

Supplementary Information For

Immune Stimulating Photoactive Hybrid Nanoparticles for

Metastatic Breast Cancer[†]

Sean Marrache,^{a1} Joshua H. Choi,^{a1} Smanla Tundup,^c Dhillon Zaver,^a Donald A. Harn,^c Shanta Dhar^{*ab}

^a*Department of Chemistry, University of Georgia, Athens, GA 30602, USA*

^b*Department of Physiology and Pharmacology, College of Veterinary Medicine, University of Georgia, Athens, GA 30602, USA*

^c*Department of Infectious Diseases, College of Veterinary Medicine, University of Georgia, Athens, GA 30602, USA*

Email: shanta@uga.edu; Fax: +1 706 542-9454; Tel: +1 706 542-1012

¹ *S.M. and J. H. C contributed equally to this work.*

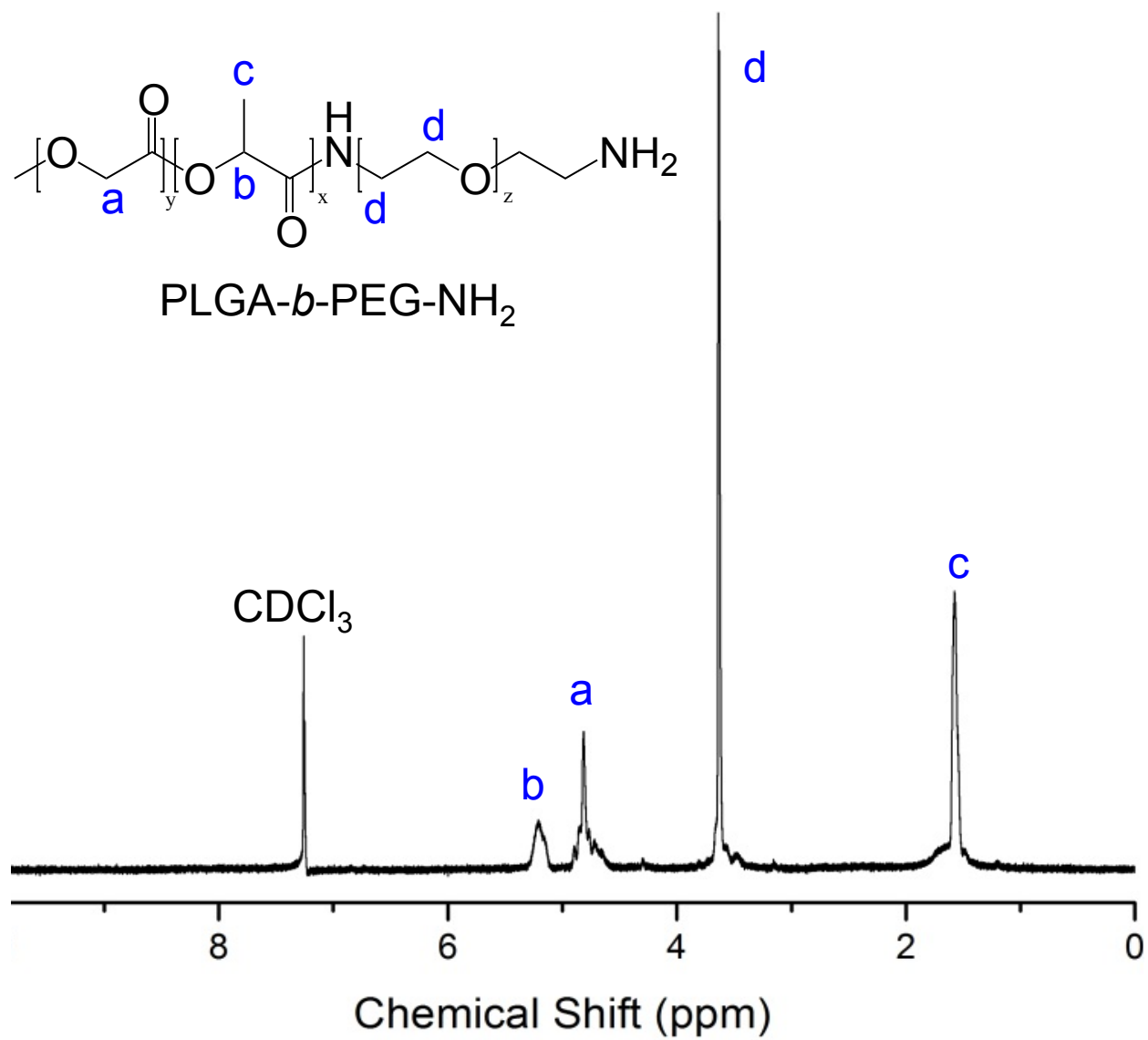


Fig. S1. ¹H NMR of PLGA-*b*-PEG-NH₂ in CDCl₃.

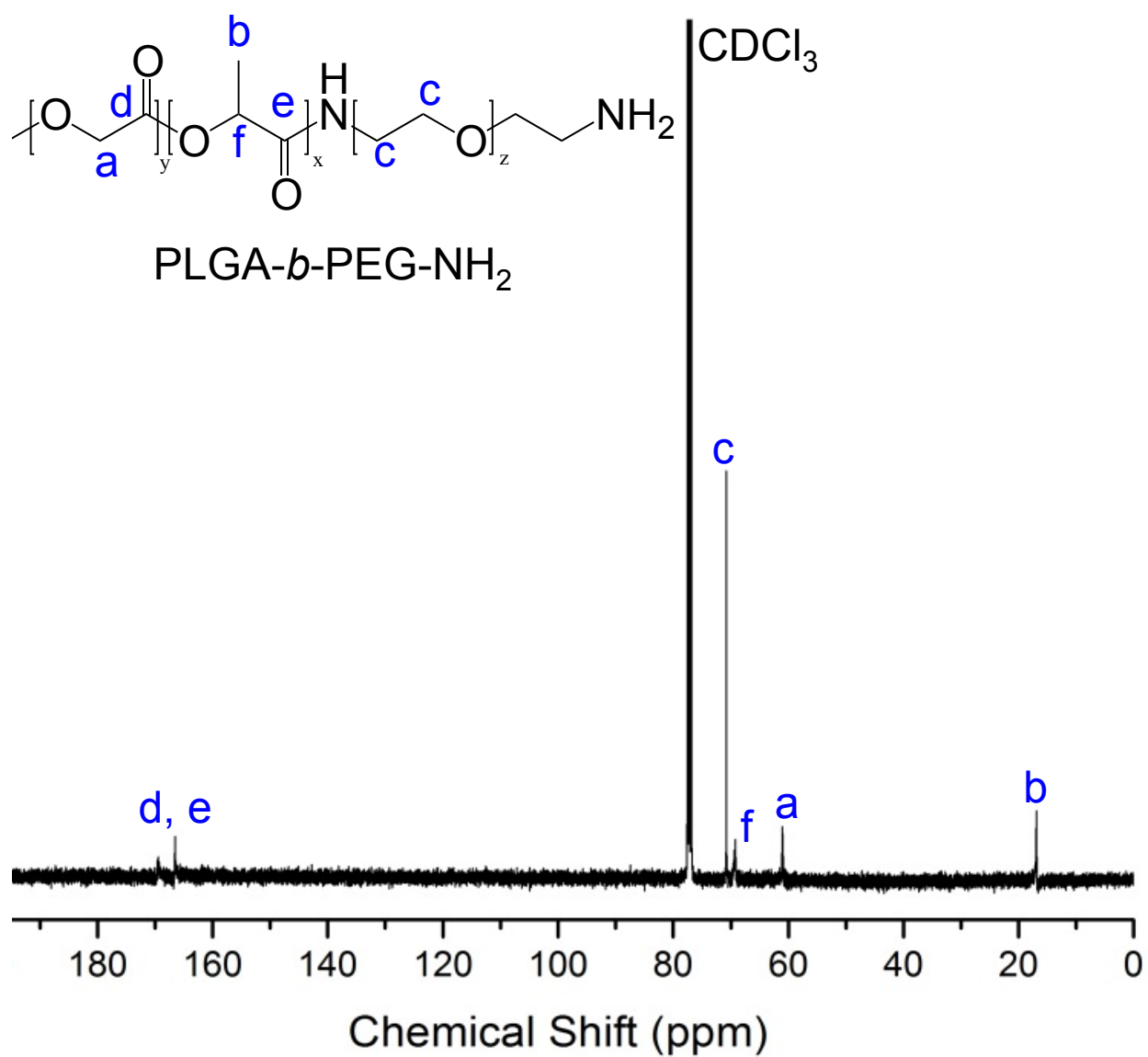


Fig. S2. ¹³C NMR of PLGA-*b*-PEG-NH₂ in CDCl₃.

Table. S1. Comparison of molecular weights of PLGA-COOH and PLGA-*b*-PEG-NH₂ 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.

Molecular Weight	PLGA-<i>b</i>-PEG-NH₂	PLGA-COOH
M _w	8,540 g/mol	6,750 g/mol
M _n	7,070 g/mol	4,300 g/mol
PDI	1.21	1.57

Table S2. Stability of CpG-ODN-Au-ZnPc-Poly-NPs by dynamic light scattering measurements in nanopure water.			
	Hydrodynamic diameter (nm)	PDI	Zeta Potential (mV)
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

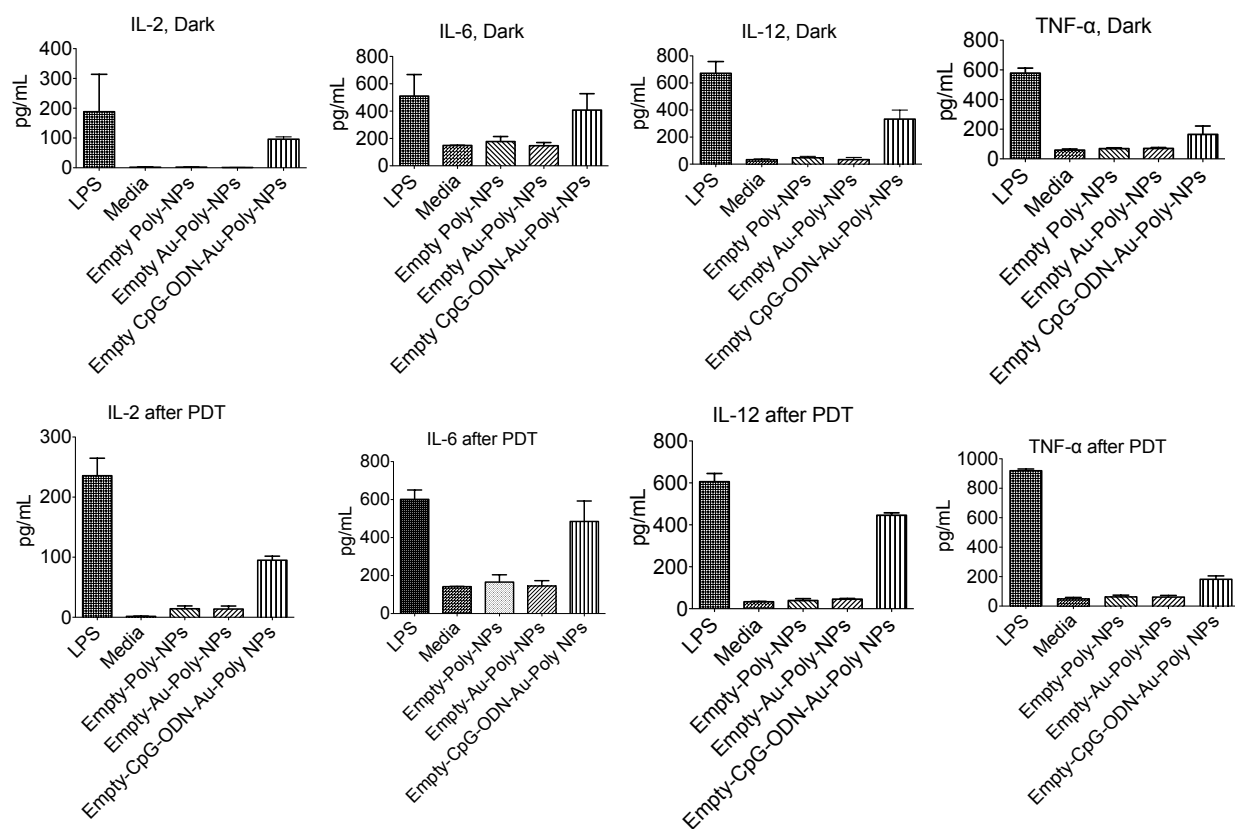


Fig. S3. In vitro antitumor immunity after PDT with various control NPs without encapsulated ZnPc by using ELISA.