

# CryoXL™ Cell Freezing Medium-DMSO, 1X

With FBS and DMSO  
Without Antibiotics  
Sterile filtered

**Product Code: TCL093**

## Product Description:

HiMedia's Cell Freezing Media are complete, ready to use reagents designed to protect and preserve cells during frozen storage. These media are a convenient and cost effective alternative to in-house freezing media and can be used for a wide variety of mammalian cells. TCL093 is a Cell Freezing Medium formulated to contain 10% DMSO and higher concentration of fetal bovine serum. DMSO acts as a cryoprotectant and prevents formation of ice crystals and prevents cell damage. It is ready to use and does not require further addition of any other reagents.

This cryopreservation medium can be used for sensitive cell lines that are very susceptible to freezing damage. Users are advised to test the suitability of the medium for individual cell lines.

## Composition:

This medium is a proprietary formulation

## Directions:

Cell freezing medium can be used with standard freezing protocols. The following protocol may be used. Thaw cell culture freezing medium, mix well, and keep on wet ice during use.

### Procedure for freezing:

1. For optimum results, cells should be in log phase of growth.
2. Gently detach adherent cells from the surface using Trypsin or other appropriate means.
3. Gently pellet the cell suspension by centrifugation (200 to 400 x g for 5 minutes for suspension cells and 200 x g for 5 minutes for adherent cells). Using a pipette, remove the medium above the pellet down to the smallest volume without disturbing the cells.

4. Resuspend the cells in Cell Freezing Medium at a recommended density for a specific cell type. Hybridoma cells may require higher cell density.

5. Aliquot cells in appropriate cryogenic storage vials. Freeze the cells in a controlled rate freezing apparatus, decreasing the temperature approximately 1°C per minute. Alternatively, place the cryovials containing the cells in an isopropanol chamber and store them at -80°C overnight. Alternatively, store them at -20°C for 1 - 2 hours before shifting to -80°C overnight.

6. Transfer cryovials to liquid nitrogen tank for long term storage.

### Procedure for thawing of cryopreserved cells:

1. Remove cells from frozen storage and quickly thaw in a 37°C water bath.
2. Dilute 1ml suspension with 10ml of complete growth medium.
3. Mix cells gently and pellet by gentle centrifugation.
4. Discard the supernatant and gently resuspend the cells in complete growth medium and seed in appropriate culture vessel.
5. It is recommended to do viability assessment 24hours post thawing. For accurate assessment, it is recommended to use fluorescent assay like EZBlue™ assay (CCK004 - EZBlue™ Cell Assay Kit) or metabolic assays like MTT assay (CCK003 - EZcount™ MTT Cell Assay Kit).

### Notes:

1. Cells harvested for cryopreservation should be at their optimum viability to ensure maximum survival during freezing and after thawing.
2. On removal from storage, extreme caution must be exercised to prevent explosion of the cryovial because of sudden expansion of the trapped nitrogen.
3. To retain maximum viability during cryopreservation, cells must be cooled at a constant slow rate, -1 to -5°C/min. This can be achieved using programmable freezers or placing ampoules in a heavily insulated box at -80°C for 24 hours before transferring them to their final storage location.
4. After thawing cells, it is necessary to slowly dilute the cryoprotectant to prevent osmotic shock. When it is necessary

to centrifuge the cells, use the minimum g force to sediment them to prevent shearing damage, i.e. 70-100g.

5. To initiate rapid growth, it is advisable to inoculate new cultures at a higher density than for routine subculture, e.g., between 3 and 4 x 10<sup>4</sup> viable cells/cm<sup>2</sup> for adherent cells.

6. The minimum number of tests that should be carried out on master cell banks are, total and viable cell counts, growth potential, screening for bacteria, fungi and mycoplasma and cell line authenticity.

## **Quality Control:**

### **Appearance**

Amber colored clear solution.

### **pH**

7.20 - 7.80

### **Sterility**

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

### **Post-thaw viability of HEK293**

85%

### **Post-thaw viability of L929**

85%

### **Performance Test**

Performance test is done by freezing cells and doing a viability assessment after thawing and comparing it with a control medium.

## **Storage and Shelf Life:**

Cell Freezing Media should be stored at -30°C to -10°C.

For frequent use, cell freezing medium once thawed can be stored at 2-8°C up to 5 days.

The shelf life of product is 12 months.

Use before expiry date given on the product label.

### **Disclaimer :**

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