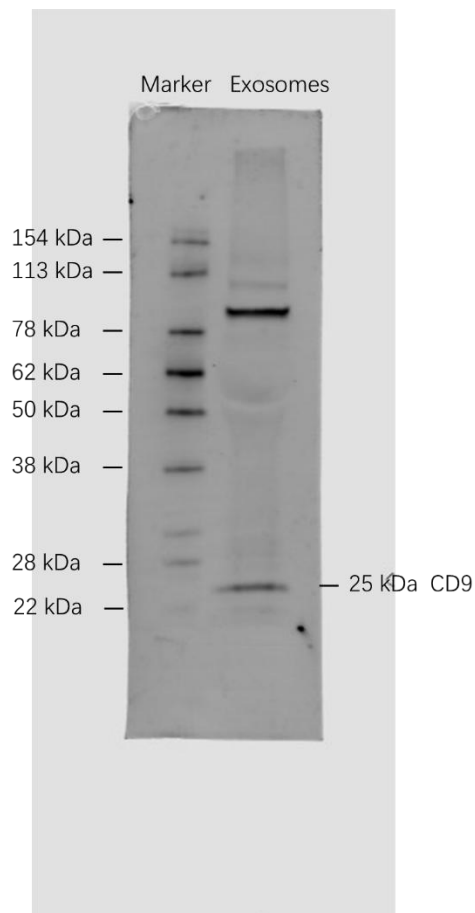


Supp. table 1 Reagents

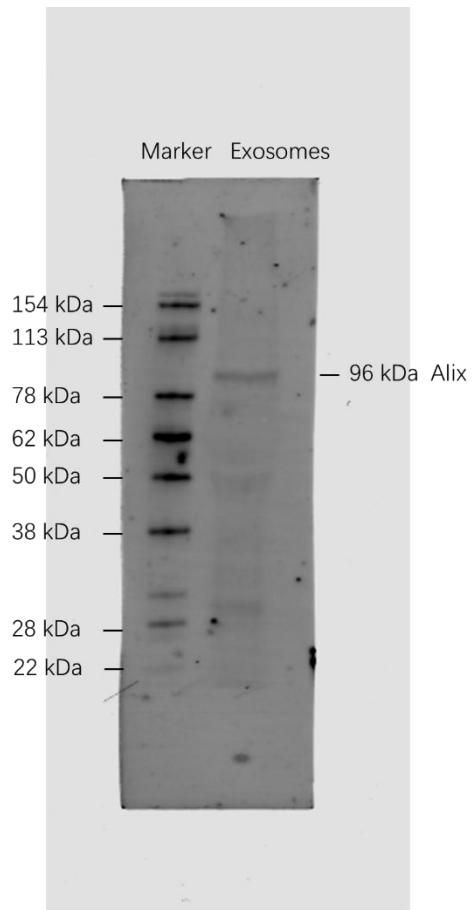
Reagents	Product code	Company
L-DMEM	G4520-500ML	Servicebio
FBS	C04001	Vivacell
BMSCs osteogenic differentiation medium	PD-008	Procell
BMSCs adipogenic differentiation medium	PD-010	Procell
BMSCs chondrogenic differentiation medium	PD-009	Procell
Anti-CD29/Alexa Fluor 488 antibody	bs-20630R-AF488	Bioss
Anti-CD90/Alexa Fluor 488 antibody	bs-0778R-AF488	Bioss
Anti-CD44/Alexa Fluor 488 antibody	bs-4916R-AF488	Bioss
Anti-CD34/Alexa Fluor 488 antibody	bs-9752R-AF488	Bioss
Anti-CD68/Alexa Fluor 488 antibody	bs-20403R-AF488	Bioss
Rabbit IgG/Alexa Fluor 488	bs-0295P-AF488	Bioss
Alizarin red S staining kit	C0148S	Beyotime
0.8mm Kirschner		Zimmer
5-0 absorbable band		Ethicon
Transwell chambers (1 μ m pore size)	TCS005012	Biofil
CSF	HY-P7386	MCE
Tissue RNA extraction kit	G3640-50T	Servicebio
SweScript All-in-One First-Strand cDNA Synthesis SuperMix for qPCR	G3337-100	Servicebio
2 \times Universal Blue SYBR Green qPCR Master Mix	G3326-05	Servicebio
Cell supernatant exosome extraction kit	EX0011	Solarbio
DiD	D4019	Yuheng
DiO	D4007	Yuheng
Free endotoxin plasmid extraction maxi kit	D1150-10T	Solarbio
Anti-CD206 antibody	18704-1-AP	Proteintech
Anti-CD86 antibody	E8ET1606-50	EnoGene

Western blot

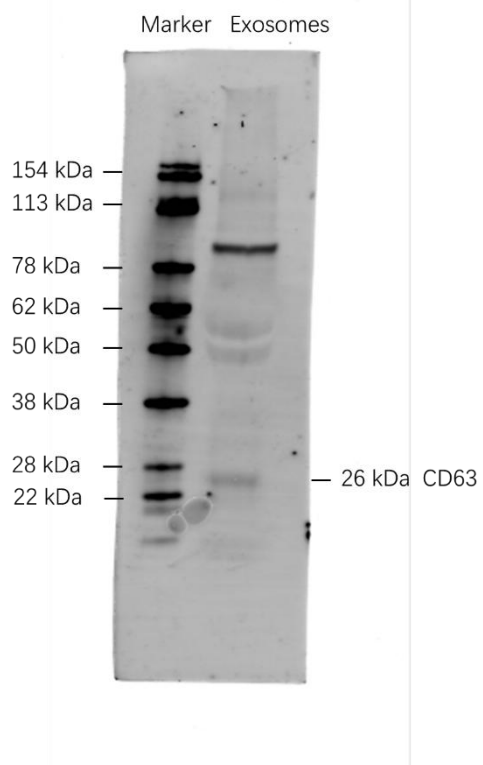
Western blot was used to identify the exosomes and performed as described previously. Briefly, exosomes suspension was lysed in RIPA buffer (R0010, Solarbio, China) with 1mM phenylmethylsulfonyl fluoride (PMSF). Proteins were separated by 10% SDS-PAGE gel and transferred to a 0.2 um PVDF membrane. Then, the membranes were blocked for one hour at room temperature in blocking buffer (P30500, NCM Biotech, China) and incubated with primary antibodies overnight at 4 °C. After washed by TBST for 3 times, the membranes were incubated with secondary antibodies for 2 h. The protein bands were visualized with Odyssey infrared imaging system (LI - COR Biosciences). The antibodies were listed as follows: anti-Alix (DF9027, Affinity Biosciences, 1:2000), anti-CD63 (AF5117, Affinity Biosciences, 1:1000), anti-TSG101 (DF8427, Affinity Biosciences, 1:2000), anti-CD9 (AF5139, Affinity Biosciences, 1:1000), anti-GAPDH (AF7021, Affinity Biosciences, 1:10000), anti - rabbit secondary antibodies conjugated to 680 IRDye fluorophores (LI - COR Biosciences, 1:15000). (Fig.1-5)



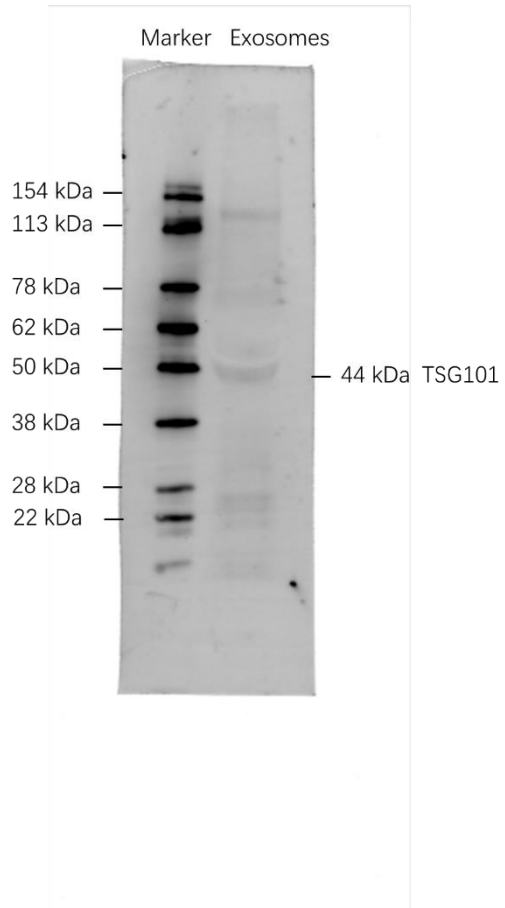
Supp. Figure 1 CD9 expression results in exosomes.



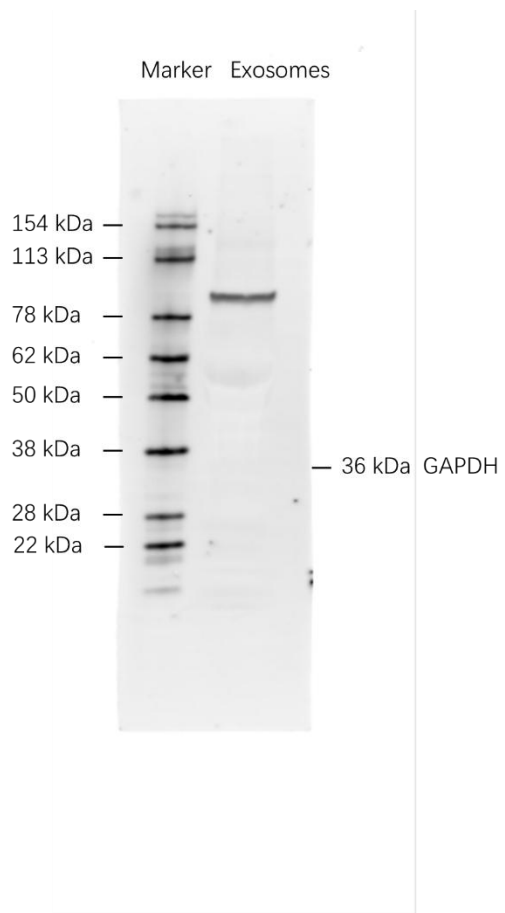
Supp. Figure 2 Alix expression results in exosomes.



Supp. Figure 3 CD63 expression results in exosomes.



Supp. Figure 4 TSG101 expression results in exosomes.



Supp. Figure 5 GAPDH expression results in exosomes.