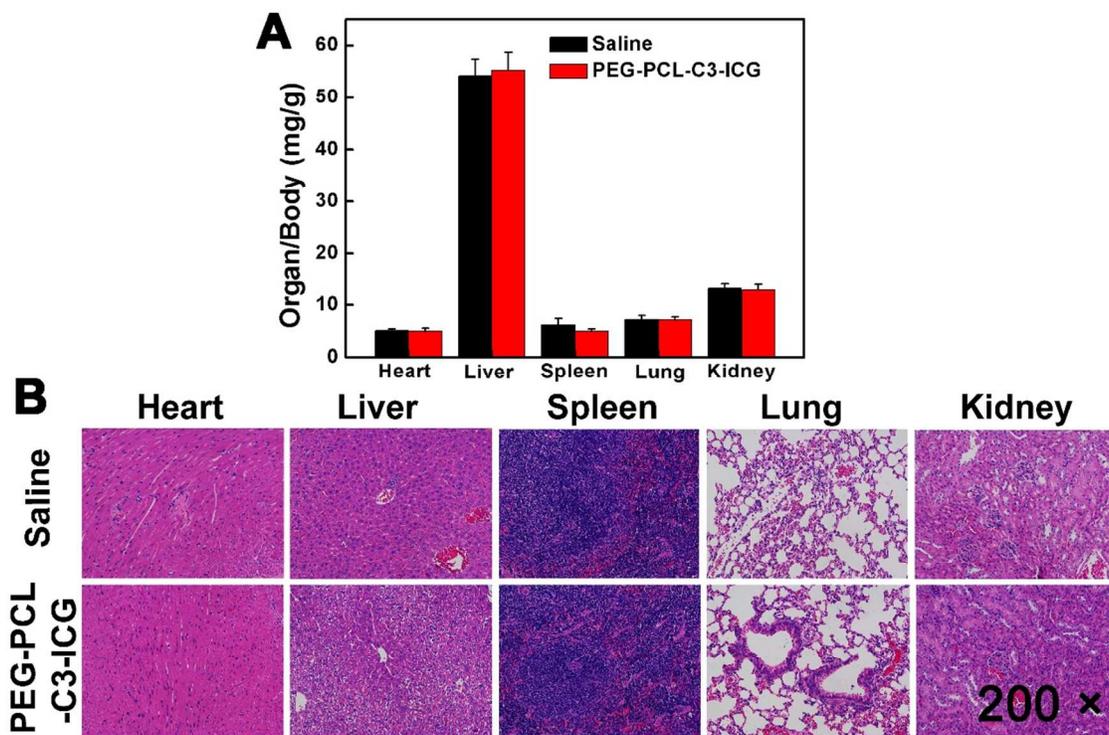


Figure S10. (A) Weight ratio of the main normal organs to the body of the mice after treatment with saline and PEG-PCL-C3-ICG. (B) Histological images of the HE-stained heart, liver, spleen, lung and kidney harvested from the mice after treatment with saline and PEG-PCL-C3-ICG.