## **Supplementary Materials and Methods**

## Internalization and Recycling Assay

Internalization of membrane receptors was induced by cooling cells on ice for 30 minutes, followed by stimulation at 37°C for 30 minutes. Internalization was then stopped by placing cells back on ice for 30 minutes, and recycling to the plasma membrane was induced by re-incubation at 37°C for 15 minutes. Cells were fixed at the various steps of internalization/recycling and examined by confocal microscopy. Co-localization of Trop-2 and integrin subunits in trafficking vesicles was quantified using the "Pearson–Spearman correlation co-localization" ImageJ plugin. The Pearson's correlation coefficient (PCC) was calculated for each image, and then means  $\pm$  SEM were calculated for each experimental group in order to score the extent of co-localization. In order to avoid overestimation, signals from membrane edges containing the Trop-2/ $\beta$ 1 complex were excluded by drawing a mask surrounding only the cytoplasmic area.