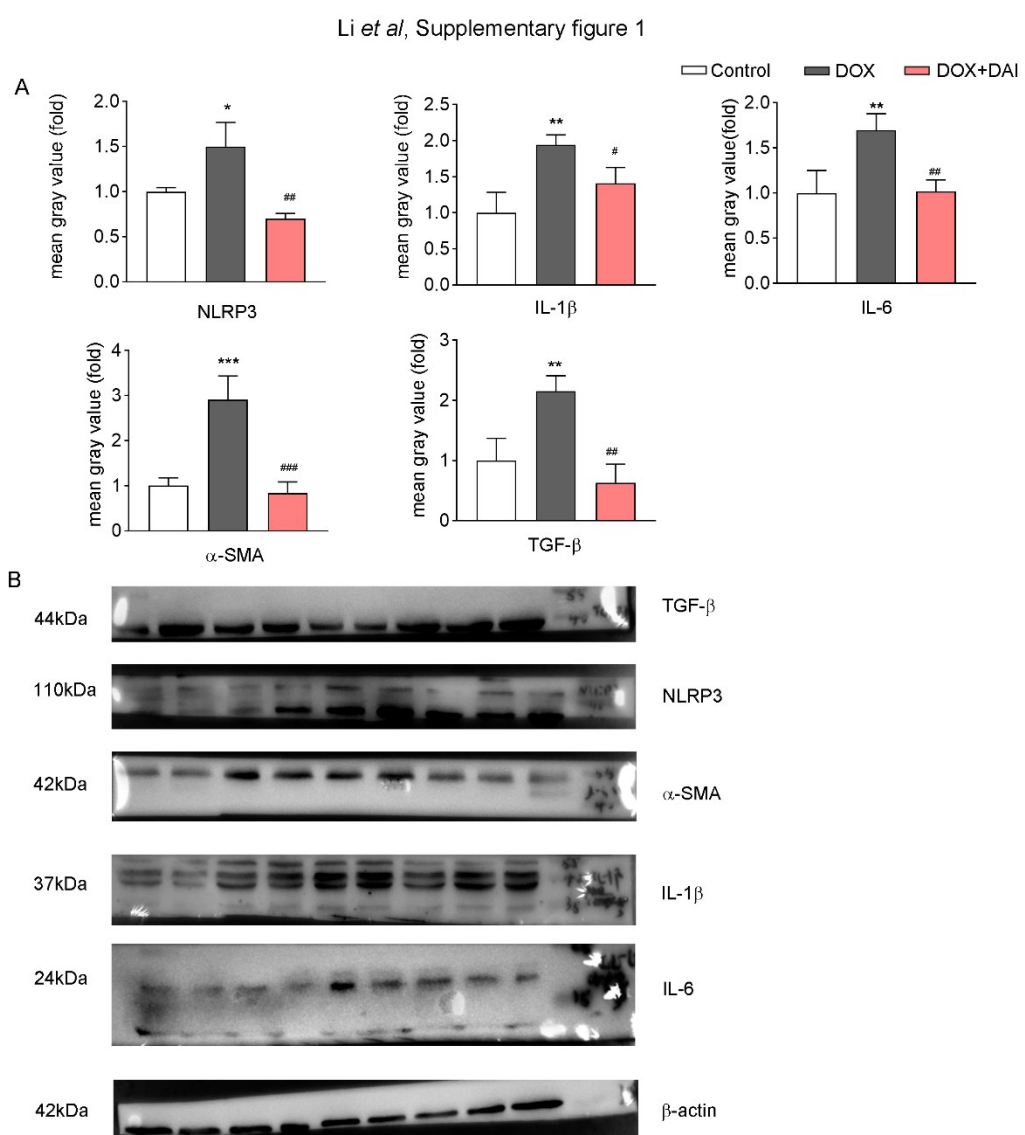


## Daidzein alleviates Doxorubicin-induced heart failure via SIRT3/FOXO3a signaling pathway

Huaxin Li<sup>#</sup>, Mengxue Zhang<sup>1#</sup>, Yuanyu Wang<sup>2</sup>, Ke Gong<sup>1</sup>, Tengting Yan<sup>1</sup>, Dandan Wang<sup>3</sup>,  
Xianshe Meng<sup>1</sup>, Xiaoxiao Yang<sup>1</sup>, Yuanli Chen<sup>1</sup>, Jihong Han<sup>1,4</sup>, Yajun Duan<sup>1,5\*</sup>, Shuang  
Zhang<sup>1\*</sup>

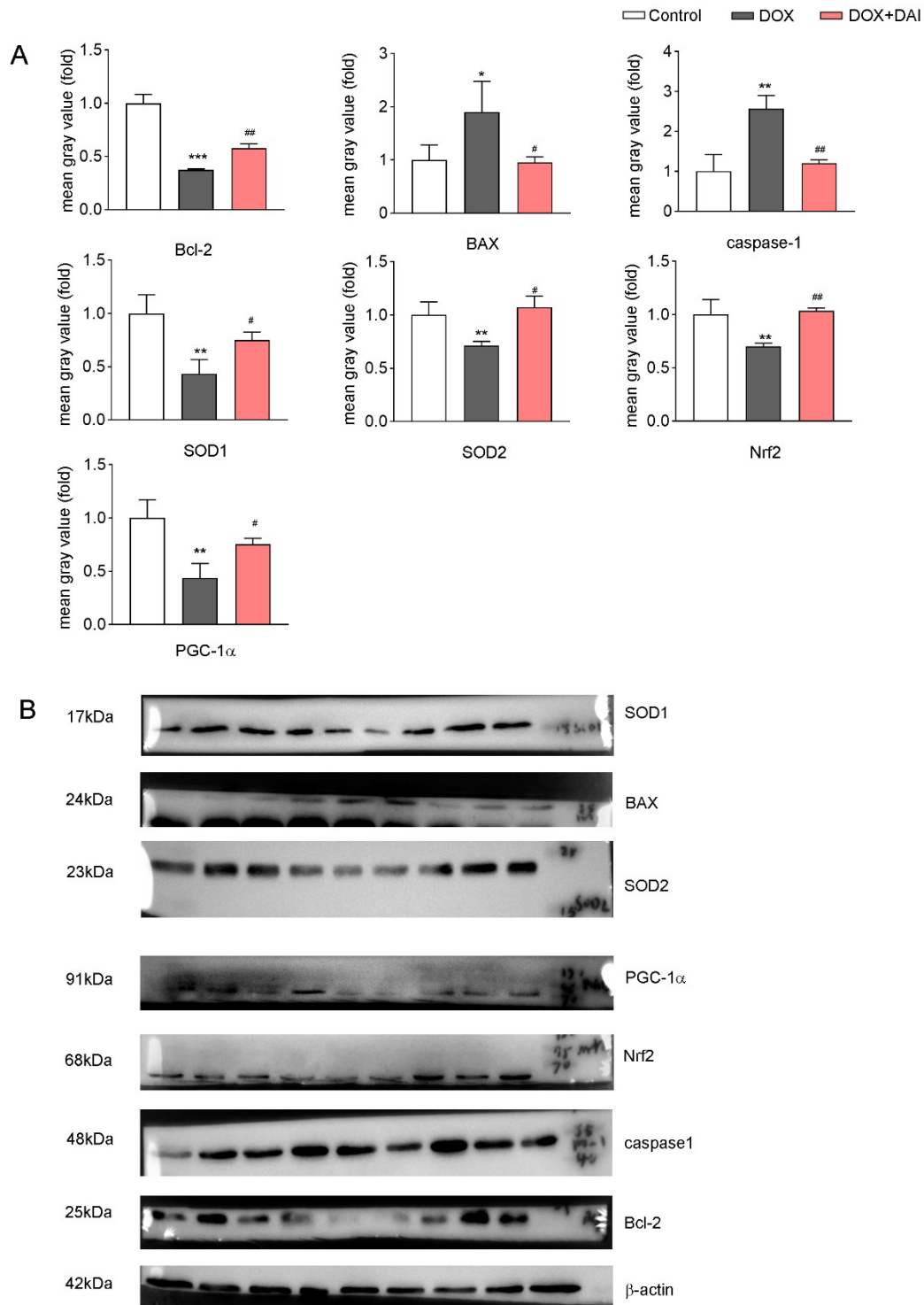
### Supplementary figures (the whole uncropped images of the original Western blot)



**Supplementary figure 1.** A: The grayscale statistics results of TGF-β, NLRP3, α-SMA, IL-1β and IL-6 of Fig. 2D. B: After the Echocardiography, the heart tissues of mice were obtained, three mice were randomly selected and the protein expression of TGF-β, NLRP3, α-SMA, IL-1β and IL-6 (Fig. 2D) in heart tissue was determined by Western blot with 3 repeats. \* $p < 0.05$ ,

\*\*p < 0.01, \*\*\*p < 0.001 vs Control group; #p < 0.05, ##p < 0.01, ###p < 0.001 vs DOX group; ns: not significant.

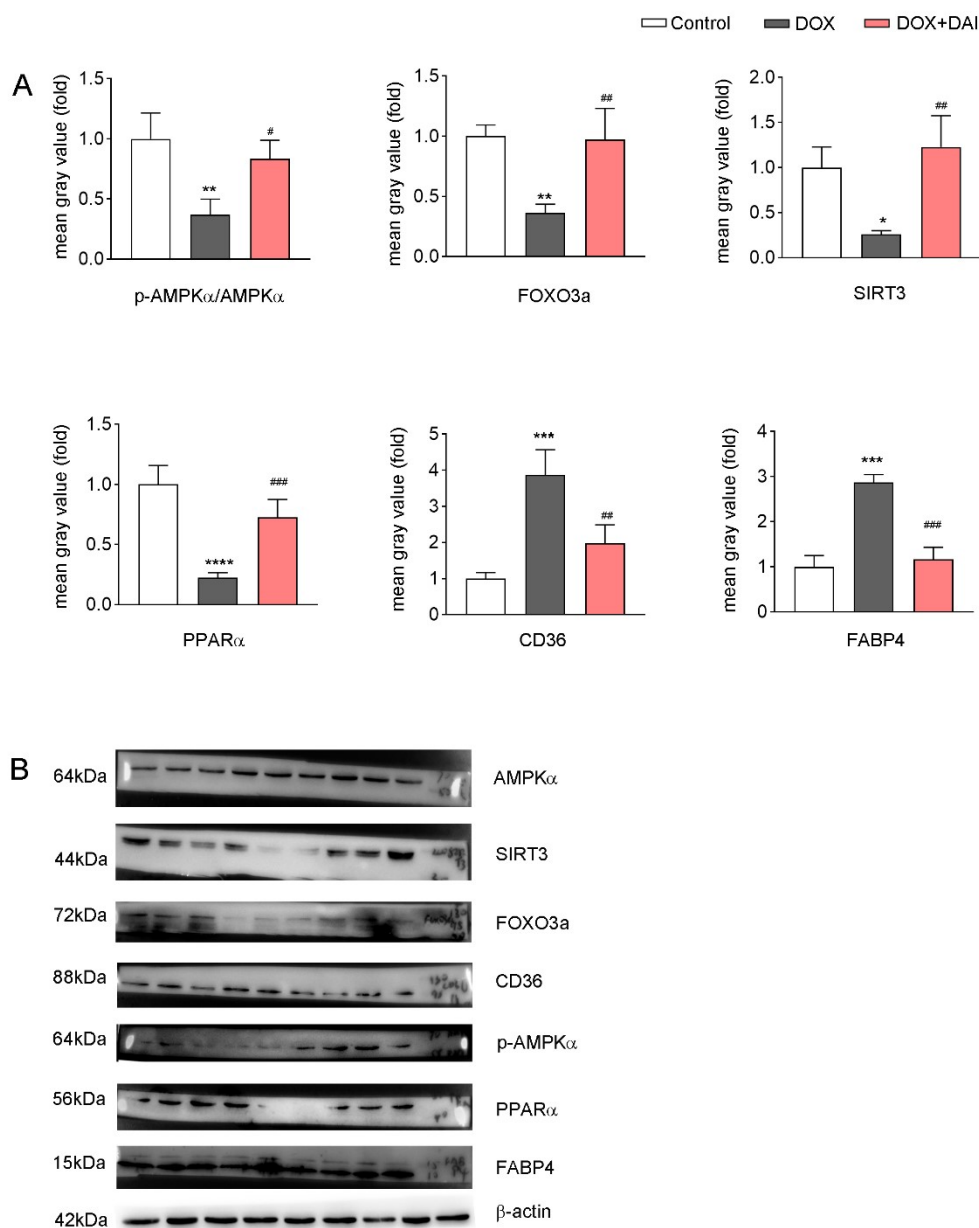
Li *et al*, Supplementary figure 2



**Supplementary figure 2.** A: The grayscale statistics results of SOD1, BAX, SOD2, PGC-1α, Nrf2, caspase1 and Bcl-2 in Fig. 3C with 3 repeats. B: heart tissues of mice were used to determine protein expression of SOD1, BAX, SOD2, PGC-1α, Nrf2, caspase1 and Bcl-2 (Fig.

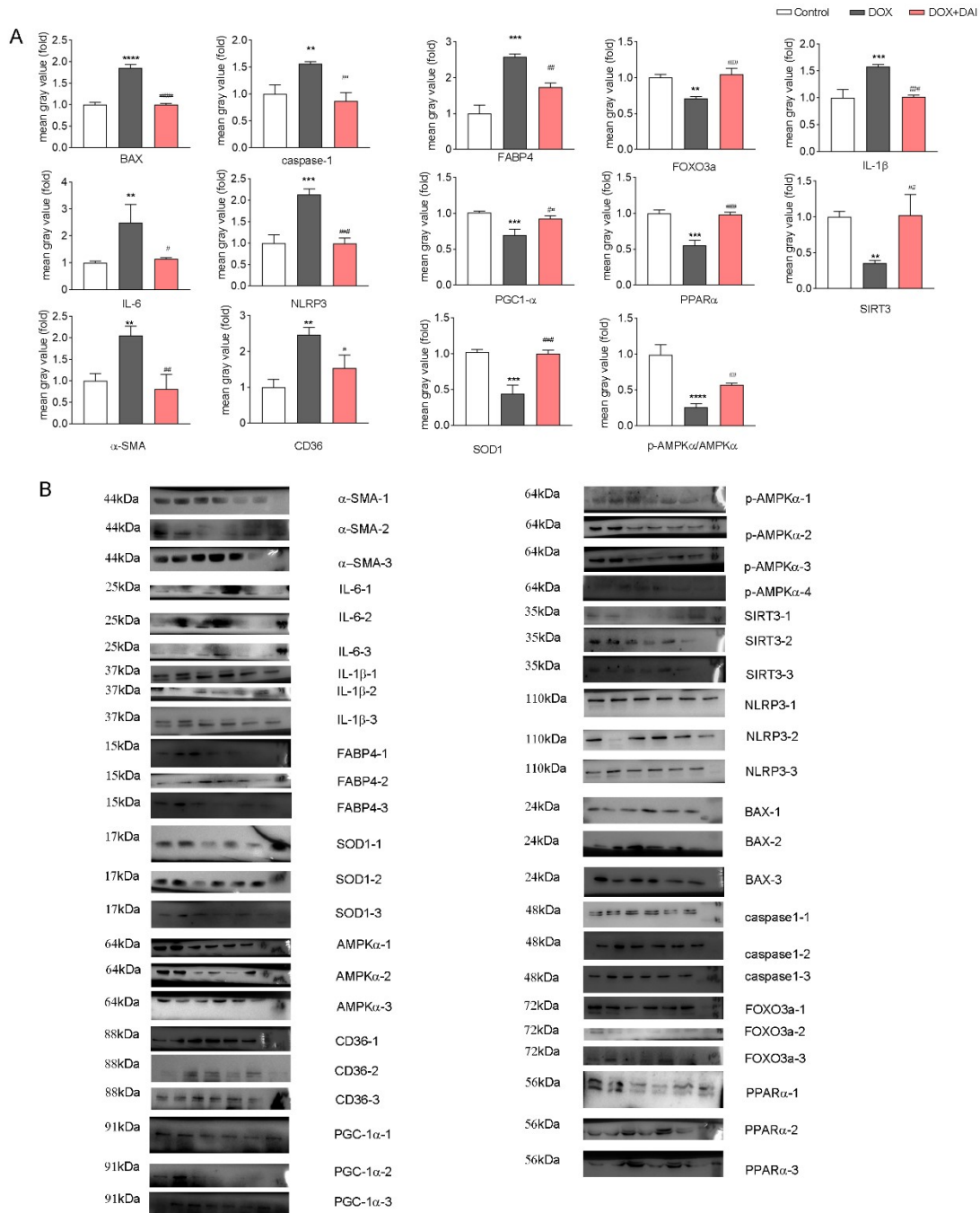
3C) by Western blot with 3 repeats. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$  vs Control group; # $p < 0.05$ , ## $p < 0.01$  vs DOX group; ns: not significant.

Li *et al*, Supplementary figure 3

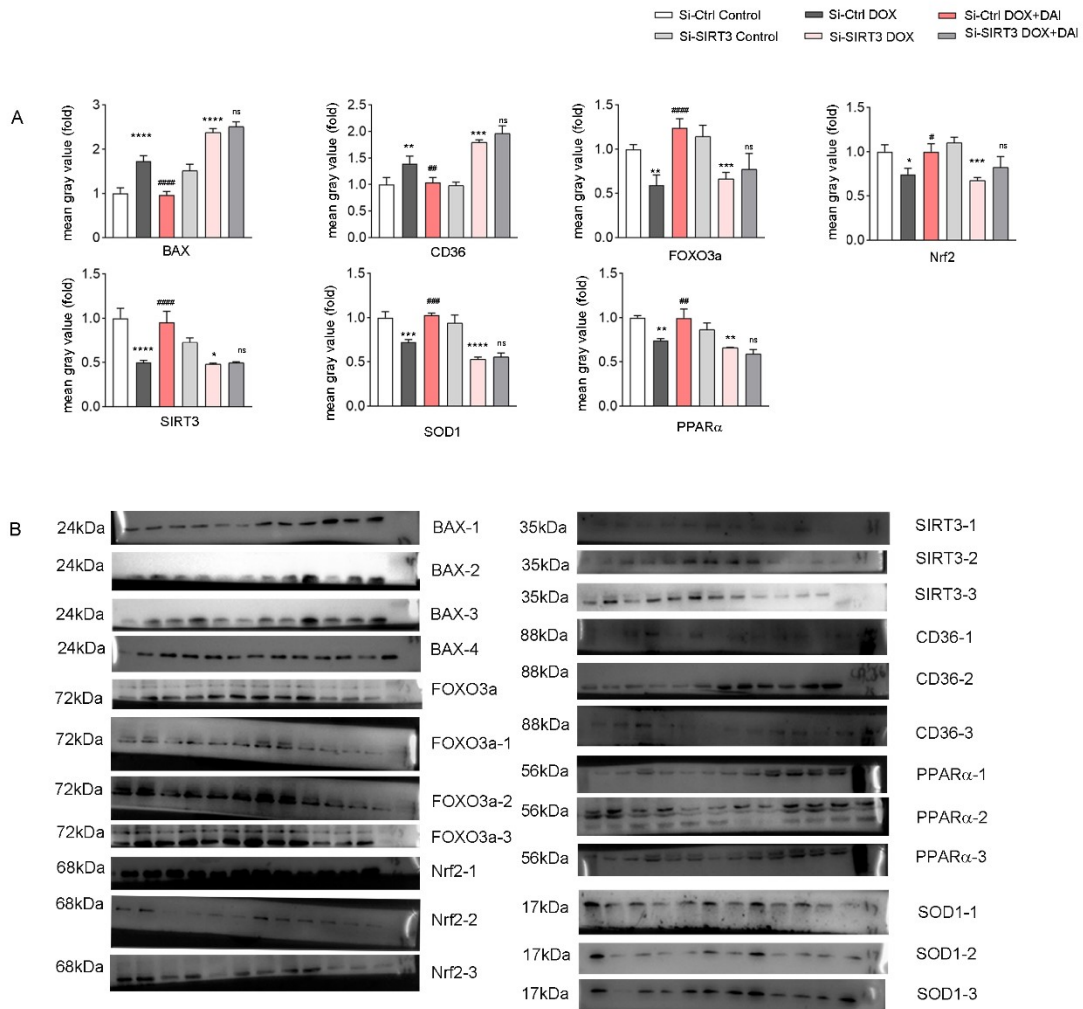


**Supplementary figure 3.** A: The grayscale statistics results of p-AMPK $\alpha$ /AMPK $\alpha$ , SIRT3, FOXO3a, CD36, PPAR $\alpha$  and FABP4 in Fig. 4A with 3 repeats. B: The heart tissues of mice were used to determine protein expression of AMPK $\alpha$ , SIRT3, FOXO3a, CD36, p-AMPK $\alpha$ , PPAR $\alpha$  and FABP4 (Fig. 4A) by Western blot with 3 repeats. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , \*\*\*\* $p < 0.0001$  vs Control group; # $p < 0.05$ , ## $p < 0.01$ , ### $p < 0.001$  vs DOX group; ns: not significant.

Li *et al*, Supplementary figure 4



**Supplementary figure 4.** A: The grayscale statistics results of NLRP3, IL-1 $\beta$ , IL-6,  $\alpha$ -SMA, SOD1, PGC-1 $\alpha$ , BAX, caspase-1 (Fig. 6A), p-AMPK $\alpha$ /AMPK $\alpha$ , PPAR $\alpha$ , CD36, FABP4, SIRT3 and FOXO3a (Fig. 6B) with 3 repeats. B: Protein expression of NLRP3, IL-1 $\beta$ , IL-6,  $\alpha$ -SMA, SOD1, PGC-1 $\alpha$ , BAX, caspase-1 (Fig. 6A), p-AMPK $\alpha$ , AMPK $\alpha$ , PPAR $\alpha$ , CD36, FABP4, SIRT3 and FOXO3a (Fig. 6B) protein were determined by Western blot after DOX alone or DOX plus DAI treatment in H9c2 cells with 3 repeats. \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , \*\*\*\* $p < 0.0001$  vs Control group; # $p < 0.05$ , ## $p < 0.01$ , ### $p < 0.001$ , #### $p < 0.0001$  vs DOX group; ns: not significant.



**Supplementary figure 5.** A: The grayscale statistics results of SIRT3, FOXO3a, PPARα, CD36, BAX, SOD1, Nrf2 (Fig. 6C) with 3 repeats. B: Protein expression of SIRT3, FOXO3a, PPARα, CD36, BAX, SOD1, Nrf2 (Fig. 6C) protein were determined by Western blot after si-Ctrl or si-SIRT3 transfection and DOX alone or DOX plus DAI treatment in H9c2 cells with 3 repeats. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , \*\*\*\* $p < 0.0001$  vs Control group; # $p < 0.05$ , ## $p < 0.01$ , ### $p < 0.001$  vs DOX group; ns: not significant.