

## Corning® CoolCell® 5 mL LX Freezing Container

### Instructions for Use

#### Quick Start

- ▶ The 12 chambers and 5 mL cryogenic vials should be dry to avoid the vials sticking upon freezing.
- ▶ Make sure the Core (black ring) is at room temperature and seated in the bottom of the central cavity.
- ▶ Place the sample vials containing 3.0 to 5.0 mL of cell suspension in each well. Each well should contain a filled vial. If the freezing batch is fewer than 12 vials, fill each empty well with a Corning CoolCell Filler Vial (5 mL, Corning Cat. No. 432077) or other vials containing equivalent volume of freezing media.

**Note:** Cell suspensions can be inserted into a room temperature CoolCell container and successfully preserved. For optimal results, the CoolCell 5 mL LX container should be at the same temperature as your cell suspensions.

- ▶ Check that the tubes slide in and out freely.
- ▶ Fully seat the lid on the CoolCell 5 mL LX container.
- ▶ Place the CoolCell 5 mL LX container upright into a -80°C freezer or dry ice locker. Ensure there is at least one inch of free space clearance around the CoolCell 5 mL LX container.
- ▶ Freeze for a minimum of 4 hours before transferring the samples to archive storage.

#### Transferring Frozen Samples to Archive Storage

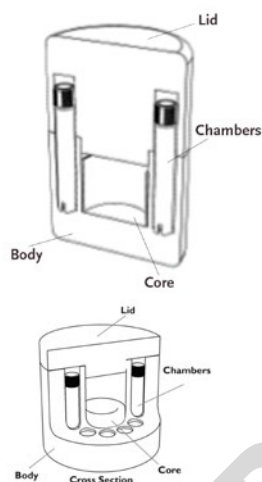
- ▶ Prepare an insulated pan or container with a one inch (2.5 cm) layer of pulverized or pellet dry ice.
- ▶ Remove the CoolCell 5 mL LX container from the freezer and gently remove the lid using a gentle twist.
- ▶ Vial tops will be exposed once the lid is removed, and the vials should be quickly extracted and placed onto the dry ice.

#### Special Notes

- ▶ Always use dry ice to transfer the cryogenic vials containing the cells to permanent storage to avoid temperature rise and cell damage. The cryogenic vial contents can rise from -80°C to over -50°C in less than 1 minute if exposed to room temperature air.
- ▶ It is strongly recommended that all frozen cell cultures be checked for viability before the stock culture is terminated.

#### Recycling the CoolCell 5 mL LX Freezing Container to Room Temperature

The CoolCell 5 mL LX freezing container is ready to freeze again as soon as the foam body and Core (black ring) are at room temperature. To rapidly recycle the CoolCell 5 mL LX container to room temperature, remove the center solid Core ring. The CoolCell 5 mL LX body and lid will return to room temperature in 10 to 15 minutes. Check that all chambers are dry. Dry the Core ring before re-inserting into the central chamber.

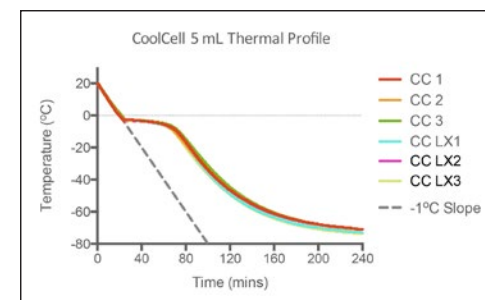


### About Corning® CoolCell® 5 mL LX Freezing Container

The CoolCell 5 mL LX freezing container, in combination with a -80°C freezer or dry ice locker, will provide the freezing rate of -1°C per minute that is ideal for cryopreservation of most cultured cell lines. The CoolCell 5 mL LX container uses a combination of insulation foam, radial symmetry, and a heat transfer Core to regulate heat loss rather than using a large thermal mass (alcohol-based freezing container). As a result, freezing profiles are extremely consistent from one run to the next. Also, because of this low thermal mass, the CoolCell 5 mL LX container will not cause a rise in local freezer temperature and will protect nearby samples already stored in the freezer. Low thermal mass also means the CoolCell 5 mL LX container will rapidly return to room temperature for another freezing cycle (see recycle instructions).

### Corning CoolCell 5 mL LX Freezing Container Performance

The CoolCell 5 mL LX freezing container will freeze 12 tubes, each containing 4.0 mL of cell suspension, at -1°C per minute when placed in a -80°C environment (mechanical freezer or dry ice locker). A vial load that is greater or less than 4.0 mL will slightly decrease or increase, respectively, the freezing rate of the vial contents, as shown in the thermal profile graph.



### Troubleshooting

| Problem   | Solution   |
|---|--|
| Vials do not freely fit in the chambers.                | The CoolCell 5 mL LX freezing container is designed to fit standard screw-top 4.0 mL and 5.0 mL cryogenic vials up to 14 mm in diameter and up to 96 mm in height. Check that flag style labels, if used, will not bind and hinder insertion or removal. |
| Vials are stuck in the CoolCell 5 mL LX after freezing. | It is likely moisture was in the vial chambers or on the sample vial prior to freezing. Remove the Core (black ring) and tap the CoolCell 5 mL LX container to dislodge the vials.   |
| The lid does not fully seat.                            | Ensure the sample tubes are fully seated in the chamber. The maximum height of the tube is 96 mm.  |

### Ordering Information

| Cat. No. | Description   |
|----------|---|
| 432005   | Corning CoolCell 5 mL LX freezing container, purple |

### Care and Cleaning

The CoolCell 5 mL LX freezing container is constructed of closed-cell, cross-linked polyethylene foam and a solid thermo-conductive Core. The CoolCell 5 mL LX container is compatible with prolonged cryogenic temperature exposure. The foam may be cleaned with water and mild soap. Rinse and dry thoroughly. The CoolCell 5 mL LX container is resistant to alcohols and 10% bleach solutions. Do not autoclave. Maximum temperature exposure is 60°C. Avoid prolonged exposure to ultraviolet (UV) light sources.

**Warranty/Disclaimer:** Unless otherwise specified, all products are for research use only. Not intended for use in diagnostic or therapeutic procedures. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications.

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