**Supplementary Table 1.** Oligonucleotide primers used for gene expression analysis by real-time PCR

| Gene	Primer sequences (5'-3')	Location
Gapdh	Fwd: TGTGTCCGTCGTGGATCTGA	761-910
	Rev: TTGCTGTTGAAGTCGCAGGAG	
ERa	Fwd: ACATGTTGCTGGCTACGTCA	1470-1798
	Rev: GGGCACAACGTTCTTGCATT	
ERβ	Fwd: AATGTGCTAGTGAGCCGTCC	1239-1503
	Rev: CCTCATCCCTGTCCAGAACG	
Gata4	Fwd: CGGAAGCCCAAGAACCTGAATA	1562 -1659
	Rev: TTGCTGGAGTTACCGCTGGAG	
Tbx5	Fwd: AAGTTCCGAAGTGGGGTCAC	10-433
	Rev: GGAAGACGTGGGTGCAAAAC	
Ki67	Fwd: CCTGCCCGACCCTACAAAAT	2248-2560
	Rev: TCCGCCGTCTTAAGGTAGGA	
Tbx3	Fwd: GAGGCCAAGGAACTTTGGGA	1669-2022
	Rev: GCTTGGGAAGGCCAAAGTAA	
Akt	Fwd: CTGGAGGACAACGACTACGG	1331-1762
	Rev: CTCACTGTCCACACACTCCAT	
Notch	Fwd: GCTCCGAGGAGATCAACGAG	3803-4070
	Rev: TTGACATCACCCTCACACCG	

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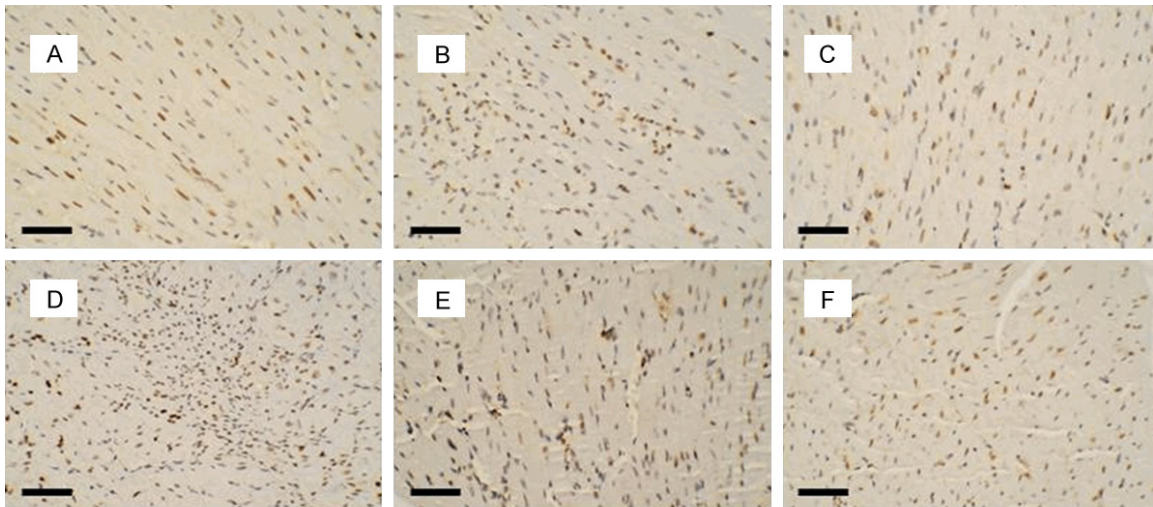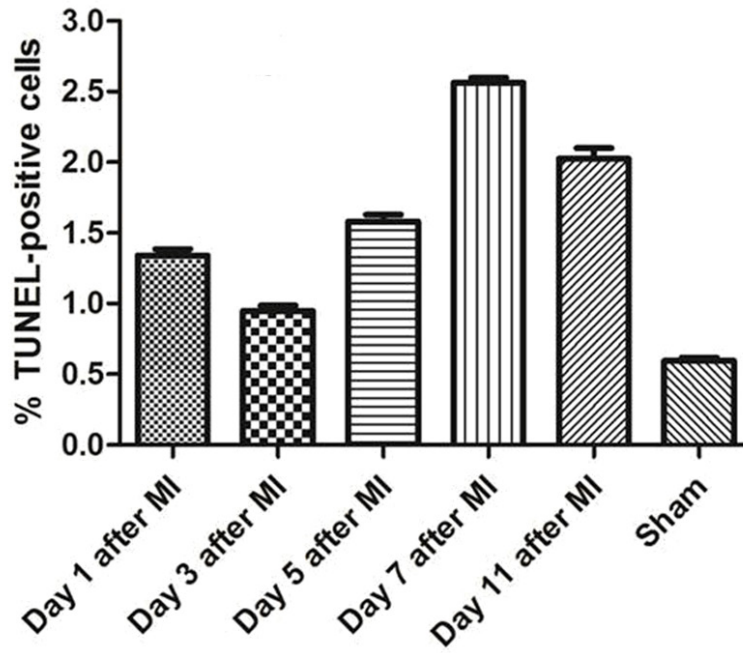
Supplementary Figure 1. TUNEL staining for heart sections from mouse in different days of AMI and sham mouse (A-E) TUNEL staining for heart sections from mouse in day 2, 3, 5, 7 and 11 after MI; (F) TUNEL staining for heart sections from Sham-operated mouse; (G) Analysis of TUNEL positive cells in heart sections after AMI. Scale bar =50 μm.
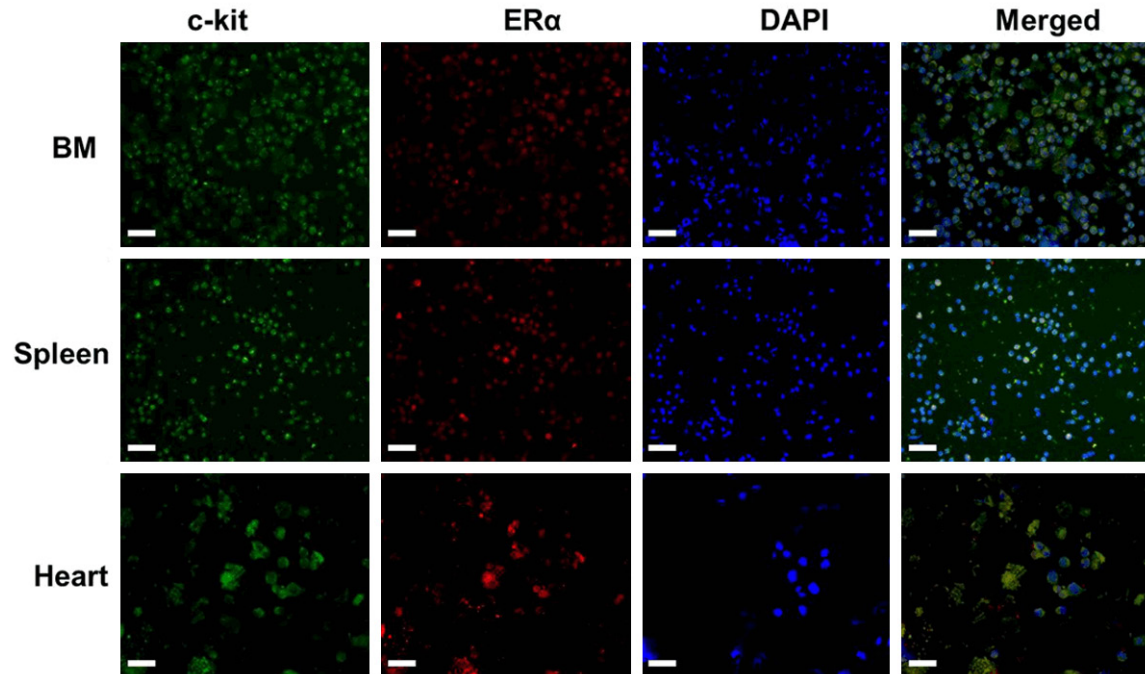
Supplementary Figure 2. Immunofluorescence staining images of c-kit and ERa in BM, Spleen and heart after 7 days of AMI. After MI, ERα expressions were detected in BM, spleen and heart, especially in c-kit⁺ cells. Scale bar =25 μm.