

**Supplementary Information For**

**Immune Stimulating Photoactive Hybrid Nanoparticles for**

**Metastatic Breast Cancer<sup>†</sup>**

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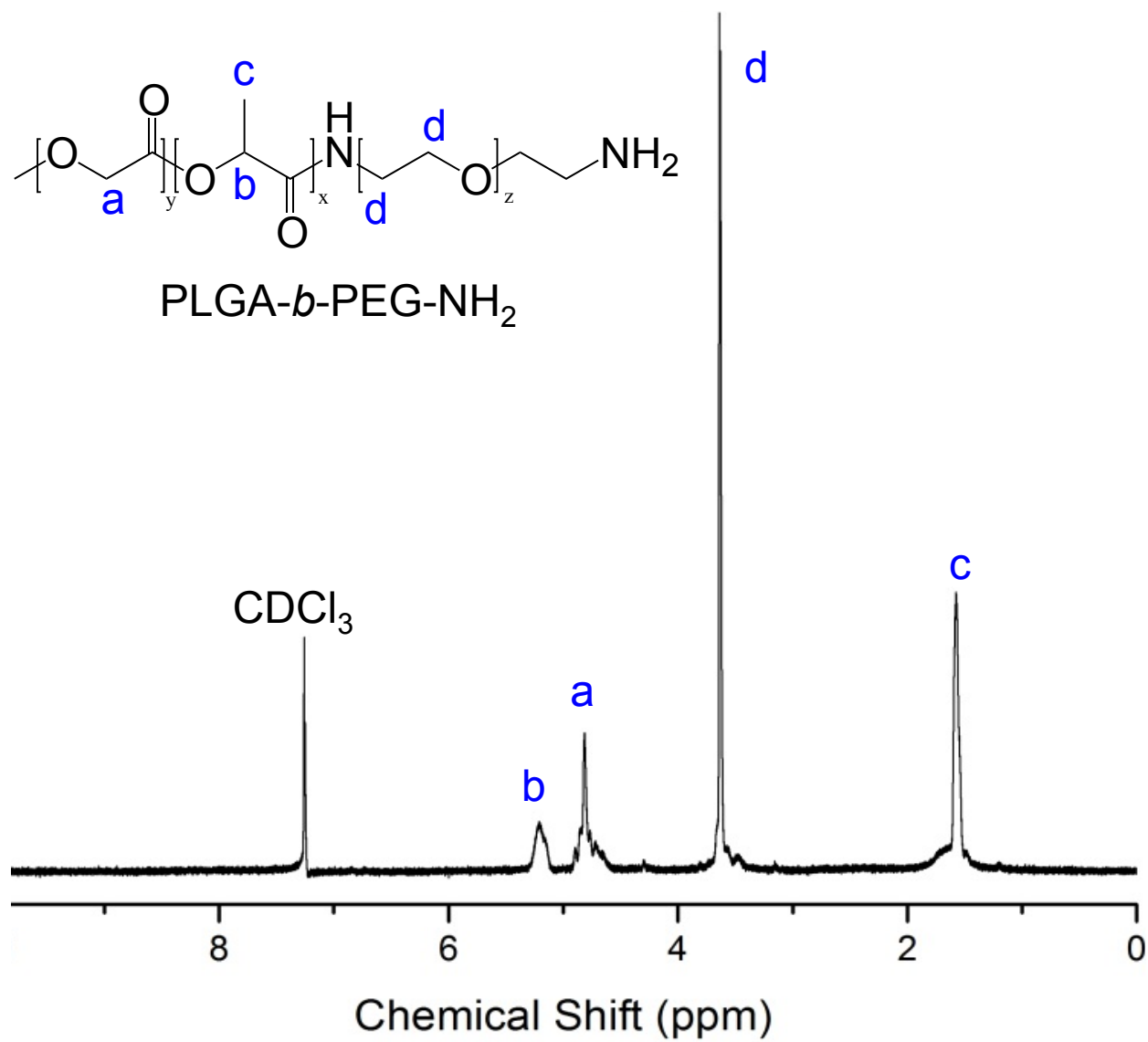
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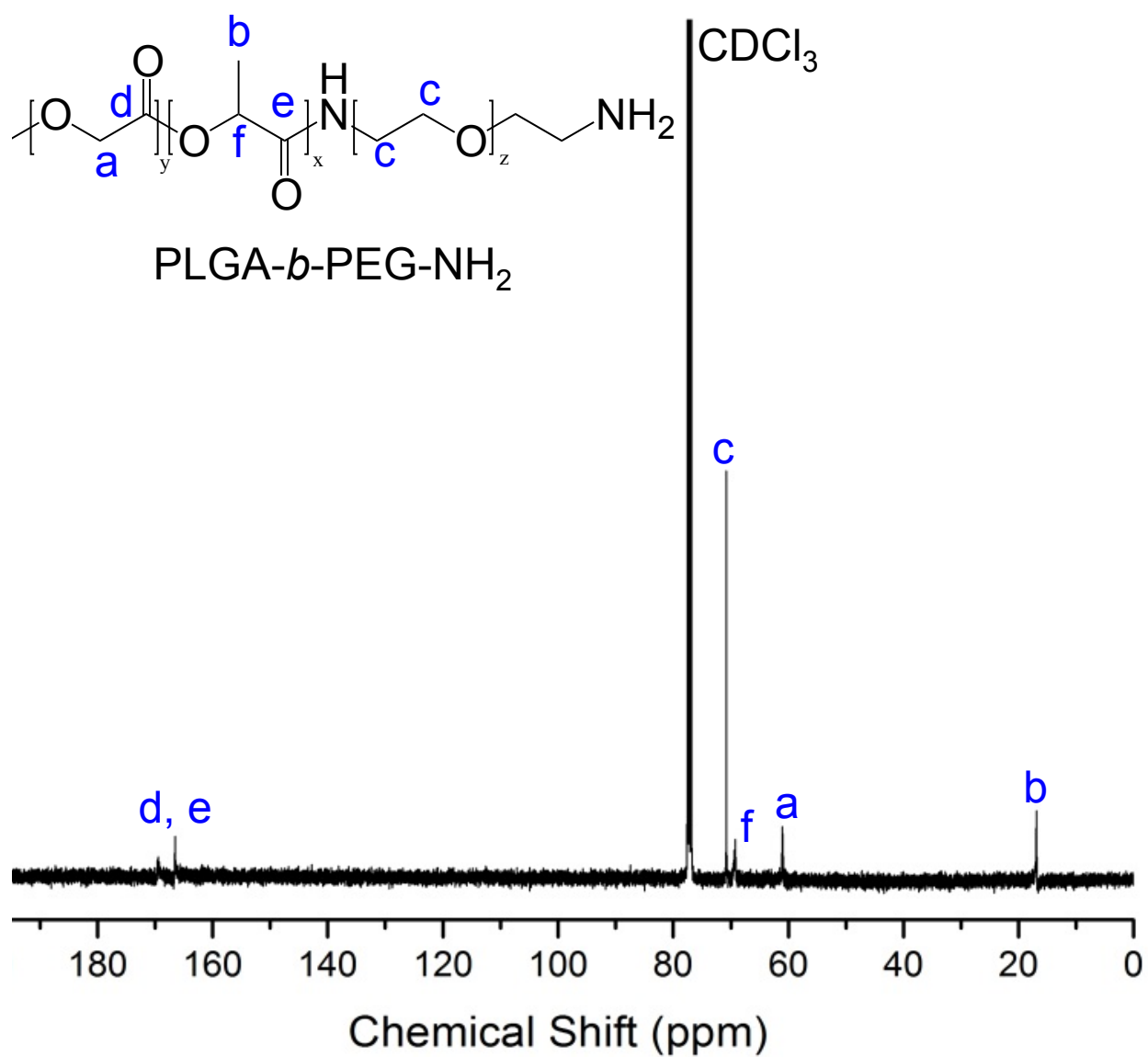
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**Fig. S1.** <sup>1</sup>H NMR of PLGA-*b*-PEG-NH<sub>2</sub> in CDCl<sub>3</sub>.

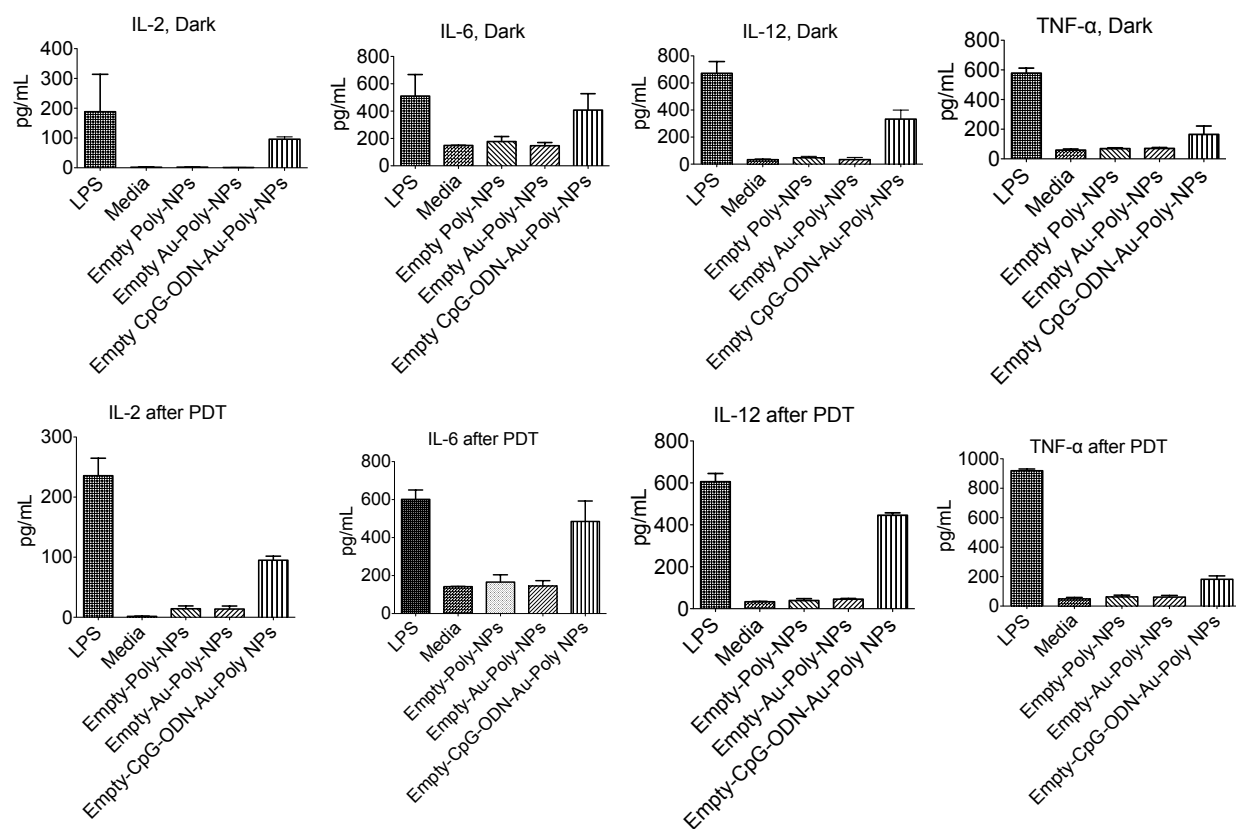


**Fig. S2.** <sup>13</sup>C NMR of PLGA-*b*-PEG-NH<sub>2</sub> in CDCl<sub>3</sub>.

**Table. S1.** Comparison of molecular weights of PLGA-COOH and PLGA-*b*-PEG-NH<sub>2</sub> as determined from gel permeation chromatographic (GPC) analyses using THF as the mobile phase and a conventional calibration curve constructed from narrow polystyrene standards at 40 °C.

<b>Molecular Weight</b>	<b>PLGA-<i>b</i>-PEG-NH<sub>2</sub></b>	<b>PLGA-COOH</b>
M <sub>w</sub>	8,540 g/mol	6,750 g/mol
M <sub>n</sub>	7,070 g/mol	4,300 g/mol
PDI	1.21	1.57

<b>Table S2.</b> Stability of CpG-ODN-Au-ZnPc-Poly-NPs by dynamic light scattering measurements in nanopure water.			
	<b>Hydrodynamic diameter (nm)</b>	<b>PDI</b>	<b>Zeta Potential (mV)</b>
Day 1	186.0 ± 4.5	0.53 ± 0.07	-10.6 ± 0.4
Day 30	90.0 ± 0.4	0.42 ± 0.01	-20.5 ± 0.3



**Fig. S3.** In vitro antitumor immunity after PDT with various control NPs without encapsulated ZnPc by using ELISA.