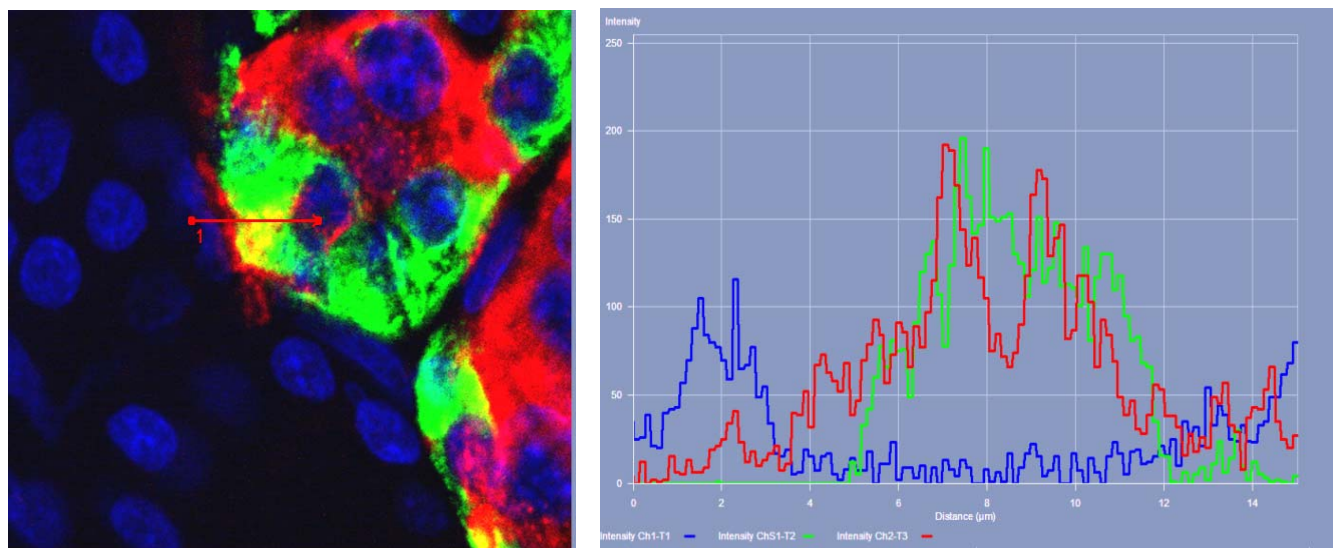
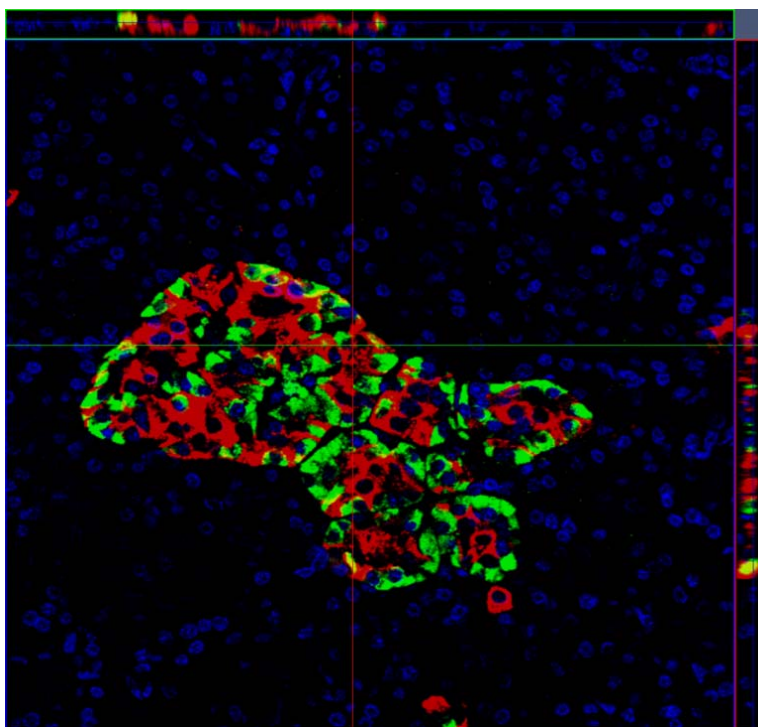


## SUPPLEMENTARY DATA

**Supplementary Figure 1.** Insulin + Glucagon double + cell . Insulin (Red), Glucagon (Green) and DAPI (Blue). Confocal microscopy. Objective 63X, magnification 2x. On the right profile curves showing the intensity distribution of the image along the straight red line traced on the cell.



**Supplementary Figure 2.** Confocal microscopy analysis Z-stack image, on the edges the transversal sections corresponding to the vertical and horizontal arrows on the picture.



SUPPLEMENTARY DATA

**Supplementary Figure 3.** PDX1 (brown) Immunoreactivity in double positive cells. Microscopy analysis of glucagon (green) and insulin (red) staining (left pictures) overlapped to PDX1 immunoreactivity with chromagen (DAB) for PDX1 (right pictures) showed duct cells positive for PDX1. Insulin resistant (lower panel) and insulin sensitive (upper panel). Objective 400x.

