Figure 7. Cellular uptake of unmodified, DSPE-MPG H (10 nmol/mg), and Av-MPG H (5 mg/mL) NPs in the presence of uptake inhibitors, as determined by FACS. Mean fluorescence intensity of cells incubated with NPs only (negative control) for each treatment group was set as 100%. Error bars represent standard deviation.

Figure 8. Confocal microscopy of lysosome-NP colocalization in live HeLa cells. HeLa cells were incubated with 200 μg/mL (A, B) DSPE-MPG H (10 nmol/mg), or (C, D) Av-MPG H (5 mg/mL) NPs for 24 hr. Figures B and D show magnification of similar regions as A and C, respectively. Cells were stained with Hoechst (blue) for the nucleus, LysoTracker® Red (red) for lysosomes, and C6 NPs (green). Panels (A,C) show cells at 20x magnification and (B,D) show cells at 40x magnification. Scale bars represent 50 and 25 μm respectively, for the left and right panels.

Figure 9. Colocalization of DSPE-MPG, Av-MPG, and unmodified NPs with intracellular protein markers after 24 hr. Percent of NPs colocalized in subcompartments, relative to total NPs. Error bars represent standard deviation.

Table 1. Theoretical versus actual surface coverage density of Av-MPG and DSPE-MPG NPs.

Sample	Theoretical Coverage (nmol/mg)	Actual (nmol/mg)	% Incorporation	# Molecules/NP
Av-MPG L	0.14	0.12	84%	158
Av-MPG H	0.72	0.72	100%	944
DSPE-MPG 0.5	0.5	0.45	90%	585
DSPE-MPG 2	2	1.79	90%	2321
DSPE-MPG 5	5	2.71	54%	3514
DSPE-MPG 10	10	4.09	41%	5308

SUPPLEMENTARY DATA

Supplemental Figure
S1. Matrix assisted laser desorption/ionization (MALDI) verification of DSPE-PEG-maleimide conjugation to MPG.