Corning® Cryogenic Storage Solutions

A new and improved way to freeze your cells

CORNING

A New Standard in Cell Cryopreservation

At Corning, we continuously look for ways to help our customers improve or streamline steps in the cell culture workflow. One such area is cell cryopreservation. While current methods exist, they require chemicals and maintenance.

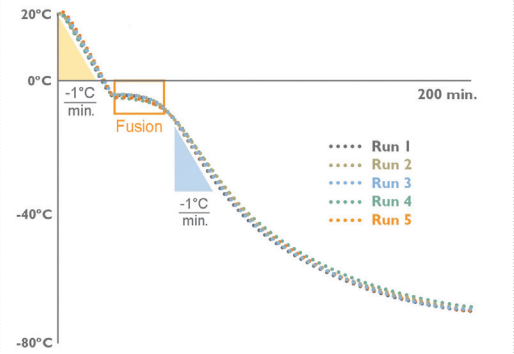
Now there is a new and improved way to freeze cells for cryogenic storage – we call it the Corning® CoolCell® container.

The Corning CoolCell container is an alcohol-free cell freezing container, which controls the rate of freezing to -1°C/minute when placed in a -80°C freezer. This container has been performance tested with a variety of cell types including stem cells, primary cells, PBMC cell lines, insect cells, and yeast. The CoolCell technology utilizes a thermo-conductive alloy core and highly insulative outer material to control the rate of heat removal and provide reproducible cell cryopreservation. CoolCell containers are easy to use and deliver comparable results.

Alcohol-free with No Ongoing Costs or Maintenance

Isopropanol (IPA) containers used for cryogenic freezing require costly alcohol replacements every 5 uses, can be cumbersome to handle, and may have inconsistent freezing rates. The Corning CoolCell container is different, because it's a reusable, alcohol-free way to uniformly freeze your cells at a lower cost of use. With CoolCell, you can depend on high reproducibility and high cell viability, to ensure you preserve the most cells possible for your research.

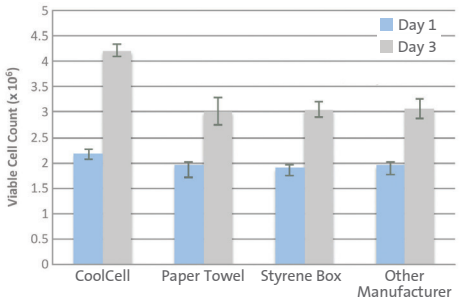
Corning CoolCell Container Reproducibility



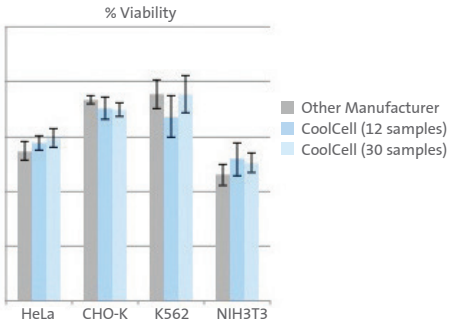
Performance test: A temperature probe was placed into a 2.0 mL cryogenic vial containing 1.0 mL of water and the tube was inserted into a room temperature Corning CoolCell container. The CoolCell container was placed into a -80°C freezer and the temperature rate and profile was recorded over a 3-hour period. The test was repeated 5 consecutive times.

Conclusion: The Corning CoolCell container generated identical fusion time and cooling profiles over five consecutive freeze cycles.

Corning CoolCell Container Performance vs. IPA Container

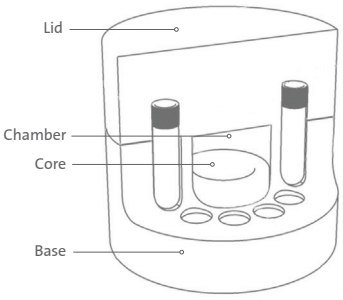


Human embryonic stem cells, RC-10, were frozen using the technique indicated, thawed after 2 weeks in LN_2, and counted immediately (Day 1) or after 3 days of growth (Day 3).



Corning CoolCell 12-well, CoolCell FTS30 30-well, or other manufacturer freezing containers were used to freeze all four cell lines. Identical transfection efficiencies and viabilities were observed after thawing.

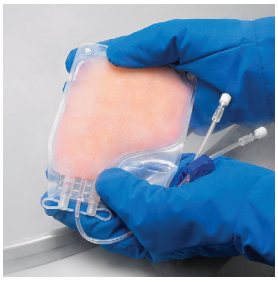
How the Corning CoolCell LX Container Works



Corning CoolCell LX container uses a combination of uniform-density cross-linked polyethylene foam, a solid state core, and radial vial symmetry to create freezing profiles that are consistent and reproducible. The low heat content also ensures that CoolCell LX containers will rapidly return to room temperature when removed from the freezer.

Corning 2D bar coded cryogenic tube, 2 mL, self-standing (Cat. Nos. 8670, 8671)

DMSO media (Cat. No. 25-950-CQC)



Cryopreservation bags

Corning® CoolCell® Container Features

Unique features of controlled-rate freezing include:

- Ease of use
- Alcohol and fluid-free freezing
- Lower cost of use than alcohol-based devices
- High cell recovery and cell viability
- Reproducibility
- Simple, consistent way to standardize controlled-rate freezing

Keep Your Samples Safe

Use Corning cryogenic vials and DMSO media with Corning CoolCell containers to further protect your valuable cell lines, biological, and aqueous solutions in ultra-low temperature storage. Choose from external or internal cryogenic vial thread caps or assorted color cap options to suit your needs. For added convenience, Corning also offers reusable cryogenic racks and storage boxes.

Improve Your Sample Management

Manage and manipulate multiple storage tubes more efficiently with Corning 1D/2D bar coded cryogenic vials. Our cryogenic vials have a permanent 2D bar code on the bottom and a standard linear 1D bar code on the side of the vial. Corning 1D/2D bar coded cryogenic vials are temperature-resistant polypropylene vials that can withstand temperatures down to -196°C and are compatible with most scanning and capper/decapper systems.

Further Protect Your Valuable Cells with a Complete Cryopreservation Solution

Combine **Corning CoolCell** containers with **Corning cryogenic vials, grippers, and DMSO** to further protect your valuable cell lines, biological, and aqueous solutions in ultra-low temperature storage.

Also Available for Cell Freezing

Corning Cryopreservation Bags

Corning also offers cryogenic storage containers designed for the storage, preservation, and transfer of cells. Features include a unique bag film material that remains flexible at low temperatures and proprietary port designs that allow for increased flexibility. Learn more at **www.corning.com/lifesciences**.

Ordering Information

Products may not be available in all markets.

Corning® CoolCell® Containers

Cat. No.	Description	Capacity (Vials)	Exposed Vial Tops	Qty/Pk	Qty/Cs
432000	CoolCell, purple	12	No	1	1
432001	CoolCell LX, purple	12	Yes	1	1
432002	CoolCell LX, green	12	Yes	1	1
432003	CoolCell LX, orange	12	Yes	1	1
432004	CoolCell LX, pink	12	Yes	1	1
432138	CoolCell LX, 4 colors (purple, green, orange, pink)	12	Yes	1	4
432005	CoolCell 5 mL LX, purple	12	Yes	1	1
432006	CoolCell FTS30, purple	30	Yes	1	1
432007	CoolCell FTS30, orange	30	Yes	1	1
432008	CoolCell FTS30, green	30	Yes	1	1
432009	CoolCell FTS30, pink	30	Yes	1	1
432010	CoolCell SV2	12	Yes	1	1
432011	CoolCell SV10	6	Yes	1	1

Corning CoolCell Container Accessories

Cat. No.	Description	Capacity (Vials)	Exposed Vial Tops	Qty/Pk	Qty/Cs
432076	CoolCell filler vials, 2.0 mL	–	–	6	6
432077	CoolCell filler vials, 5.0 mL	–	–	6	6
432078	CoolCell FTS30 vial module	30	–	10	10
432136	Cryogenic vial grippers, multi-colored	–	–	5	5

Corning Cryogenic Vials and Accessories

External Thread Cryogenic Vials

Cat. No.	Capacity (mL)	Style	Self-standing	Qty/Pk	Qty/Cs
8671	2.0	1D and 2D bar coded, round bottom	Yes	50	500
8676	2.0	1D bar coded, round bottom	Yes	50	500
430658	1.2	Conical bottom	Yes	50	500
430659	2.0	Round bottom	Yes	50	500
430661	2.0	Round bottom	No	50	500
430662	4.0	Round bottom	Yes	50	500
430663	5.0	Round bottom	Yes	50	500
430674	5.0	Round bottom, bulk, uncapped, unprinted	Yes	125	500

Internal Thread Orange Cap Cryogenic Vials

8670	2.0	1D and 2D bar coded, round bottom	Yes	50	500
8672	2.0	1D bar coded, round bottom	Yes	50	500
430487	1.2	Conical bottom	Yes	50	500
430488	2.0	Round bottom	Yes	50	500
430489	2.0	Round bottom	No	50	500
431386	2.0	Round bottom	Yes	50	250
430490	4.0	Round bottom	No	50	500
430491	4.0	Round bottom	Yes	50	500
430656	5.0	Round bottom	Yes	50	500

WARNING: Do not use cryogenic vials for storage in the liquid phase of liquid nitrogen. Only store vials in the vapor phase above the liquified gas. Always use appropriate safety equipment when removing vials from cryogenic storage.

Cryogenic Storage Boxes

Cat. No.	Description	Qty/Pk	Qty/Cs
8673	Cryogenic storage box, polycarbonate, holds 81 vials, designed to fit Corning 2D bar coded cryogenic vials	5	10
8674	Cryogenic storage box, polycarbonate, holds 100 vials, designed to fit Corning 2D bar coded cryogenic vials	5	10

Cryopreservation Bags

Cat. No.	Size (mL)	Fill Volume (mL)	Qty/Cs
91-200-88	50	10 - 20	1
91-200-89	250	30 - 70	1
91-200-90	500	55 - 100	1
91-200-91	750	80 - 190	1

Warranty/Disclaimer: Unless otherwise specified, all products are for research use or general laboratory use only.* Not intended for use in diagnostic or therapeutic procedures. Not for use in humans. These products are not intended to mitigate the presence of microorganisms on surfaces or in the environment, where such organisms can be deleterious to humans or the environment. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications. *For a listing of US medical devices, regulatory classifications or specific information on claims, visit www.corning.com/resources.

Corning's products are not specifically designed and tested for diagnostic testing. Many Corning products, though not specific for diagnostic testing, can be used in the workflow and preparation of the test at the customers discretion. Customers may use these products to support their claims. We cannot make any claims or statements that our products are approved for diagnostic testing either directly or indirectly. The customer is responsible for any testing, validation, and/or regulatory submissions that may be required to support the safety and efficacy of their intended application.

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