



**Fig. S1 Apoptosis in  $\beta$ TC3 cells.** To test for apoptosis in  $\beta$ TC3 cells, cells were left in complete media, glucose-starved for 4 hours, or treated with 1  $\mu$ M staurosporine for 4 hours to induce apoptosis, as indicated. Cells were then stained for annexin V, to indicate apoptosis. Cells incubated in the glucose-free conditions were morphologically similar to cells incubated in complete media, and did not show annexin V staining. In contrast, the staurosporine treated cells stained brightly for annexin V, and showed clear morphological differences when observed by transmitted light differential interference contrast (DIC) microscopy. Fluorescence images of Alexa Fluor® 350 labeled annexin V were colored green for contrast enhancement in the merged image.