Supplementary figure
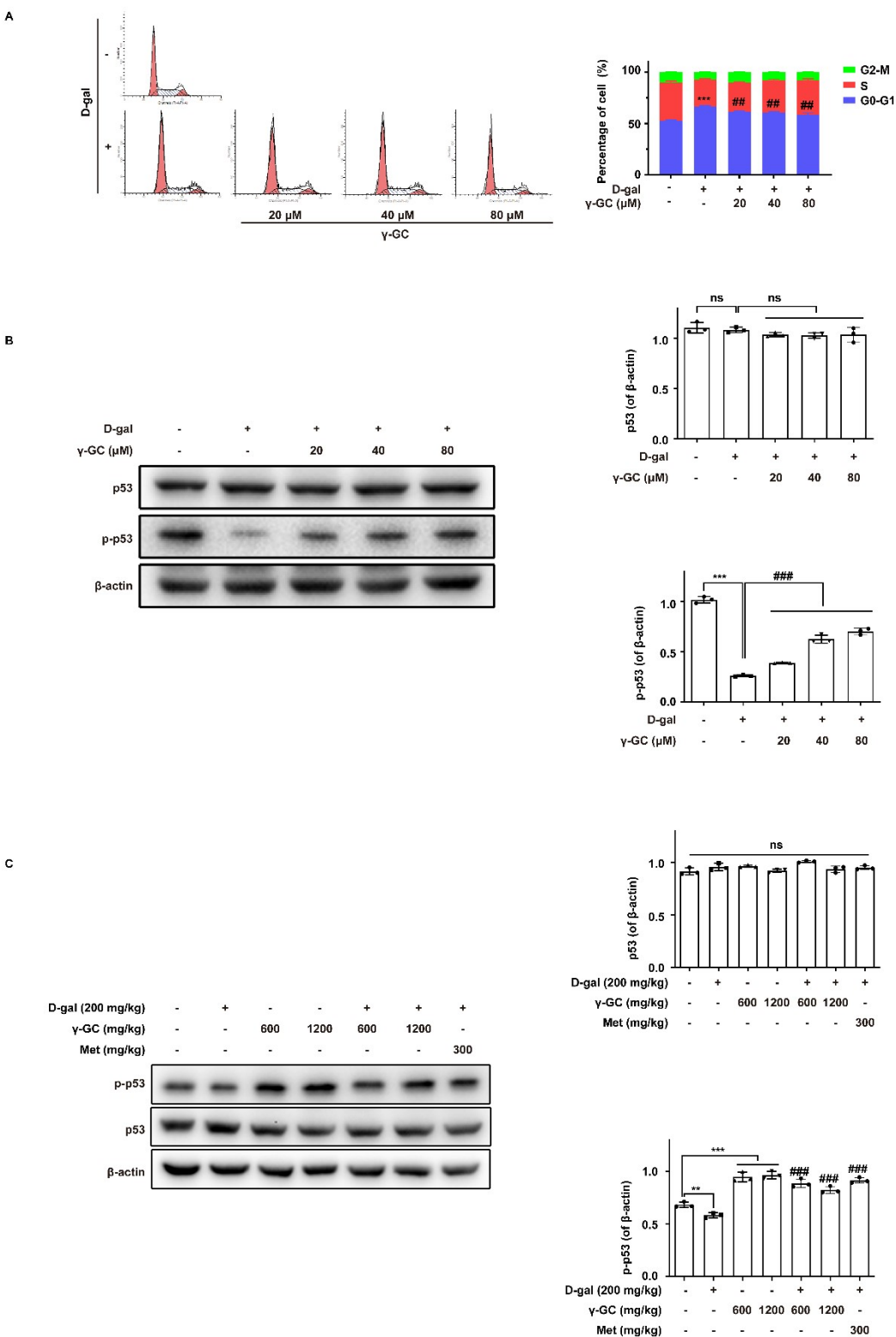

Fig. S1 γ-GC inhibits D-gal-induced senescence in PC12 cells and aging in BALB/c mice. (A)

Images of the cell cycle in each group and percentages of cells in G0/G1, S, and G2/M phases. (B, C) Protein levels of p-p53 (S15), p53 and β-actin in PC12 cells and BALB/c mice by western blotting. Data are presented as mean ± SD of three independent experiments in each group. $^{**}p <$ 0.01, $^{***}p < 0.001$ as compared with the control group; $^{\#\#\#}p < 0.001$ as compared with the D-gal group; ns: no significant difference.
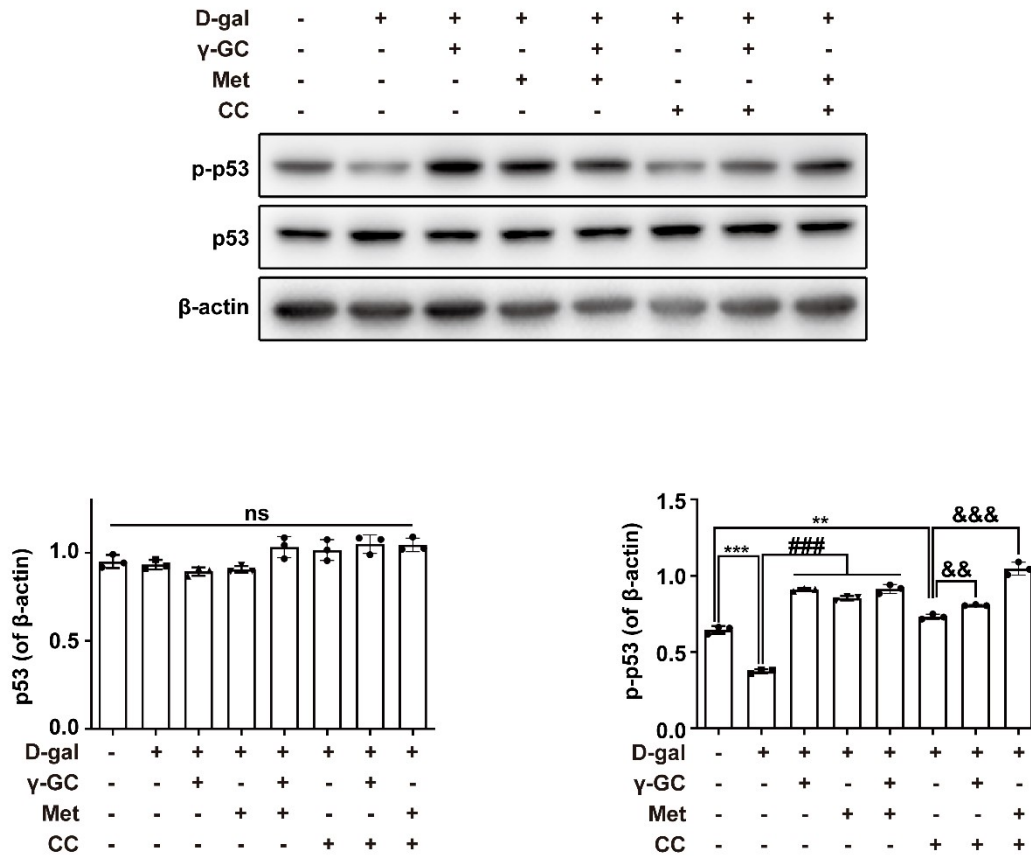

Fig. S2 γ-GC prevents D-gal-induced PC12 cell senescence via the activation of AMPK. PC12 cells were treated with D-gal, CC (2 μM), or D-gal + CC (2 μM) and then incubated in a complete medium with γ-GC (80 μM) or Met (80 μM) for 48 h. Immunoblotting analysis of p53, and p-p53 (S15) levels in each group. Data are presented as mean ± SD of three independent experiments in each group. $^{**}p < 0.01$, $^{***}p < 0.001$ as compared with the control group; $^{\#\#\#}p < 0.001$ as compared with the D-gal group; $^{\&\&}p < 0.01$, $^{\&\&\&}p < 0.001$ as compared with the D-gal and CC combined treatment group; ns: no significant difference.
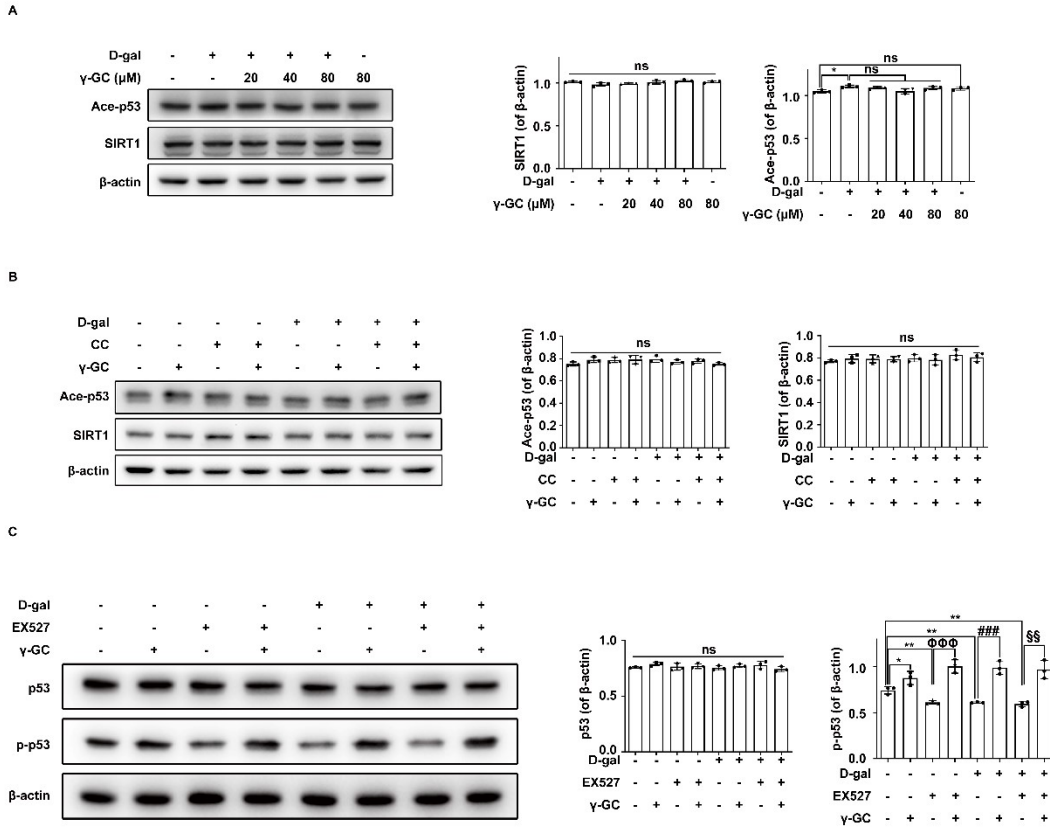
Fig. S3 γ-GC prevents the increase of Ace-p53 in the nucleus via activating AMPK. (A) D-gal treated PC12 cells were incubated in a complete medium with γ-GC (20, 40, 80 μM) for 48 h. Immunoblotting analysis the protein level of Ace-p53 and SIRT1 in whole-cell protein in each group. Data are presented as mean ± SD of three independent experiments in each group. (B) Cells were treated with D-gal or γ-GC (80 μM) in the presence or absence of CC (2 μM); immunoblotting analysis of the protein levels of Ace-p53 in the whole-cell protein in each group. Data are presented as mean ± SD of three independent experiments in each group. (C) Cells were treated with D-gal or γ-GC (80 μM) in the presence or absence of EX527 (1 μM); immunoblotting analysis of the protein levels of p53, p-p53 in each group. Data are presented as mean ± SD of three independent experiments in each group. $^{*}p < 0.05$, $^{**}p < 0.01$ as compared with the control group; $^{###}p < 0.001$ as compared with the D-gal group; $^{ΦΦΦ}p < 0.001$ as compared with the EX527 group; $^{§§}p < 0.01$ as compared with the D-gal and EX527 combined treatment group; ns: no significant difference.