

ONLINE APPENDIX

SUPPLEMENTARY TABLE 1. Antibodies used for protein quantitation

| Antibody | Source | Catalog # | Dilution |
|-----------------|-------------------------|-----------|----------|
| 4E-BP1 | Bethyl Laboratories | 6479/2 | 1:10,000 |
| 4E-BP1(T37/46)P | Cell Signaling | 9459 | 1:1,000 |
| 4E-BP2 | Cell Signaling | 2845 | 1:1,000 |
| β -actin | Sigma-Aldrich | A5060 | 1:1,000 |
| eIF2 | BioSource International | 44-728G | 1:3,000 |
| eIF4E | Cell Signaling | 9742 | 1:1,000 |
| eIF4E(S209)P | Cell Signaling | 9741 | 1:1,000 |
| eIF4G(S1108)P | Cell Signaling | 2441 | 1:1,000 |
| HIF-1 α | Novus Biologicals | 100-654 | 1:1,000 |
| VEGF | Santa Cruz | 7269 | 1:500 |

SUPPLEMENTARY TABLE 2

Primers used for quantitation of mRNA expression by quantitative real-time PCR.

| mRNA | Primer Sequence |
|----------------|---|
| β -actin | CTTCCTTCCTGGGTATGGAATCCTG |
| VEGFA | CTCCACCATGCCAAGTGGTCCCAGG (designed to detect all VEGFA isoforms) |
| FoxO1 | TCTCTAATTCTTGAGGGGTGGTTGC |
| 4E-BP1 | CACCCCGGGAGGAACCAGAATCATC |
| Gadd45 | GCTGGTGACGAACCCACATTCATCA |
| p300 | AGCGATGGCACAGATTTTGGTTTCAC |
| Angiopoietin2 | GAACAGCTTCCTAGAAAAGAAAGTG |

Supplemental Figure 1. Blood glucose concentrations in control and STZ-induced diabetic rats and mice and in wildtype and INS2Akita diabetic mice. **(A)** Type 1 diabetes was induced in male Sprague-Dawley rats. Values presented represent the mean \pm SEM of 51 control and 71 diabetic rats at 1 week, 25 control and 30 diabetic rats at 2 weeks, 10 control and 17 diabetic rats at 4 weeks, and 10 control and 14 diabetic rats at 6 weeks; control (white bars) and diabetic (hatched bars). *** $p < 0.001$ vs control at the same time point. **(B)** male C57BL/6J Ins2Akita heterozygous mice (4.5 week old) were genotyped and blood glucose concentrations were assessed; littermates homozygous for the wildtype Ins2 gene were used as controls. Values represent the mean \pm SEM of 16 control and 16 diabetic mice at 6 weeks, 20 control and 14 diabetic mice at 16 weeks, and 13 control and 15 diabetic mice at 24 weeks; control (white bars) and diabetic (Hatched bars). *** $p < 0.001$ vs wildtype at the same time point. **(C)** At 4 weeks of age, type 1 diabetes was induced in Eif4ebp1;Eif4ebp2 DKO mice as described. The study was repeated 3 times and the aggregate data are shown. Values represent the mean \pm SEM for 20 wildtype control (white bars), 29 wildtype diabetic (white, hatched bars), 18 DKO control (grey bars), and 30 DKO diabetic (gray, hatched bars) mice. * $p < 0.001$ wildtype diabetic vs control at the same time point. † $p < 0.001$ DKO diabetic vs control at the same time point.

