SUPPLEMENTARY DATA

Supplementary Table 1. Forward (F) and reverse (R) primers for real-time PCR analysis.

Gene	NCBI Acc. Number	Primers
PKCζ	NM_008860	F:5'- GCG TAC TGC GGC CAG TGC-3'
		R:5'- CTT GGC ATA GCT TCC ACG-3'
INS1/2	NM_008386/NM_008387	F:5´-TCATCCTCTGGGAGCCCCGC-3´
		R:5´-GTTGCAGTAGTTCTCCAGTTGGT-3´
PDX1	NM_008814	F5´- CTCCGGACATCTCCCCATAC-3´
		R:5´- ACGGGTCCTCTTGTTTTCCT-3´
GLUT2	NM_031197	F:5´- GGCACAGACACCCCACTTAC-3´
		R:5´- GCCAACATTGCTTTGATCCT-3´
GCK	NM_010292	F:5´- AAACTACCCCTGGGCTTCAC-3´
		R:5´- CCACGATGTTGTTCCCTTCT-3´
Kir6.2	NM_010602	F:5'- CTGGCCATCCTCATTCTCAT-3´
		R:5´- TTGGAGTCGATGACGTGGTA-3´
MafA	NM_194350	F:5´- ATCATCACTCTGCCCACCAT-3´
		R:5´- AGTCGGATGACCTCCTCCTT-3´
SUR1	NM_011510	F:5´- TGTCTGATGGGGTGACAGAA-3´
		R:5´- CCCGTAGAGGATCACCAGAA-3´
Cyclin D1	NM_007631	F:5´- GCGTACCCTGACACCAATCT-3´
		R:5´- CACAACTTCTCGGCAGTCAA-3´
Cyclin D2	NM_009829	F:5´- GCTATGGAGCTGCTGTGCT-3´
		R:5´- CCAAGAAACGGTCCAGGTAA-3´
Cyclin D3	NM_007632	F:5´- GGAAGCTATGGACCAGCAAG-3´
		R:5´- TTTGCACGCACTGGAAGTAG-3´
CDK2	NM_053593	F:5´- GTTGACGGGAGAAGTTGTGG-3´
		R:5´- TGATGAGGGGAAGAGGAATG-3´
CDK4	NM_009870	F:5´- TATGAACCCGTGGCTGAAAT-3´
		R:5´- CCTTGATGTCCCGATCAGTT-3´
p21	NM_007669	F:5´- TCCAGACATTCAGAGCCACA-3´
		R:5´- GACCCAGGGCTCAGGTAGA-3´
p27	NM_009875	F:5´- GATACGAGTGGCAGGAGGTG-3´
		R:5´- TTCTGTTCTGTTGGCCCTTT-3´
p16	NM_009877	F:5´- GTACCCCGATTCAGGTGATG-3´
		R:5´- ATCGCACGATGTCTTGATGT-3´
p18	NM_007671	F:5´- AATGGATTTGGGAGAACTGC-3´
		R:5´- TGACAGCAAAACCAGTTCCA-3´
Cyclin A2	NM_026529	F:5´- TCCTTGCTTTTGACTTGGCT-3´
		R:5´- ATGACTCAGGCCAGCTCTGT-3´
Cyclin E1	NM_007633	F:5´- GCTTCTAGACCTGTGCGTCC-3´
		R:5´- CTTTCTTTGCTTGGGCTTTG-3´
Actin	NM_007393	F:5´- AGCCATGTACGTAGCCATCC-3´
		R:5´- CTCTCAGCTGTGGTGGTGAA-3´

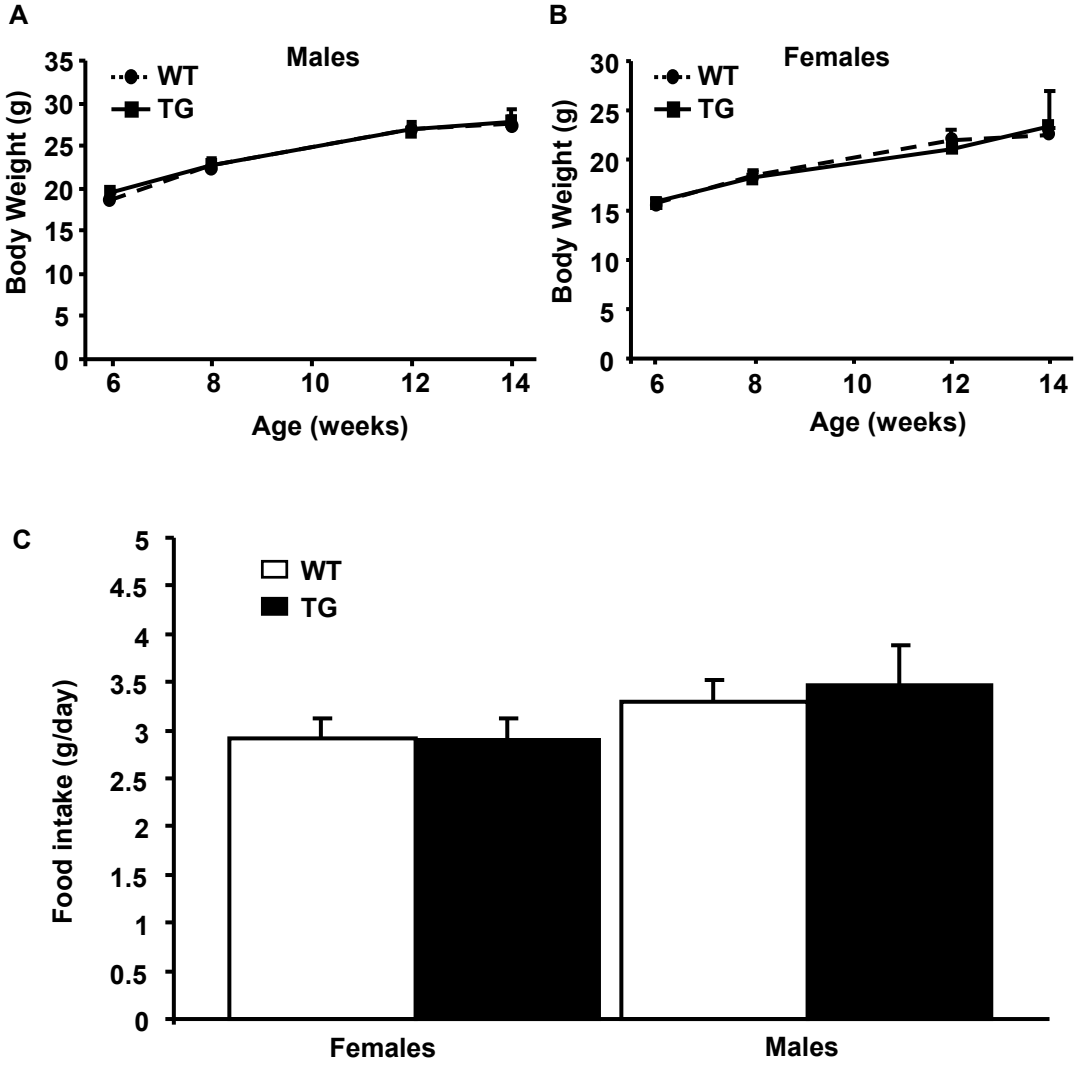
SUPPLEMENTARY DATA

Supplementary Table 2. Antibodies used for western blot experiments.

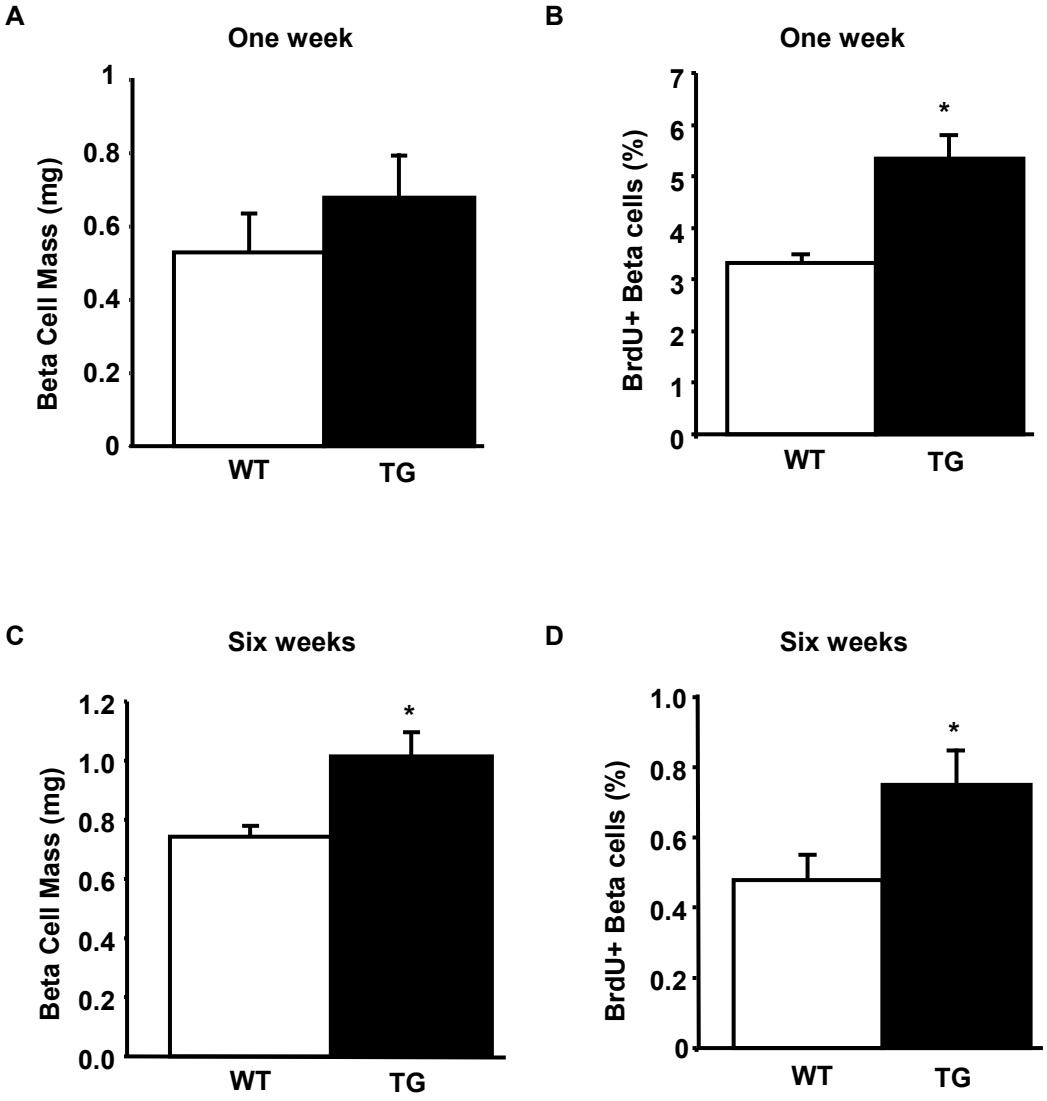
Antibody	Dilution	Source/Catalog number
p16	1:200	Santa Cruz Biotech/sc-1661
p18	1:500	Santa Cruz Biotech/sc-1064
p21	1:200	Santa Cruz Biotech/sc-6246
p27	1:2000	BD Pharmingen/554069
Cyclin D1	1:500	NeoMarkers (Thermo)/MS-210
Cyclin D2	1:500	NeoMarkers (Thermo)/MS-221
Cyclin D3	1:500	Abcam/ab28283
ph-Cyclin D1 (Thr286)	1:1000	Cell Signaling/2961
ph-Cyclin D2 (Thr280)	1:500	Abcam/ab78869
Cyclin A	1:500	Sigma/C4710
Cyclin E1	1:500	Santa Cruz Biotech/sc-481
CDK2	1:500	Santa Cruz Biotech/sc-163
CDK4	1:500	Santa Cruz Biotech/sc-260
Pdx1	1:1000	Santa Cruz Biotech/sc-14662
MafA	1:500	Bethyl Lab/A300-611A
Glut2	1:200	Santa Cruz Biotech/sc-7580
GCK	1:500	Santa Cruz Biotech/sc-7908
PKCζ	1:15000	Santa Cruz Biotech/sc-17781
ph-PKCζ (Thr410)	1:1000	Santa Cruz Biotech/sc-12894
GSK3ß	1:1000	Cell Signaling/9315
ph-GSK3ß (Ser9)	1:1000	Cell Signaling/9323
AKT	1:1000	Cell Signaling/9272
ph-AKT (Ser473)	1:1000	Cell Signaling/4051
ph-AKT (Thr308)	1:1000	Cell Signaling/9275
mTOR	1:1000	Cell Signaling/2972
ph-mTOR (Ser2448)	1:1000	Cell Signaling/2971
ph-p70S6K (Thr389)	1:500	Cell Signaling/9205
HA-Tag (6E2)	1:1000	Cell Signaling/2367
Actin	1:2000	Sigma/A2066
Tubulin	1:2000	Calbiochem/CP06

SUPPLEMENTARY DATA

Supplementary Figure 1. (A-B) Body weight at 6-14 weeks of age and (C) food intake at 12 weeks of age in RIP-CA-PKC-ζ (TG) and wild-type (WT) littermates (n=7-11 mice per gender and condition) Results are means±SEM. No significant changes were detected between WT and TG mice.



Supplementary Figure 2. (A,C) ß-cell mass and (B,D) proliferation in RIP-CA-PKC-ζ transgenic (TG) (n=4-5) mice and wild-type (WT) (n=4-7) littermates at one week and six weeks of age. Results are mean±SEM and *P<0.05 vs WT.



SUPPLEMENTARY DATA

Supplementary Figure 3. ß-cell proliferation in islet cell cultures from one year-old mice transduced with 100 MOI adenovirus (Adv)-GFP or Adv-CA-PKC-ζ. Medium was changed 24h after transduction and complete medium with BrdU was added to the cell culture for 48h. BrdU incorporation in ß-cells was determined as before (3). Islet cell cultures from 3 mice were tested in triplicate. Results are means±SEM and *P<0.05 vs GFP.