

## PRODUCT DESCRIPTION

Cell Freezing Media II is a cost-effective alternative to in-house freezing preparations and are designed for optimum protection and preservation of cells during frozen storage. This ready-to-use freezing media are suitable for the consistent cryopreservation of a broad spectrum of mammalian cells. Each lot of Cell Freezing Medium II is quality tested to assure maximum performance.

Cell Freezing Medium II contains 90% Fetal Bovine Serum and 10% dimethyl sulfoxide. This cryopreservation medium is typically used for sensitive cell lines.

## STORAGE AND HANDLING

The Cell Freezing Medium II is supplied in gamma irradiated, sterile PETG or PETE bottles. We recommend storage at a temperature of -5 °C to -20 °C. Avoid multiple freeze-thaw cycles. This product may be aliquoted into sterile bottles for single-use applications. Cell Freezing Medium II can be stored for short periods at 2-8 °C without affecting performance. We recommend that this product be used within 12 hours after thawing or else refrozen. Always use aseptic techniques when handling.

## PRECAUTION

When handling bio-hazardous materials such as human cells, safe laboratory procedures should be followed, and personal protective equipment should be worn.

## LIMITATIONS

- FOR LABORATORY RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
- The safety and efficacy of this product in diagnostic or other clinical uses has not been established.
- Results may vary due to variations among tissue/cells derived from different donors or sources.



## PRODUCT USE

### CELL PREPARATION

Actively growing, healthy cell cultures should be used in the freezing procedure. This is best accomplished by maintaining cells in their log-phase of growth. For B-cell hybridomas, the preferred cell density is  $4-5 \times 10^5$  cells/mL with a viability exceeding 70%. Centrifuge the appropriate volume of cells ( $200 \times g$  for 5-10 minutes), discard the culture supernatant and resuspend the cell pellet in cold ( $2-8^\circ\text{C}$ ) Cell Freezing Medium II. A final cell density in the freezing medium of  $1-10 \times 10^6$  cells/mL is recommended. Transfer 1-2 mL of the cell suspension into labeled cryovials. Allow the cells to equilibrate  $2-8^\circ\text{C}$  for 5-10 minutes, including your pipetting time.

### CELL FREEZING

Optimum recovery of viable cells following freezing is best accomplished by freezing the cells at an appropriate cooling rate. This may be accomplished using a low temperature freezer ( $-70^\circ\text{C}$ ) by placing the vials in a Styrofoam box overnight and transferring the vials into liquid nitrogen storage in the morning. Alternatively, a programmable freezing unit may be used to freeze the cells at  $1^\circ\text{C}$  per minute until the cell suspension reaches a temperature of  $-30^\circ\text{C}$  and then at  $5-20^\circ\text{C}$  per minute until the temperature reaches  $-100^\circ\text{C}$ . The vials are then transferred to a liquid nitrogen freezer for long term storage.

### CELL PREPARATION

Rapidly thaw each vial of cells in a  $37^\circ\text{C}$  water bath. Transfer the contents to a 10X volume of growth medium and centrifuge the cell suspension at  $200 \times g$  for 5-10 minutes. After discarding the supernatant, resuspend the cells in fresh growth medium at a final cell density of  $2-4 \times 10^6$  viable cells/mL and transfer the suspension into a cell culture flask.

**Note:** Cells that are sensitive to osmotic shock should be diluted slowly (3-5 minutes) with fresh medium immediately after thawing and before centrifugation.