

Article

PF127 Hydrogel-Based Delivery of Exosomal CTNNB1 from Mesenchymal Stem Cells Induces Osteogenic Differentiation during the Repair of Alveolar Bone Defects

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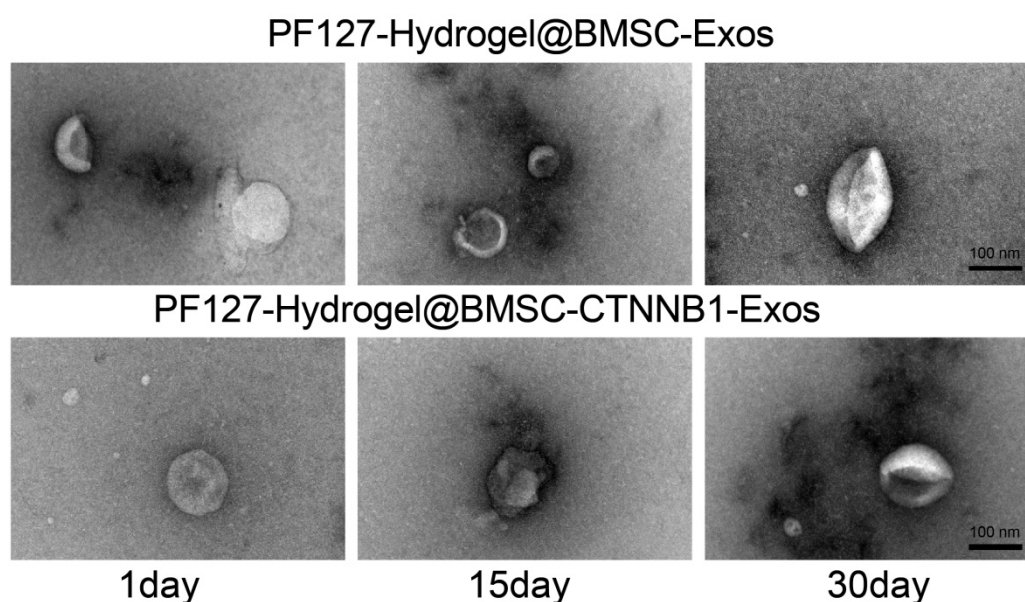


Figure S1. The morphological changes of PF127 hydrogel@BMSC-CTNNB1-Exos and PF127 hydrogel@BMSC-Exos at day 1, 15 and 30 as observed by SEM to test long-term stability.

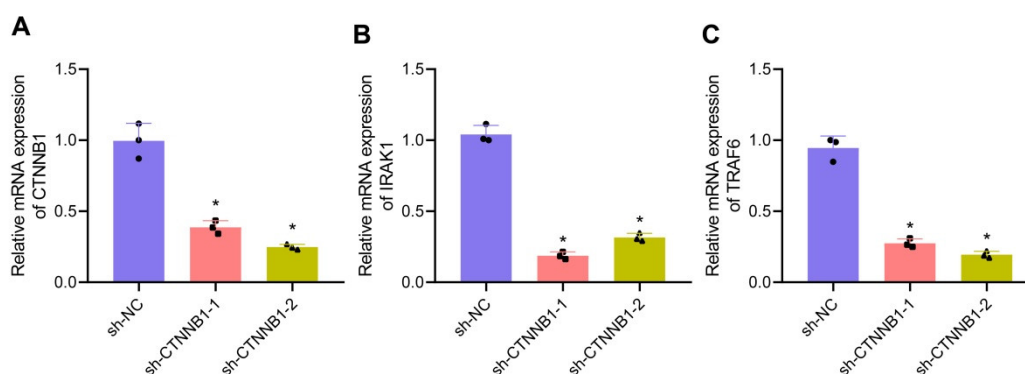


Figure S2. Knockdown efficiency of CTNNB1 (A), IRAK1 (B) and TRAF6 (C) detected by RT-qPCR. * $p < 0.05$ vs. the sh-NC group. Cell experiments were repeated three times.

Table S1. Targeted knockdown using shRNA sequences.

shRNA	Sequence
sh-NC	5'-CGATAACGTTACGAAGTACCAT-3'
sh-CTNNB1-1 (rat)	5'-GGGCAATCCTGAGGAAGAAGA-3'
sh-CTNNB1-2 (rat)	5'-GGGCAATCCTGAGGAAGAAGA-3'
sh-IRAK1-1 (rat)	5'-GCAGTAATGAGAAATACTACA-3'
sh-IRAK1-2 (rat)	5'-GGTTTCGTCACCCAAATATCG-3'
sh-TRAF6-1 (rat)	5'-GCGATCGATTGACTGACAACA-3'
sh-TRAF6-2 (rat)	5'-GCTACTATGAGTCTCTTAAAC-3'

Note: sh-, short hairpin RNA; NC, negative control.

Table S2. qPCR primer sequences for ChIP.

Gene	Sequence
p-miR-146a-5p	Forward: 5'-CTGGCCCCATGTAGAACTGG-3' Reverse: 5'-CCCCCAGGGTACACAAACTC-3'

Note: ChIP, chromatin immunoprecipitation.

Table S3. Primer sequence for RT-qPCR.

Gene	Sequence
CTNNB1 (rat)	Forward: 5'-ATCATTCTGGCCAGTGGTGG-3' Reverse: 5'-GACAGCACCTTCAGCACTCT-3'
IRAK1 (rat)	Forward: 5'-CCCCTCCTCCATCAAGCCAAG-3' Reverse: 5'-GGTACACACACCCAAAACCCAC-3'
TRAF6 (rat)	Forward: 5'-ACTTGATCTCGGAGTGCTGC-3' Reverse: 5'-CAGTCAATCGATCGCACACG-3'
RUNX2 (rat)	Forward: 5'-GCGGTGCAAACCTTCTCCAG-3' Reverse: 5'-TCACTGCACTGAAGAGGCTG-3'
OCN (BGLAP) (rat)	Forward: 5'-GAATAGACTCCGGCGCTACC-3' Reverse: 5'-TCCTGGAAGCCAATGTGGTC-3'
miR-146a-5p (rat)	Forward: 5'-TGAGAACTGAATTCCATGGGTT-3' Reverse: Universal sequence
GAPDH (rat)	Forward: 5'-GCATCTTCTTGTGCAGTGCC-3' Reverse: 5'-GATGGTGATGGGTTTCCCGT-3'
U6 (rat)	Forward: 5'-CTCGCTTCGGCAGCACA-3' Reverse: Universal sequence

Note: RT-qPCR, reverse transcription-quantitative polymerase chain reaction.