

ABSTRACT

The object of the present invention is to improve the post-transplantation engraftment rate of cardiomyocytes that have been purified to such an extent that they are free from non-cardiomyocytes and any components derived from other species.

To solve this problem, the present inventors studied the possibility of constructing cell masses from the purified cardiomyocytes. As a result, they revealed that the stated problem could be solved by providing a method of preparing cell masses of cardiomyocytes derived from pluripotent stem cells, characterized in that cell masses of aggregated cells containing cardiomyocytes that had been differentiated and induced from pluripotent stem cells were dispersed to single cells to thereby obtain purified cardiomyocytes, which were then cultured in a culture medium under serum-free conditions so that they were reaggregated.