

SUPPORTING INFORMATION FOR:

Nanoparticle-Mediated Co-Delivery of Notch-1 Antibodies and ABT-737 as a Potent Treatment Strategy for Triple-Negative Breast Cancer

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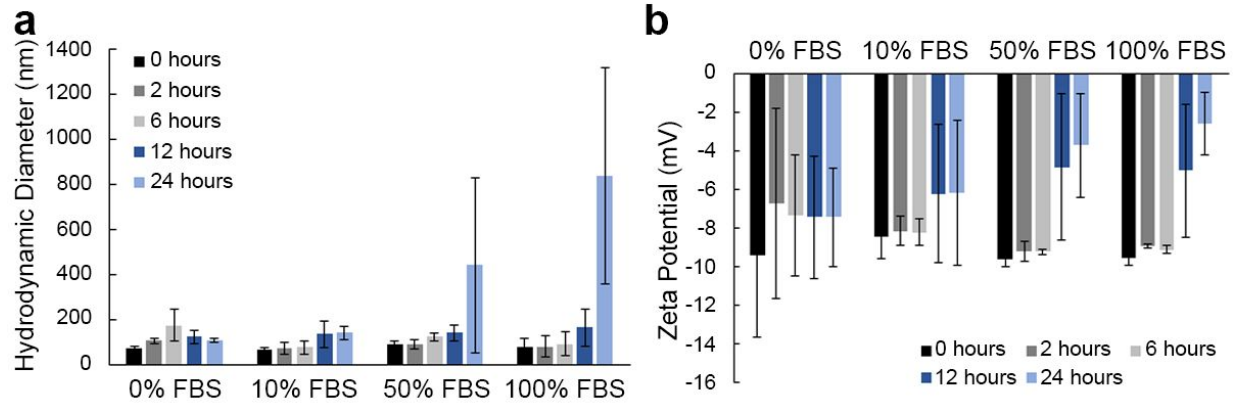


Figure S1: Serum stability of N1-ABT-NPs. (a) Hydrodynamic diameter and (b) zeta potential of N1-ABT-NPs in 0%, 10%, 50%, and 100% fetal bovine serum (FBS) over 24 hours.

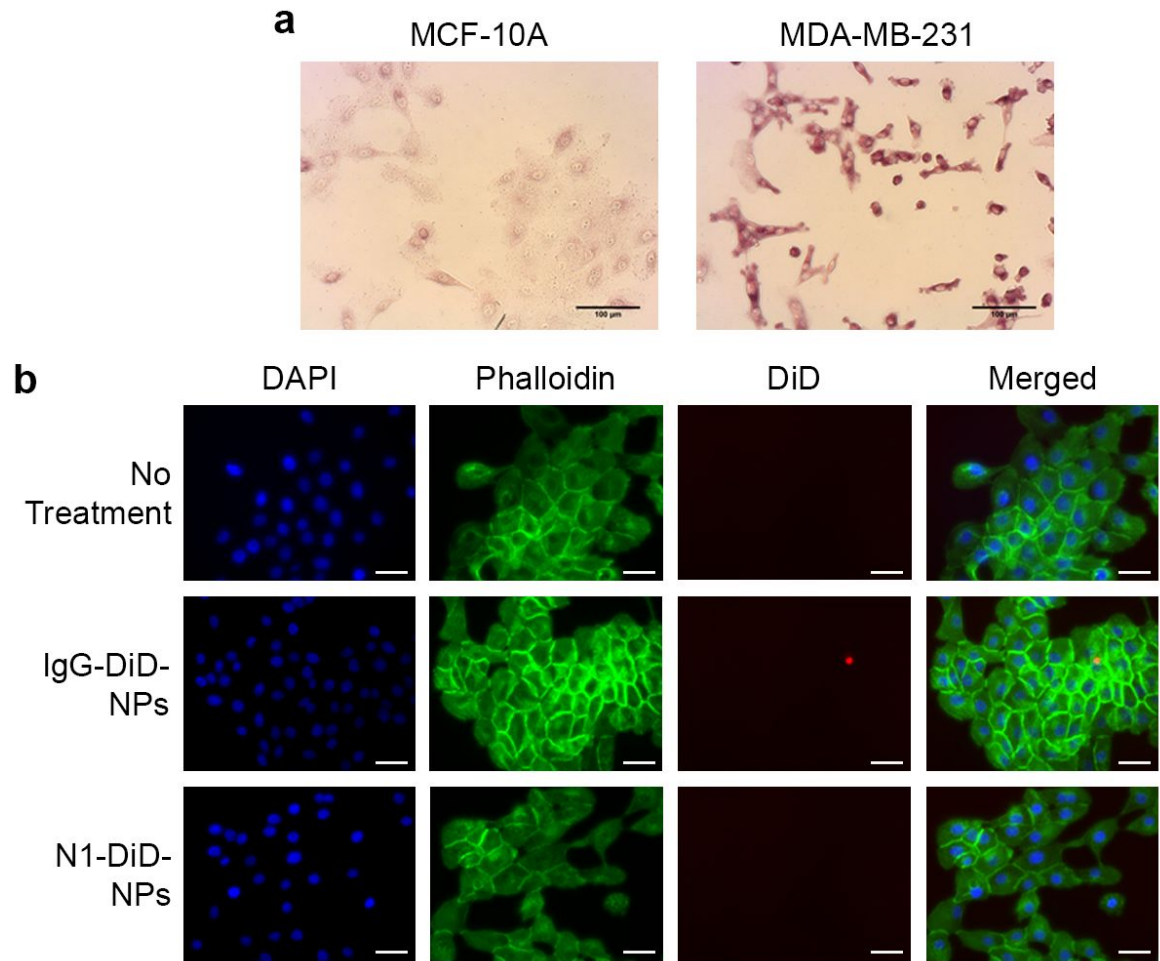


Figure S2: Notch-1 receptor expression in MDA-MB-231 TNBC cells versus non-cancerous MCF-10A cells and examination of NP binding to MCF-10A cells. (a) Immunocytochemistry staining for the Notch-1 receptor (dark red signal) in MCF-10A healthy mammary cells and MDA-MB-231 TNBC cells. Scale bars = 100 μm . (b) Fluorescence microscopy images showing DiD-loaded NP interaction with MCF-10A cells. Nuclei are blue (DAPI), actin is green (Phalloidin), and DiD cargo is red. Scale bars = 50 μm .

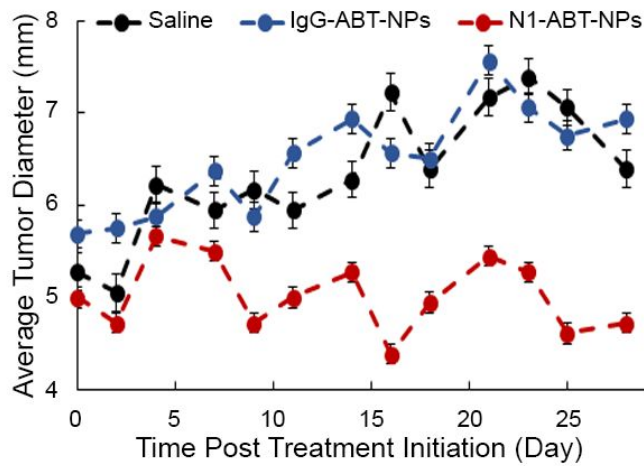


Figure S3: Average tumor diameter for mice bearing subcutaneous MDA-MB-231 TNBC tumors that were treated intravenously with saline, IgG-ABT-NPs, or N1-ABT-NPs at 10 mg ABT-737/kg twice per week for four weeks.

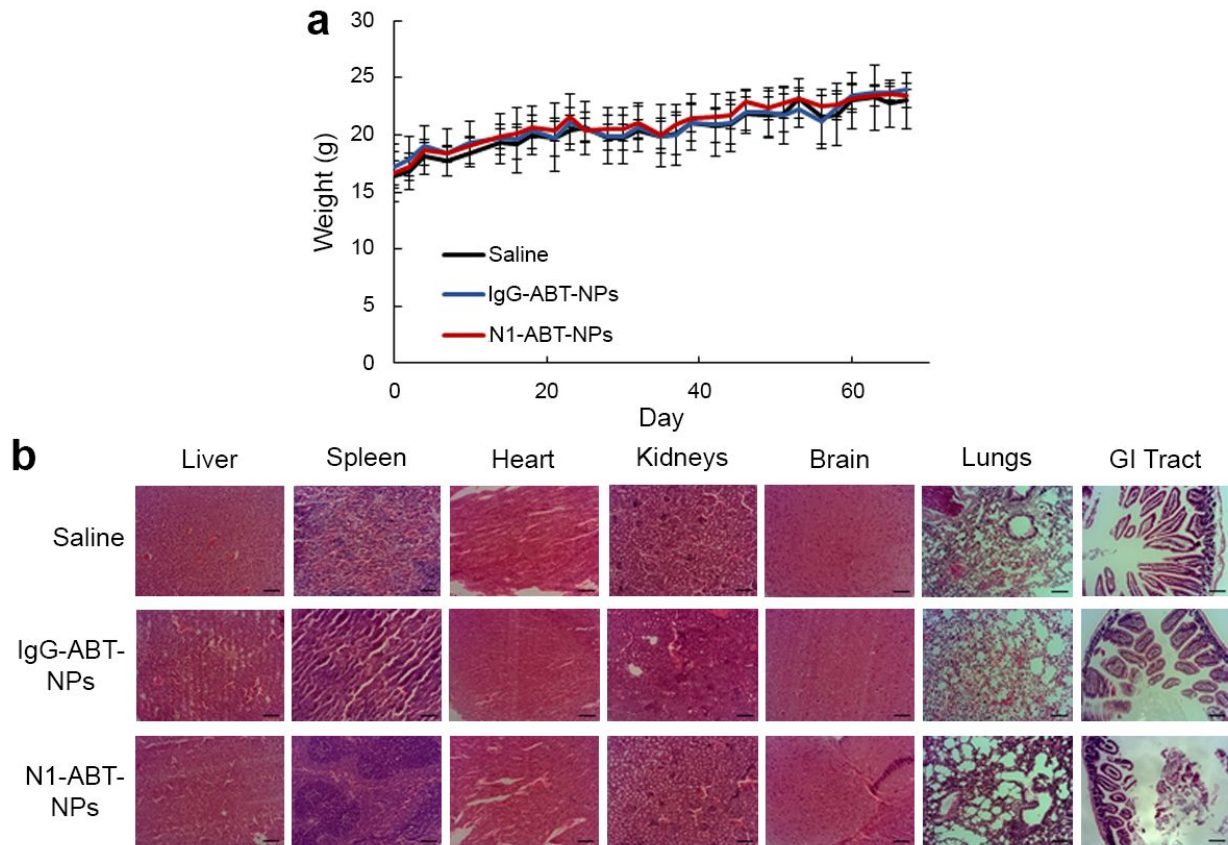


Figure S4: Mouse weight and major organ histopathology following treatment with N1-DiD-NPs. (a) Average weight of mice bearing subcutaneous MDA-MB-231 tumors that were treated with saline, IgG-ABT-NPs, or N1-ABT-NPs twice weekly for 8 total injections (n=8 mice/group). (b) H&E staining of representative major organs excised from tumor-bearing mice treated with saline, IgG-ABT-NPs, or N1-ABT-NP twice weekly for four weeks as described in part (a). Scale bars = 100 μ m.

Table S1: Primer sequences used for qRT-PCR

Gene	Forward Sequence	Reverse Sequence
RPLPO	AACCCAGCTCTGGAGAAACT	CCCCTGGAGATTTTAGTGGT
Bcl-2	GACTTCTCCCGCCGCTACC	CCCAGTTCACCCCGTCCCT
Noxa	GCTGGAAGTCGAGTGTGCTA	CCTGAGCAGAAGAGTTTGGA
Hes5	CCGGTGGTGGAGAAGATGCG	GCGACGAAGGCTTTGCTGTG
HeyL	AGCCAGGAAGAAACGCAGAGG	GCTGTTGAGGTGGGAGAGAAGG