

SUPPLEMENT

Figure Legend

Figure S1

Biochemical parameters in BHcB mice. Blood was collected after a 4h fast from TXNIP-deficient C57BL/6.hcb and control C57BL/6 mice and analyzed for **(A)** triglycerides, **(B)** ketones and **(C)** glucose. Bars represent means \pm SEM, n =number of mice used per group.

Figure S2

Induction of Akt/Bcl-xL signaling in TXNIP-deficient mice. Pancreata of 12 week-old obese and diabetic BTBR.ob and congenic TXNIP-deficient BTBR.ob/hcb mice were analyzed by immunohistochemistry for **(A)** cleaved caspase-9 and **(B)** Bcl-xL. Isolated islets of C3H and Hcb-19 mice were used for immunoblotting to quantify the expression of **(C)** p-Akt and **(D)** total Akt; bars represent means \pm SEM, at least 3 independent experiments were performed; insert: representative immunoblot.

Table S1:

Comparison of Weight and Adiposity in 16-week old TXNIP-deficient HcB-19 (HcB) versus Control C3H Mice

		C3H means \pm (SEM) (n=15)	HcB means \pm (SEM) (n=17)	p-value* HcB vs C3H
WEIGHT (g)	male	23.8 (0.6)	25.6 (0.5)	p=0.009
	female	19.9 (0.5)	21.2 (0.5)	
FAT PAD (g)	male	0.31 (0.06)	0.82 (0.05)	p<0.001
	female	0.16 (0.06)	0.45 (0.05)	
BODY FAT (%) (DEXA)	male	20.3 (0.6)	25.5 (0.6)	p<0.001
	female	18.7 (0.6)	23.7 (0.5)	

* *calculated by 2-way ANOVA*

Table S2:

Effect of TXNIP Deficiency on Weight and Adiposity in 16-week old Mice on a C57BL/6 (B6) Genetic Background

		B6 means \pm (SEM) (n=10)	B6HcB means \pm (SEM) (n=12)	p-value* B6HcB vs B6
WEIGHT (g)	male	26.8 (0.5)	27.6 (0.6)	p=0.022
	female	18.9 (0.6)	20.9 (0.4)	
FAT PAD (g)	male	0.30 (0.03)	0.56 (0.04)	p<0.001
	female	0.15 (0.04)	0.27 (0.03)	

* *calculated by 2-way ANOVA*

Table S3:

Serum Insulin and Glucagon

	Insulin (\pm SEM) (pmol/L)	<i>p-value</i>	Glucagon (\pm SEM) (ng/L)	<i>p-value</i>
C3H	117 (24)		47.1 (3.6)	
HcB-19	148 (29)	<i>0.444</i>	80.1 (8.0)	<i>0.003</i>
B6	52 (4)		46.2 (2.7)	
BHcB	68 (11)	<i>0.221</i>	49.1 (1.8)	<i>0.421</i>
lox/lox	57 (11)		54.3 (11.6)	
bTKO	63 (8)	<i>0.672</i>	59.6 (2.1)	<i>0.749</i>

Serum insulin and glucagon concentrations were measured after a 4h fast. Numbers represent means (\pm SEM) of at least 5 mice per group.

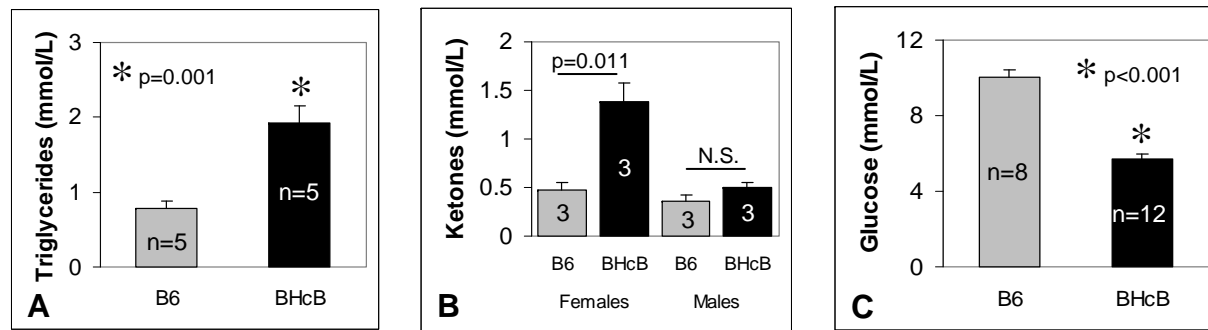


Fig. S1

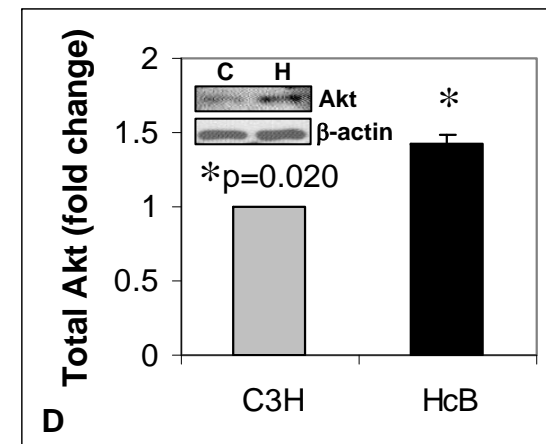
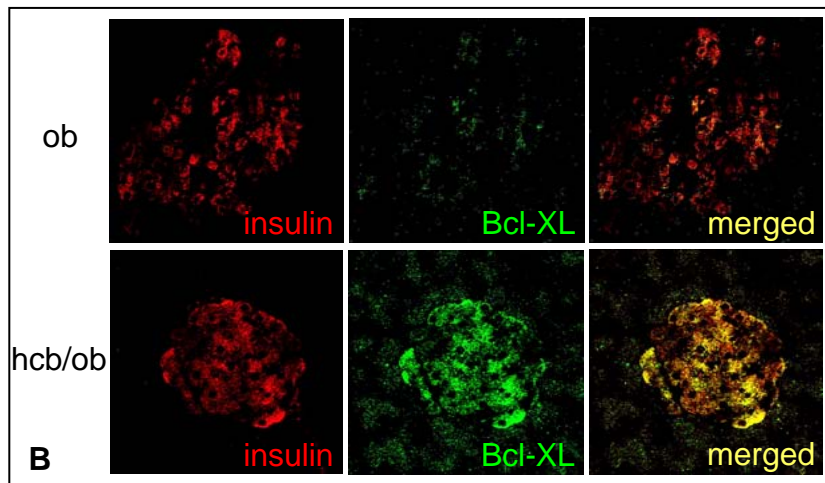
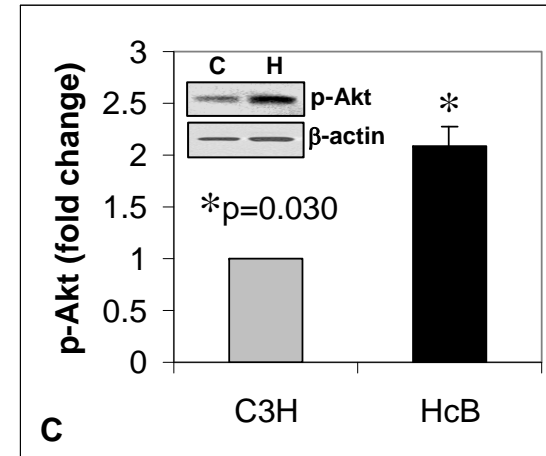
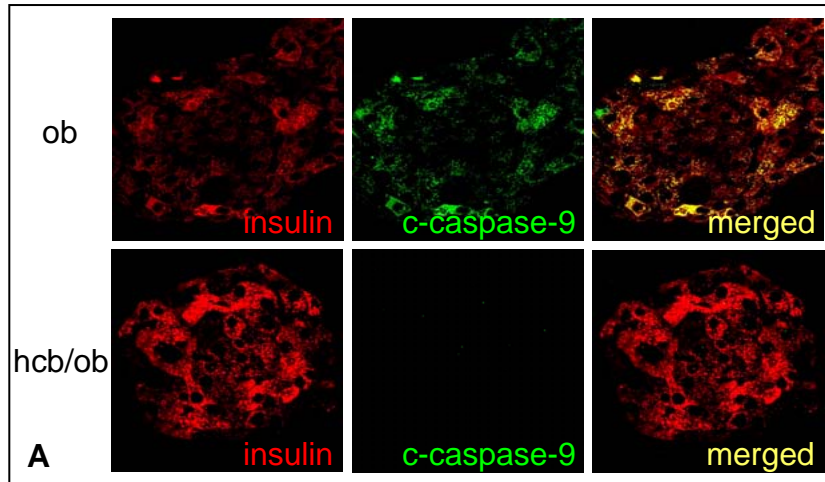


Fig. S2