STEM-CELLBANKER®

Cryopreservation Medium

- **Serum-Free**
- **Chemically Defined**
- **GMP Manufactured**
- **FDA DMF registered**

Cat # 11924 (previously [11890])
Qty: 100ml
Expiry Date: 3 years from manufacturing date (see label)

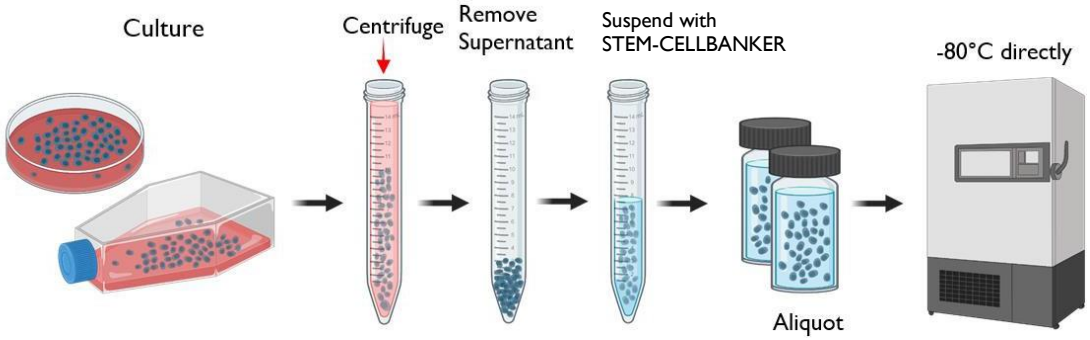
Cell-Freezing:

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 x 10^5 - 5 x 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.

IMPORTANT: Optimum protocol may change with the cell types.

Procedure for Use:



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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 (<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. For long-term storage STEM-CELLBANKER® can be frozen. Repeated freezing and thawing may impair the quality of the product; it is recommended that STEM-CELLBANKER® is aliquoted before freezing.

Disclaimer:

STEM-CELLBANKER® GMP grade is not by itself a pharmaceutical. Therefore, no warranty, express or implied, is made as to the fitness and suitability of this product for any particular purpose and/or merchantability unless the use is intended for research.

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
STEM-CELLBANKER® EX - GMP	100 ml
CELLOTION cell wash solution	100 ml

Citations:

Leung, S. T., Overschmidt, B., Allickson, J., Atala, A., Taghizadeh, R. R., Cetrulo, K., ... & Murphy, S. V. (2018). Review of Processing Technology and Techniques for Perinatal Stem Cells Banking and Clinical Applications. In Perinatal Stem Cells (pp. 337-355).
Miki, T., Vazquez, L., Yanuaria, L., Lopez, O., Garcia, I. M., Ohashi, K., & Rodriguez, N. S. (2019). Induced Pluripotent Stem Cell Derivation and Ex Vivo Gene Correction Using a Mucopolysaccharidosis Type I Disease Mouse Model. Stem Cells International, 2019.
Osaki, T., Uzel, S.G.M. & Kamm, R.D. On-chip 3D neuromuscular model for drug screening and precision medicine in neuromuscular disease. Nat Protoc (2020). https://doi.org/10.1038/s41596-019-0248-1
Skorik, C., Mullin, N. K., Shi, M., Zhang, Y., Hunter, P., Tang, Y., Hilton, B., & Schlaeger, T. M. (2020). Xeno-free reprogramming of peripheral blood mononuclear erythroblasts on laminin-521. Current Protocols in Stem Cell Biology, 52, e103. doi: 10.1002/cpsc.103
Ballantyne, M., Woodcock, M., Doddamani, D., Hu, T., Taylor, L., Hawken, R. J., & McGrew, M. J. (2021). Direct allele introgression into pure chicken breeds using Sire Dam Surrogate (SDS) mating. Nature communications, 12(1), 1-10.
Innes, J. A., Lowe, A. S., Fonseca, R., Aley, N., El-Hassan, T., Constantinou, M., ... & Brandner, S. (2021). Phenotyping clonal populations of glioma stem cell reveals a high degree of plasticity in response to changes of microenvironment. Laboratory Investigation, 1-13.
Zhang, K., Erkan, E. P., Jamalzadeh, S., Dai, J., Andersson, N., Kaipio, K., ... & Vähärautio, A. (2022). Longitudinal single-cell RNA-seq analysis reveals stress-promoted chemoresistance in metastatic ovarian cancer. Science advances, 8(8), eabm1831.

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

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