

Supplementary materials

Two novel candidate genes for insulin secretion identified by comparative genomics of multiple backcross mouse populations

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Primers used for quantitative real-time PCR. Primer sequences were synthesized by Eurogentec (Seraing, Belgium). Primers were dissolved in nuclease free water to reach a final concentration of 10 nM. Fwd, Forward; Rev, Reverse.

Target	Sequence 5'→3'
<i>Actb</i>	Fwd: CCACCATGTACCCAGGCATT Rev: AGGGTGTA AACGCAGCTCA
<i>Atp4a</i>	Fwd: GGTTAATAGGAAGGATGCCCCG Rev: CAGTCGCTGACA ACTCTCCA
<i>Dbp</i>	Fwd: AAAGGAGCGCAAGGCAACTC Rev: AAAGGCAAAGTGCGTTCCCA
<i>Hspb6</i>	Fwd: CTCTTTGACCAGCGTTTCGG Rev: CATCCAGCAGCACGGAAAAA
<i>Pop4</i>	Fwd: CGATGTGCAGGAGCTGGGAA Rev: TGTC AAAGAGCCGCATGTCT
<i>Rras</i>	Fwd: CAAGTGACGAAACAGCCTCG Rev: CAAAGTAGGACTGCTCCTGGC
<i>Tbp</i>	Fwd: GCGGCACTGCCCATTTATTT Rev: GGCGGAATGTATCTGGCACA
<i>Tmem147</i>	Fwd: TGTCATGGAGACCTTCGTCC Rev: GGTTCCGCAACACCTGAGAT

TaqMan probes used for quantitative real-time PCR. TaqMan probes were purchased from Thermo Fisher Scientific (Darmstadt, Germany)

Target	Assay ID
<i>Ffar2</i>	Mm02620654_s1
<i>Ffar3</i>	Mm02621638_s1
<i>Zfp719</i>	Mm01197328_m1

KASP SNP primer on chromosome 7 used for genotyping of RCS.NZO.C3H-Nbg7 mice. All primers were purchased from LGC (LGC group, Teddington, United Kingdom). A, Adenine; G, Guanine; C, Cytosine; T, Thymine.

JAX Stock #	Mb-Position	RS_ID	C3HeB/FeJ	NZO/Hi
07-011167675-M	16.6	rs3675839	T	C
07-016778161-M	25.3	rs3701807	A	G
07-022058953-N	30.6	rs4226520	G	A
07-026985215-M	37.3	rs3724525	G	T
07-028240185-M	38.5	rs3696033	A	C
07-029991530-M	47.6	rs3675009	T	C
07-034063244-M	51.8	rs3710949	A	G
07-039020313-M	56.7	rs3680765	G	T
07-048028246-M	65.6	rs3679388	T	G
07-058987832-M	76.7	rs3693876	A	G
07-072051696-M	89.5	rs3701187	T	C
07-093235239-M	110.6	rs3706526	C	A
07-109117173-M	126.6	rs3670069	C	A
07-129989877-M	147.0	rs3700241	G	A

siRNA oligonucleotides used for transfection of MIN6 cells.

Target	Sequence 5' → 3'	Supplier, ordering number, product name
<i>Atp4a</i>	#1 CCUGCGUGAUC A AUGGUAU #2 CUAACAUCUUAACUUCAU #3 GUCUCAUCUAUGGUUUGAC #4 CCAUGAACUUUCCGAGUAG	Dharmacon (Lafayette, CO, USA), #E-046922-00-0005, Accell Mouse <i>Atp4a</i> (11944) siRNA SMART pool
<i>Pop4</i>	#1 GCCGUGAUCUUGGAAUAUU #2 CCAUAGAAAUAUGACUU #3 GGAUUAACCUUGGGUCAUC #4 CUAUUAUUUCAGUCACGAA	Dharmacon (Lafayette, CO, USA), #E-062084-00-0005, Accell Mouse <i>Pop4</i> (66161) siRNA SMART pool
Control (Non-target)	Confidential	Qiagen (Hilden, Germany), #1022076, Negative Control siRNA