

Cryopreservation of induced pluripotent stem cells improved the most by one product

September 25 2012

In a study to determine the best cryopreservation (freezing) solution to maintain induced pluripotent stem (iPS) cells, a team of researchers from Japan compared 12 kinds of commercially prepared and readily available cryopreservation solutions and found that "Cell Banker 3" outperformed the other 11 solutions by allowing iPS cells to be preserved for a year at -80°C degrees C in an undifferentiated state.

The study is published in a recent special issue of *Cell Medicine* [3(1)], now freely available on-line.

"iPS cells are a promising alternative to [embryonic stem cells](#) and can be used in place of [bone marrow cells](#), stromal cells and adipose tissue-derived stem cells," said study co-author Hirofumi Noguchi, MD, PhD, Department of Gastroenterological Surgery, Transplant and Surgical Oncology at the Okayama University Graduate School of Medicine. "However, the viability of human iPS cells, like embryonic stem cells, decreases significantly during cryopreservation. A wide variety of cryopreservation solutions have been used, however many are toxic or ineffective for use in extended cryopreservation."

The researchers concluded that Cell Banker 3 showed the highest [cell viability](#) and proliferation of all the solutions examined and can be widely used as it does not require any special skills for use.

More information: Miyamoto, Y.; Noguchi, H.; Yukawa, H.; Oishi, K.; Matsushita, K.; Iwata, H.; Hayashi, S. Cryopreservation of Induced

Pluripotent Stem Cells. Cell Med. 3(1):89-95; 2012.
[dx.doi.org/10.3727/215517912X639405](https://doi.org/10.3727/215517912X639405)

Provided by Cell Transplantation Center of Excellence for Aging and
Brain Repair

Citation: Cryopreservation of induced pluripotent stem cells improved the most by one product
(2012, September 25) retrieved 26 April 2024 from
<https://medicalxpress.com/news/2012-09-cryopreservation-pluripotent-stem-cells-product.html>

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