

Fig. S1 low pericyte coverage is related to enhanced bone resorption

A Representative immunostaining images of femurs from female wild-type mice of different ages (6, 12 and 18 months). NG2⁺ (red) pericytes, endomucin⁺ (green) endothelial cell, and nuclear (blue) DAPI staining. Scale bar, 50 μ m. **B** Representative TRAP staining images of femurs from female wild-type mice of different ages (6, 12 and 18 months). Scale bar, 50 μ m.

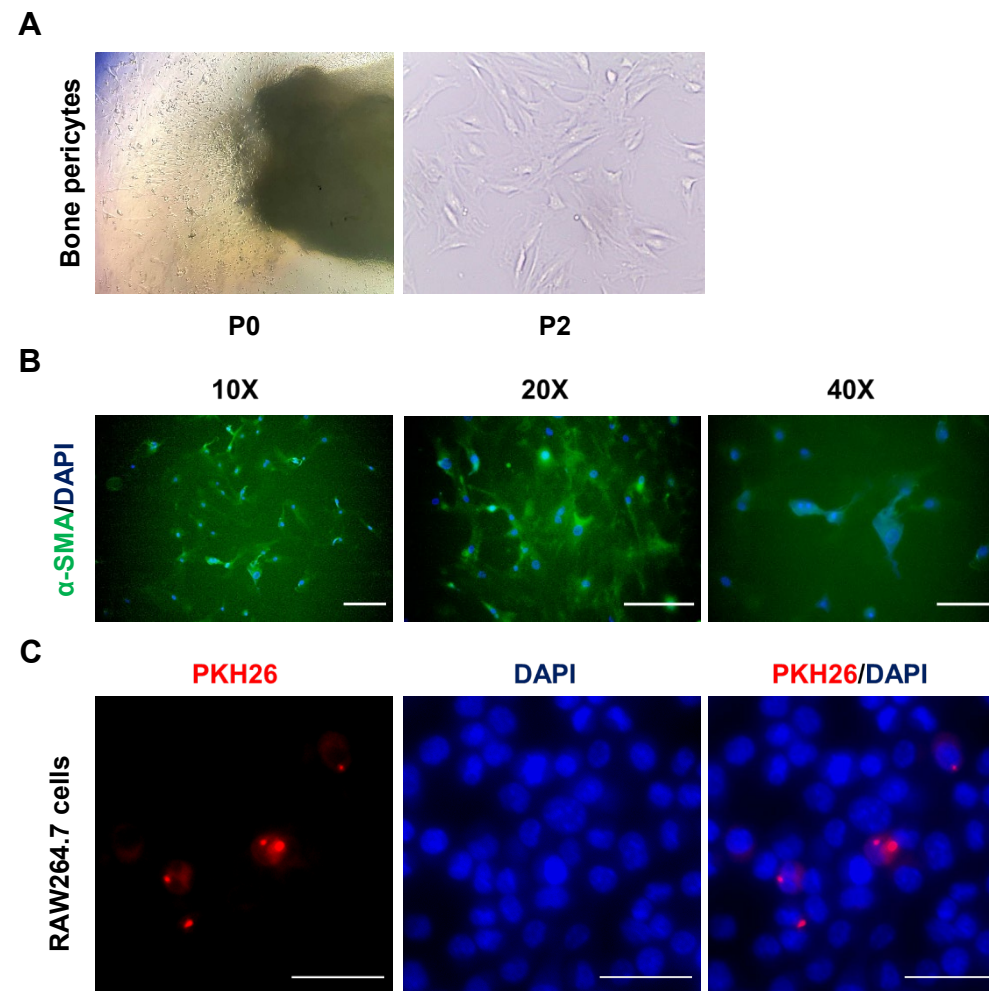


Fig. S2 Isolation, culture, and identification of mouse femoral pericytes

A pericytes from mouse femur were isolated and cultured. **B** Pericyte surface marker α -smooth muscle actin (green) was detected by immunofluorescence assay. DAPI was used for nuclear (blue) staining. Scale bar, 100 μ m (10X, 20X), 50 μ m (40X). **C** Absorption of PC-EVs by RAW264.7 cells. PC-EVs were PKH26 (red)-labeled before being cultivated with pericytes for 12 hours. Nuclear (blue) was stained with DAPI. Scale bar, 50 μ m.

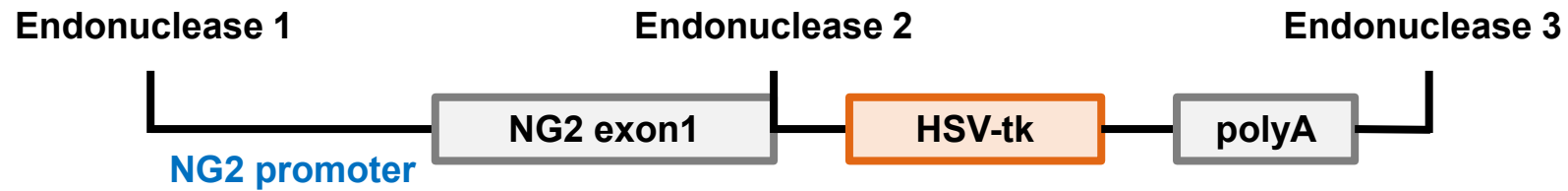


Fig. S3 Generation of NG2-tk transgenic mice

The thymidine kinase of herpes simplex virus (HSV-tk) fragment and NG2 promoter were digested by endonuclease and ligated together. Subsequently, the NG2-tk mouse was developed by a transgenic facility on the FVB background.

Table S1 Antibody for immunofluorescence assay and western blotting analysis

Antibody	Brand	Dilution	Applicat ion	Catalog number
anti-Endomucin	Invitrogen, Carlsbad, CA, USA	1:1000	IF	14-5851-81
anti-NG2	Chemicon, Temecula, CA, USA	1:500	IF	AB5320
anti-Calnexin	Affinity, Jiangsu, China	1:1000	WB	AF5362
anti-CD9	Affinity	1:1000	WB	AF5139
anti-CD81	Affinity	1:1000	WB	DF2306
anti-CD63	Affinity	1:1000	WB	AF5117
anti-CTSK	Affinity	1:1000	WB	DF6614
anti-Traf3	Affinity	1:1000	WB	AF5380
anti-TRAP	Affinity	1:1000	WB	DF2301
anti-NIK	Affinity	1:1000	WB	DF2335
anti-P100/P52	Affinity	1:1000	WB	AF6373
anti-RelB	Affinity	1:1000	WB	AF6380
anti-GAPDH	Affinity	1:10000	WB	AF7021
Anti-rat IgG	Zenbio, Sichuan, China	1:1000	IF	550067
Anti-rabbit IgG	Servicebio, Hubei, China	1:10000; 1:1000	WB; IF	GB21303

Table S2 SiRNA sequences for cell transfection

Gene	Sequence
<i>Traf3</i>	GCG UGC CGA CUG CAA AGA ATT
<i>NC</i>	UUC UCC GAA CGU GUC ACG UTT

Synthesized by IBSBio (Shanghai, China).

Table S3 Primer sequences for Quantitative real-time PCR

Gene	Sequence
<i>Traf3</i>	F: 5'-TGAGCTGGAGAGCGTAGACA-3' R: 5'-AGATCAGCACCCCGTTGTAG-3'
<i>GAPDH</i>	F: 5'-AACTTTGGCATTGTGGAAGG-3' R: 5'-ACACATTGGGGGTAGGAACA-3'

Synthesized by Shenggong (Shanghai, China).