PARTHENOGENIC ACTIVATION OF HUMAN OOCYTES FOR THE PRODUCTION OF HUMAN EMBRYONIC STEM CELLS

Abstract

Methods of producing human stem cells are disclosed for parthenogenetically activating human oocytes by manipulation of O_2 tension, including manipulation of Ca^{2+} under high O_2 tension and contacting oocytes with serine threonine kinase inhibitors under low O_2 tension, isolating inner cell masses (ICMs) from the activated oocytes, and culturing the cells of the isolated ICMs under high O_2 tension. Moreover, methods are described for the production of stems cells from activated oocytes in the absence of non-human animal products, including the use of human feeder cells/products for culturing ICM/stem cells. Stem cells produced by the disclosed methods are also described.

No accompanying figure