

Abstract

CELL POPULATION COMPRISING MESENCHYMAL STEM CELLS, CELL SHEET, AND METHOD FOR PRODUCING A CELL SHEET

The present invention is directed to obtaining a cell population comprising mesenchymal stem cells that are excellent in proliferative capability and osteoblastic differentiation capability and are useful for the regeneration of periodontal tissues. The present invention is also directed to providing a cell sheet and a method for producing a cell sheet, comprising, as a material, a cell population comprising mesenchymal stem cells that are excellent in proliferative capability and osteoblastic differentiation capability and are useful for the regeneration of periodontal tissues. A cell population having alkaline phosphatase activity before calcification induction of 1 U or more is selected and obtained from a cell population comprising mesenchymal stem cells derived from a dental or periodontal tissue. A cell sheet is obtained by the following steps (a) to (c): (a) obtaining a cell population comprising mesenchymal stem cells and having alkaline phosphatase activity; (b) culturing the cell population in a calcification induction medium, and proliferating the cell population on a plastic substrate; and (c) recovering and washing a sheet-shaped cell population formed on the plastic substrate.

Figure 1