ABSTRACT

METHOD FOR THE DIFFERENTIATION OF HUMAN ADULT STEM CELLS INTO INSULIN-SECRETING CELLS

Disclosed is a method for differentiating human adult stem cells into insulin-secreting cells. Human adult stem cells, isolated from the subcutaneous adipose tissues around the eyes, are induced to differentiate into insulin-secreting cells in a medium in the presence of cytokines and growth factors including B27 supplement, fibroblast growth factor-2, epidermal growth factor, nicotinamide, glucagon-like peptide-1, activin A, insulin-like growth factor, betacellulin, etc., with a glucose shift from a high concentration to a low concentration. Having the ability to producing insulin and C-peptide at high levels, the insulin-secreting cells can be excellent curatives for type 1 diabetes mellitus.

Figure 2

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