



Figure S1 Effects of LPD on gene expression pattern in the iWAT of F0 male mice at 10–12 weeks of age. (A) Volcano plot of the LPD-induced differentially expressed genes ($n = 603$) in iWAT. LPD upregulated 269 genes (purple spots) and downregulated 334 genes (blue spots) ($FDR < 0.05$). Four representative fatty acid β -oxidation genes are shown. (B and C) Representative GO biological process (BP) terms for the up- and down-regulated genes, respectively ($P < 0.05$). Only the top 20 GO-BP terms are shown. Y-axis:

names of the BP terms; x-axis: $-\log_{10}$ (P -value). The up-regulated gene list is mainly enriched in genes involved in metabolic processes, in which the functional subgroup was fatty acid β -oxidation (orange bar) (B), and many of the down-regulated genes are involved in muscle contraction and development (C).