

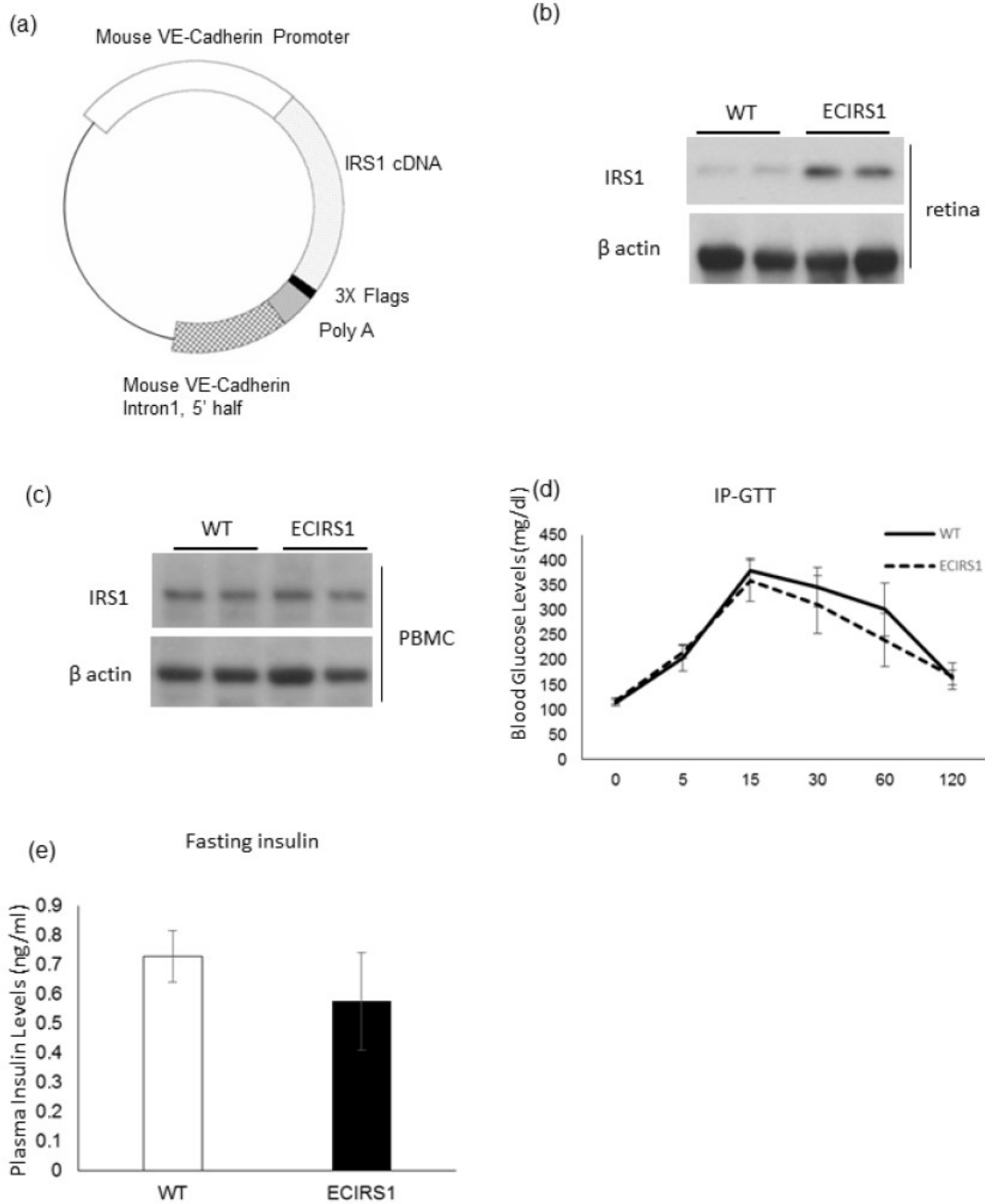
SUPPLEMENTARY DATA

Supplementary Table S1. Primers used for real-time quantitative RT-PCR analysis

Gene	Primers	
	Sense (5'-3')	Anti-sense (5'-3')
IRS1	TCTTCTGTTACACCTCAAGGA	GAGTAGGTGCTGAGAAGG
vegf	CTCGCAGTCCGAGCCGGAGA	GGTGCAGCCTGGGACCACTTG
ve-cadgerin	CAGCAACTTCACCCTCATAAAC	TCCCGATTAAACTGCCCATAC
fibronectin	CTTTGGCAGTGGTCATTTTCAG	ATTCTCCCTTTCCATTCCCG
36B4	GCTCCAAGCAGATGCAGCA	CCGGATGTGAGGCAGCAG
18s	GTAACCCGTTGAACCCCAT	CCATCCAATCGGTAGTAGCG

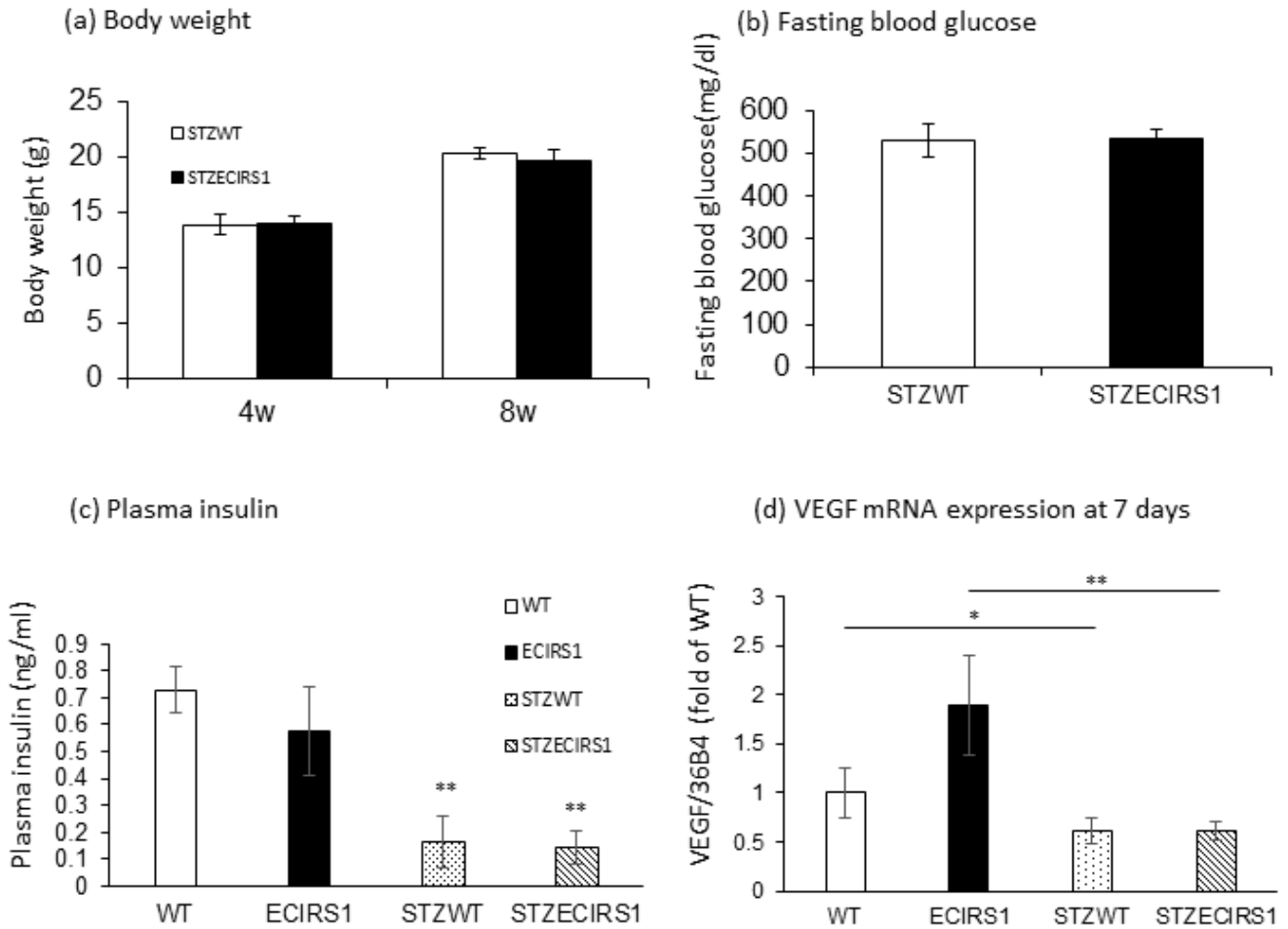
SUPPLEMENTARY DATA

Supplementary Figure 1. Characterization of WT and ECIRS1 TG mice (a) construct of promoterVE-cadherin –IRS1 (DNA) (b) IRS1 protein in retina (c) IRS1 protein in PBMC (d) IP-GTT in WT and ECIRS1 mice (e) Fasting plasma insulin concentration in WT and ECIRS1 mice



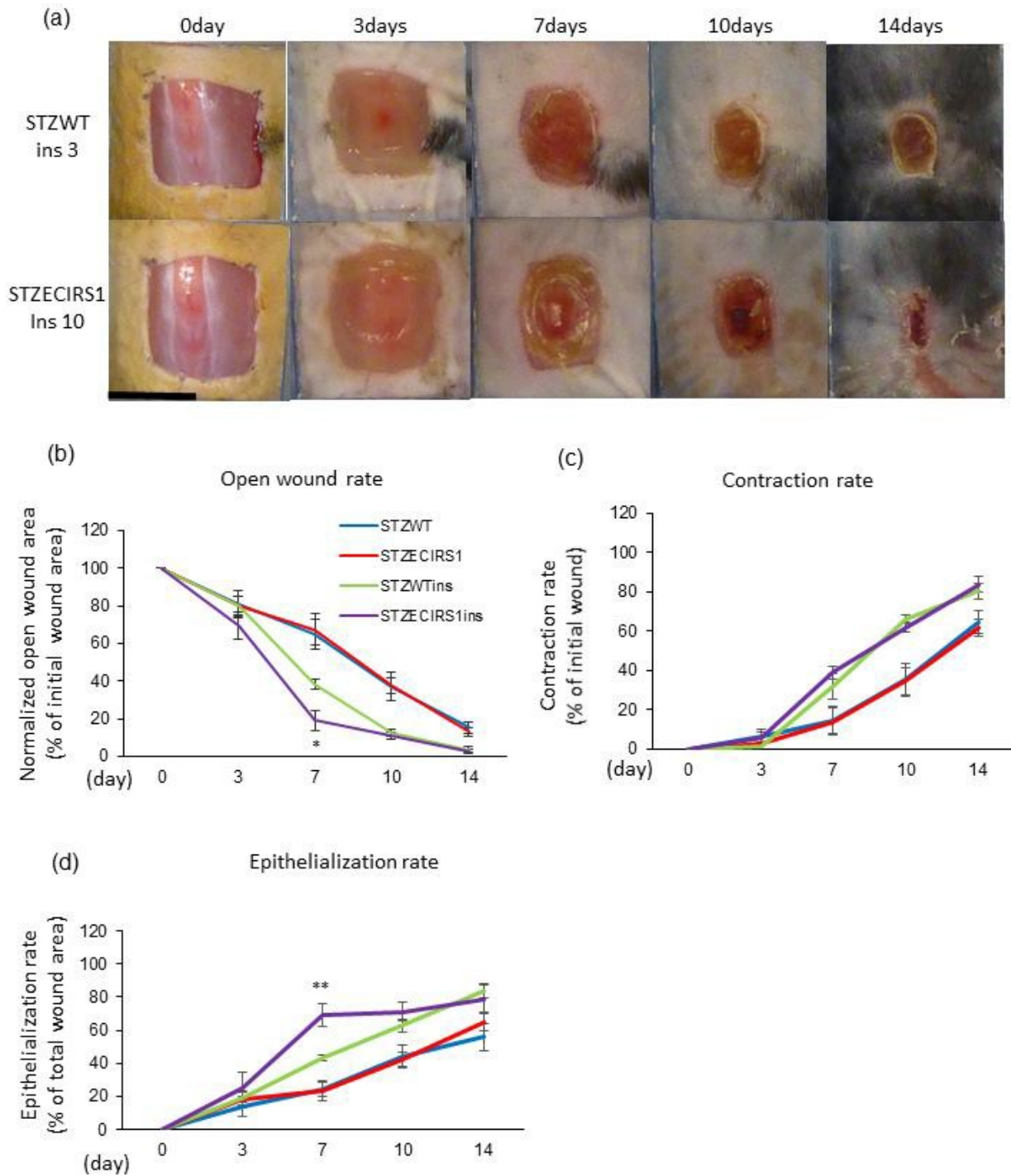
SUPPLEMENTARY DATA

Supplementary Figure 2. Physiologic studies in STZWT and STZECIRS1 mice. (a) Body weights at 4 and 8 weeks in mice (b) Fasting blood glucose at 8 weeks in mice (c) Fasting plasma insulin concentration between among WT, ECIRS1, STZWT and STZECIRS1 mice (n=5) **: p< 0.01 (d) VEGF mRNA expression in GT at 7 days from WT, ECIRS1, STZWT and STZECIRS1 mice (n=7, *:p < 0.05, **: p< 0.01)



SUPPLEMENTARY DATA

Supplementary Figure 3. Comparison of wound healing among STZWT, STZECIRS1, STZWTins and STZECIRS1ins mice *: $p < 0.05$, **: $p < 0.01$ (a) Photographs of wound at 0, 3, 7, 10 and 14 days after surgery. Black bar = 1 cm. (b) Open wound rate (%). (c) Contraction rate (%). (d) Epithelialization rate (%) (n=5 for each type of mice and at each time point).



SUPPLEMENTARY DATA

Supplementary Figure 4. Physiological studies in WT, ECIRS1, WTHF and ECIRS1HF mice. (n=5) **: p<0.01 (a) Body weights at 8 and 14 weeks in mice. (b) Fasting blood glucose at 8 and 14 weeks in WTHF and ECIRS1HF mice. (c) Blood glucose levels in IP-GTT at 14 weeks in WT, ECIRS1, WTHF and ECIRS1HF mice (d) Fasting plasma insulin concentrations. (e) Plasma IGF1 concentration (n=5).

