



**Fig. S1 Characteristics of bone marrow mesenchymal stem cells (BMSCs). Flow cytometry analysis of cell marker expression on the surface of passage 2 BMSCs and showing that BMSCs were positive for cluster of differentiation 29 (CD29) and CD44 but negative for CD11b and CD45.**

**Table S1 Primers used to identify the genotype of transgenic mice**

Gene	Forward primer 5'→3'	Reverse primer 5'→3'
Floxed <i>LRP5</i> knockout allele	TGCTCTCCATTGGTTGTTCA	TTACCTGGGTCACCTGTCCT
<i>Oc-Cre</i> transgene	CAAATAGCCCTGGCAGATTC	TGATACAAGGGACATCTTCC
<i>TdT</i> transgene	CCCAAAGTCGCTCTGAGTTGTTA	TCGGGTGAGCATGTCTTTAATCT

LRP5: low-density lipoprotein receptor-related protein 5.

**Table S2 Primers used for quantitative real-time polymerase chain reaction (qPCR)**

Gene	Forward primer 5'→3'	Reverse primer 5'→3'
<i>LRP5</i>	GAGCGAGGGTACATGTACTTTA	CACAGCTTTCGATTTCGCTTTAG
<i>SP7</i>	GGAAAGGAGGCACAAAGAAGC	CCCCTTAGGCACTAGGAGC
<i>β-catenin</i>	AGGAATGAAGGCGTGGCAACATAC	GGCACCAATGTCCAGTCCAAGATC
<i>Runx2</i>	AGAGTCAGATTACAGATCCCAGG	TGGCTCTTCTACTGAGAGAGG
<i>GAPDH</i>	GGAGCGAGATCCCTCCAAAAT	GGCTGTTGTCATACTTCTCATGG

LRP5: low-density lipoprotein receptor-related protein 5; SP7: transcription factor osterix; Runx2: Runt-related transcription factor 2; GAPDH: glyceraldehyde 3-phosphate dehydrogenase.