



**DIRECTIONS FOR USE FOR CSC  
(CHOLINE SUBSTITUTED CRYOPRESERVATION)  
FREEZING MEDIUM**

**CSC Freezing Medium Kit**

For laboratory procedures only.

Product Description	REF Number	Kit Size
CSC Freezing Medium Kit	ART-8017	Sufficient for one (1) freezing procedure

**INTENDED USE**

CSC Freezing Medium was developed for use in freezing embryos.

**DESCRIPTION**

CSC Freezing Medium will allow for the efficient freezing of zygotes and cleavage stage embryos. The components and recommended procedures are the preferred method for improved embryo survivability.

**MATERIALS PROVIDED IN  
CSC FREEZING MEDIUM**

1 x 10 mL vial of CSC Freezing Medium (REF # ART-8017)

**STORAGE INSTRUCTIONS  
AND STABILITY**

Store unopened containers refrigerated at 2–8°C. Warm to room temperature (22–24°C) or incubator (37°C) temperature, as appropriate,

prior to use. Do not freeze or expose to temperatures greater than 39°C. The product is stable in unopened containers until the expiration date shown on the label.

1. Remove desired volume of product using aseptic procedures. One vial contains adequate volume of medium for one freezing procedure.
2. Once removed, do not return any volume of product to the original container. Discard remaining product.
3. Do not use if the product becomes discolored, cloudy, turbid, or shows any evidence of microbial contamination.

**RECOMMENDED PROCEDURES FOR  
CRYOPRESERVATION OF EMBRYOS**

1. **PRE-PROCEDURE SET-UP:** Remove bottle of CSC Freezing Medium (REF # ART-8017) from storage at 2–8°C and warm to room temperature (22–24°C). Set up one or more dishes, depending on the expected number of embryos to be cryopreserved, containing 1–2 mL of the CSC Freezing Medium covered with Sterile Oil for Tissue Culture (REF # ART-4008).

**NOTE:** Up to 8 embryos can be treated with 1 mL of CSC Freezing Medium and a similar number of embryos can be frozen in one vial or straw containing CSC Freezing Medium.

2. Transfer the embryos to 1–2 mL of CSC Freezing Medium (REF # ART-8017) for 20 minutes at room temperature (22–24°C). It is recommended that the media be covered with Sterile Oil for Tissue Culture (REF # ART-4008) during use to minimize

evaporation of water and a subsequent change in osmolality of the media.

3. Load up to 8 but normally 1 to 3 embryos into a cryocontainer (vial or straw) containing approximately 0.25 to 1.0 mL of CSC Freezing Medium, depending upon size of cryocontainer.

**COOLING PROTOCOL**

1. The cryocontainer is cooled from room temperature to –7°C at 2°C/min.
2. They are held at this temperature for 5 minutes, manually seeded and held at the same temperature for an additional 10 minutes.
3. They are then cooled at 0.3°C/min to –35°C and then transferred to a storage tank of liquid nitrogen.

**Each laboratory should make its own determination of the particular details to use for each particular procedure.**

One-cell MEA tested for embryotoxicity and passed with 80% or greater blastocyst. USP Endotoxin gel clot tested and passed with <0.5 EU/mL.

A Certificate of Analysis is available for this product.

**PRECAUTIONS AND WARNINGS**

Do not use medium that shows evidence of particulate matter, cloudiness, or is not rose colored. To avoid problems with contamination, practice aseptic technique and discard excess medium remaining in the bottle.

This product contains albumin, a derivative of human blood.

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**CAUTION:** All blood products should be treated as potentially infectious. Source material from which this product was derived was found negative when tested for antibodies to HIV and HCV, and nonreactive for Hbs Ag, HCV RNA, HIV-1 RNA and HBV. Blood donors used are tested every four months and are negative for syphilis. No known test methods can offer assurance that products derived from human blood will not transmit infectious agents.

On average, preliminary results obtained so far indicate that one may expect 76% of frozen thawed embryos to survive (data on file).

## RELATED PRODUCTS

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