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.

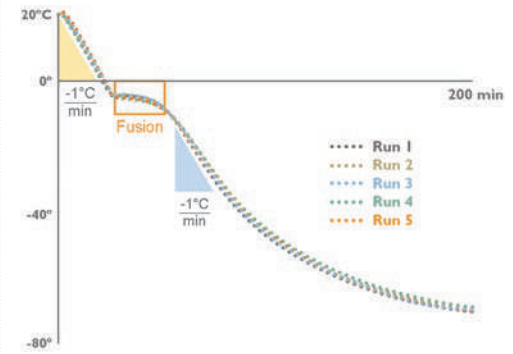
Now there is a new and improved way to freeze cells for cryogenic storage – we call it Corning® CoolCell®.

Corning CoolCell is an alcohol-free cell freezing container, which controls the rate of freezing to -1°C/minute when placed in a -80°C freezer. CoolCell has been performance tested with a variety of cell types including stem cells, primary cells, PBMC cell lines, insect cells, and yeast. The patent-pending 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 units 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. Corning CoolCell 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.

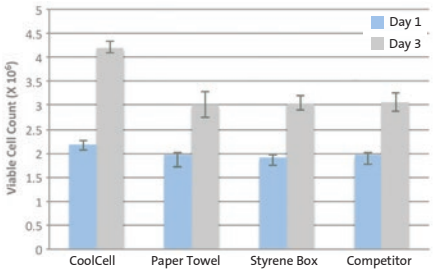
Corning CoolCell Reproducibility



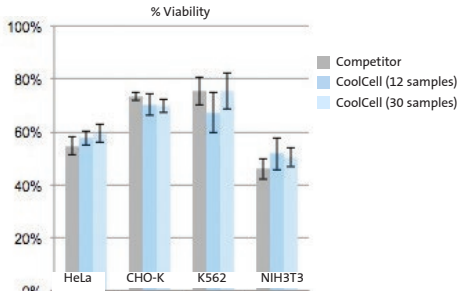
Performance test: A temperature probe was placed into a 2.0 mL cryogenic vial containing 1.0 mL of water and the tube was inserted into a room temperature Corning CoolCell. The CoolCell was placed into a -80°C freezer and the temperature rate and profile was recorded over a 3-hour period. The test was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

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

Corning CoolCell Performance Versus IPA Container

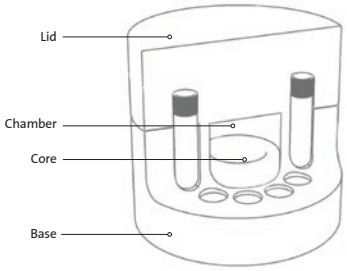


Human embryonic stem cells, RC-10, were frozen using the technique indicated, thawed after 2 weeks in LN_2, and counted immediately (Day 1) or after 3 days of growth (Day 3).



HeLa, CHO-K, K562, NIH3T3. Corning CoolCell 12-well, CoolCell FTS30 30-well, or competitor freezing containers were used to freeze all four cell lines. Identical transfection efficiencies and viabilities were observed after thawing.

How Corning CoolCell LX Works



Corning CoolCell LX 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.

Features

Unique features of controlled-rate freezing with Corning® CoolCell® 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 with Corning CoolCell 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.

Automate Your Sample Management

Corning also offers 1D/2D bar coded cryogenic vials storage, a high-quality storage solution designed to provide maximum identification. The temperature-resistant polypropylene vials can withstand temperatures down to -196°C and feature a synchronized 2D and linear bar code along with a marking spot with a laser-etch for permanent identification.

Sort and Move With Ease

Corning cryogenic vial grippers feature a unique design to grasp internal- or external-threaded cryogenic vials. Easily sort or move vials while maintaining sterility and protecting fingers from frozen vials, dry ice, and liquid nitrogen.

For Added Convenience

Corning CoolCell is available in a variety of sizes, colors, and vial capacities. Visit **www.corning.com/lifesciences** to see all available configurations.

Ordering Information

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
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
432012	CoolCell SV2 stem cell cryopreservation system Kit includes Corning CoolCell SV2, Corning XT Starter, and Corning CoolRack® SV2 module	–	–	1	1
432013	CoolCell SV10 stem cell cryopreservation system Kit includes Corning CoolCell SV10, Corning XT Starter and Corning CoolRack SV10 module	–	–	1	1

Corning CoolCell Accessories

432076	CoolCell filler vials, 2 mL	–	–	6	6
432077	CoolCell filler vials, 5 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
430658	1.2	Conical bottom	Yes	50	500
430659	2.0	Round bottom	Yes	50	500
430662	4.0	Round bottom	Yes	50	500
430663	5.0	Round bottom	Yes	50	500

Internal Thread Orange Cap Cryogenic Vials

Cat. No.	Capacity (mL)	Style	Self-standing	Type	Qty/Pk	Qty/Cs
430487	1.2	Conical bottom	Yes	Washer	50	500
430488	2.0	Round bottom	Yes	Washer	50	500
430489	2.0	Round bottom	No	Washer	50	500
430490	4.0	Round bottom	No	Washer	50	500
430491	4.0	Round bottom	Yes	Washer	50	500
430656	5.0	Round bottom	Yes	Washer	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.

For more specific information on claims, visit the Certificates page at **www.corning.com/lifesciences**.

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For additional product or technical information, visit **www.corning.com/lifesciences** or call 800.492.1110. Outside the United States, call +1.978.442.2200 or contact your local Corning sales office.

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