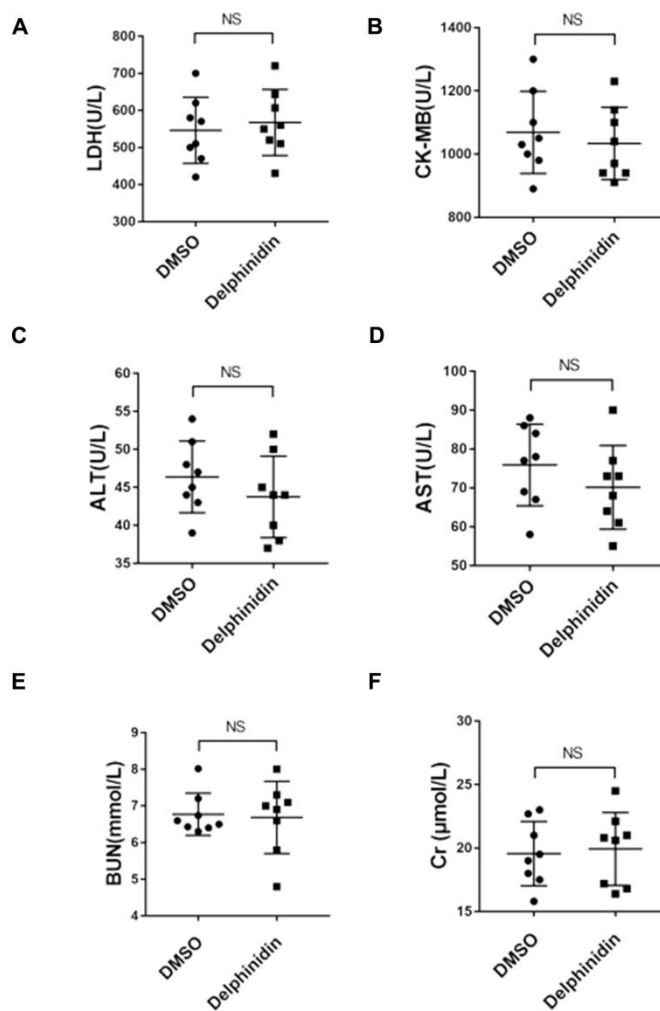
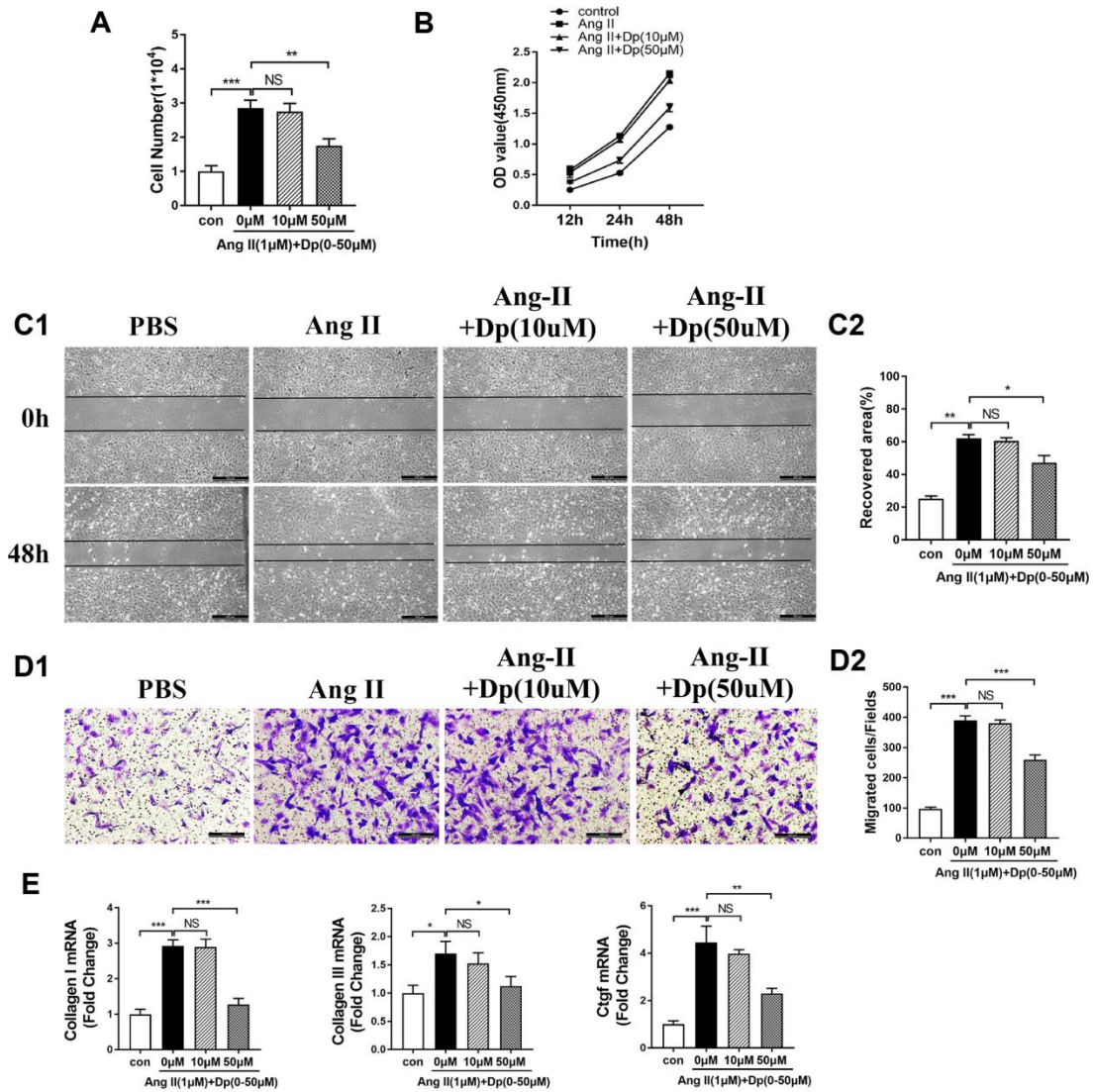


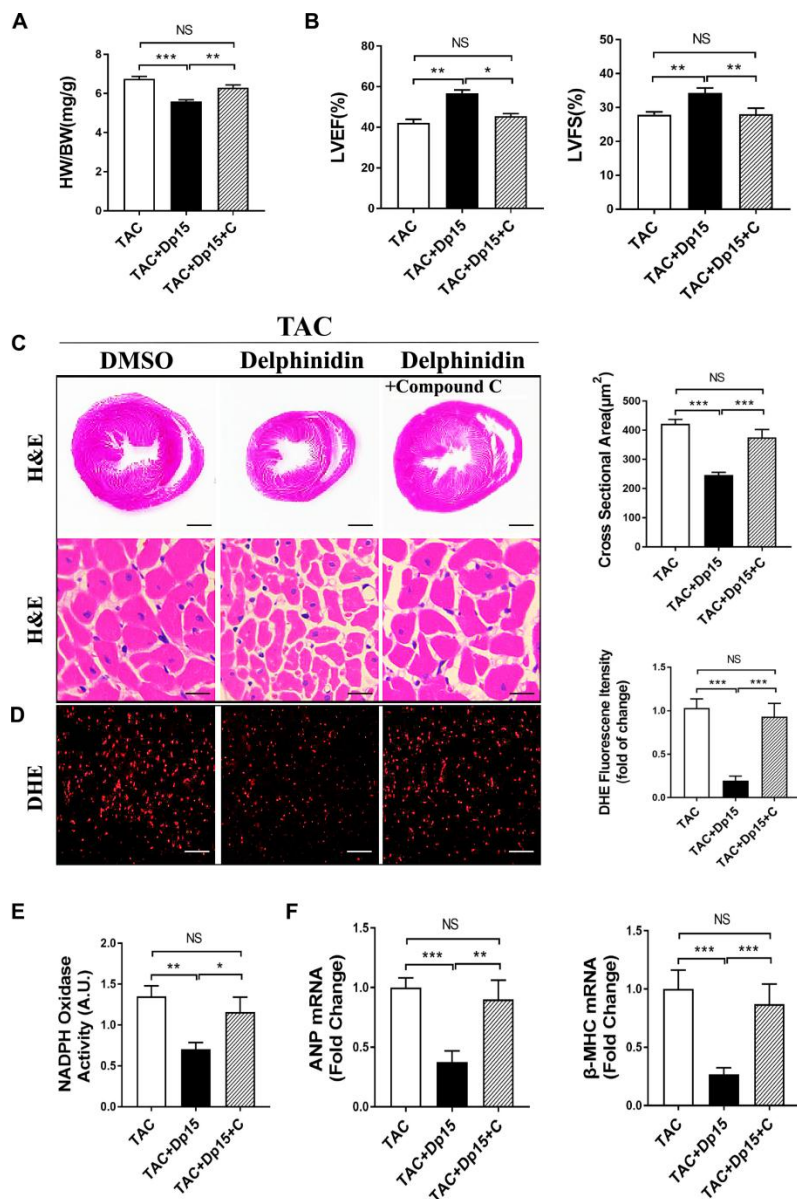
## SUPPLEMENTARY FIGURES



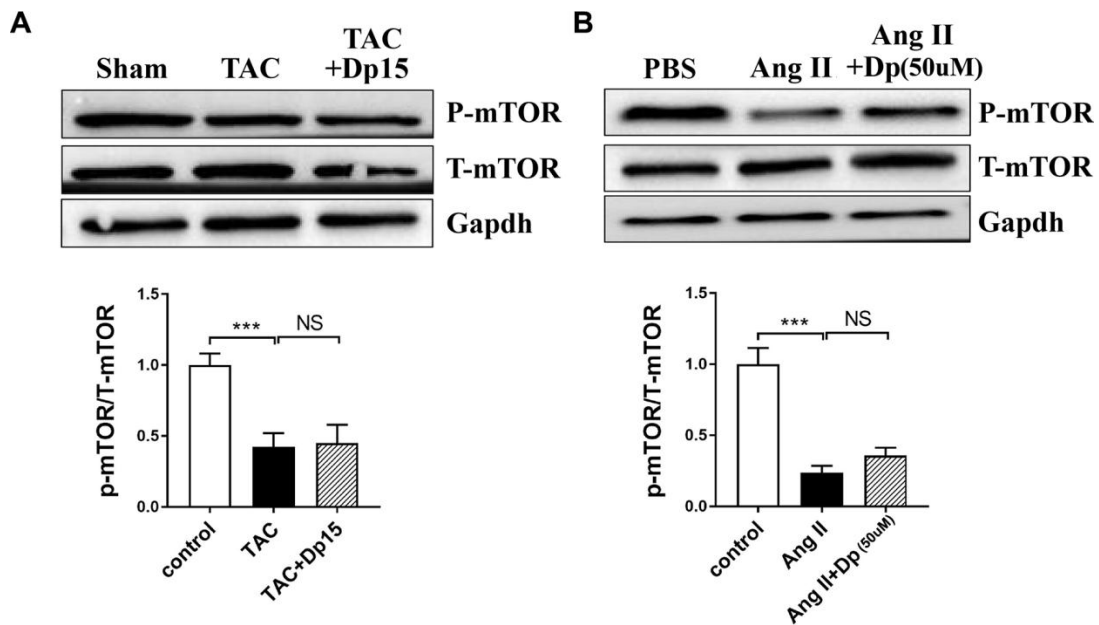
**Supplementary Figure 1. Verification of the toxicity of 15 mg/kg/day delphinidin and its side effects on the heart, liver and kidney.** (A, B) Detection of the levels of the serum myocardial enzymes LDH and CK-MB. (C, D) Detection of the levels of the serum liver function indicators AST and ALT. (E, F) Detection of the levels of the serum renal function indicators BUN and Cr. LDH=lactate dehydrogenase; CK-MB=creatine kinase isoenzymes; AST=glutamic oxaloacetic transaminase; ALT=alanine aminotransferase.



**Supplementary Figure 2. Delphinidin ameliorated cardiac fibrosis induced by Ang II in vitro.** (A, B) Quantification of cells by cell counting and results of the CCK-8 assay (n=4 in each group). (C) Scratch wound assays were performed to assess the migratory capacities of cells in the indicated groups (n=4 in each group; scale bar=500  $\mu$ m). (D) Representative images from the Transwell migration assay and quantification of migrated fibroblasts of the indicated groups (n=4 in each group; scale bar=100  $\mu$ m). (E) mRNA levels of collagen I, collagen III, and CTGF determined by qRT-PCR (n=4 in each group). In A–E, \* $p < 0.05$ , \*\* $p < 0.01$  and \*\*\* $p < 0.001$  between the two indicated groups.



**Supplementary Figure 3. Compound C abolished delphinidin-mediated alleviation of TAC-induced cardiac hypertrophy and oxidative stress.** (A) Statistical analysis of differences in the HW/BW and HW/TL ratios (n=8). (B) Echocardiographic parameters in sham and TAC mice treated with vehicle or delphinidin (n=8). (C) Left, Hematoxylin-eosin (H&E) staining was performed to assess hypertrophic growth of the hearts of sham and TAC mice treated with vehicle or delphinidin (n=8). Right, Statistical analysis of differences in cardiomyocyte size (n=8). (D) Quantitative dihydroethidium (DHE) staining (n=8). (E) Chemiluminescence lucigenin assay (n=8). (F) Quantitative real-time PCR (qRT-PCR) was performed to analyze the mRNA levels of hypertrophic genes (n=5). In A–F, \* $p < 0.05$ , \*\* $p < 0.01$  and \*\*\* $p < 0.001$  between the two indicated groups.



**Supplementary Figure 4. mTOR did not contribute to the delphinidin-mediated reduction in pathological cardiac hypertrophy.**

(A) Western blot analysis of mTOR in cardiac tissues from the indicated groups (n=3). (B) Western blot analysis of mTOR in cardiomyocytes from the indicated groups (n=3). \*\*\* $p < 0.001$ , NS indicates no significant difference between the two indicated groups.