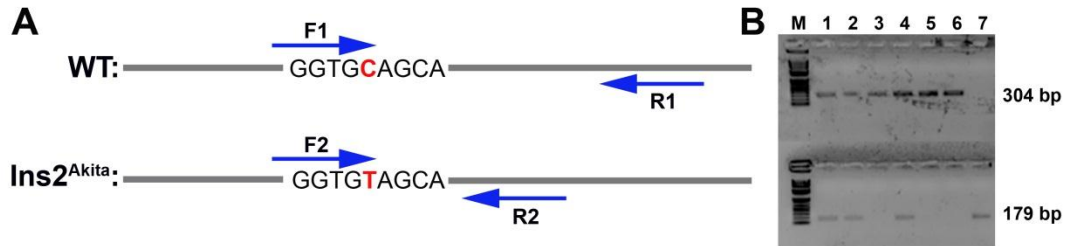
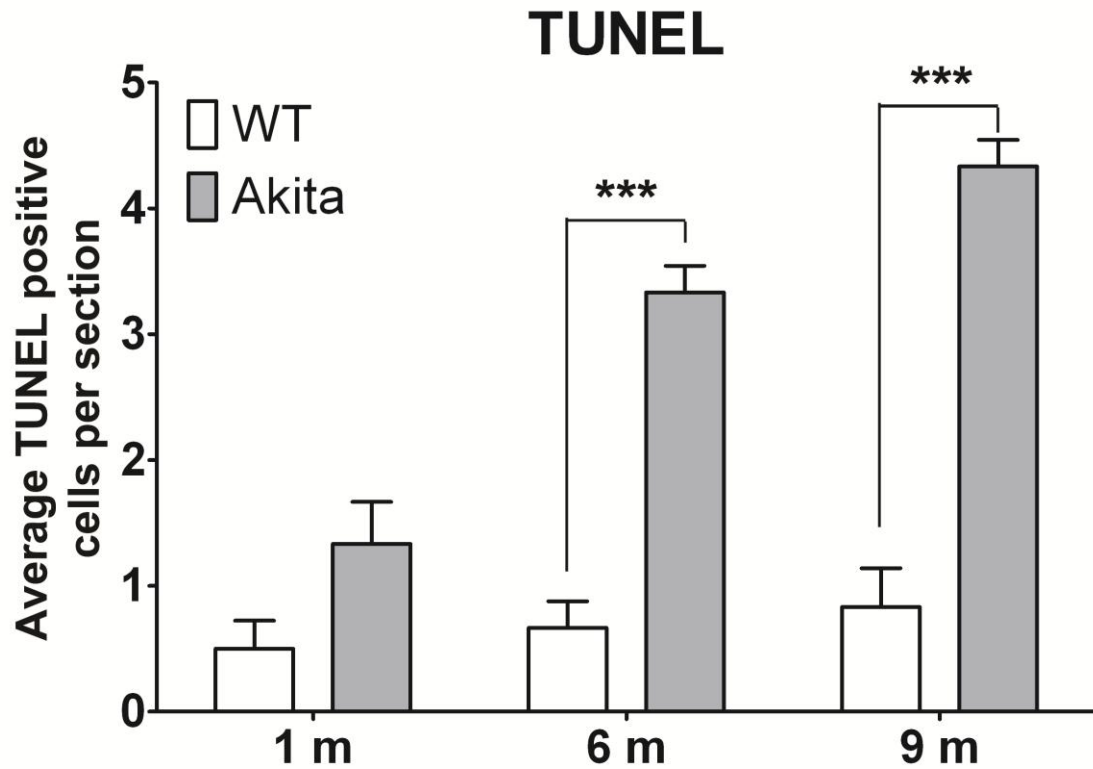


SUPPLEMENTARY INFORMATION



Supplementary Figure 1. Ins2^{Akita} genotyping. The G to A mutation in the Ins2^{Akita} results in the C96A amino acid substitution in the A chain of mature insulin. **A.** Genotyping was performed by PCR using the following primer pairs: F1: 5'-GAGGGAGCAGATGCTGGTGC-3' and R1: 5'-TGTGTCCATCCATGACCAGT-3' detect a 304 bp product from the WT allele, while F2: 5'-GAGGGAGCAGATGCTGGTGT-3' and R2: 5'-TGTGTCTTTGCTTCTGTGCTG-3' detect a 179 bp product from the mutant allele. **B.** Shown is a representative genotyping agarose gel. M: 1kb DNA markers. Lanes 1, 2, 4 are heterozygous mice, lanes 3, 5, 6, are WT mice, and lane 7 is a homozygous mouse.



Supplementary Figure 2. Increased apoptosis is detected in *Ins2^{Akita}* retinas. Retinal sections were TUNEL labeled and apoptotic cells were counted in six sections per eye then averaged to give a value for each eye. Values are mean \pm SE. ** $P < 0.01$ and *** $P < 0.001$ by two-way ANOVA (age and genotype) with Bonferroni's post-hoc comparisons. N=3-4 eyes/group.

Supplementary Table 1. Primer Sequences for qRT-PCR

Name	Forward	Reverse
hPEDF	acaggacacgaaggctgccctg	cctagtccctctaagcctgcaca
mVEGFA	agcacagcagatgtgaatgc	aatgctttctccgctctgaa
mVEGFR2	taagggcatggagtcttgg	cagagcaacacaccgaaaga
mTNF-α	cgtcagccgattgctatct	cggactccgcaaagtctaag