

Supplemental Table S1 Source of antibodies used in study.

Antibody	Dilution/Concentration	Company	Cat #
Immunohistochemistry			
Insulin	1:500	DAKO	A0564
Nkx6.1	5 ug/ml	DSHB	F55A12
Ki67	1:400	Abcam	15580
Immunoblotting			
p-S6 ribosomal protein	1:2500	Cell Signaling	2211S
alpha-tubulin	1:20000	Abcam	4074
Immunoprecipitation			
ChREBP	-	Abcam	ab157153
Normal IgG	-	Santa Cruz	sc-2027

Supplemental Table S2 3C, ChIP and RT-PCR primers used in study.

Primer name	forward	Reverse or anchor
3C		
2 3C	TCCCAAGCCACGTATGATGT	GGAGACACGGGCTCTTACCT
3 3C	GTGTTGGGAATGGGATTTTG	GGTAAGAGCCCGTGTCTCCG
4 3C	AACACGAGGAAGGGAGGAAG	GGTAAGAGCCCGTGTCTCCG
5 3C	GACAACCTGGGGGACTGAGAC	GGTAAGAGCCCGTGTCTCCG
6 3C	AAGCCTGAAATGAACAGAACAA	GGTAAGAGCCCGTGTCTCCG
7 3C	AGGTCCTAGGTGTCCTGGAA	GGTAAGAGCCCGTGTCTCCG
8 3C	TGCATCCCAAGCAACACTAA	GGTAAGAGCCCGTGTCTCCG
17 3C	GAGGGGTTGTGGGTTTCATTA	GGTAAGAGCCCGTGTCTCCG
18 3C	AGGTTCTTTCTCCGTTGTGC	GGTAAGAGCCCGTGTCTCCG
19 3C	GTTGGTGACCGGTGAGAGTC	GGTAAGAGCCCGTGTCTCCG
20 3C	GGACCGACTCTGAACAGACA	GGTAAGAGCCCGTGTCTCCG
21 3C	ACATCCAACCTTGCCTTCTGC	GGTAAGAGCCCGTGTCTCCG
ChIP		
Pklr coding region	GTGGAGCACGGTGGTATCTT	CTTCACGCCTTCATGGTTCT
HB-EGF downstream	GTGAGTGCCCATGTCACTGT	GCTTGCCTTCCCTTCCTTTTT
RT-PCR		
HB-EGF-1	GACCGATCTGGACCTTTTCA	CCGTGGATGCAGTAGTCCTT
HB-EGF-2	GTGGGTAGCAGCTGGTTTGT	GTTGGTGACCGGTGAGAGT
Cyclophilin A	GCCATTATGGCGTGTGAAGTC	CTTGCTGCAGACATGGTCAAC

Figure S1

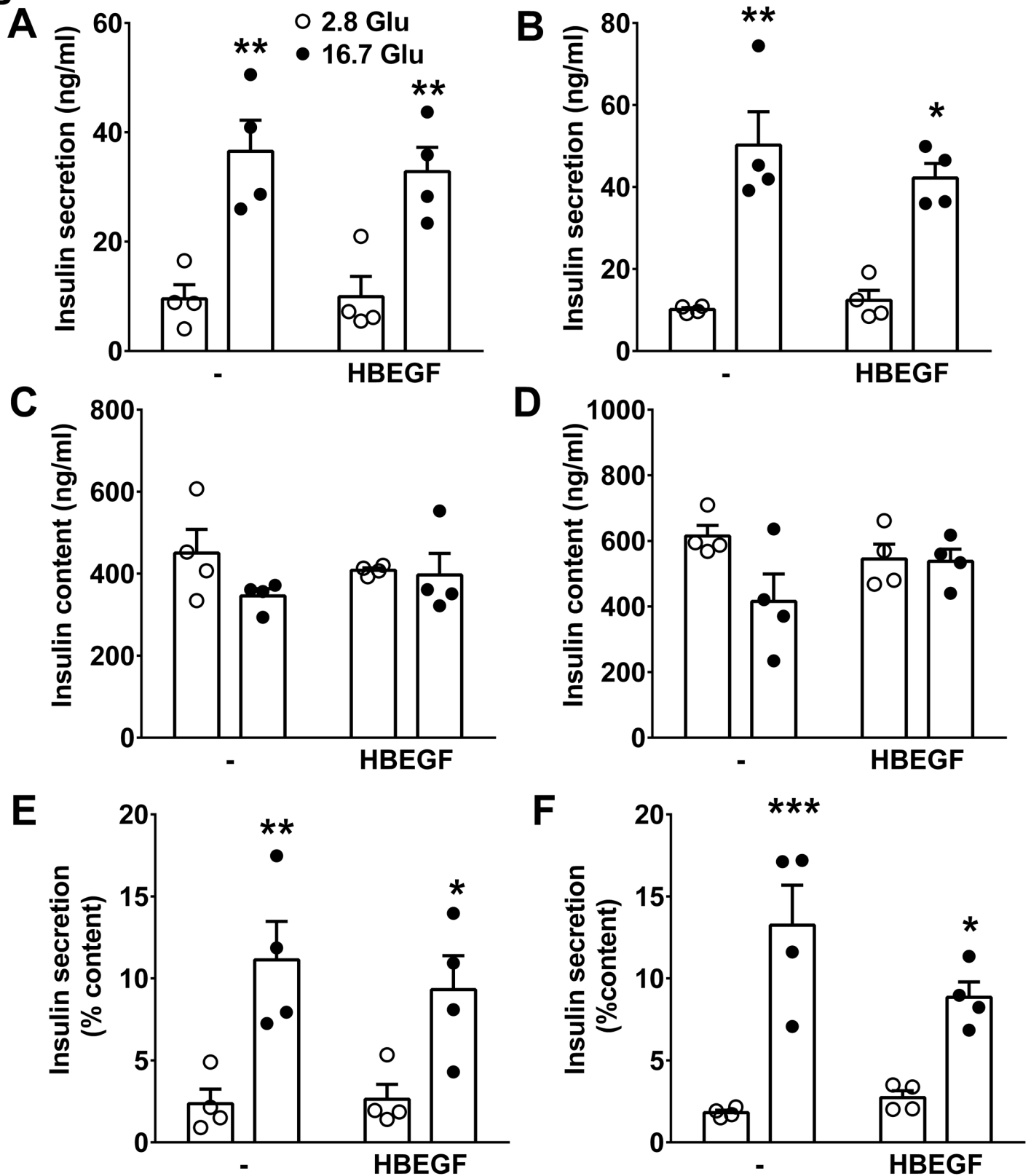


Figure S1. HB-EGF does not affect glucose-induced insulin secretion or insulin content in rat islets ex vivo. (A-D) Insulin secretion (A, B) and total islet insulin content (C, D) were determined in 1-h static incubations in response to 2.8 and 16.7 mM glucose in isolated rat islets with or without exposure to HB-EGF (100 ng/ml) during the static incubation with glucose (A, C, E) or 24 h prior (B, D, F). (E, F) Insulin levels are expressed as a percentage of total islet insulin content. Data represent individual values and means \pm SEM (n=4). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, as compared to the 2.8 mM glucose condition.

Figure S2

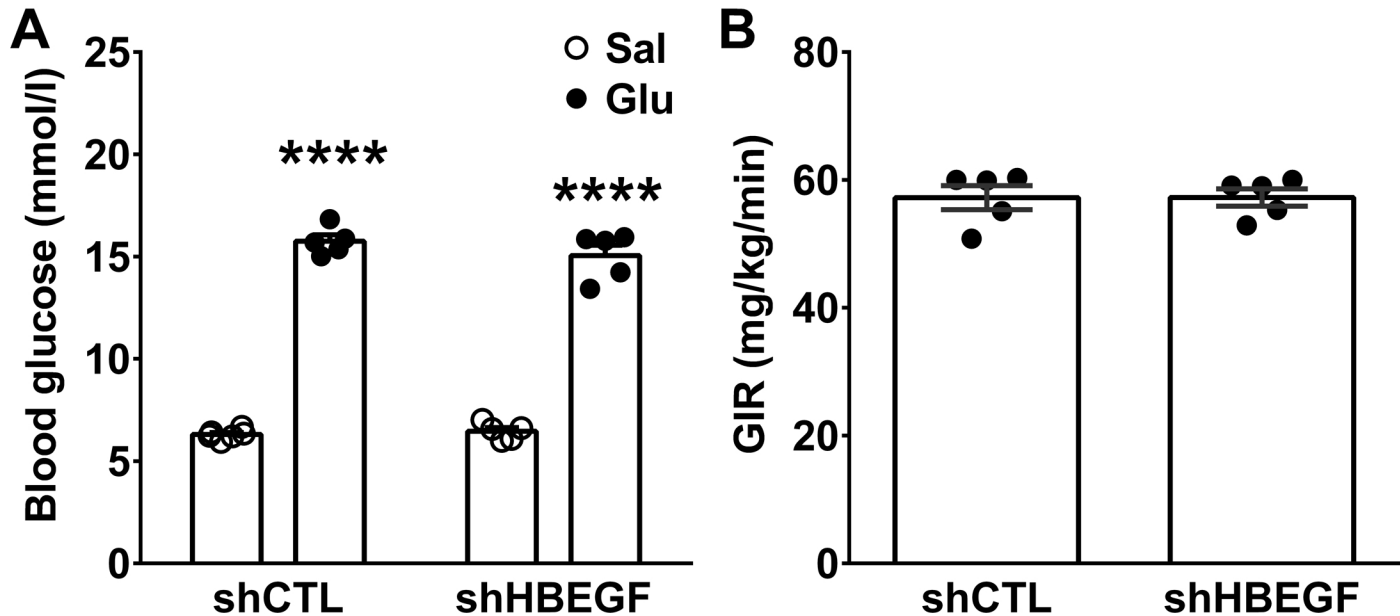


Figure S2. Blood glucose levels and GIR following glucose infusion in Lewis rats after islet transplant. Control shRNA adenovirus (shCTL) or shHB-EGF adenovirus (shHBEGF) infected islets were transplanted under the kidney capsule of Lewis rats and infused with saline (Sal) or glucose (Glu) for 72 h. Blood glucose levels (A) and GIR (B) during the infusion. Data represent individual values and means \pm SEM (n=4-6). ****p<0.0001, as compared to the saline condition.