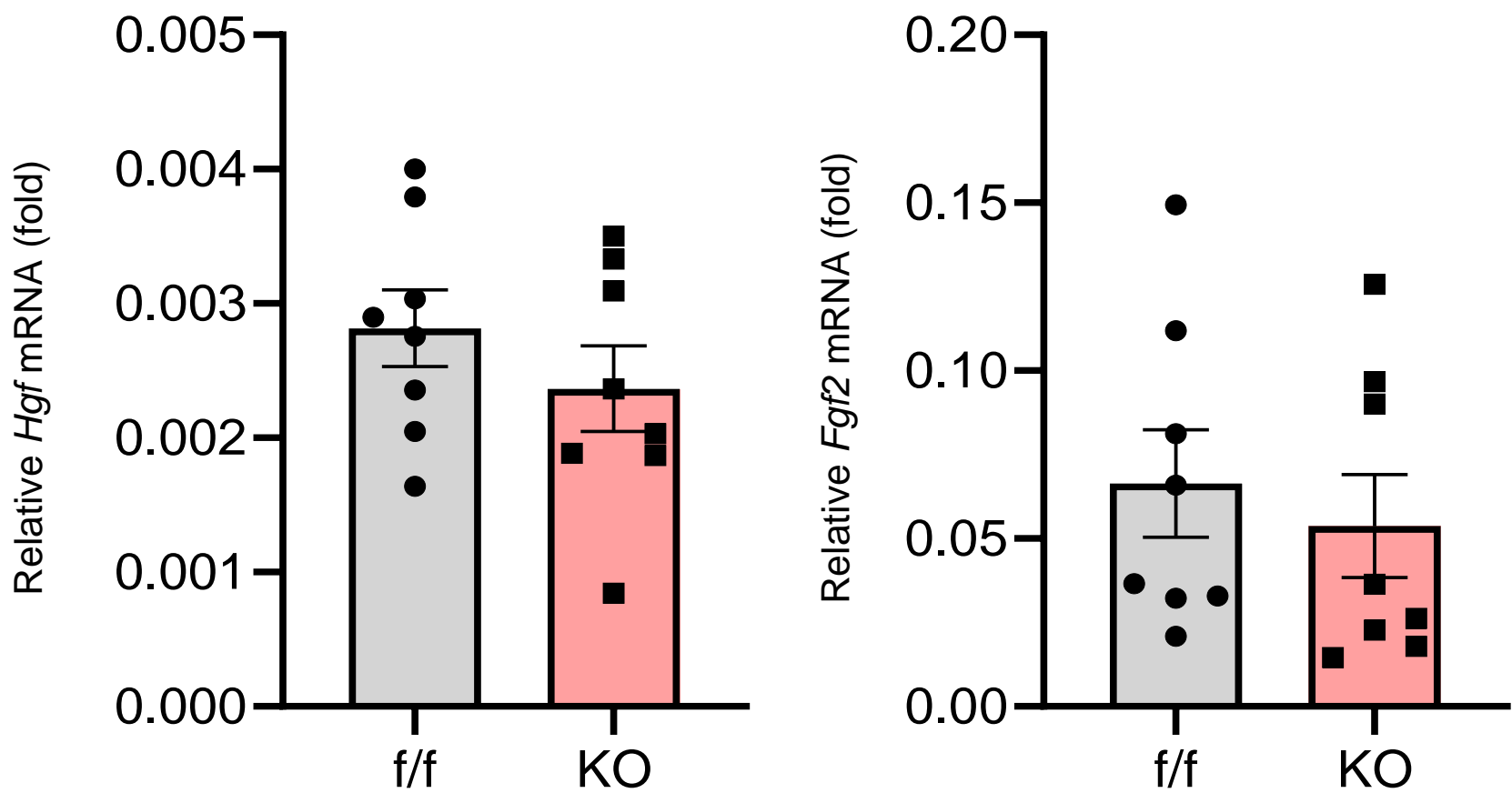
**ESM Fig.1**

Ngn3 mRNA expression in islets was comparable between control *flox* and VE-PDPK1-KO mice. (n=8 mice) Values are the means \pm SEM. *f/f*, control *flox* mice; KO, VE-PDPK1-KO mice

**ESM Fig.3**

mRNA expression levels of *Hgf* and *Fgf2* in islets were comparable between control *flox* and VE-PDKPK1-KO mice. (n=8 mice) Values are the means \pm SEM. f/f, control *flox* mice; KO, VE-PDKPK1-KO mice

Primer Sequences

	Forward	Reverse
mouse <i>Ins1</i>	CCCTTAGTGACCAGCTATAATCAGAGA	ACCACAAAGATGCTGTTTGACAA
mouse <i>Ins2</i>	CTGCTGGCCCTGCTCTTC	AACCACAAAGGTGCTGCTTGA
mouse <i>Mafa</i>	CCAGCTGGTATCCATGTCC	TTCTGTTTCAGTCGGATGACC
mouse <i>Pdx1</i>	CGGCTGAGCAAGCTAAGGTT	TGGAAGAAGCGCTCTCTTTGA
mouse <i>Neurod</i>	AGGAACACGAGGCAGACAAGA	CTCCCCCGTTTCTCAGAGAGT
mouse <i>Gck</i>	CCCTGAGTGGCTTACAGTTC	ACTGATGTGAGTGTTGAAGC
mouse <i>Slc2a2</i>	TTACCGACAGCCATCCT	TGAAAATGCTGGTTGAATAGTAAA
mouse <i>Glp1r</i>	ACTTTCTTTCTCCGCCTTGGT	CCTGGTGCAGTGCAAGTGTCT
mouse <i>Gipr</i>	GGAGCGCAACGAAGTCAA	CTGGCCCTACCAAGATGGTTAT
mouse <i>Bcl2</i>	CGCTGCGGTGCTCTTGA	TCACACTCCGGCTTCACTGA
mouse <i>Bax</i>	GGAAGGCCTCCTCTCCTACTTC	TGAGGACTCCAGCCACAAAGA
mouse <i>Caspase8</i>	GAGATCCTGTGAATGGAACCTGGTA	GTTACGCCAGTCAGGATGCTA
mouse <i>Caspase3</i>	CTGGACTGTGGCATTGAGACA	CAGCCTCCACCGGTATCTTC
mouse <i>Ccnd1</i>	TCGTGGCCTCTAAGATGAAGGA	CCTCGGGCCGGATAGAGTT
mouse <i>Irs2</i>	GGACCCACCTGACTTCTCA	GCAGGAACAGGGAGCCTTATAA
mouse <i>Insr</i>	TGAAGGCAATGCCAAGGATATC	AAGACTGGCTGACTCATTGACAGT
mouse <i>Igf1r</i>	CCGCGCCAGTTTTGATG	AGGCAAGGCCCTCTCGTT
mouse <i>Irs1</i>	CGGGCTGACTCCAAGAACA	TCGCTATCCGCGGCAAT
mouse <i>Hif1a</i>	AGGAGCCTGATGCTCTCACTCT	TGTGTCATCGCTGCCAAAT
mouse <i>Adm</i>	GCAATGCTTGTTGTCCAGCC	ACACACACACACACACACGGAAC
mouse <i>Eno1</i>	GATGGACGGCACAGAGAATAAATC	AGGCAGGATGACTTCAGGGTTG
mouse <i>Tpi1</i>	CCTTCCATTGGTTTGGGCTG	AATACAGGGGCTTTGGCACC
mouse <i>Hmox1</i>	CCACACAGCACTATGTAAAGCGTC	GTTCCGGGAAGGTAAAAAAGCC
mouse <i>Vegfa</i>	GTACCTCCACCATGCCAAGT	GCATTCACATCTGCTGTGCT
mouse <i>Bip</i>	TCATCGGACGCACTTGGAA	AACCACCTTGAATGGCAAGAA
mouse <i>Fkbp11</i>	ACACGCTCCACATACTACACGG	ATGACTGCTCTTCGCTTCTCTCCC
mouse <i>sXbp1</i>	GAGTCCGCAGCAGGTG	GTGTCAGAGTCCATGGGA
mouse <i>tXbp1</i>	TTCATGAATGGCCCTTAGCAT	AAAACAAGCCCCCTCAGGTT
mouse <i>Atf3</i>	CCTCAGAAGTCAGTGCGACC	CATCCGATGGCAGAGGTGTT
mouse <i>Ddit3</i>	GGAGCCAGGGCCAACAG	GCCATAGAACTCTGACTGGAATCTG
mouse <i>Trb3</i>	TCTTCAGCAACTGTGAGAGGACG	TCCAGACATCAGCCGCTTTG
mouse <i>Ngn3</i>	GCGCAAGAAGGCCAATGA	CAGCGCCGAGTTGAGGTT
mouse <i>Hgf</i>	TAAACGTGCGCTCACAGTG	TTCTCCTTGGCCTTGAATGC
mouse <i>Fgf2</i>	TGTGGCACTGAAACGAACTG	AACAGTATGGCCTTCTGTCCAG