



**SUPPLEMENTARY FIG. S16. Specific knockdown of long isoforms of *Nrf1* has no significant effect on insulin secretion in MIN6 cells.** (A) mRNA expression of *Nrf1* determined by real-time RT-qPCR in Scramble and *Nrf1(L)*-KD cells. Scramble cells transduced with nontarget negative control shRNA; *Nrf1(L)*-KD, knockdown of long isoforms of *Nrf1* using an shRNA specifically targets long isoforms of *Nrf1* (target sequence: CCACAACCTGAGGAATACCTT). The primer set for real-time RT-qPCR recognizes all the isoforms of *Nrf1*.  $n=3-12$ .  $*p<0.05$  versus Scramble. (B) mRNA expression of various isoforms of *Nrf1* determined by RT-PCR in Scramble, *Nrf1*-KD, and *Nrf1(L)*-KD cells. *Nrf1*-KD, knockdown of all isoforms of *Nrf1*. The sequences of primer sets for RT-PCR are shown in Supplementary Table S3. (C) mRNA expression of proinsulin in Scramble and *Nrf1(L)*-KD cells.  $n=15$ . (D) Insulin secretion in Scramble and *Nrf1(L)*-KD cells. Glu, glucose; KCl, potassium chloride; ratio, insulin secreted under 20 mM over 3 mM Glu.  $n=6-12$ .  $*p<0.05$  versus the same cells with 3 mM Glu. RT-PCR, reverse transcription-polymerase chain reaction.