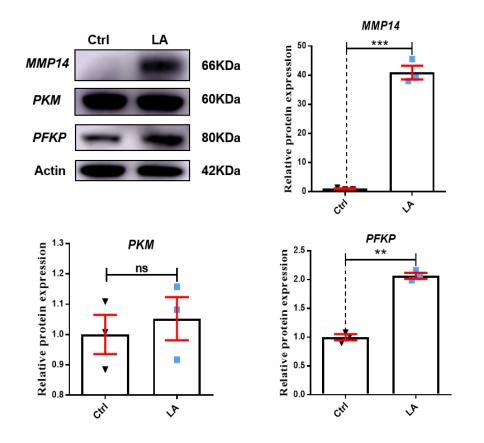
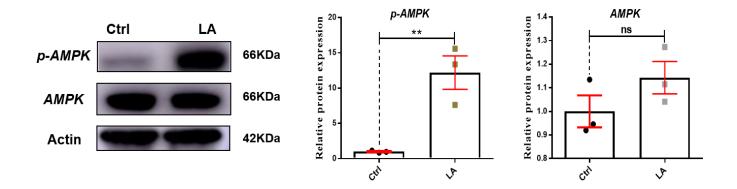


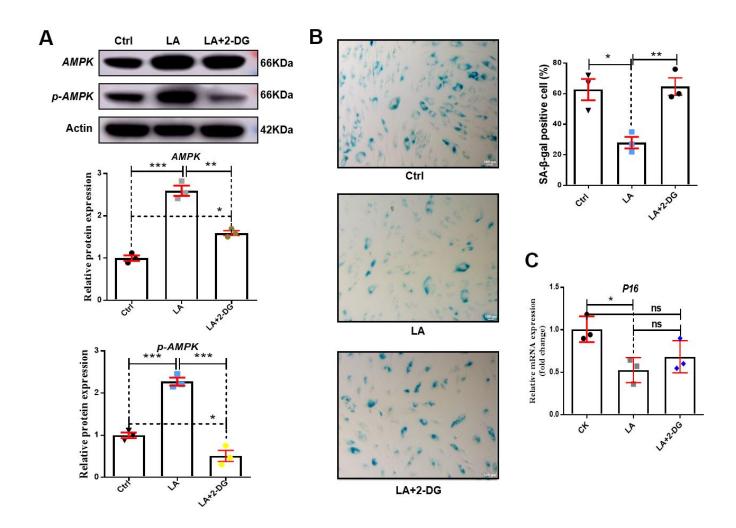
Supplementary Figure 1. Cell viability assay and survival curve analysis to monitor the effect of LA on aged hADSC. (A) Cell viability assay. (B) Survival curve. The data are presented as mean  $\pm$  SD of three independent experiments. \* p < 0.05, \*\* p < 0.01 compared to untreated cells.



Supplementary Figure 2. Western blot analysis of glycolysis/gluconeogenesis signaling pathway related proteins in hADSCs treated as indicated. Data are presented as the mean  $\pm$  SD of three independent experiments. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001 compared with untreated cells.



Supplementary Figure 3. Western blot analysis of AMPK protein in hADSCs treated as indicated (LA 24 h treatment). Data are presented as the mean  $\pm$  SD of three independent experiments. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001 compared with untreated cells.



Supplementary Figure 4. Influences of LA on senescence of hADSCs can be reversed by glycolysis inhibitor 2-DG. (A) Western blot analysis of *AMPK* protein in hADSCs treated as indicated (LA treatment 80 h). (B) SA- $\beta$ -gal staining of hADSCs (Scale bar: 100  $\mu$ m) (LA treatment 48 h). The relative intensity of ROS was detected by a microplate reader. (C) qRT-PCR of mRNA levels of p16 gene (LA treatment 48 h). Data are presented as the mean  $\pm$  SD of three independent experiments. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001 compared with control cells.