## **Online only Supplementary Figure**

## The crucial relationship between miRNA-27 and CSE/H<sub>2</sub>S, and the mechanism of action of GLP-1 in myocardial hypertrophy

Shan Gao<sup>1</sup>, Ying Li<sup>1</sup>, Mei-ming Liu<sup>1</sup>, Xue Xiong<sup>1</sup>, Chang-peng Cui<sup>1</sup>, Qing-ji Huo<sup>1</sup>, Ke-xin Li<sup>1</sup>, Xun Sun<sup>1</sup>, Rong Zhang<sup>1</sup>, Di Wu<sup>1, 3\*</sup>, Bai-yan Li<sup>1,2 \*</sup>

<sup>1</sup> State Key Laboratory of Frigid Zone Cardiovascular Diseases (SKLFZCD), Department of Pharmacology (State Key Laboratory-Province Key Laboratories of Biomedicine-Pharmaceutics of China, Key Laboratory of Cardiovascular Research, Ministry of Education), College of Pharmacy, Harbin Medical University, Harbin 150081, China.

<sup>2</sup>Research Unit of Noninfectious Chronic Diseases in Frigid Zone (2019RU070), Chinese Academy of Medical Sciences, Harbin 150081, China.

<sup>3</sup>Department of Pharmacy, the 2<sup>nd</sup> Affiliated Hospital of Dalian Medical University, Dalian 116023, China

## **Supplemental Figure**

## S1. Validation of myocardial hypertrophy models in vitro and in vivo.

(A-E). Statistical results of interventricular septal thickness in diastole (IVSd, mm) and systole (IVSs, mm) left ventricular posterior wall at end-diastole (LVPWd, mm) and end-systole (LVPWs, mm), and heart/body weight (mg/g) in Sham and TAC group (n = 6-10 mice). Changes of mRNA (F) and protein (G, H) levels of cardiac hypertrophy markers, including ANP, BNP,  $\beta$ -MHC, in TAC mice compared with Sham group (n = 5 mice).  $\beta$ -tubulin served as an internal control (n = 5-6 mice or group). qRT-PCR and Western blot were used to detect the changes of mRNA (I) and protein (J-L) of hypertrophic

markers in neonatal mouse ventricular cardiomyocytes (NMVCs) after 48 hours of Ang II treatment (n = 5 group). Averaged data are presented as the mean  $\pm$  SD; \*P < 0.05, \*\*P < 0.01.

