



**Figure S1** Golgi-localization of FAPP1-PH-GFP is predominantly determined by PI4KIII $\beta$ .

HeLa cells were reversely transfected with siRNAs targeting PI4KII $\alpha$ , PI4KIII $\alpha$ , PI4KIII $\beta$  or scrambled siRNA as a negative control. The next day, cells were transfected with the plasmid encoding FAPP1-PH-GFP. One day later, cells were fixed and analyzed for localization of the FAPP1-PH-GFP. Efficient knock-down of the different genes was confirmed by western blot analysis of cell lysates (see also Figure 7D).