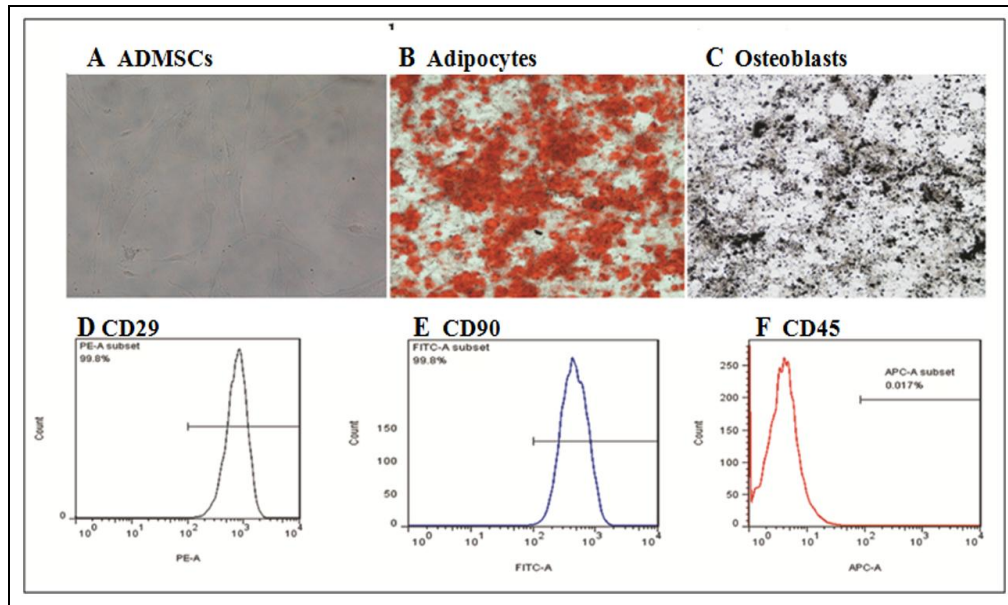
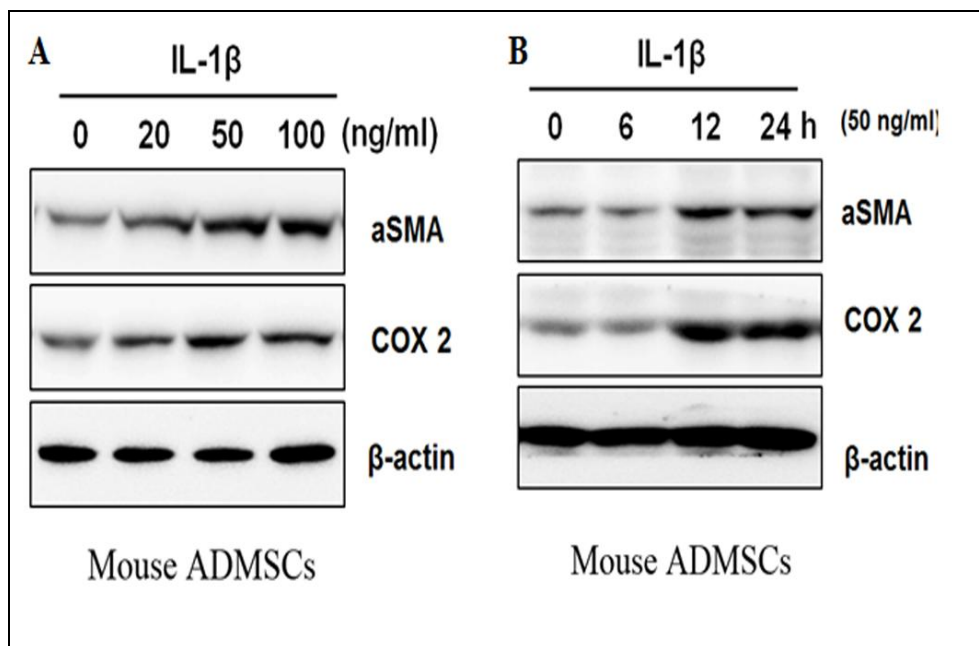


Supplementary figures

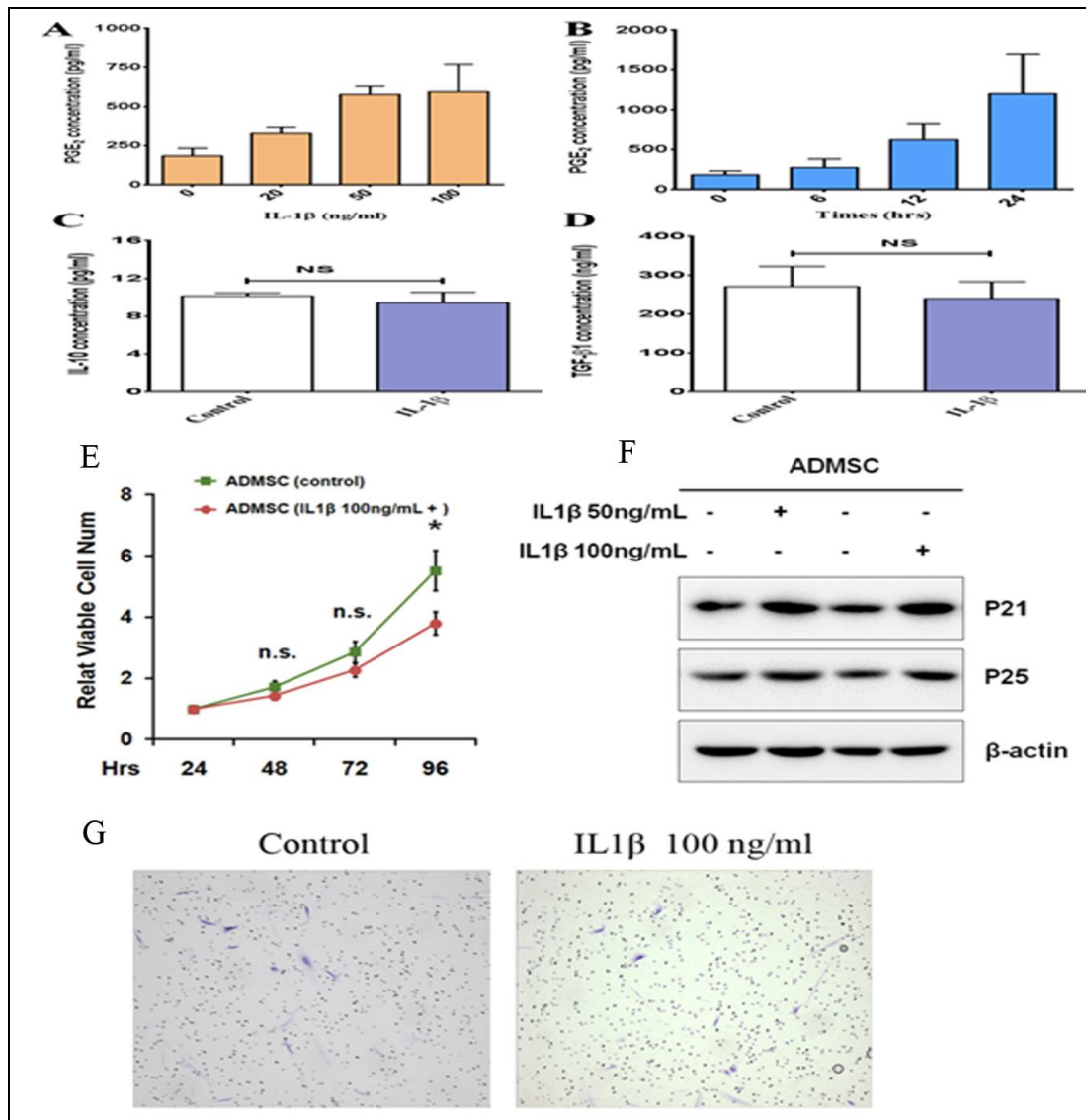
Supplementary figure 1 Identification of human ADMSCs. (A) ADMSCs displayed a spindle shape; (B-C) ADMSCs could be induced to differentiate into adipocytes and osteoblasts; (D-F) Flow cytometry showed that ADMSCs highly expressed CD29 and CD90, while lowly expressed CD45.



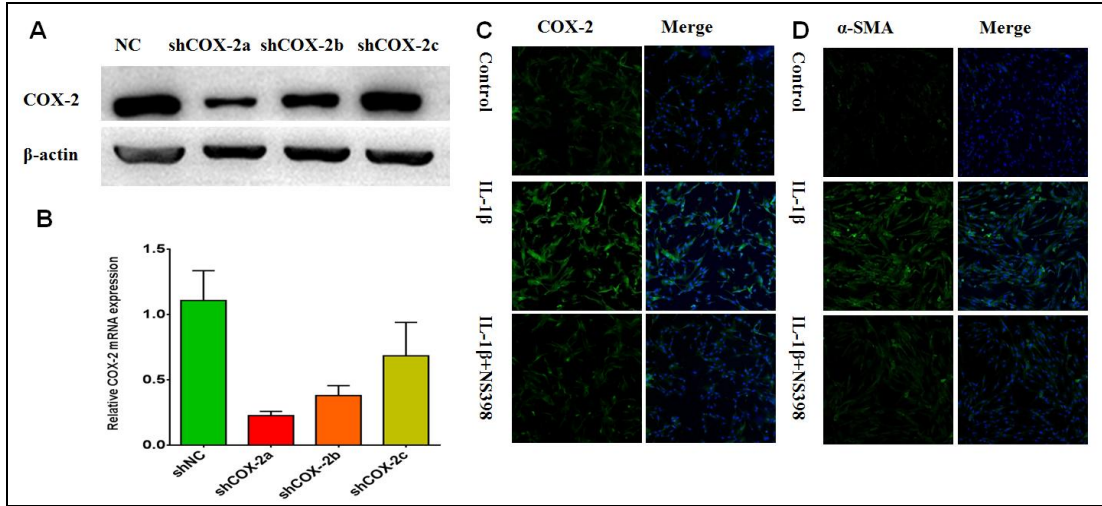
Supplementary figure 2 IL-1 β increased expression of COX-2 and α -SMA at a dose- and time-dependent manner (A-B).



Supplementary figure 3 (A-B) IL-1 β stimulated secretion of PGE₂ from ADMSCs at a dose- and time-dependent manner. **(C-D)** Pretreatment with 50ng/ml IL-1 β did not induce differential secretion of IL-10 and TGF- β 1 in ADMSCs (NS no statistical significance, student's t test). **(E-F)** IL-1 β treatment induced ADMSCs senescence, including decreased cell proliferation, decreased expressions of p21 and p25 and cellular migration.



Supplementary figure 4 (A-B) Western blot and real-time RT-PCR were used to assess the effect of lentiviral shRNA for silencing of COX-2 expression in ADMSCs. **(C-D)** Inhibition of COX-2 using NS298 (COX-2 inhibitor) suppressed IL-1 β -induced expression of COX-2 and α -SMA in ADMSCs.



Supplementary table 1 Primer sequences for real-time RT-PCR (5'-> 3')

Gene name	Forward	Reverse
IL-6	CCTCTGGTCTTCTGGAGTACC	ACTCCTTCTGTGACTCCAGC
TNF- α	ATGAGCACAGAAAGCATGA	AGTAGACAGAAGAGCGTGGT
COX-2	GAAACTCTGGCTAGACAGCGTAA	AACCGTAGATGCTCAGGGAC
Apaf1	CAGTAATGGCGTCTTGTCAGT	AAGCGGCTGCTCGTTGATATT
S100a9	GCACAGTTGGCAACCTTTATG	TGATTGTCCTGGTTTGTGTCC
Tnfrsf22	AAATGTCCCGCTGGTGAATAC	GGCGGCACGATTCTGGAAA
cxcl2	CCAACCACCAGGCTACAGG	GCGTCACACTCAAGCTCTG
cxcl11	TGTAATTTACCCGAGTAACGGC	CACCTTTGTCGTTTATGAGCCTT
cxcr2	ATGCCCTCTATTCTGCCAGAT	GTGCTCCGGTTGTATAAGATGAC
cxcr4	GACTGGCATAGTCGGCAATG	AGAAGGGGAGTGTGATGACAAA
β -actin	GGCACCACACCTTCTACAATG	GGGGTGTGTAAGGTCTCAAAC