

**Supplementary Table 1.** Sequences of primers in RT-qPCR.

Genes	Forward primers	Reverse primers
mice $\beta$ -MHC	TTTCTGGCGACAAAGACAGGG	CTTGCCAAAACGGGAGGAGTT
mice ANP	GCTTCCAGGCCATATTGGAG	GGGGGCATGACCTCATCTT
mice IGF1	GTGAGCCAAAGACACACCCA	ACCTCTGATTTTCCGAGTTGC
mice DES	GTGGATGCAGCCACTCTAGC	TTAGCCGCGATGGTCTCATAAC
mice ADM	CACCCTGATGTTATTGGGTTCA	TTAGCGCCCACCTTATTCCACT
mice CTGF	GGGCCTCTTCTGCGATTTTC	ATCCAGGCAAGTGCATTGGTA
mice OPN	AGCAAGAACTCTTCCAAGCAA	GTGAGATTTCGTCAGATTTCATCCG
mice GAL3	AGACAGCTTTTCGCTTAACGA	GGGTAGGCACTAGGAGGAGC
mice MMP1	AACTACATTTTAGGGGAGAGGTGT	GCAGCGTCAAGTTTAACTGGAA
mice MMP13	CTTCTTCTTGTTGAGCTGGACTC	CTGTGGAGGTCAGTGTAGACT
mice MMP24	GCATCTGCGTTGCATTCTGG	CACTCGATTGTTGTCTGATCCA
mice TIMP1	GCAACTCGGACCTGGTCATAA	CGGCCCGTGATGAGAACT
mice TIMP2	TCAGAGCCAAAGCAGTGAGC	GCCGTGTAGATAAACTCGATGTC
mice TIMP3	CTTCTGCAACTCCGACATCGT	GGGGCATCTTACTGAAGCCTC
mice TIMP4	TGTGGCTGCCAAATCACCA	TCATGCAGACATAGTGCTGGG
mice COL1a	GCTCCTCTTAGGGGCCACT	CCACGTCTCACCATTGGGG
mice COL4a	CTGGCACAAAAGGGACGAG	ACGTGGCCGAGAATTTCCACC
mice FN1	ATGTGGACCCCTCCTGATAGT	GCCCAGTGATTTTCAGCAAAGG
Rat ANP	TCGTCTTGGCCTTTTGGCT	TCCAGGTGGTCTAGCAGGTTCT
Rat BNP	CTAGCCAGTCTCCAGAACAATC	AGCTGTCTCTGAGCCATTTTC
Rat IGF1	GTGGACGCTCTTCAGTTC	CAGCCTCCTCAGATCACA
Rat DES	CATTGCGGCTAAGAACATC	TGTCGGTATTCCATCATCTC
Rat ADM	CTCAGCAAGGTGTAAGGTT	CATCCACAGGCGGTAATC

**Supplementary Table 2.** The dilutions and sources of antibodies in immunoblotting.

Antibodies	Antibody sources	Dilution
MMP24	Sigma	1:1000
FN1	Sigma	1:1000
Bax	Cell signaling technology	1:1000
Bcl-2	Cell signaling technology	1:1000
P-JNK	Cell signaling technology	1:1000
JNK	Cell signaling technology	1:1000
P-C-JUN	Cell signaling technology	1:1000
C-JUN	Cell signaling technology	1:1000
$\beta$ -Actin	Abcam	1:2000