

Supplementary information, Fig. S7 NALA increases the lactate level and lactylation of  $\alpha$ -MHC K1897, further increasing the  $\alpha$ -MHC-Titin interaction.

**a**, **b** Relative content of intracellular (**a**) and extracellular (**b**) lactate in H9c2 cells after 24h of NaCl or Ang II treatment (n=10 per group). **c**, **d** Relative content of lactate in myocardial tissues (**c**) and serum (**d**) of mice after NaCl or Ang II treatment (n=10 per group). **e**, **f** Relative content of intracellular (**e**) and extracellular (**f**) lactate in NaCl or Ang II-stimulated H9c2 cells with or without NALA treatment as indicated (n=10 per group). **g** H9c2 cells with or without NALA treatment were lysed and immunoprecipitated using control IgG or anti- $\alpha$ -MHC antibody, followed by detection of  $\alpha$ -MHC K1897 Lactyl Lysine. **h** NaCl or Ang II-stimulated H9c2 cells with or without NALA treatment were lysed and immunoprecipitated using control IgG or anti- $\alpha$ -MHC antibody, followed by detection of  $\alpha$ -MHC. (**g**, **h**) Anti- $\alpha$ -MHC antibody, anti-Titin antibody or control IgG were added. (**a-d**) Data are expressed as means  $\pm$  SD. Statistical significance was assessed by Student's *t-test* (\*\*\* P < 0.001). (**e**, **f**) Data are expressed as means  $\pm$  SD. Statistical significance was assessed by 2-way ANOVA with Bonferroni multiple comparisons test (*P* values adjusted for 6 comparisons, \*\*\* *P* < 0.001).