TECHNICAL PROBLEM

It is an object of the present invention to provide a medium for culturing mesenchymal stem cells, which shows a high cell proliferation rate while maintaining the ability of the cells to differentiate.

Another object of the present invention is to provide a method of culturing mesenchymal stem cells using the above medium.

TECHNICAL SOLUTION

To achieve the above objects, the present disclosure~~invention~~ provides a medium composition for culturing mesenchymal stem cells, which contains basal medium, L-ascorbic acid 2-phosphate, fetal bovine serum, basic fibroblast growth factor (b-FGF), non-essential amino acids (NEAAs), insulin, N-acetyl-L-cysteine, calcium chloride, and hydrocortisone.

In one aspect, there is provided a medium composition for culturing mesenchymal stem cells, the medium comprises:

(i) DMEM-P containing DMEM-HG, 0.2mM of L-ascorbic acid 2-phosphate, 10% fetal bovine serum, 10ng/ml of basic fibroblast growth factor (b-FGF), 10㎕/ml of non-essential amino acid (NEAA); and

(ii) KSFM-P containing defined Keratinocyte-SFM, 0.2mM of L-ascorbic acid 2-phosphate, 5μg/ml of insulin, 2mM of N-acetyl-L-cysteine, 0.09mM of calcium chloride, 74ng/ml of hydrocortisone, 5% fetal bovine serum,

wherein the non-essential amino acid (NEAA) consists of 750mg/L of glycine, 890mg/L of L-alanine, 1,320mg/L of L-asparagine, 1,330mg/L of L-aspartic acid, 1,470mg/L of L-glutaminic acid, 1,150mg/L of L-proline, and 1,050mg/L of L-serine, and the volume ratio of DMEM-P : KSFM-P is 2:1, 1: 1 or 1:3.

The present disclosure~~invention~~ also provides a method for culturing mesenchymal stem cells, the method comprising culturing the mesenchymal stem cells in the above medium composition.

In one aspect, there is provided a method for culturing mesenchymal stem cells, the method comprising culturing the mesenchymal stem cells in the medium composition as defined herein.

Other features and embodiments of the present disclosure~~invention~~ will be more apparent from the following detailed descriptions and the appended claims

BRIEF DESCRIPTION OF THE DRAWINGS