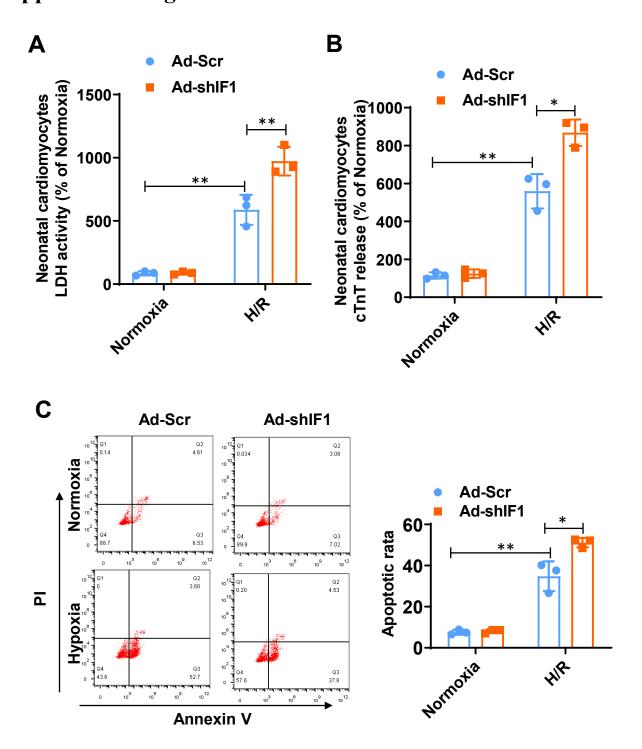
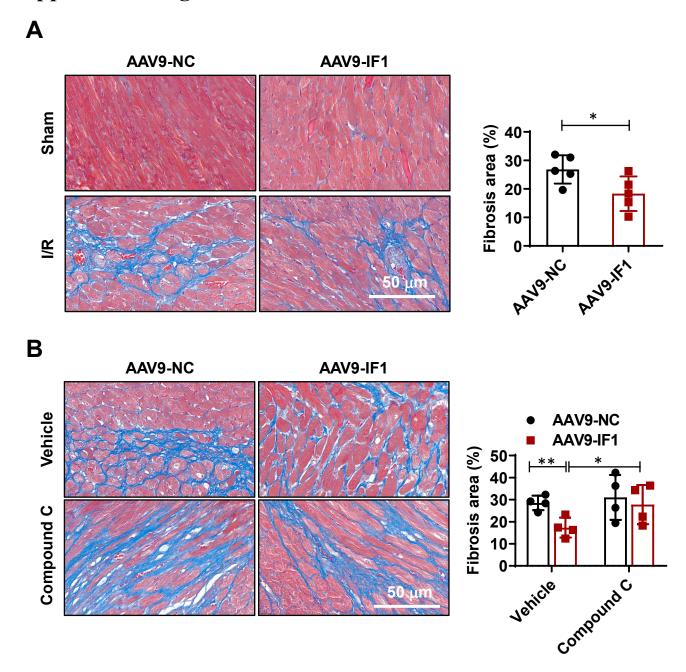


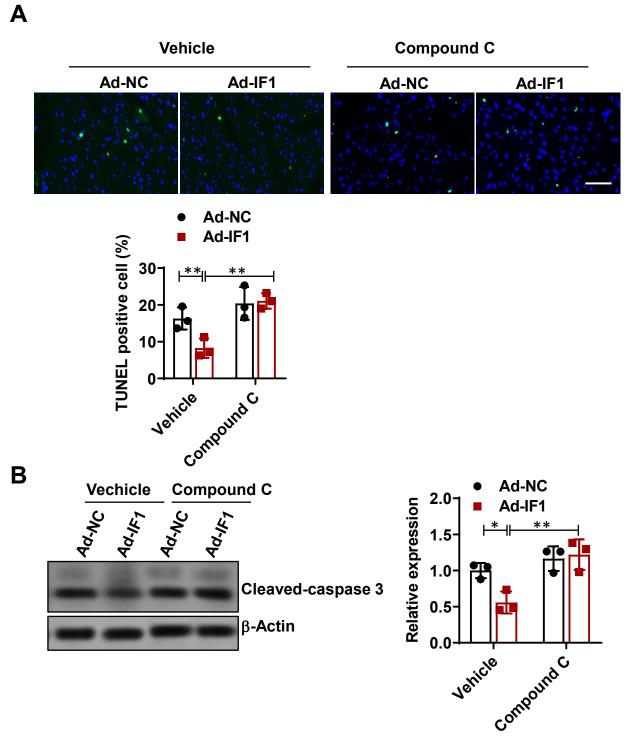
**Supplemental Fig.1** Western blot analysis for overexpression efficiency of Ad-IF1 (A) and AAV-IF1 in hearts (B), as well the inhibitory effect of compound C on AMPK (C). n = 3 each. \*\*P<0.01.



**Supplemental Fig.2** IF1 knockdown aggravated H/R-induced cardiomyocytes injury. A, LDH released from NRCMs at the 1 hour of reperfusion. B, cTnT released from NRCMs induced by H/R injury. C, Representative flow cytometric assessment of apoptosis via Annexin V/PI staining. n = 3 each. \*P <0.05, \*\*P<0.01.



**Supplemental Fig.3** Cardiac fibrosis was evaluated via Masson's Trichrome staining. A. Representative images and quantitative data of hearts stained with Masson's trichrome in AAV9-IF1 group compared with the AAV9-NC group. n = 5 each. B. Representative images and quantitative data of hearts infected with Masson's trichrome. Scale bar =  $50 \mu m$ . n = 4 each. \*P < 0.05, \*\*P < 0.01.



**Supplemental Fig.4** The effect of IF1 and compound C on cardiomyocyte apoptosis. A. Immunostaining of TUNEL in cardiomyocytes. The results are displayed as representative images (upper, scale bar =  $20 \mu m$ ) and as a bar chart of TUNEL-positive cells. B. Representative immunoblots of cleaved-caspase 3 and quantitative analysis. n = 3 each. \*P<0.05, \*\*P<0.01.