# StemXVivo® Serum-Free MSC Freezing Media

## Freezing Media for Human/Mouse/Rat MSC Cryopreservation

**Catalog Number:** CCM016

**Volume:** 50 mL

## PRODUCT DESCRIPTION

StemXVivo® Serum-Free Mesenchymal Stem Cell (MSC) Freezing Media is a complete serum-free media containing 10% dimethylsulfoxide (DMSO) designed specifically for the cryopreservation of mesenchymal stem cells. All of the components have been selected and optimized for MSC serum-free cryopreservation. This product does not contain antibiotics.

## INTENDED USE

StemXVivo® Serum-Free MSC Freezing Media is designed for the cryopreservation of MSC under serum free conditions. This product is ready to use.

## STABILITY & STORAGE

Upon receipt, the StemXVivo® Serum-Free MSC Freezing Media should be stored at ≤ -20 °C in a manual defrost freezer. The media can be thawed at 2-8 °C or at room temperature. Thawed media can be aliquoted and stored at ≤ -20 °C in a manual defrost freezer. Avoid repeated freeze-thaw cycles. Do not use beyond the expiration date.

## 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.
- This reagent should not be used beyond the expiration date indicated on the label.
- Results may vary due to variations among human/mouse/rat MSC/progenitor cells derived from different donors.

## FREEZING

1. Thaw the desired amount of StemXVivo® Serum-Free MSC Freezing Media, mix gently, and store on ice until ready for use.
2. Gently detach the MSC from the culture dish using a dissociation solution. Resuspend the cells in serum-free complete growth media (R&D Systems, Catalog # CCM014).
3. Centrifuge the cell suspension at approximately 200 x g for 5 minutes. Aspirate the liquid.
4. Gently resuspend the cell pellet in cold StemXVivo® Serum-Free MSC Freezing Media at 5 x $10^5$ to 1 x $10^6$ cells/mL.
5. Immediately transfer the cell suspension to the appropriate cryogenic storage vials. Place the vials into a cryogenic container, and place the container in a ≤ -80 °C freezer. The container should remain in the ≤ -80 °C freezer overnight allowing the temperature of the vials to drop approximately 1 °C per minute.

   **Note:** *Cells need to be frozen immediately following resuspension in the Freezing Media.*
6. Transfer the frozen cells to liquid nitrogen.

## THAWING

1. Take the frozen vials from the liquid nitrogen, and rapidly thaw in a 37 °C water bath.
   **Note:** *Most of the frozen cells will be at the bottom of the cryovial. Rapid thawing of frozen cells is critical. Allowing the cells to thaw slowly in the DMSO will dramatically reduce viability. More than 50% cell recovery is consistently observed when the appropriate thawing procedure is followed.*
2. Transfer the cells to a 15 mL conical tube. Slowly add an adequate amount of serum-free complete growth media (R&D Systems, Catalog # CCM014) with mixing to gradually dilute the freezing media.
3. Centrifuge at 200 x g for 5 minutes. Aspirate the liquid.
4. Gently resuspend cells in serum-free complete growth media, and plate the cells in desired culture conditions.



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