STEM-CELLBANKER® DMSO FREE

Cryopreservation Medium

- Serum-Free
- Chemically Defined
- GMP Manufactured

Cat#: 11894F Qty: 4 x 20ml

Expiry Date: 3 years from manufacturing date (see label)

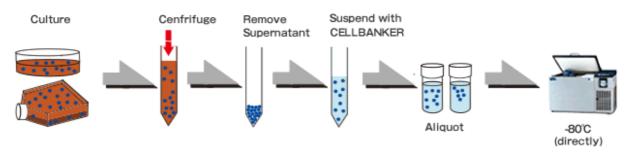


Cell Freezing:

For optimum results, cells for cryopreservation should be in log phase of growth. Similar or standard freezing protocols may be substituted.

- 1. Examine and make sure the cell culture is free of contamination, in healthy situation and proper confluency, etc.
- 2. Perform a cell count to determine the viability of cells
- 3. Gently pellet the cells by centrifugation (3 5 minutes at 1,000~2,000rpm, 4°C). Remove the supernatant by using an aspirator.
- 4. Gently suspend the cells with STEM-CELLBANKER® cryopreservation medium (1 ml for $5 \times 10^5 5 \times 10^6$ cells).
- 5. Dispense the cell suspension in 1ml aliquots to cryopreservation vials that have been labeled with the cell line name, cell concentration, passage date and other essential information.
- 6. Place the vials directly in a -80°C for storage. If necessary, transfer the frozen vials to a liquid nitrogen storage tank after the vials have been frozen for at least 24 hours.
- 7. Optimum protocol may change with the cell types.

Procedure for Use:



Thawing:

- 1. Remove the frozen cell from storage and quickly thaw in a 37°C shaking water bath.
- 2. Immediately dilute and gently mix each 1ml of cells with 10ml of complete cell culture medium.
- 3. Gently pellet the cells by centrifugation (3-5 minutes at 1,000 2,000rpm, 4°C). Remove the supernatant by aspirator.
- 4. Gently suspend the cells with appropriate volume of complete cell culture medium and plate in a culture flask.
- 5. Continue the further culture procedures according to standard protocols.

Guarantee of Quality:

- 1. Manufactured in compliance with JPN, EU, US, and PIC/S GMP guidelines
- 2. Bacterial contamination free Product has been tested and confirmed to be free of bacteria, fungi and mycoplasma.
- 3. Chemical Analysis: pH (7.0 to 8.5 at room temperature) Endotoxin (below <5 EU/mL)
- 4. Performance test Cell viability above 80% (JM404, SK-007) is guaranteed.

Storage of STEM-CELLBANKER®:

- 1. STEM-CELLBANKER® should be stored at 4°C or below.
- 2. Keep frozen in case of long term unused period (3 months or longer)
- 3. Repeated freezing and thawing may impair the quality of the product; it is recommended that STEM-CELLBANKER® is aliquoted before freezing.

Cells Tested:

Cell type	Description	Post Thaw Cell Viability
201B7	Human iPS cell	90
129SV	Mouse ES cell	90
P3/x63-Ag8.U1	Murine myeloma cell	90
2D-8	Murine hybridoma	90
YAC-1	Murine lymphoblast	90
NBM-Lu	Normal newborn murine fibroblast cell line	90
Feline PBMC	Feline peripheral blood mononuclear cells	80
Canine PBMC	Canine peripheral blood mononuclear cells	90
Jurkat	Human T-cell line	80
SK007	Human B-cell line	90
K562	Human Caucasian chronic myelogenous leukaemia cells	90
HeLa	Human uterine cervical carcinoma cell	90
HepG2	Human hepatocellular carcinoma cells	90
Caco-2	Human colonic adenocarcinoma cells	90
UE6E7-16	Human Mesenchymal cells	90
UE7T-13	Human Mesenchymal stem cells	90

References:

Miki T *et al.* (2016) Biological impact of xeno-free chemically defined cryopreservation medium on amniotic epithelial cells Stem Cell Research & Therapy 2016 Jan 12;7:8

Yamanaka S *et al.* (2014) A novel efficient feeder-free culture system for the derivation of human induced pluripotent stem cells. Scientific Reports 4 Article, number: 359

Holm *et al.* (2010) An effective serum- and xeno-free chemically defined freezing procedure for human embryonic and induced pluripotent stem cells. *Hum Reprod.* 25(5):1271-9. Epub 2010 Mar 5.

Product Range:

Description	Pack Size
CELLBANKER® 1 - Serum Containing	20 ml
CELLBANKER® 1 - Serum Containing	4 x 20 ml
CELLBANKER® 1 - Serum Containing	100 ml
CELLBANKER® 2 - Serum Free	20 ml
CELLBANKER® 2 - Serum Free	4 x 20 ml
CELLBANKER® 2 - Serum Free	100 ml
STEM-CELLBANKER® - GMP	20 ml
STEM-CELLBANKER® - GMP	4 x 20 ml
STEM-CELLBANKER® - GMP	100 ml
STEM-CELLBANKER® - GMP - DMSO Free	20 ml
STEM-CELLBANKER® - GMP - DMSO Free	4 x 20 ml
STEM-CELLBANKER® - GMP - DMSO Free	100 ml
CELLOTION cell wash solution	100 ml