

### Serum Free Cryo Medium (2X)

**Catalog #:** 163-320-051      50mL  
**Store at:** -10°C to -20°C

#### Description

Quality Biological's (QBI) Serum Free Cryo Medium (2X) contains DMSO and QBI's WFI quality Water. The final product is sterile filtered through a 0.1 µm filter.

#### Applications

QBI's Serum Free Cryo Medium is a sterile, 2X concentrated cell freezing medium developed for the cryopreservation of cells grown under serum-free conditions. Serum Free Cryo Medium is an animal-free, protein-free, chemically defined medium containing DMSO and other cryoprotective components.

#### Materials Required

- Quality Biological Serum Free Cryo Medium (2X)
- Conditioned or fresh serum-free cell culture medium
- Sterile cryogenic vials
- Sterile pipettes and tips
- Biosafety cabinet
- Controlled rate freezing container or device
- Liquid nitrogen or -80°C freezer for storage

#### Directions

1. **Dilution:** The 2X concentrated formulation must be diluted 1:1 with either conditioned medium or complete fresh serum-free medium before use. This results in a 1X working solution containing the appropriate concentration of DMSO and cryoprotective components.
2. **Cell preparation:** Harvest cells according to standard procedures, ensuring high viability (>90%). Resuspend cells in the diluted 1X cryo medium at the recommended cell density (typically 1–10 × 10<sup>6</sup> cells/mL, depending on cell type).

#### Cryopreservation Procedure

1. **Labeling:** Label cryogenic vials with cell line, passage number, date, and researcher initials.
2. **Mixing:** In a biosafety cabinet, gently mix the cell suspension. Avoid bubbles and ensure homogeneous distribution.
3. **Aliquoting:** Dispense 1 mL of cell suspension into each cryogenic vial.
4. **Freezing:** Place vials in a controlled-rate freezing container and transfer to a -80°C freezer overnight. For long-term storage, transfer vials to liquid nitrogen the following day.

#### Thawing Procedure

1. **Rapid Thaw:** Quickly thaw the vial in a 37°C water bath, gently agitating until only a small ice crystal remains.
2. **Transfer:** Immediately transfer the cell suspension to a sterile tube containing pre-warmed serum-free medium.
3. **Centrifugation:** Centrifuge at 200–300 × g for 5 minutes to remove cryo medium.
4. **Resuspension:** Resuspend the cell pellet in fresh serum-free medium and plate as required.

#### Notes

- The medium is animal-free, protein-free, and chemically defined, making it suitable for cells grown under serum-free conditions.
- Do not use phenol red-containing media for dilution, as the cryo medium itself is phenol red-free.

**All Quality Biological products are for research or further manufacturing use, not for diagnostic or therapeutic use.**