SUPPLEMENTAL MATERIALS

1 Electrocardiogram

In short, rats are anesthetized, electrodes are inserted into the surfaces of limbs, and then an electrocardiograph is connected. The signal was recorded for 2 minutes under each frequency response applied between 0.05 and 500 Hz, and digital analysis was carried out in BL-420S system. The surface standard lead II electrocardiogram (ECG) of each group of mice was recorded with bipolar limb leads on the biological signal acquisition and analysis system (BL-420S, Chengdu Taimeng, China).

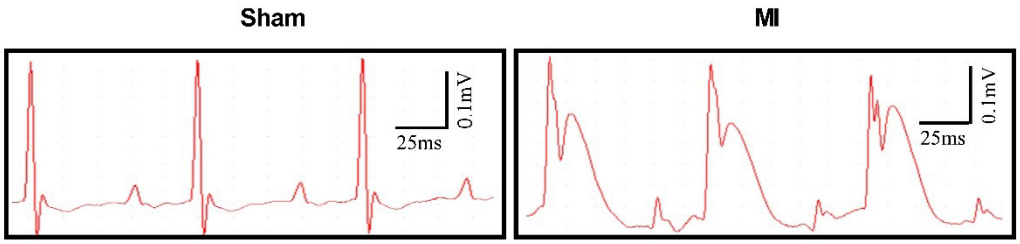

Fig. S1 The recording of surface standard lead II ECG in mice was performed on the biometric signal acquisition and analysis system. Representative ECG recorded from two group mice.

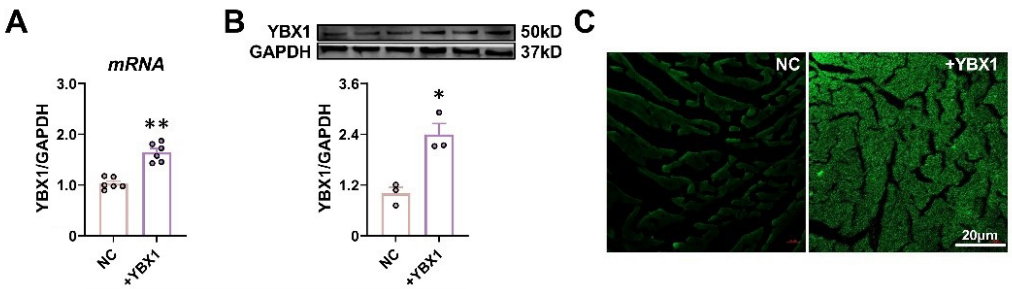

Fig. S2 Verification of the overexpression efficiency of AAV9-carrying for YBX1 (AAV9-YBX1) in the hearts of mice. (A) YBX1 mRNA level in MI mouse myocardial tissues after AAV9-YBX1 administration ($N = 3$ mice/group, Data are presented as mean ± SEM, $^{**}P < 0.01$ *vs.* AAV9-NC); (B) YBX1 protein level in MI mouse myocardial tissues after AAV9-YBX1 administration ($N = 3$ mice/group, Data are presented as mean ± SEM, $^{*}P < 0.05$ *vs.* AAV9-SiNC); (C) Verification of successful transfection of AAV9 virus carrying GFP. AAV9-YBX1 represents mice received the AAV9 virus injection that showed green fluorescence (scale bar, 20 mm).

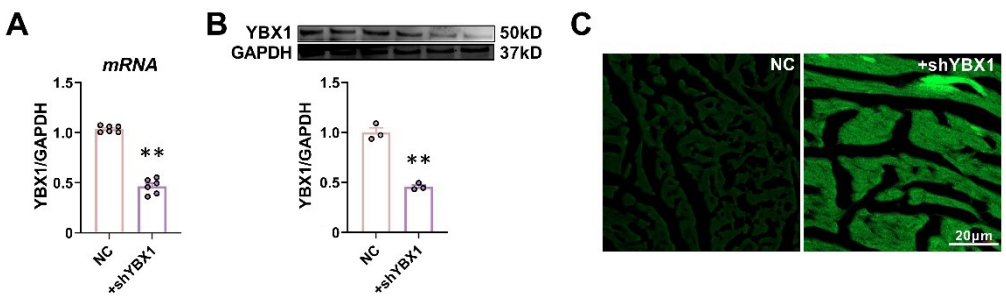

Fig. S3 Verification of the knocking down efficiency of AAV9-carrying the siRNA for YBX1 (AAV9-siYBX1) in the hearts of mice. (A) YBX1 mRNA level in MI mouse myocardial tissues after AAV9-siYBX1 administration ($N = 3$ mice/group, Data are presented as mean ± SEM, $^{**}P < 0.01$ *vs.* AAV9-siNC); (B) YBX1 protein level in MI mouse myocardial tissues after AAV9-siYBX1 administration ($N = 3$ mice/group, Data are presented as mean ± SEM, $^{**}P < 0.01$ *vs.* AAV9-SiNC); (C) Verification of successful transfection of AAV9 virus carrying GFP. AAV9-siYBX1 represents mice received the AAV9 virus injection that showed green fluorescence (scale bar, 20 mm).

SUPPLEMENTAL MATERIALS

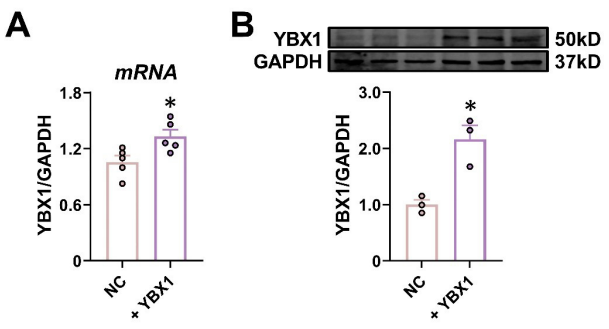

Fig. S4 Verification of transfection efficiency of overexpressed YBX1. (A) YBX1 mRNA level in NMCMs ($N = 3$, $^{*}P < 0.05$ *vs.* NC); (B) YBX1 protein level in NMCMs ($N = 3$, $^{*}P < 0.05$ *vs.* NC).

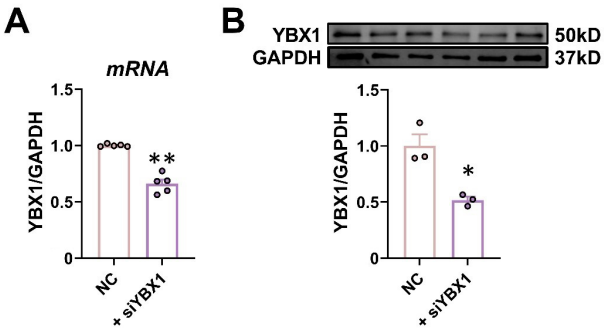

Fig. S5 Verification of transfection efficiency of knock-down YBX1. (A) YBX1 protein level in NMCMs ($N = 3$, $^{**}P < 0.01$ vs NC); (B) YBX1 mRNA level in NMCMs ($N = 3$, $^{*}P < 0.05$ vs NC).