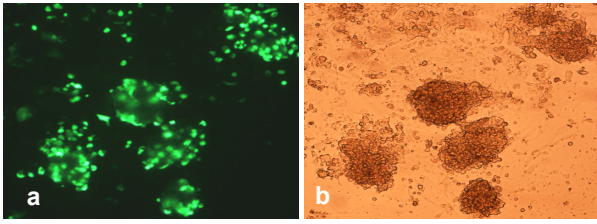


**Fig.S1: PDX1 translocation in db/db mice is paralleled by impaired glycemia and insulin secretion**

(A,B) Blood glucose (A) and insulin (B) levels following i.p. injection of 1 (A) or 2 (B) g/kg body weight glucose in 7-week-old control heterozygous db/+, db/+IL-1Ra, db/db and db/dbIL-1Ra littermate mice. (C) Stimulatory index calculated from stimulated divided by basal insulin secretion (B) shows significant decrease in the db/db mice, which was prevented in the db/dbIL-1Ra mice. (D) β-cell apoptosis expressed as percentage of TUNEL-positive β-cells ± SE. The mean number of β-cells scored was 2620 ± 256 for each treatment condition in four independent experiments. (E) The β-cell mass per pancreas was estimated as the product of the relative cross-sectional area of β-cells (determined by quantification of the cross-sectional area occupied by β-cells divided by the cross-sectional area of total tissue) and the weight of the pancreas. Pancreases were analyzed from 8-week-old mice. \*\*p<0.05 db/db compared to db/+, \*p<0.05 db/dbIL-1Ra compared to db/db mice.

Data were collected from 4 animals per group in each of three independent experiments.



**Fig.S2: Transfection efficiency in human islets plated on extracellular matrix coated dishes**

Human islets were plated on ECM dishes and transfected with GFP control plasmid (see material and methods). 48 h later, transfection efficiency was determined by fluorescence microscopy (a). (b) shows brightfield picture of all plated cells.