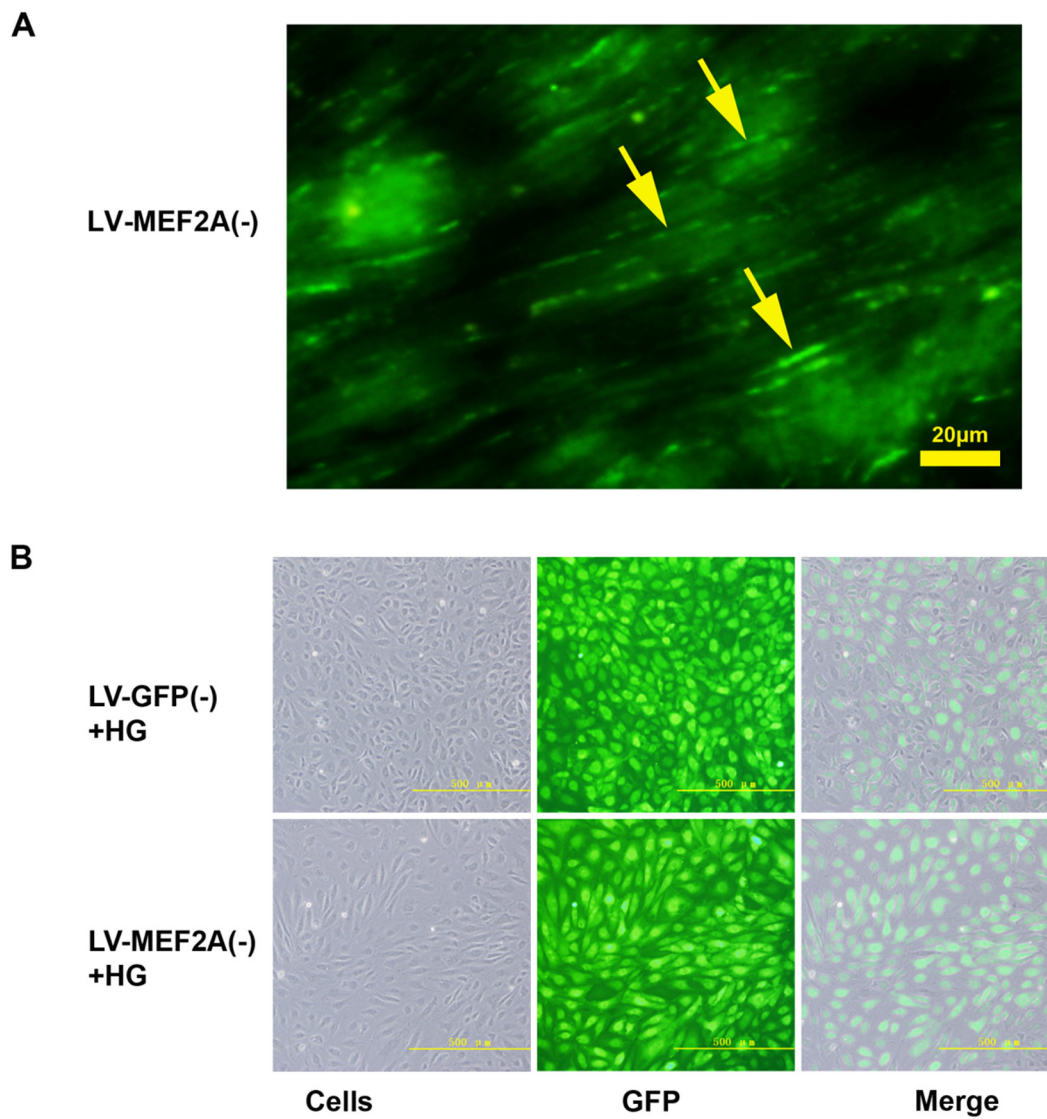
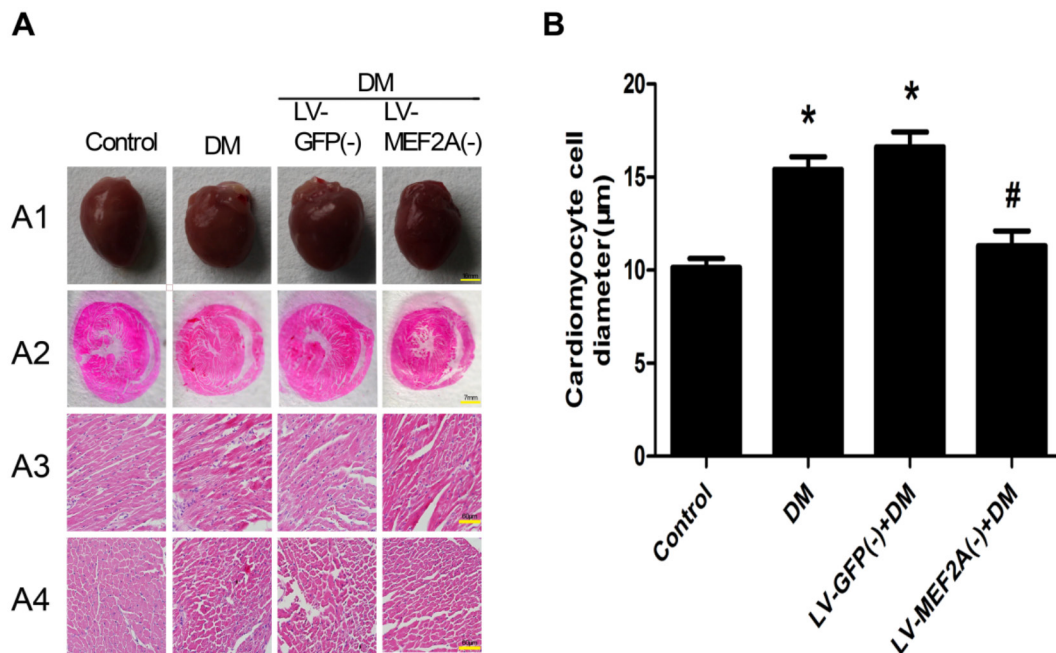


SUPPLEMENTARY FIGURES AND TABLE



Supplementary Figure S1: Fluorescence microscopy of GFP-labeled transfection efficiency in mouse myocardial tissue and HUVECs. **A.** GFP immunofluorescence images of mouse myocardial tissue in MEF2A knockdown group. The arrowhead points indicate locations at which GFP is expressed (scale bars=20 μ m); **B.** Representative photograph of GFP-labeled scramble transfection efficiency of MEF2A knockdown in HUVECs (scale bars =500 μ m).



Supplementary Figure S2: Myocardial pathology features and cardiomyocytes cell diameter in control group and STZ-induced diabetes group. **A.** Myocardial pathology features. (A1) Heart size (scale bars =60mm); (A2) Cardiac histological cross-sectional anatomy at the papillary muscle level (scale bars = 7mm); (A3) Cardiac hematoxylin and eosin staining (H&E) of left ventricular (LV) longitudinal sections (scale bar=60 μm); (A4) Cardiac H&E staining of LV transverse sections (scale bar = 60 μm); **B.** Quantitative analysis of cardiomyocyte cell diameter. Data are expressed as the mean±SEM; n=6 to 8 mice for each group; *p< 0.05 vs. control group, #p< 0.05 vs. vehicle treatment group.

Supplementary Table S1: PCR primer sequences

Gene	Sense	Antisense
Human MEF2A	5'-AACCCAGGGAGTTCCTGCTGGT-3'	5'-TGTGAGGTCTGTAGTGCTCAA-3'
Mouse MEF2A	5'-GGAGCTGGAATAGTCCTGTGG-3'	5'-GGGAGCTTTGTAGGCATGACTT-3
Human VE-Cadherin	5'-AAGCGTGAGTCGCAAGAATG-3'	5'-TCTCCAGGTTTTTCGCCAGTG-3'
Human CD31	5'-AACAGTGTGACATGAAGAGCC-3'	5'-AACAGTGTGACATGAAGAGCC-3'
Human FSP-1	5'-GATGAGCAACTTGGACAGCAA-3'	5'-CTGGGCTGCTTATCTGGGAAG-3'
Human α-SMA	5'-CACAAATGTGCGACGAAGACG-3'	5'-CTCTCTTGTCTGAGCCTCG-3'
Human β-actin	5'-GAGCTACGAGCTGCCTGACG-3'	5'-CCTAGAAGCATTTCGGTGG-3'
Mouse β-actin	5'-CACTGTGCCATCTACGA-3'	5'-GTAGTCTGTCAGGTCCCG -3'