Supporting Information

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Fig. S1. Time course of EGFR Endocytosis by C225-Cy3 and Au-C225-Cy3. Fluorescence image representing the binding of C225-Cy3 and Au-C225-Cy3 to EGFR in PANC-1 in human pancreatic cancer cells. The nucleus is stained with DAPI (blue). Cells were treated separately with C225-Cy3 and Au-C225-Cy3 for different time points starting from 5 min.–60 min. at 37 °C. Different extent of internalization of EGFR was observed in PANC-1 when treated with Au-C225-Cy3 (Figures on right) treatment as compared to C225-Cy3 alone (Figures on left) at different time points. Pictures were taken at 63X/1.2 W with scan zoom 1.0. All pictures are taken at same magnification and have same scale bar of 10 μm.



Fig. 52. Time course of EGFR Endocytosis by C225-Cy3 and Au-C225-Cy3 treatment. Fluorescence image representing the binding of C225-Cy3 and Au-C225-Cy3 to EGFR in AsPC-1 in human pancreatic cancer cells. The nucleus is stained with DAPI (blue). Cells were treated separately with C225-Cy3 and Au-C225-Cy3 for different time points starting from 5 min.–60 min. at 37 °C. Different extent of internalization of EGFR was observed in AsPC-1 when treated with Au-C225-Cy3 (Figures on right) treatment as compared to C225-Cy3 alone (Figures on left) at different time points. Pictures were taken at 63X/1.2 W with scan zoom 1.0. All pictures are taken at same magnification and have same scale bar of 10 μm.



Fig. S3. Time course of EGFR Endocytosis by C225-cy3 and Au-C225-cy3. Fluorescence image representing the binding of C225-Cy3 and Au-C225-Cy3 to EGFR in MiaPacca2 in human pancreatic cancer cells. The nucleus is stained with DAPI (blue). Cells were treated separately with C225-Cy3 and Au-C225-Cy3 for different time points starting from 5 min.–60 min. at 37 °C. Different extent of internalization of EGFR was observed in MiaPacca2 when treated with Au-C225-Cy3 (Figures on right) treatment as compared to C225-Cy3 alone (Figures on left) at different time points. Pictures were taken at 63X/1.2 W with scan zoom 1.0. All pictures are taken at same magnification and have same scale bar of 10 μ m.

Co-localization to Lysosome



Fig. 54. C225-Cy3 and Au-C225-Cy3-induced endocytosis of EGFR in Lysosome. Figure demonstrates colocalization of C225-Cy3 (left) and Au-C225-Cy3 (right) in lysosome. Cells were incubated with either C225-Cy3 or Au-C225-Cy3 for 60 min. followed by colocalization with lysotracker (a dye that labels lysosome specifically). Pictures were taken at 63X/1.2 W with scan zoom 1.0.

Co-localization to Golgi



Fig. S5. C225-Cy3 and Au-C225-Cy3-induced endocytosis of EGFR in Golgi complex. Figure demonstrates colocalization of C225-Cy3 (left) and Au-C225-Cy3 (right) with Golgi complex. Cells were incubated with either C225-Cy3 or Au-C225-Cy3 for 60 min. followed by colocalization with TNF46 (an antibody that label Golgi complex specifically). Pictures were taken at 63X/1.2 W with scan zoom 1.0.

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Co-localization to Early Endosome



Fig. S6. C225-Cy3 and Au-C225-Cy3-induced endocytosis of EGFR in Early Endosome (EEA). Figure demonstrates colocalization of C225-Cy3 (left) and Au-C225-Cy3 (right) in EEA. Cells were incubated with either C225-Cy3 or Au-C225-Cy3 for 60 min. followed by colocalization with EEA1 (an antibody that label EEA specifically). Pictures were taken at 63X/1.2 W with scan zoom 1.0.

Transferrin Co-localization







Fig. S8. Expression of Dynamin wild-type (WT) and K44A in PANC-1, AsPC-1, and MiaPacca2 cell. Cells were seeded in 6 well plates and infected with adenovirus that expresses either the WT or the K44A GTPase dynamin mutant. Cell lysate were collected 1 d after the infection and Western blot was run to detect the expression of dynamin by using dynamin atibody (Santa Cruiz, sc-11362) and chemiluminescense. Hydrodynamic diameter and surface charge of the nanoconjugates. Hydrodynamic diameter (nm) and Zeta potential (mV) measurements of the gold nanoconjugate (Au-C225) were performed in deionized water using dynamic light scattering experiments in a Malvern DTS 5.0 instrument. The data obtained in triplicate (n = 3) are presented with standard deviation: Gold nanoconjugates (Au-C225); Hydrodynamic diameter (nm) (42.9 ± 1.1); and Zeta potential (mV) (-35.1 ± 3.1).