ABSTRACT

An object of the present invention is to develop a method for purify cardiomyocytes at a high degree of purification and at a high yield from a cell mixture comprising cardiomyocytes derived from fetuses and stem cells using various features which have not been previously expected to be used for purification of cardiomyocytes or which are newly found, wherein said method is carried out without undergoing any genetic modification or without adding any special proteins or biologically active agents.

The inventors of the present invention found that cardiomyocytes were effectively and highly selected and purified by culturing cardiomyocytes derived from embryonic stem cells in the culture medium under a condition selected from a low-serum-supplemented condition, a low-glucose-supplemented condition, a low-nutritional condition, a low calcium condition, a mildly-acidic pH condition, a lactic acid-supplemented condition, an aspartic acid/glutamic acid-supplemented condition, and/or a pyruvic acid-supplemented condition. The inventors of the present invention further found that the above method invented in relation to embryonic stem cells was applicable to select and purify cardiomyocytes derived from fetuses or adult stem cells.