

ABSTRACT

METHOD FOR PREPARING EXOSOMES DERIVED FROM ANTLER PERIOSTEAL MESENCHYMAL STEM CELLS AND APPLICATIONS THEREOF

The present invention provides a method for preparing exosomes derived from antler periosteal mesenchymal stem cells and their applications. After obtaining antler periosteal tissue, the tissue is placed in a DPBS culture dish containing antibiotics for further processing. The periosteal tissue is then minced and washed with DPBS until it is free of blood. The minced tissue is treated with digestive enzymes and incubated in a carbon dioxide (CO₂) incubator to facilitate enzymatic digestion. Subsequently, alpha-MEM complete culture medium is added to further process the tissue. The digested tissue is filtered and centrifuged to isolate the primary periosteal cells, which are then counted and cultured in a suitable medium to obtain mesenchymal stem cells (MSCs) derived from antler periosteum. The cultured periosteal MSCs are further processed to isolate exosomes, which can be applied to promote the proliferation and repair of human fibroblasts, enhance skin quality, and stimulate hair growth.

FIG. 1