Supplementary information

Ratiometric fluorescence imaging of cell surface pH by poly(ethylene glycol)-phospholipid conjugated with fluorescein isothiocyanate

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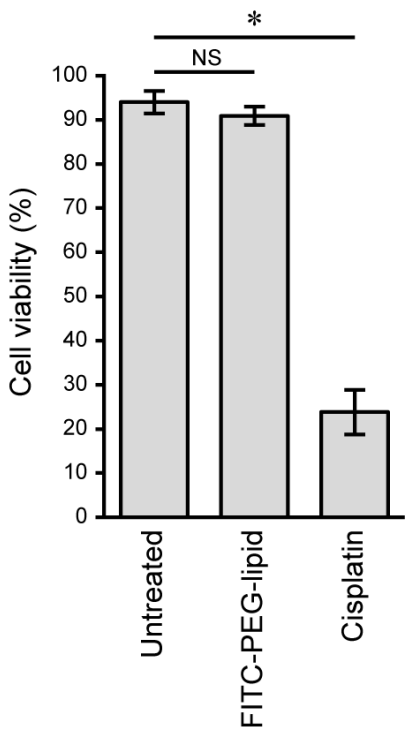
Supplementary Figure



Supplementary Figure S1. Effect of FITC-PEG-lipid on cell viability. KATOIII cells incubated with FITC-PEG-lipid and untreated cells were subjected to trypan blue exclusion assay. Viability of cisplatin-treated cells were analyzed as a control. Data shown are mean ± SD (n = 4). Statistical analysis was performed by one-way ANOVA followed by Bonferroni post-hoc tests for comparison with untreated cells. * p <0.05. NS, not significant.

Supplementary Video Legends

Supplementary Video S1. Time-lapse ratiometric fluorescence analysis of the extracellular pH. Movie file was constructed from the pseudocolored images shown in Fig. 5 using ImageJ software. Interval: 10 sec. Frame rate: 3 fps.

Supplementary Methods

Cell viability analysis by trypan blue exclusion assay

KATOIII cells were washed twice and incubated in HBSS (pH 7.0) with or without FITC-PEG-lipid (0.1 mg/mL) at room temperature for 30 min. After washing twice in HBSS (pH 7.0), cell were seeded in 12-well plate at the density of 4×10^4 cells/well and cultured for 72 hours. Cells were collected and mixed with 0.4% trypan blue solution at 1:1 volume ratio. The viability was calculated as the percentage of trypan blue-negative cells. As a control of cytotoxic compound, cisplatin was added to the medium at 20 μg/mL.