

Supporting materials for:

**Sharp pH-responsive Mannose Prodrug Polypeptide Nanoparticles
Encapsulating Photosensitizer for Enhanced Near Infrared Imaging-
guided Photodynamic Therapy**

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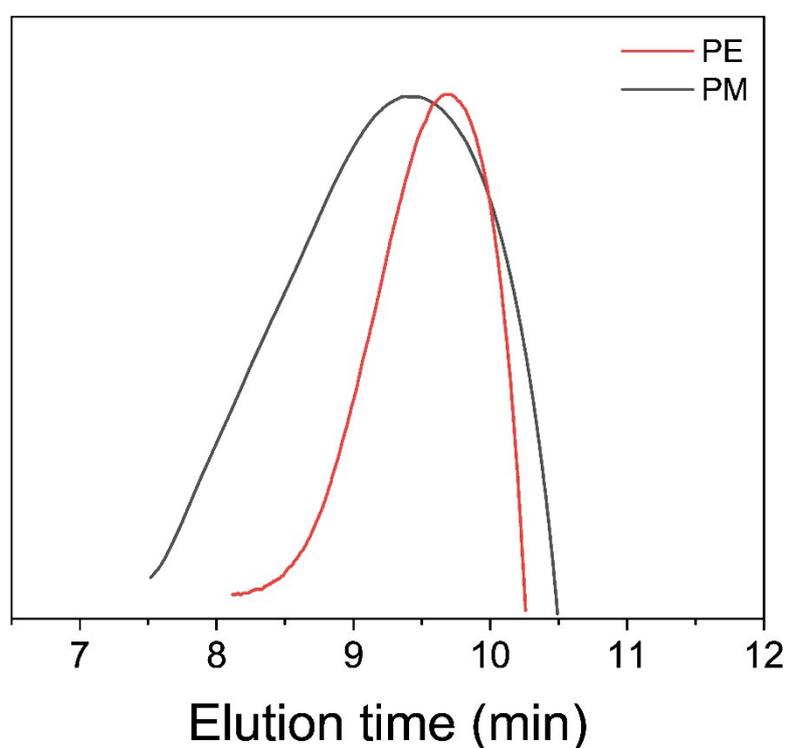


Figure S1. GPC signal of PE and PM copolymers.

Table S1 Molecular weight and polydispersity indexes (PDI) of PE and PM polymers.

Samples	M_n (NMR) ^a	M_w (GPC) ^b	PDI (M_w/M_n)
PE	16581	19400	1.17
PM	16761	23298	1.39

^a Molecular weight measured by ¹H NMR integration.

^b Molecular weight measured by GPC

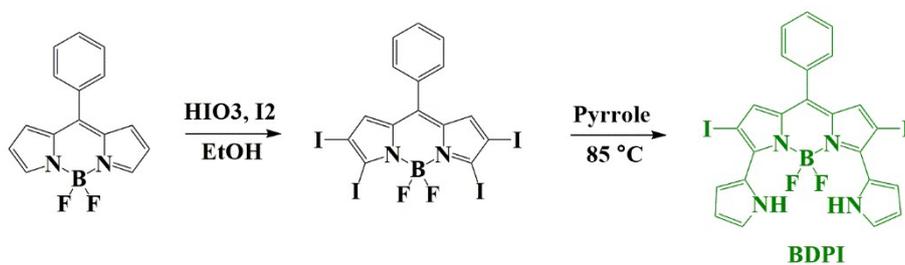


Figure S2. Synthesis route of the iodinated BODIPY (BDPI).

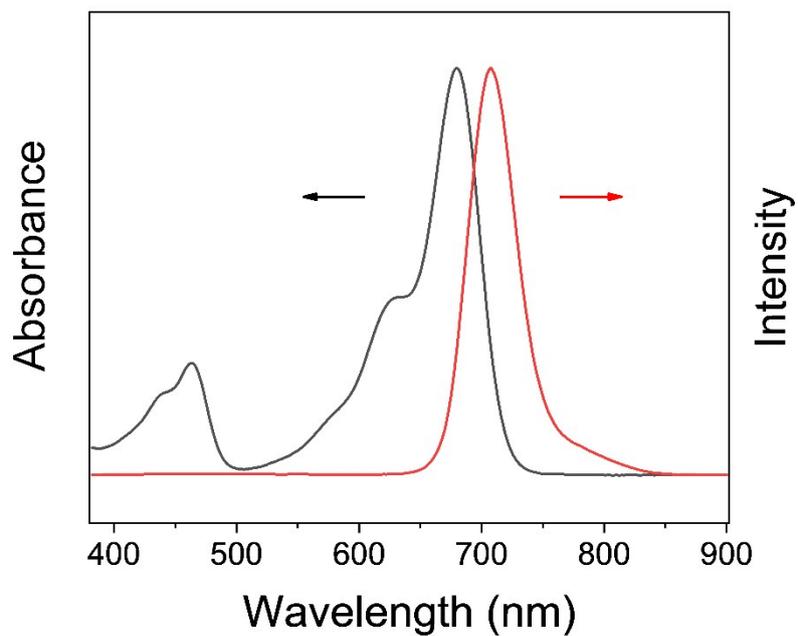


Figure S3. Absorbance and fluorescence emission curves of BDPI in DCM.

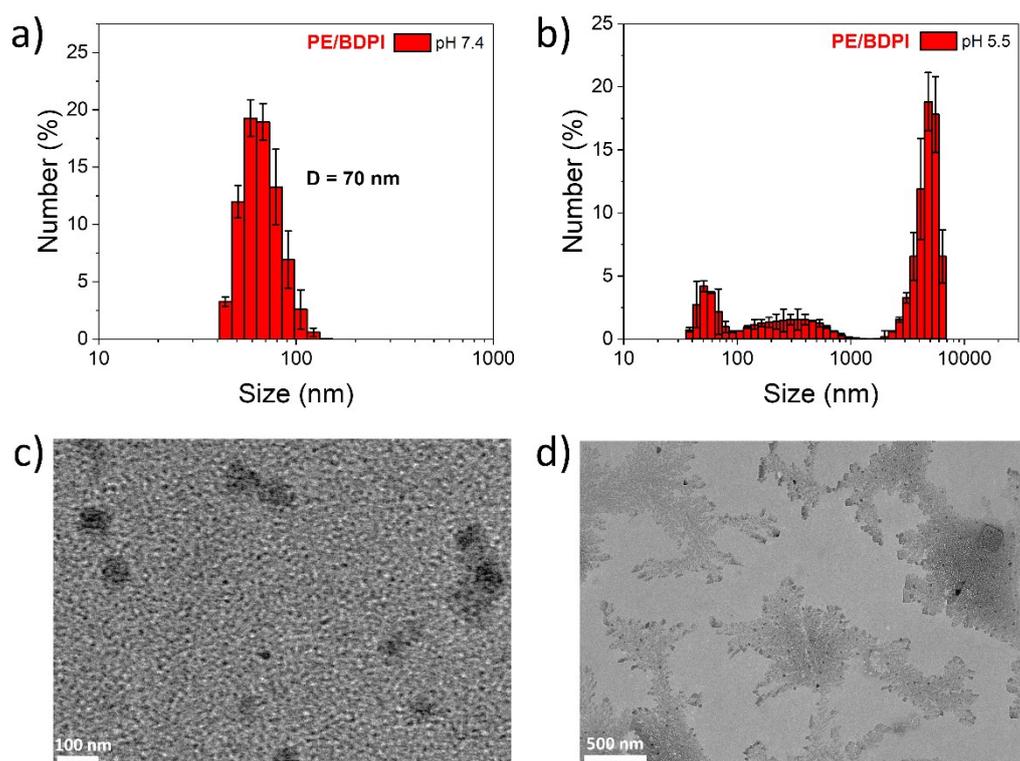


Figure S4. The size of PE/BDPI nanoparticles measured by DLS, (a) in pH = 7.4 and (b) pH = 5.5 conditions. The morphology of PE/BDPI nanoparticles measured by TEM, (c) in pH = 7.4 and (d) pH = 5.5 conditions.

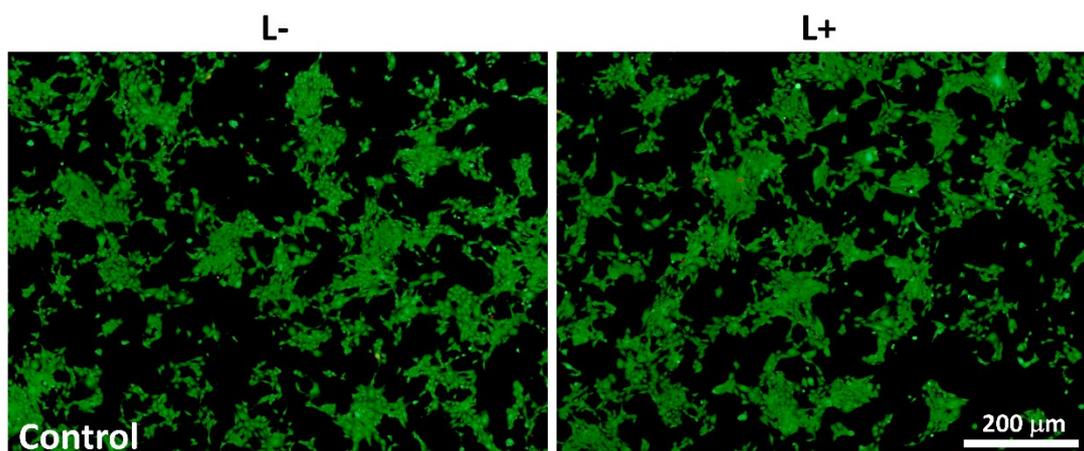


Figure S5. Fluorescence images of 4T1 cells treated without nanoparticles as control with or without 635 nm laser irradiation (10.2 mW/cm²) for 5 min. Living cells: the green signal of FDA; dead cells: the red signal of PI.