Supporting Information

Nonspecific Organelle-Targeting Strategy with Core-Shell Nanoparticles of Varied Lipid Components/Ratios

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Table S1. Molar ratio of varied components in lipid solution for preparation of hybrid nanoparticles within the microfluidic chip.

#	DOTAP (%)	DOPE (%)	DPPC (%)	Cholesterol (%)	DSPE-PEG (%)
1	60	20	0	16	4
2	40	40	0	16	4
3	20	60	0	16	4
4	10	70	0	16	4
5	60	0	20	16	4
6	80	0	0	16	4
7	0	80	0	16	4

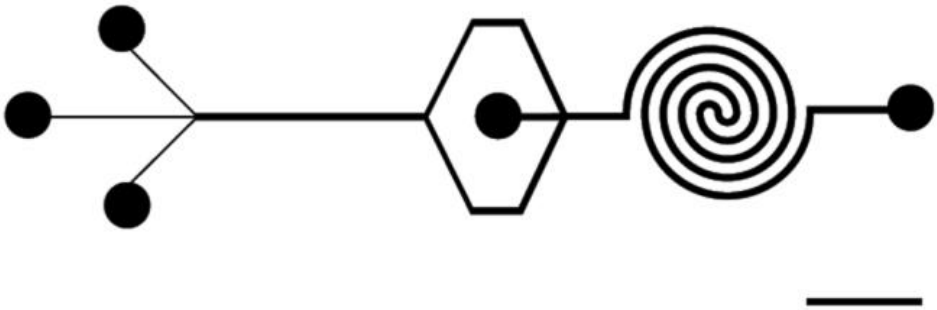

Figure S1. CAD draw of the two-stage microfluidic chip for generating lipid-polymer nanoparticles with different lipid components/ratios. Scale bar, 5 mm.

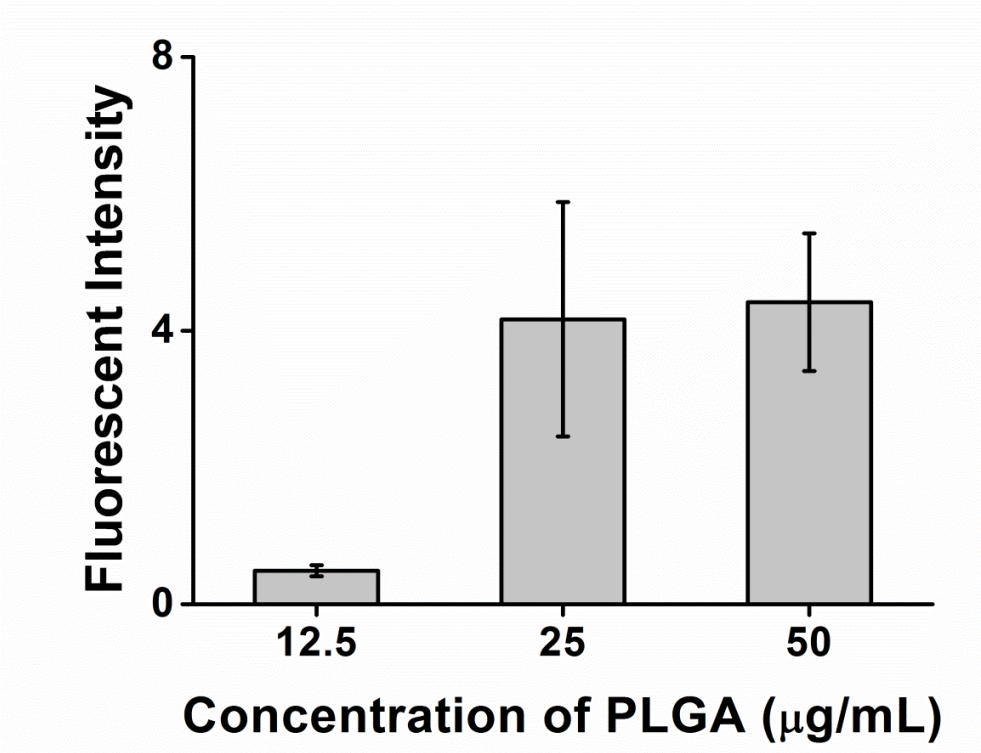

Figure S2. Cellular uptake of hybrid nanoparticles with different concentrations. HUVEC cells are incubated with nanoparticles suspension containing 12.5, 25 or 50 μg/mL PLGA for 24 h, and observed with laser scanning confocal microscope.

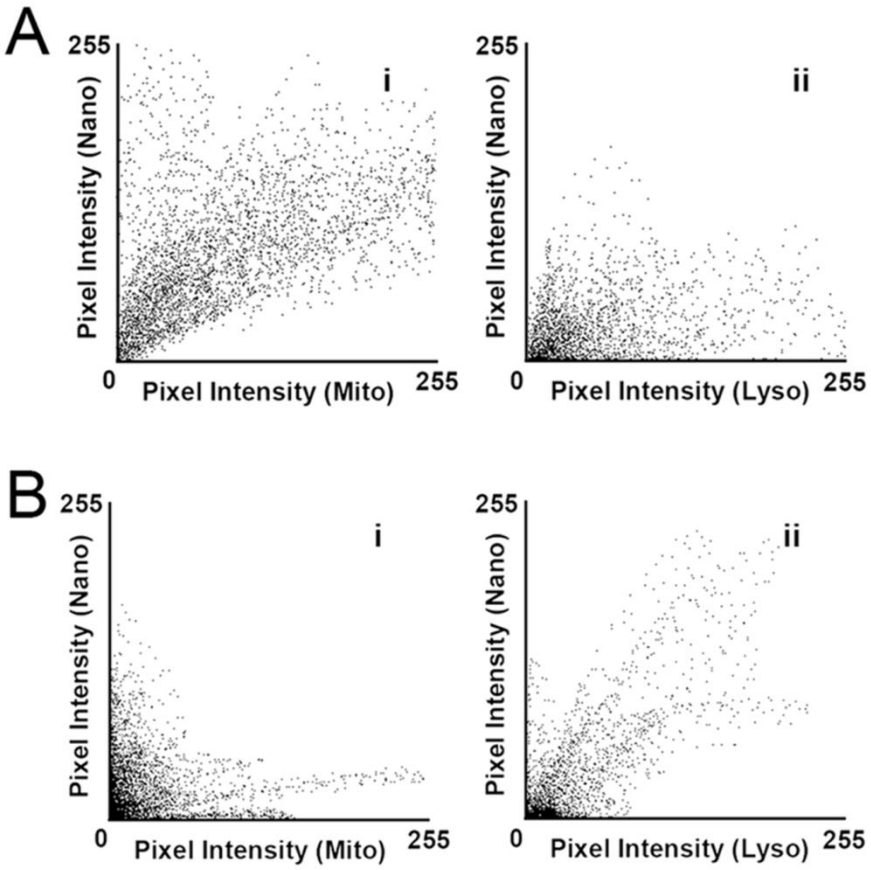

Figure S3. Scatter plots generated by a plugin of ImageJ (co-localization finder) from confocal images of (A) 60 % DOTAP and (B) 10 % DOTAP, and (i) Mitotracker-labeled mitochondria and (ii) Lysotracker-labeled lysosomes. The dots on the diagonals represent the best correlation between hybrid nanoparticles and mitochondria/lysosomes.

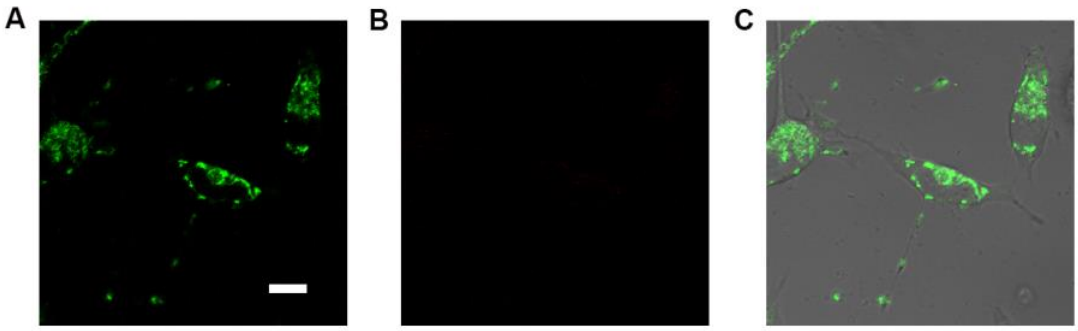

Figure S4. HUVEC cells incubated with hybrid nanoparticles with 0 % DOTAP and 80 % DOPE. (A) The green fluorescence comes from the stained mitochondria. (B) The red fluorescence comes from DiD-labeled NPs. (C) The composite image by overlaying the images of the green fluorescence, the red fluorescence and the bright field. Scale bar, 5 μm.