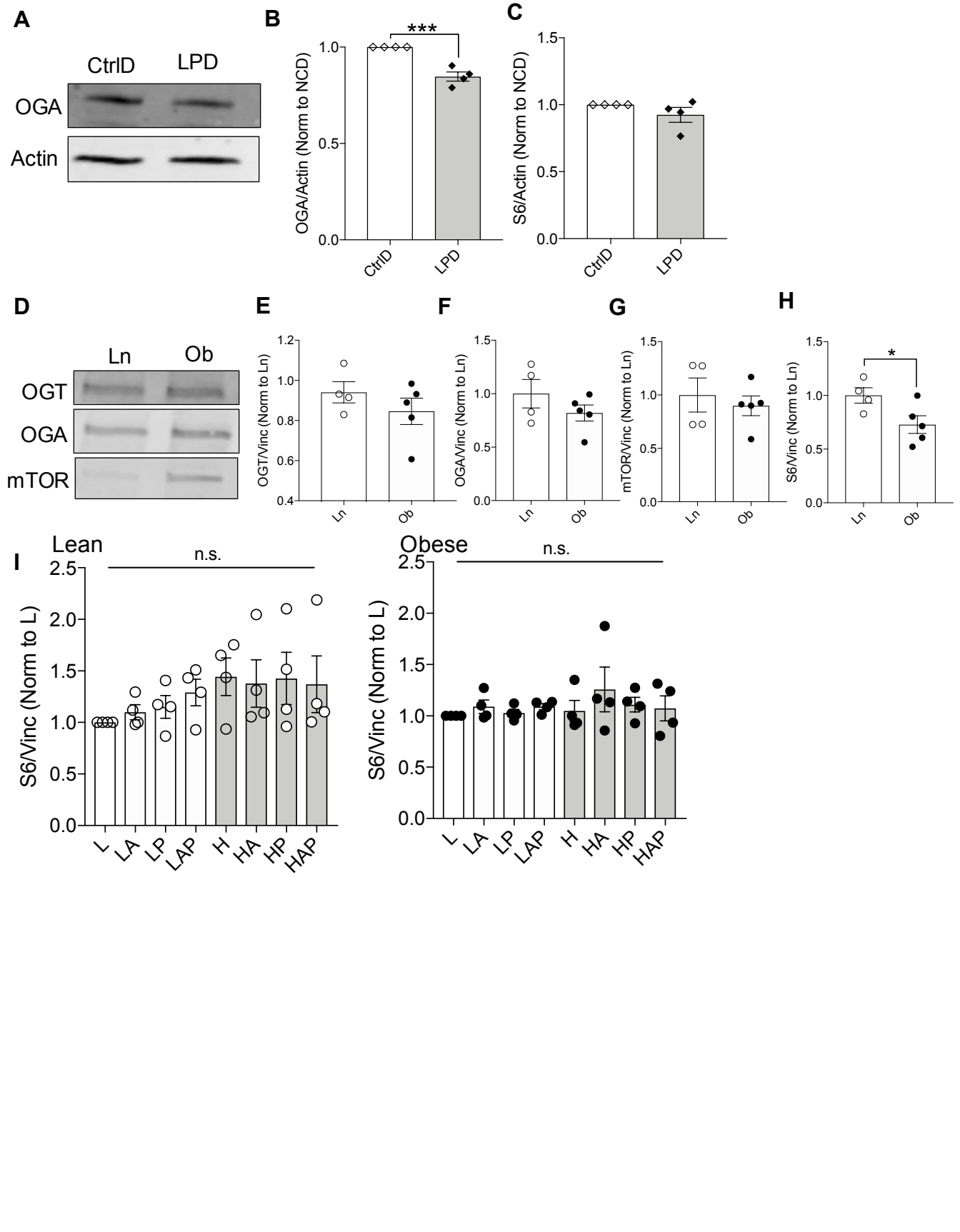
Supplemental Figure 1

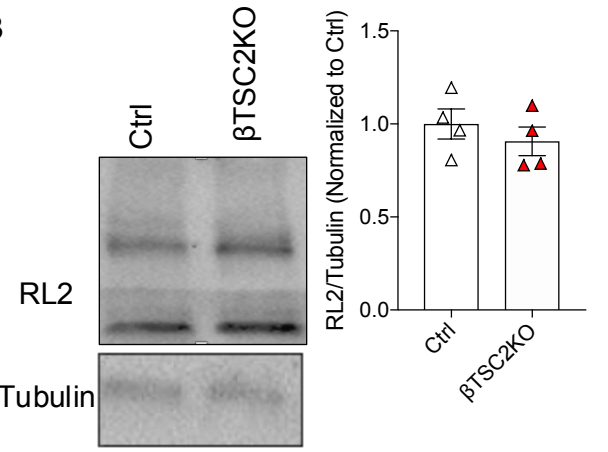


Supplemental Figure 2

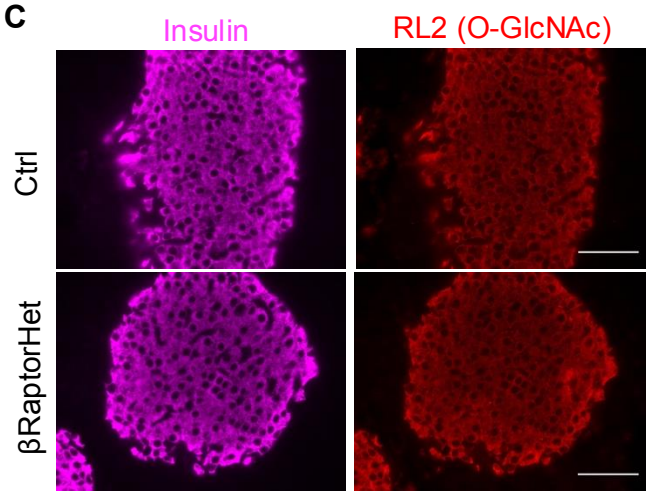
A

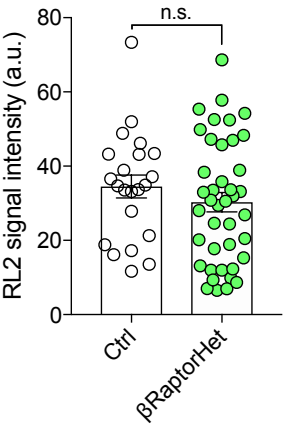
Upstream Regulator	P-value of overlap	OGTKO vs Ctrl
TSC2	9.38E-04	RNASeq
TSC2	4.11E-06	Proteomic

B

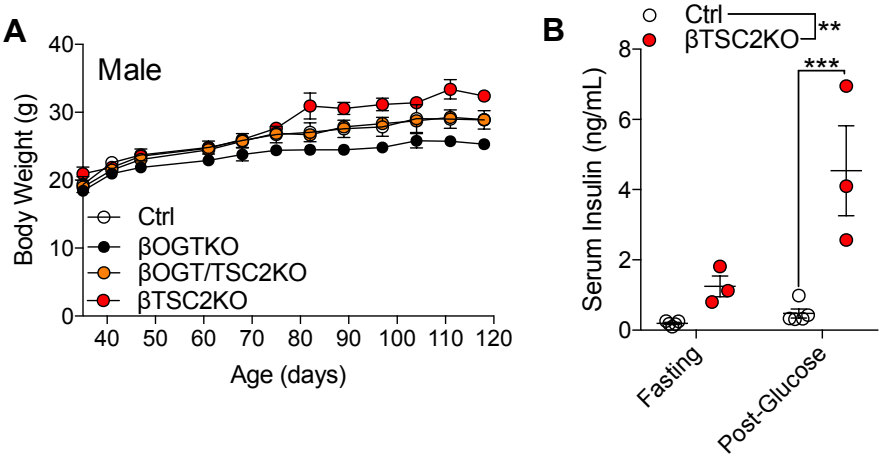


C

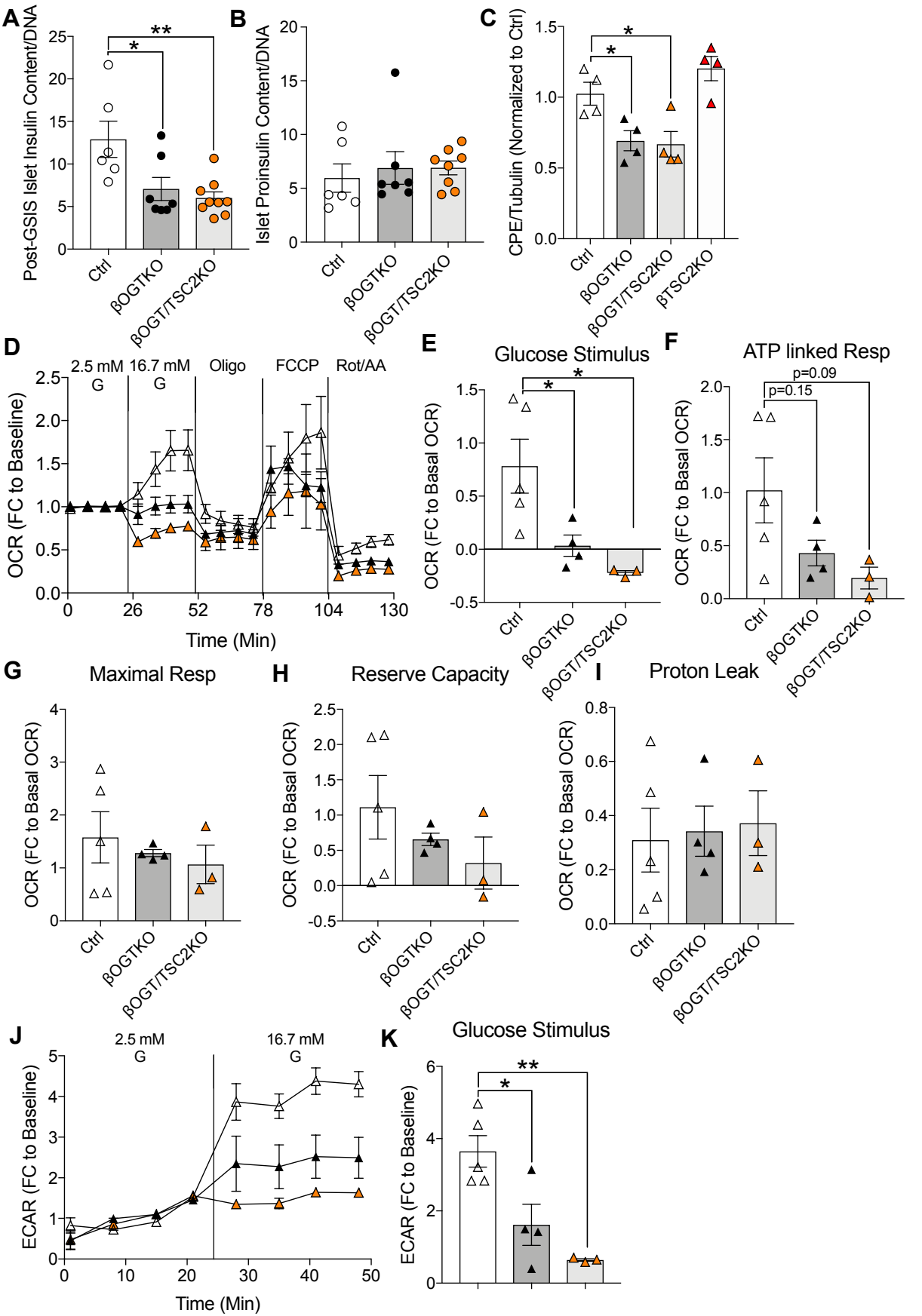




Supplemental Figure 3

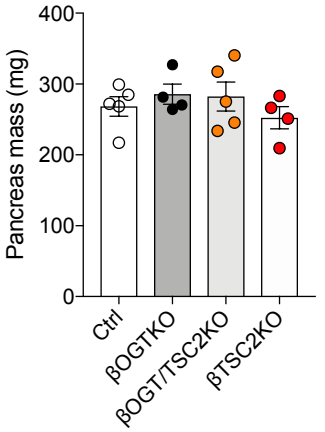


Supplemental Figure 4

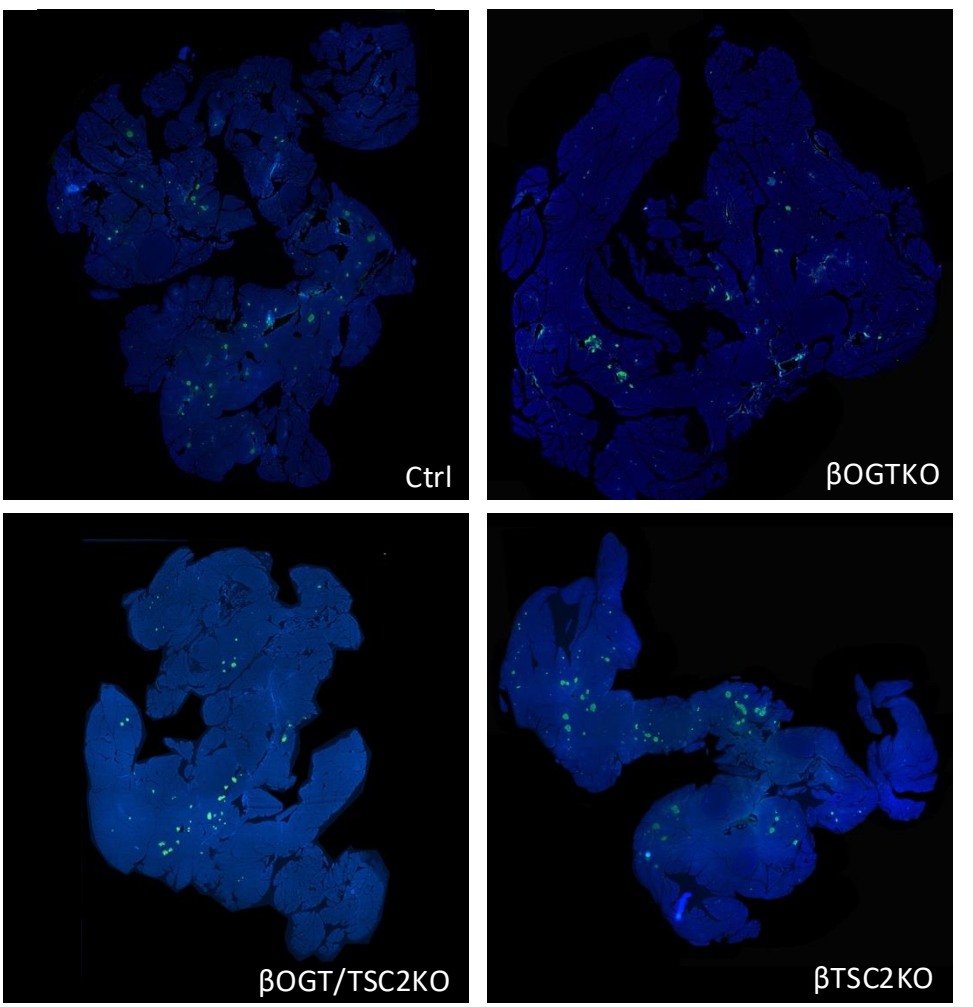


Supplemental Figure 5

A



B

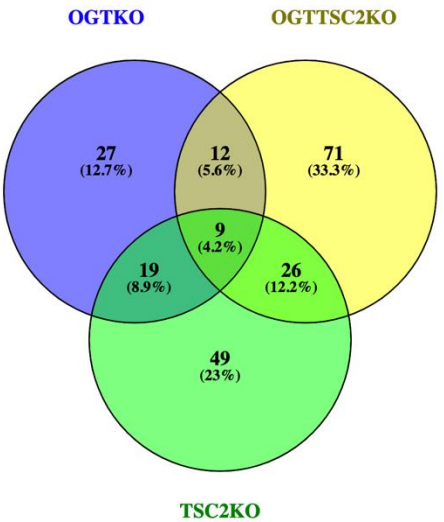


Supplemental Figure 6

A

	βOGTKO / Ctrl	βOGT/TSC2KO / Ctrl	βTSC2KO / Ctrl
GO Term	Apoptotic process Regulation of Cell Cycle	Programmed Cell Death Regulation of Cell Growth	Apoptotic Process
KEGG	MAPK cascade EGFR tyrosine Kinase	MAPK cascade PI3K-AKT signaling	MAPK cascade Insulin secretion
Reactome	Signaling by interleukins	Signaling by interleukins	Interleukin-1 mediated

B



C

	βOGTKO/Ctrl	βOGTTSC2KO/ Ctrl	βTSC2KO/Ctrl
MKK4 (s80)	0.7889	0.7171	1.3108
Calmodulin (t79)	1.8621	1.2023	0.6972
4E-BP (t45)	0.7918	1.2897	1.3934

Record ID	Gender	Ethnicity/Race	Age (Years)	BMI (kg/m^2)	Diabetes Status	Frozen/Live	Source
SAMN2299*7021*	Male	White	44	**42**	ND	Live	IIDP
SAMN2395*8504*	Male	White	42	**37.9**	ND	Live	IIDP
SAMN2457*9752*	Male	Black/AA	55	24.9	ND	Live	IIDP
SAMN2617*7826*	Male	White	52	25.1	ND	Live	IIDP
SAMN2652*7277*	Male	Black/AA	61	22.6	ND	Live	IIDP
SAMN2887*4962*	Male	White	32	25	ND	Live	IIDP
SAMN3092*7409*	Male	White	50	**36.3**	ND	Live	IIDP
SAMN3651*0137*	Male	White	63	**32.1**	ND	Live	IIDP
SAMN3787*1873*	Male	White	59	**41.7**	ND	Live	IIDP
SAMN3752*9025*	Male	White	64	23	ND	Frozen	IIDP
SAMN3782*2573*	Male	White	54	23.1	ND	Frozen	IIDP
SAMN3787*1873*	Male	White	59	**41.7**	ND	Frozen	IIDP
SAMN36510137	Male	White	63	**32.1**	ND	Frozen	IIDP
SAMN12227196	Male	White	51	**32.8**	ND	Frozen	IIDP
R484	Male	n/a	33	22	ND	Frozen	U of Alberta
R446	Male	n/a	64	**40.7**	ND	Frozen	U of Alberta
R472	Male	n/a	49	20.4	ND	Frozen	U of Alberta
R495	Male	n/a	50	**33.8**	ND	Frozen	U of Alberta

Table S1. Human Islets Donors used in Figure 1. Bold font under "BMI" indicates donors with obesity. ND = non-diabetic. Live islets (SAMN37871873) except were used for Figure 1J-O, S.Figure1I. Frozen islets were used to generate data in Figure 1F-I, S.Figure 1D-H.