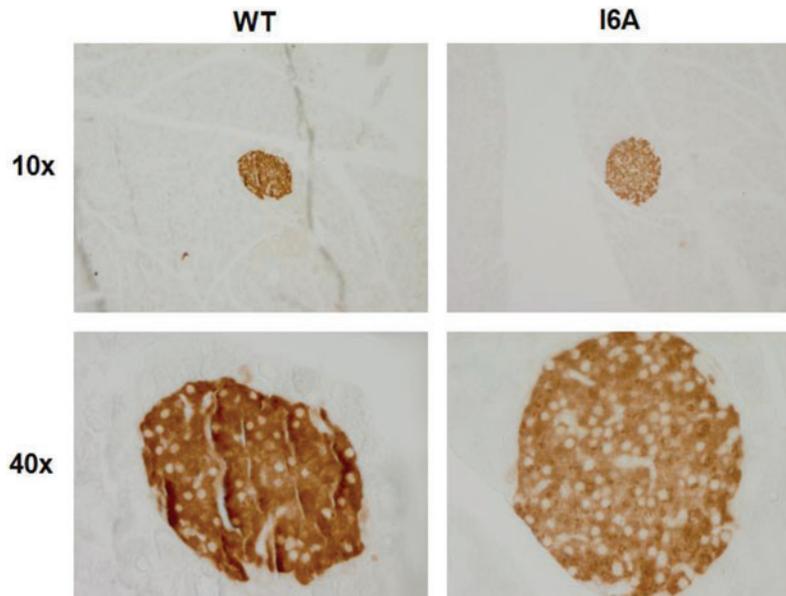
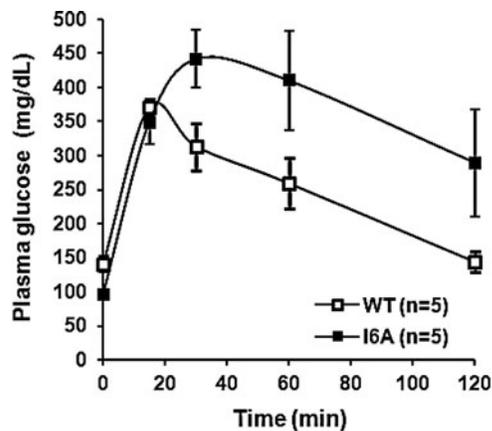


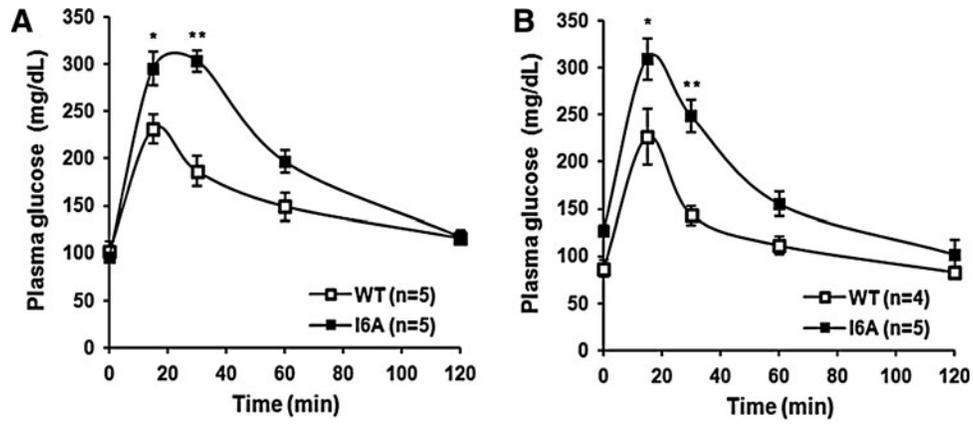
## Supplementary Data



**SUPPLEMENTARY FIG. S1.** Decreased expression of stress-related selenoproteins does not affect insulin immunostaining intensity in  $i^6A^-$  mutant Sec tRNA transgenic mice. Pancreatic sections from wild-type (WT) and  $i^6A^-$  mutant Sec tRNA transgenic mice (I6A) were stained with insulin-specific antibodies. Immunohistochemistry was performed for two mice per genotype, and representative images are shown.



**SUPPLEMENTARY FIG. S2.** Effect of an  $i^6A^-$  mutant Sec tRNA overexpression on glucose tolerance in male mice at 4 months of age. Four-month-old WT or  $i^6A^-$  mutant Sec tRNA transgenic (I6A) male mice ( $n=5$  per genotype) were given a single intraperitoneal injection of glucose (1 mg/g), and plasma glucose levels were measured at the indicated time points. Data are shown as means  $\pm$  SEM.



SUPPLEMENTARY FIG. S3. Effect of an  $i^6A^-$  mutant Sec tRNA overexpression on glucose tolerance in female mice at 4 (A) and 10 (B) months of age. WT or  $i^6A^-$  mutant Sec tRNA transgenic (I6A) female mice ( $n=4-5$  per genotype) were given a single intraperitoneal injection of glucose (1 mg/g), and plasma glucose levels were measured at the indicated time points. Data are shown as means  $\pm$  SEM ( $n=4-5$ ; \* $p < 0.01$  and \*\* $p < 0.001$  by two-way ANOVA).