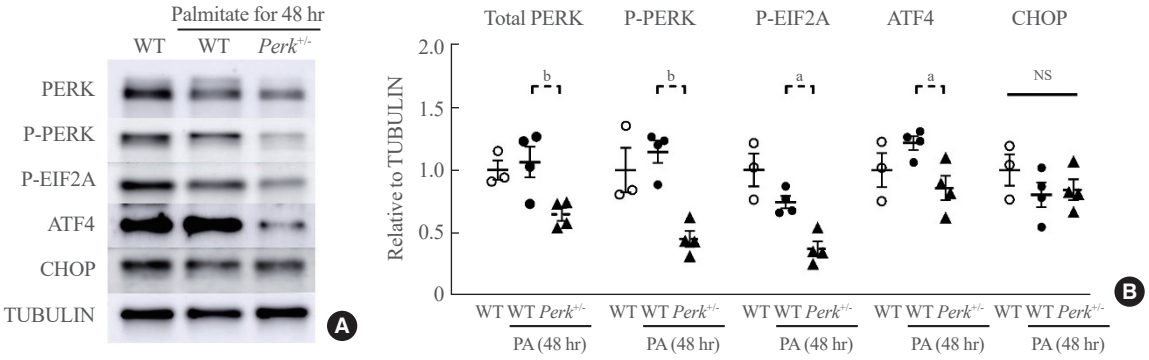

Supplemental Fig. S1. Western blots of pancreatic endoplasmic reticulum kinase (PERK) and unfolded protein response markers in mouse islets exposed to chronic lipotoxicity *in vitro*. Mouse islets were isolated from each genotype, and exposed to 0.5-mM palmitate (PA) (conjugated with bovine serum albumin free from fatty acid [3:1 molar ratio]) for 48 hours. We extracted total proteins from the islets using radioimmunoprecipitation assay (RIPA) buffer (BRI-9010, T&I) mixed with a protease inhibitor cocktail and phenylmethylsulfonyl fluoride. We boiled the protein samples in sodium dodecyl-sulfate (SDS) sample buffer, separated them by SDS-polyacrylamide gel electrophoresis, and then transferred them to nitrocellulose membranes for immunoblotting. We detected the blots using the ECL Western Blotting Substrate (Thermo, #NCI4080KR). Primary antibodies used are presented in the Supplemental Table S3. (A) Representative Western blots, and (B) the quantitated protein levels relative to TUBULIN. P-PERK, phosphorylated PERK; P-EIF2A, phosphorylated EIF2A; ATF4, activating transcription factor 4; CHOP, C/EBP homologous protein; NS, no significant; WT, wild-type. $^{a}P<0.05$; $^{b}P<0.01$ in the one-way analysis of variance (ANOVA) and Dunnett's multiple comparisons test.