Abstract

METHOD OF EFFICIENTLY ESTABLISHING INDUCED PLURIPOTENT STEM CELLS

Provided is a method of producing an iPS cell, comprising bringing (a) Oct3/4 or a nucleic acid that encodes the same, (b) Klf4 or a nucleic acid that encodes the same, and (c) Sox2 or a nucleic acid that encodes the same, as well as (d1) L-Myc or a nucleic acid that encodes the same and/or (d2) a functional inhibitor of p53, into contact with a somatic cell. It is preferable that (a) a nucleic acid that encodes Oct3/4, (b) a nucleic acid that encodes Klf4, (c) a nucleic acid that encodes Sox2, (d1) a nucleic acid that encodes L-Myc and (e) a nucleic acid that encodes Lin28 or Lin28b be inserted into an episomal vector having loxP sequences placed in the same orientation on the 5' and 3' sides of a vector constituent essential for the replication of the vector, that (d2) a nucleic acid that encodes an shRNA against p53 be inserted into a vector ensuring transient expression (plasmid vector and the like), and that all these nucleic acids be transferred to a somatic cell.

(No drawing to be published)