



ESM Fig. 2 Extracellular fluorescent dye enters each insulin granule as it fuses with the cell membrane. The images show a wild-type beta cell within the islet and is outlined by extracellular dye (SRB). During glucose stimulation exocytosis around the periphery of the cell is identified as the entry of dye into each fusing granule (arrows) here shown as a maximum projection image of a series of images captured during the response. A typical graph of average fluorescence over time, from a region of interest (ROI) placed over the area of single fusion event is shown. Scale bar 5 μm .