

Supplementary information, Figure S11. Microtubules but not centrosome were involved in the MP-mediated entry of drugs into the nucleus of TRCs (Related to Figure 6). (A) Centrosome does not co-localize with MPs in MCF-7 TRC. PKH67labeled MPs were incubated with MCF-7 TRCs for 12 hours. The cells were then stained with centrin-1 antibody (red). DAPI was used to stain the cell nuclei (blue). Scale bar, 10 μm. (B) MPs co-localize with β-tubulin and LAMP-2 in MCF-7 TRCs. PKH67-labeling MPs were incubated with MCF-7 TRCs for 12 hours. Then the cells were stained with fluorescence-labeled anti-\beta-tubulin antibody (purple) and LAMP-2 antibody (red). DAPI was used to stain the cell nuclei (blue). Scale bar, 20 μm. (C) Inhibition of dynein activity hinders MP-mediated drug entry into the nucleus. MCF-7 TRCs were incubated with DOX-MPs for 4 hours. Cells were then treated with dynein inhibitor Na<sub>3</sub>VO<sub>4</sub> (100 µM) for 12 hours. Scale bar, 20 µm. (D) Na<sub>3</sub>VO<sub>4</sub> did not affect the uptake of DOX-MPs into the cytoplasm of TRCs. Cells were pre-treated with or without dynein inhibitor Na<sub>3</sub>VO<sub>4</sub> (100 µM) for 12 hours. Cells were then incubated with DOX-MPs for 4 hours and uptake of DOX was detected by flow cytometry.