1. **Supporting Information Tables**

**Table S1 Primer sequences used for real-time quantitative PCR analysis**

|  |  |  |
| --- | --- | --- |
| Gene | Strand | Primer sequences |
|
| *RUNX2* | F | TACCTGAGCCAGATGACG |
| R | CAGTGAGGGATGAAATGC |
| *ALPL* | F | CAACCCTGGGGAGGAGAC |
| R | CACTAGCAAGAAGAAGCCTTTGG |
| *COL1A1* | F | GCCGTGACCTCAAGATGTG |
| R | GCCGAACCAGACATGCCTC |
| *SPP1* | F | ATTCTGGGAGGGCTTGGTT |
| R | AGTCTGGTCCCGACGATG |
| *OSX* | F | CCTCTGCGGGACTCAACAAC |
| R | AGCCCATTAGTGCTTGTAAAGG |
| *GAPDH* | F | GGAGCGAGATCCCTCCAAAAT |
| R | GGCTGTTGTCATACTTCTCATGG |
| *circRNA008876* | F | GTGGAATCAAGGGCTAGGAATG |
| R | AAGTTTGAAGCTAGGCGCAGT |

**Table S2 Primers for recombinant plasmids for dual-luciferase Reporter Assay**

|  |  |  |
| --- | --- | --- |
| Gene | Strand | Primer sequences |
|
| *circRNA-BR* | F | CCGCTCGAGCACAGTCTCTCTGGGATTATCT |
| R | ATAAGAATGCGGCCCATTCCTAGCCCTTGATTCC |
| *circRNA -BR MT* | F | TTACCTGGCCAACCCTGAAGAGAAGAG |
| R | CACTTCTTCAGGGTTGGCCAGGTAA |

**2. Procedures for Biological Experiments**

**2.1 Flowcytometry**

Passage 2 of hBMSCs were applied for mesenchymal stem cell surface marker identification by flowcytometry. hBMSCs were incubated with primary antibodies CD34, CD105, CD29, CD73, CD45 and HLA-DR and then incubated with phycoerythrin (PE) conjugated secondary antibody following the manufacturer’s instructions (HUXMX-09011, Cyagen, China). Negative and isotype controls were performed. Immunofluorescence of cells was measured by flowcytometry (Beckman Coulter) after incubation.

**2.2 miRNA qPCR**

Total RNA of hBMSCs was extracted using Trizol reagent (Invitrogen) according to the manufacturer’s protocol. Reverse transcription reaction was carried using Bulge-LoopTM miRNA qRT-PCR kit (Ribo Bio, China) for miR-150-5p and *U6.* qPCR was performed using SYBR Premix Ex Taq (Takara) by Applied Biosystems 7500 Real-Time PCR Systems. *U6* was used as the internal control for miR-150-5p. The RNA expressions were analyzed using 2−ΔΔCt comparison method. The primers of miR-150-5p and U6 for qPCR were included in Bulge-LoopTM miRNA qRT-PCR kit (Ribo Bio, China).