

Supplementary Figure

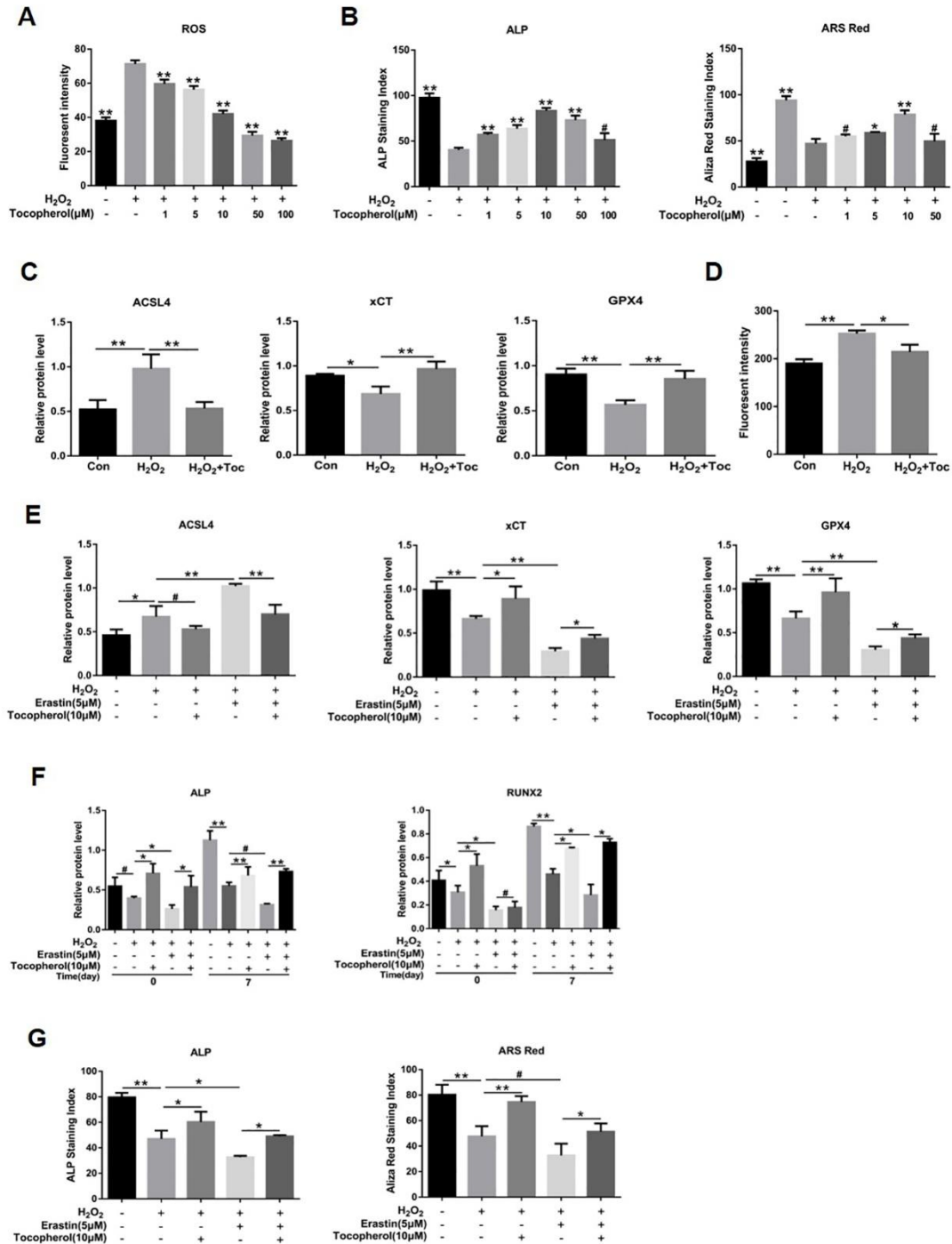


FIGURE S1 (A) Quantitative analysis of Intracellular ROS level of H₂O₂ stimulated BMSCs. (B) Quantitative analysis of ALP staining and Alizarin red staining. (C) Quantitative analysis of ferroptosis-related protein (ACSL4, xCT and GPX4) levels. (D) Quantitative analysis of the level of Fe²⁺ in the mitochondria. (E) Adding the ferroptosis activator Erastin (5 μM) combined with H₂O₂ and Tocopherol, the Quantitative analysis of ACSL4, xCT and GPX4 protein level. (F)

Quantitative analysis of osteogenesis-associated proteins ALP and RUNX2. (G) Adding the ferroptosis activator Erastin (5 μ M) combined with H₂O₂ and Tocopherol, the Quantitative analysis of ALP staining and Alizarin red staining. (* p <0.05,** p <0.01 vs. H₂O₂ group)

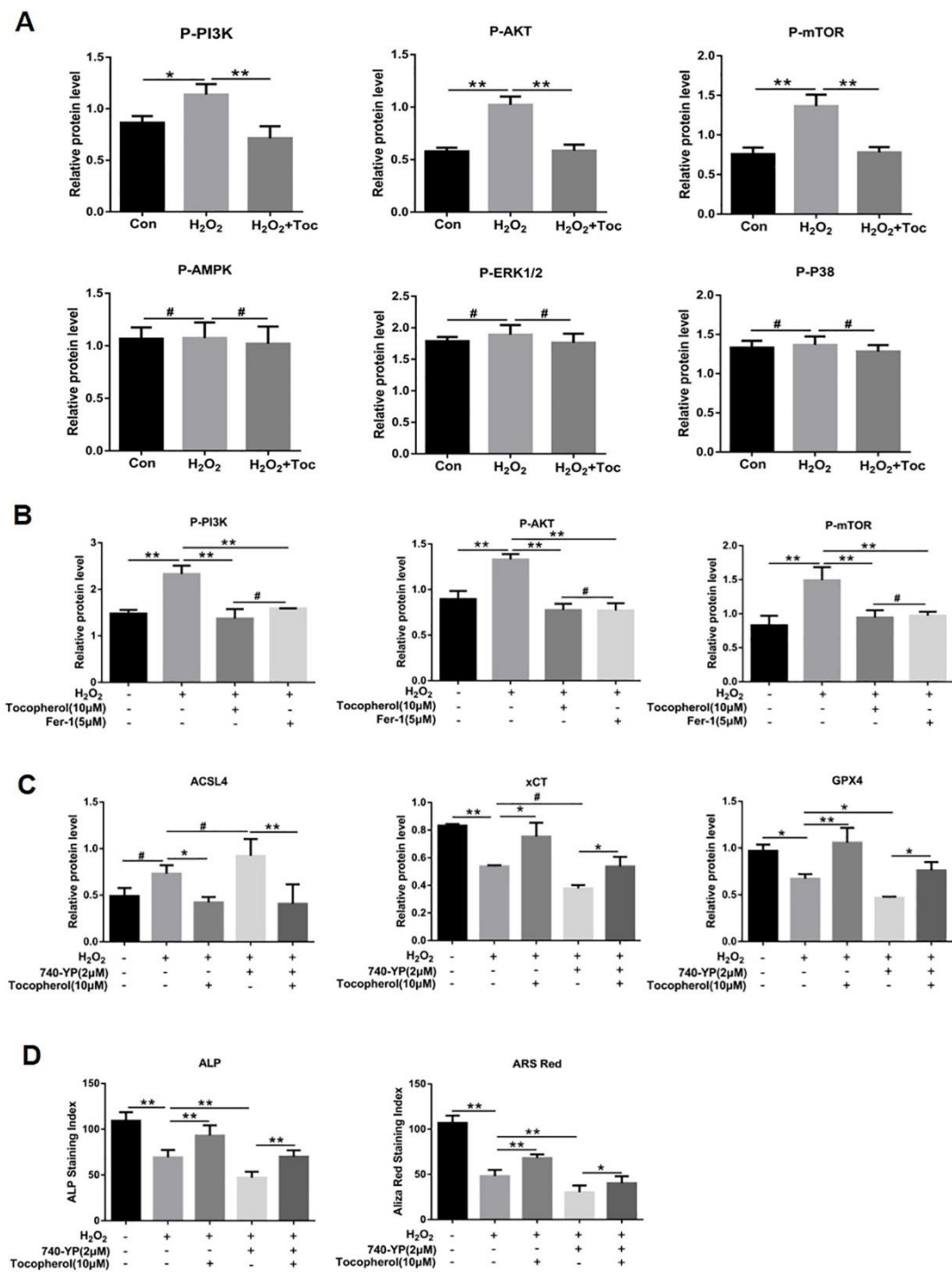


FIGURE S2 (A) Quantitative analysis of PI3K/AKT/mTOR, AMPK, MAPK (P38 and ERK1/2)-related protein levels. (B) Adding the ferroptosis inhibitor ferrostatin-1 (5 μ M), the Quantitative analysis of PI3K/AKT/mTOR related protein levels. (C) Adding the the PI3K

agonist 740-YP (2 μ M) combined with H₂O₂ and Tocopherol, the Quantitative analysis of ACSL4, xCT and GPX4 protein level. (D) Adding the the PI3K agonist 740-YP (2 μ M) combined with H₂O₂ and Tocopherol, the Quantitative analysis of ALP staining and Alizarin red staining. (*p<0.05,**p<0.01 vs. H₂O₂ group)