

# CELLBANKER<sup>®</sup> I

## Cryopreservation Medium (Serum Containing)

Cat # I1910 (previously [I1888])

Qty: 100ml

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



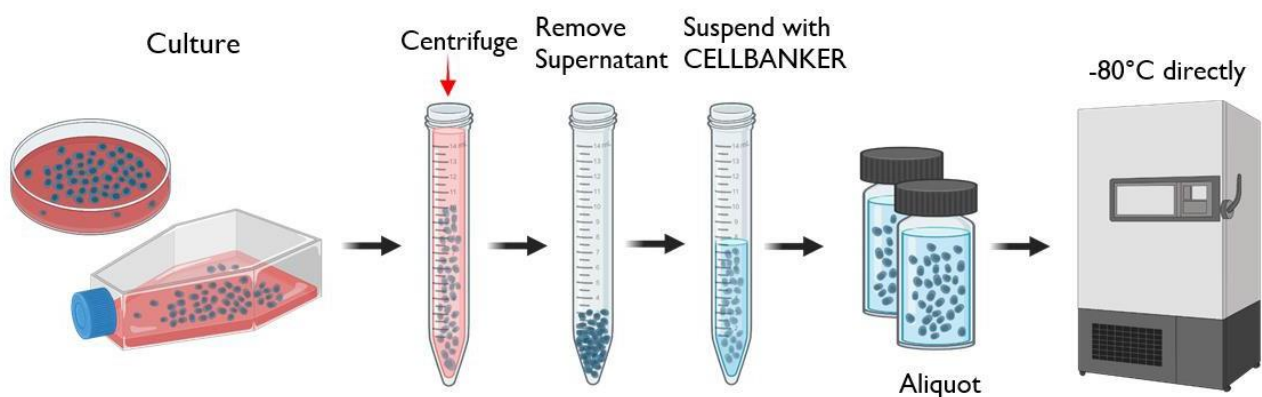
### Cell-Freezing:

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 CELLBANKER<sup>®</sup> I 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.

**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. Bacterial contamination free – Product has been tested and confirmed to be free of bacteria, fungi and mycoplasma.
2. Chemical Analysis: pH (7.0 to 8.5 at room temperature) Endotoxin (<5 EU/mL)
3. Performance test – Cell viability above 80% (JM404, SK-007) is guaranteed.

### Storage of CELLBANKER® I:

1. CELLBANKER® I should be stored at 4°C or below.
2. For long-term storage CELLBANKER® I can be frozen. Repeated freezing and thawing may impair the quality of the product; it is recommended that CELLBANKER® I is aliquoted before freezing.

### Precautions:

1. For research use only
2. Not for clinical or diagnostic use.
3. Performance of trial tests using cells of intended use before experiments is recommended.

### Product Range:

Description	Pack Size
CELLBANKER® I – Serum Containing	20 ml
CELLBANKER® I – Serum Containing	4 x 20 ml
CELLBANKER® I – 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:

Hata, M., Omi, M., Kobayashi, Y., Nakamura, N., Tosaki, T., & Miyabe, M. et al. (2015). Transplantation of cultured dental pulp stem cells into the skeletal muscles ameliorated diabetic polyneuropathy: therapeutic plausibility of freshly isolated and cryopreserved dental pulp stem cells. <i>Stem Cell Research &amp; Therapy</i> , 6(1). doi: 10.1186/s13287-015-0156-4
Osaki, T., Uzel, S., & Kamm, R. (2020). On-chip 3D neuromuscular model for drug screening and precision medicine in neuromuscular disease. <i>Nature Protocols</i> , 15(2), 421-449. doi: 10.1038/s41596-019-0248-1
Hwang, Y., Suzuki, S., Seita, Y., Ito, J., Sakata, Y., & Aso, H. et al. (2020). Reconstitution of prospermatogonial specification in vitro from human induced pluripotent stem cells. <i>Nature Communications</i> , 11(1). doi: 10.1038/s41467-020-19350-3
Hata, M., Omi, M., Kobayashi, Y., Nakamura, N., Miyabe, M., & Ito, M. et al. (2020). Transplantation of human dental pulp stem cells ameliorates diabetic polyneuropathy in streptozotocin-induced diabetic nude mice: the role of angiogenic and neurotrophic factors. <i>Stem Cell Research &amp; Therapy</i> , 11(1). doi: 10.1186/s13287-020-01758-9
Naraoka, Y., Mabuchi, Y., Yoneyama, Y., Suto, E., Hisamatsu, D., & Ikeda, M. et al. (2021). Isolation and Characterization of Tissue Resident CD29-Positive Progenitor Cells in Livestock to Generate a Three-Dimensional Meat Bud. <i>Cells</i> , 10(9), 2499. doi: 10.3390/cells10092499
Schmidt, M. H. (2022). DNA Replication, Repair, and Chromatin Accessibility at Disease-associated Repeat Sequences (Doctoral dissertation).
Pitstick, A., Poling, H., Sundaram, N., Lewis, P., Kechele, D., & Sanchez, J. et al. (2022). Aggregation of cryopreserved mid-hindgut endoderm for more reliable and reproducible hPSC-derived small intestinal organoid generation. <i>Stem Cell Reports</i> , 17(8), 1889-1902. doi: 10.1016/j.stemcr.2022.06.011

## Typical Experimental Results:

Cell Type	Preservation period (year)	Viability of cells (%)	
		-80°C	-196°C
<b>Mouse</b>			
Hybridoma	10	95	95
Myeloma	10	90	90
L929	10	90	90
FM3A	5	90	90
BALB/3T3	5	90	90
M1	5	90	90
YAC-1	5	90	-
<b>Rat</b>			
RLC-16	5	90	90
NRK	5	90	90
PC-12	5	90	-
<b>Hamster</b>			
CHO	5	90	90
V79	5	90	90
<b>Monkey</b>			
COS-1	5	90	90
Vero	5	90	90
<b>Human</b>			
Kidney-derived tumor cell	5	90	90
EBV transformed cell	5	90	90
HEL-derived fibroblast	5	90	90

Melanoma	5	90	90
Caco-2	3	90	-
C-5	5	90	90
CEM	5	90	90
K562	10	90	90
Jurkat	10	90	90
BALL-1	5	90	90
HUC-Fm	5	80	80

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