

## *Supplementary Figure S1 and S2*

# **Antiadipogenic Effects of Loganic Acid in 3T3-L1 Preadipocytes and Ovariectomized Mice**

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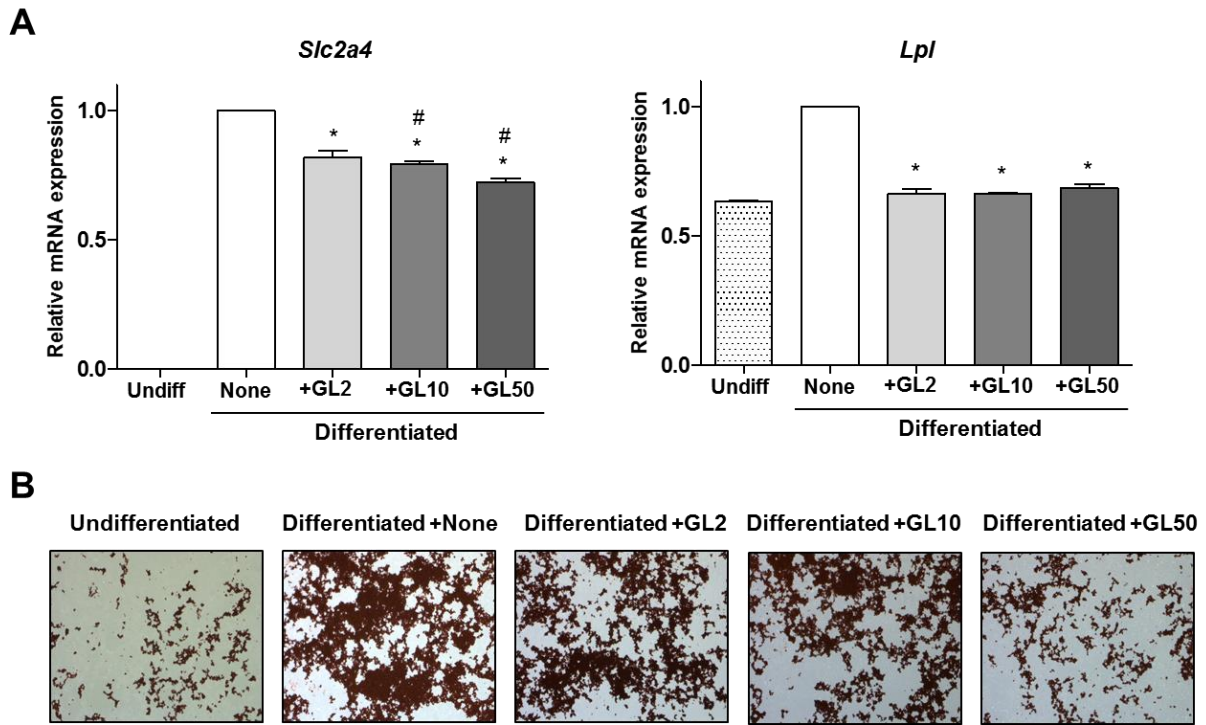
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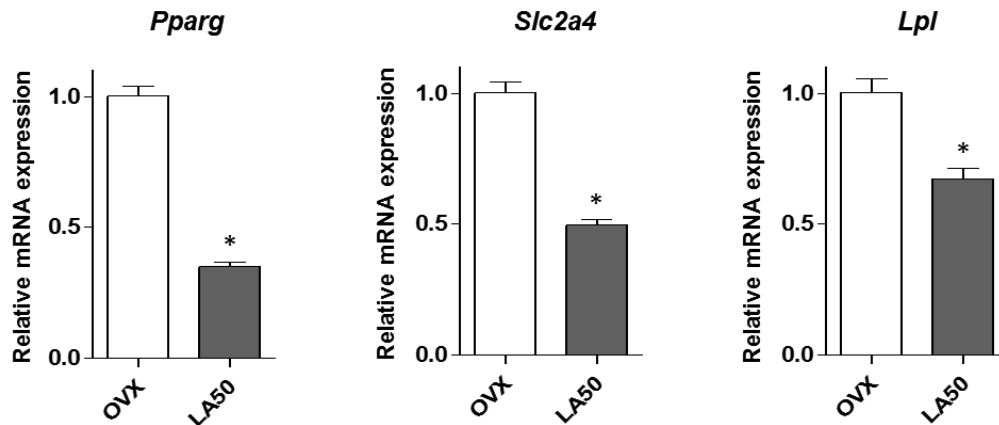
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**Supplementary Figure S1. Effects of *Gentiana lutea* L. (GL) root on the mRNA expression of adipogenesis-related genes during adipocyte differentiation of 3T3-L1 cells.** The cells were treated with 2, 10, or 50 mg/mL of GL (GL2, GL10, or GL50). (A) The mRNA expression levels for GLUT4 (*Slc2a4*) and lipoprotein lipase (*Lpl*) were determined quantitatively by reverse-transcription real-time PCR using gene-specific primers and then normalized to the *Gapdh* mRNA expression level. \*:  $p < 0.05$  vs. None, and #:  $p < 0.05$  vs. GL2 (Tukey's HSD post hoc test, ANOVA). (B) Lipid accumulation in 3T3-L1 cells was assessed by oil red O staining. Differentiated adipocytes were visualized under a microscope. Abbreviations: Undiff, Undifferentiated; None, non-treated.



**Supplementary Figure S2. Effects of loganic acid on the mRNA expression of adipogenesis-related genes in mice with ovariectomy-induced obesity.** After 12 weeks of feeding, total RNAs were extracted from the livers and abdominal visceral fat tissues of ovariectomized mice (OVX) and OVX mice receiving oral administration of loganic acid (LA50: 50 mg/kg/day). The mRNA expression levels of PPAR $\gamma$  (*Pparg*) in the liver, and of GLUT4 (*Slc2a4*) and lipoprotein lipase (*Lpl*) in abdominal visceral fat tissues, were assessed quantitatively by reverse-transcription real-time PCR using gene-specific primers and then normalized to the *Gapdh* mRNA expression level. The resulting mRNA expression values expressed as fold-changes compared to the control. \*: p < 0.05 vs. OVX (Student's *t*-test).