

Figure S1. Validation of transfection efficiency. (A) Relative expression of GAS1 in non-OASFs transfected with siRNA-GAS1 or siRNA-NC (B) Relative expression of GAS1 in non-OASFs transfected with pcDNA-GAS1 or the pcDNA-vector. \* $P < 0.001$ . (C) Immunofluorescence images of SFs transfected with siRNA-NC, siRNA-GAS1, pcDNA-NC or pcDNA-GAS1 by cellular immunofluorescence staining. (Ca) Blank, (Cb), pcDNA-vector, (Cc) pcDNA-GAS1, (Cd) siRNA-NC and (Ce) siRNA-GAS1 group. Red, GAS1; blue, DAPI; scale bar, 200  $\mu\text{m}$ . GAS1, growth arrest specific-1; OASFs, osteoarthritis synovial fibroblasts; NC, negative control; siRNA, small interfering RNA.

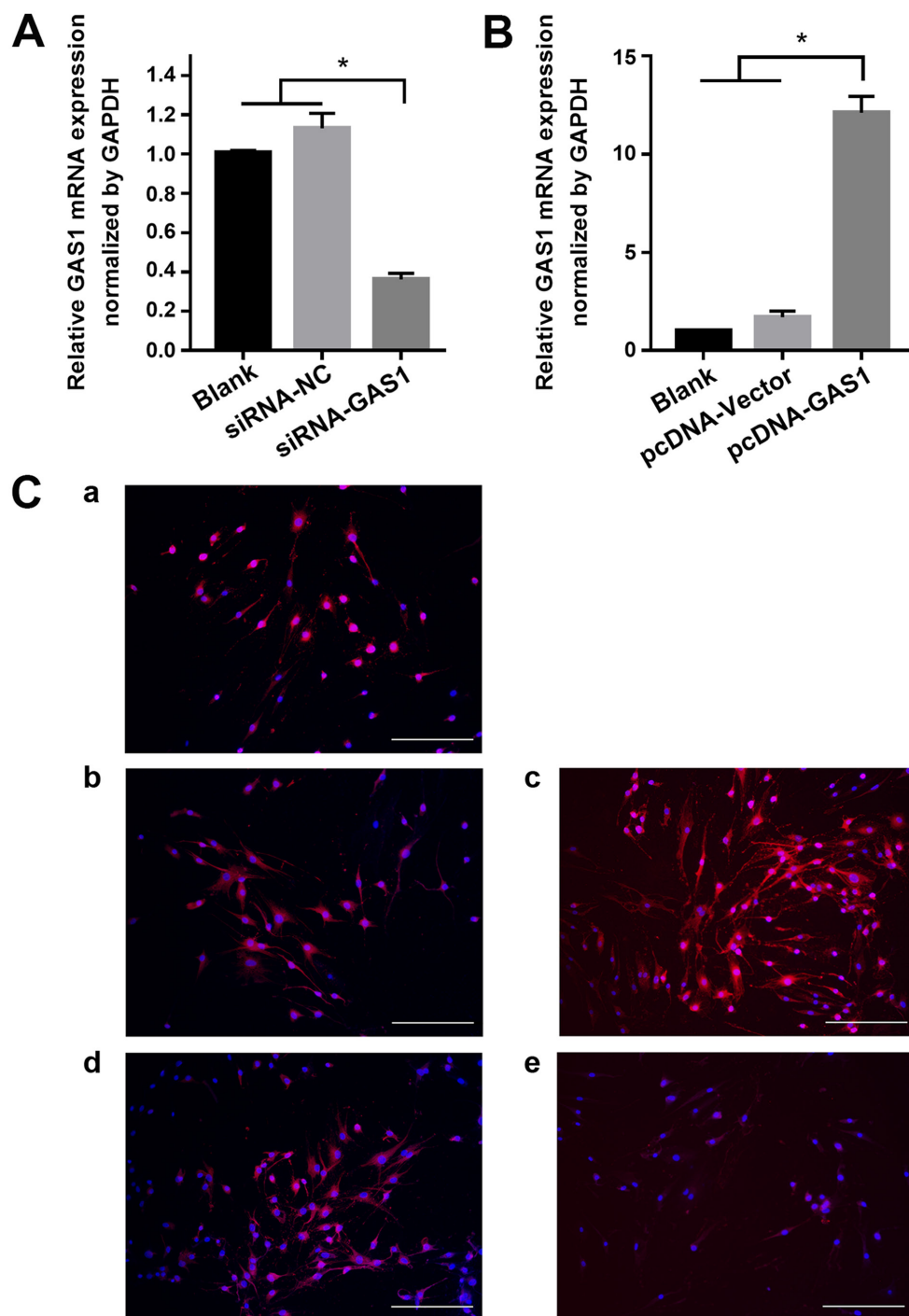


Figure S2. Validation of transfection efficiency of mimics and miRNA-inhibitors for miR-34a-5p and miR-181a-5p, as measured by reverse transcription-quantitative PCR. (A) Relative expression of miR-34a-5p in non-OASFs transfected with miRNA-NC, miRNA-34a-5p mimics or anti-miRNA-34a-5p in the presence or absence of IL-1 $\beta$ . (B) Relative expression of miR-181a-5p in non-OASFs transfected with miRNA-NC, miRNA-181a-5p mimics or anti-miRNA-181a-5p in the presence or absence of IL-1 $\beta$ . The concentration of IL-1 $\beta$  used was 10 ng/ml. \*P<0.01. miR, microRNA; OASFs, osteoarthritis synovial fibroblasts; IL-1 $\beta$ , interleukin-1 $\beta$ ; NC, negative control.

