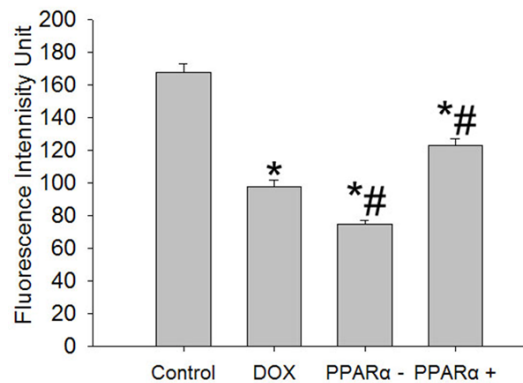


**Supplementary methods**

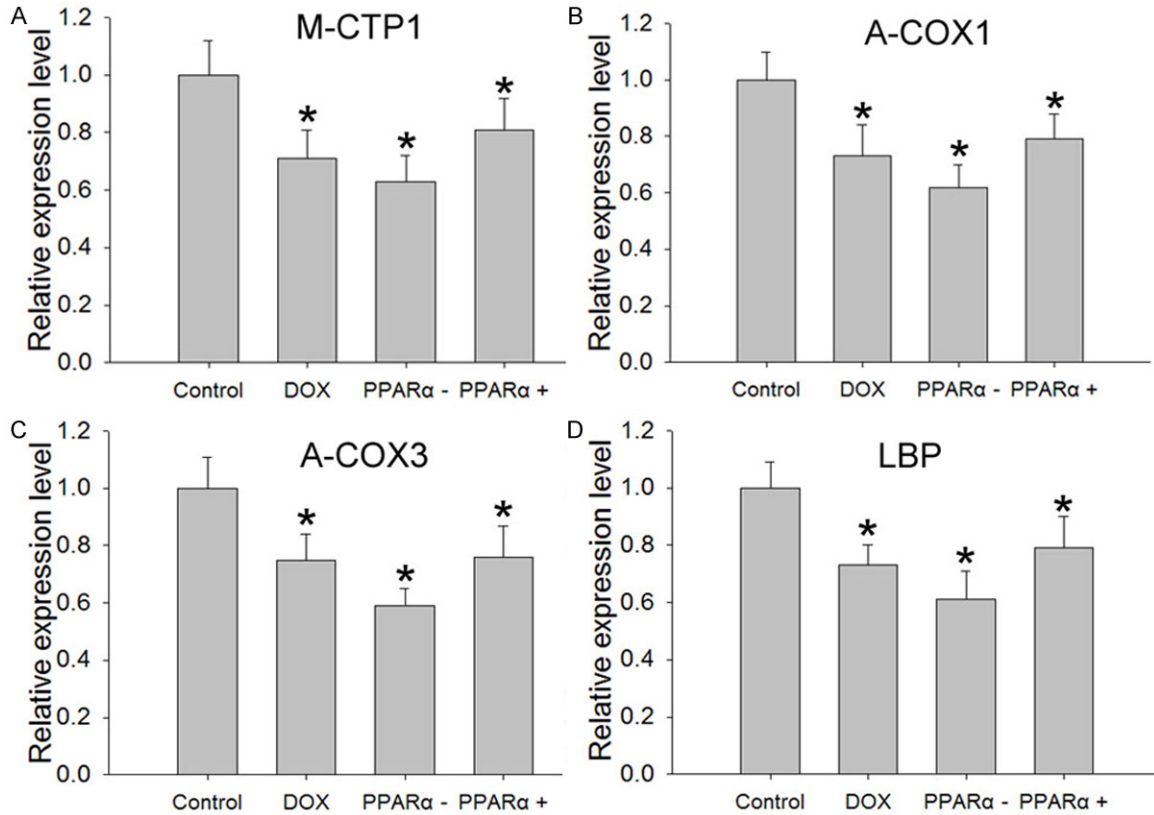
*Measurement of mitochondrial membrane potential*

Mitochondrial membrane potential ( $\Delta\psi_m$ ) was analyzed used tetramethylrhodamine ethyl ester (TMRE), which distributes across the inner mitochondrial membrane in accordance with the Nernst equation. After doxorubicin, GW 6471, or WY14643 treatments, cardiomyocytes were incubated with 100 nmol/L TMRE for 30 min at 37°C and 5% CO<sub>2</sub>. A Live/Dead® Near-IR Dead Cell stain kit (Invitrogen) was used to exclude dead cells. Viable cells were analyzed with a DAKO Cyan cytometer. The mitochondrial uncoupler carbonyl cyanide-4-(trifluoromethoxy) phenylhydrazone (FCCP) was used as a control for depletion of the mitochondrial membrane potential.



**Supplementary Figure 1.** Changes of mitochondrial membrane potential in different groups of cardiomyocytes. Data are the mean  $\pm$  SEM (n=3), each bar represents the mean of three independent experiments carried out in triplicate. \*Compared with control group,  $P<0.05$ ; #Compared with DOX group,  $P<0.05$ .

## Effects of PPAR $\alpha$ /PGC-1 $\alpha$ on the energy metabolism remodeling and apoptosis



**Supplementary Figure 2.** Analysis of fatty acid oxidation related genes expression in different groups. A. *M-CPT1* (NM\_009948.2). B. *A-COX1* (NM\_015729.3). C. *A-COX3* (NM\_030721.2). D. *LBP* (NM\_008489.2). Data are the mean  $\pm$  SEM (n=3), each bar represents the mean of three independent experiments carried out in triplicate. \*Compared with control group,  $P < 0.05$ .

**Supplementary Table 1.** Primers used for quantitative real-time PCR analysis

Gene	Name	Primers (5' to 3')
PPAR $\alpha$	PPAR $\alpha$ -F	GGGTGGTTGAATCGTGAGG
	PPAR $\alpha$ -R	TGCCTTTTGCCAACAGTAGTAC
PGC-1 $\alpha$	PGC-1 $\alpha$ -F	ATGGCACGCAGCCCTATTC
	PGC-1 $\alpha$ -R	GCATC-CTTTGGGGTCTTTG
A-COX1	A-COX1-F	CTCACTCGAAGCCAGCGTTA
	A-COX1-R	CGGTGCACAGAGTTTTTAAACCA
A-COX3	A-COX3-F	GGATCCGGGAGGAACATCAC
	A-COX3-R	ACGATAACTCTGCACACGGG
LBP	LBP-F	TTCAGAACTGTGAGCTGCGT
	LBP-R	CGGACACCGATGGAAGAGTC
M-CPT1	M-CPT1-F	CCGGAAAGGTATGGCCAATT
	M-CPT1-R	GAAGAAAATGCCTGTCGCC
Actin	Actin-F	GTCCACACCCGCCACAGTTC
	Actin-R	TCCCACCATCACACCCTGGTG

Primers were designed using Primer Express version 2.0 software. Primer specificity was confirmed using Primer-BLAST web software (National Centre for Biotechnology Information).