

ABSTRACT

A method for preparing zonal layered chondrocyte sheets, comprising the steps: (a) providing a cartilage sample from a subject; (b) isolating chondrocytes from the cartilage sample and then isolating superficial zone chondrocytes, middle zone chondrocytes and deep zone chondrocytes from the chondrocytes; (c) culturing the deep zone chondrocytes until reaching 100% cell confluence to form a deep zone chondrocyte sheet; (d) seeding the middle zone chondrocytes on the top of the cultured deep zone chondrocyte sheet from the step (c) and culturing the middle zone chondrocytes until reaching 100% cell confluence to form a middle zone chondrocyte sheet; and (e) seeding the superficial zone chondrocytes on the top of the cultured middle zone chondrocyte sheet from the step (d) and culturing the superficial zone chondrocytes until reaching 100% cell confluence to form a superficial zone chondrocyte sheet to obtain the zonal layered chondrocyte sheets.

Figure 2 accompanies the abstract.