

CoolCell®

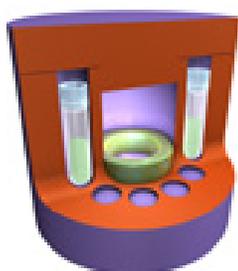
Standardized Cell Freezing

Alcohol-Free



- $-1^{\circ}\text{C}/\text{minute}$ freeze rate
- Highly reproducible freeze runs
- High post-thaw cell viability and function
- No alcohol, no maintenance
- For 1ml – 5ml cryo vials and 2ml serum vials
- 12-place and 30-place containers
- No on-going cost, no waste, no variability

“This is by far and away the best benchtop technology to enter the field of cell cryopreservation for decades. We have compared the BioCision CoolCell to our old conventional method of cryopreservation and found it to be easier, safer and most importantly of all, our cell lines were recovered with reproducibly higher viability yields post-thaw, and subsequent ongoing growth was improved.” –John Gardner, Roslin Cellabs, UK

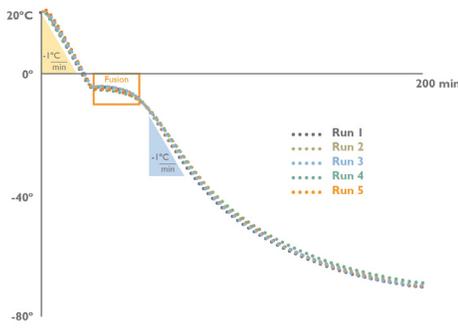


The solid state core and micro-convection technology precisely balance heat removal during freezing period to ensure repeatable, consistent cooling all the way to cryogenic storage temperature.



CoolCell alcohol-free cell freezing containers deliver a controlled $-1^{\circ}\text{C}/\text{minute}$ cell freezing rate in an ultralow freezer. Through the use of select materials and design, CoolCell precisely controls air flow and heat removal to ensure standardized cell freezing runs and no variability in the cryopreservation period. The elimination of alcohol from the cryopreservation process means no maintenance, no on-going expense, no waste and no variability. Ready to use “off the shelf” and ready to use again after five minutes between freeze runs. Insulated design protects hands when removing from the freezer – no ‘frosty’ fingers. A variety of modules to accommodate 1ml to 5ml cryo vials and 2ml serum vials. And fun colors, too!

COOLCELL FREEZING PROFILE CONSISTENCY AND CELL VIABILITY



Performance test: A temperature probe was placed into a 2ml cryogenic tube containing 1ml of water and the tube was inserted into a CoolCell sitting at room temperature. The CoolCell was then placed directly into a -80°C freezer and the temperature rate and profile were observed over a 3 hour period. This experiment was repeated 5 consecutive times and temperature profiles were recorded.

Conclusion: CoolCell showed identical cooling profiles and phase transition over five consecutive freeze cycles.

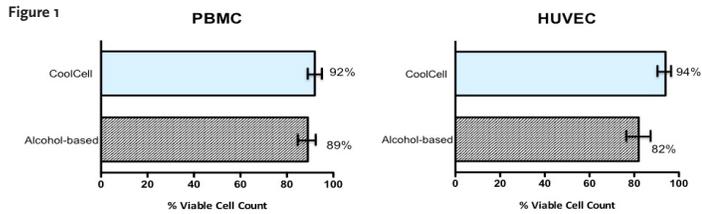


Figure 1. In primary human PBMC and HUVEC, freezing with CoolCell produces >90% viable cell count post-thaw, without the use of isopropyl alcohol, which is used in the alcohol-based freezing containers.

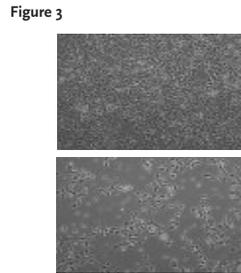
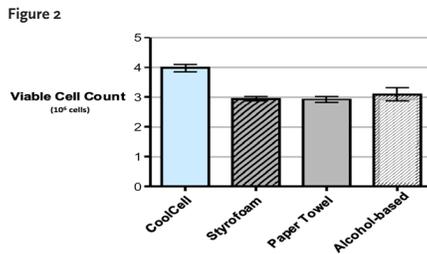


Figure 2. Human embryonic stem cells show significant increase in cells that survive freezing when using the CoolCell. Results from Roslin Cellab and based on Trypan Blue staining at 3 days post-thaw. (n=3)

Figure 3. Image of human embryonic stem cells adhering to the plate one day post thaw (10x magnification). CoolCell method (top) was markedly better compared to isopropanol-based freezing container method (bottom).

The CoolCell line of alcohol-free cell freezing containers accommodate 1ml through 5ml cryo tubes and 2ml or 10ml serum vials.



CoolCell
1ml or 2ml cryo tubes



CoolCell FTS30
1ml or 2ml cryo tubes



CoolCell FTS30 vial module
Removable FTS vial module enables one-step transfer to long term cryo storage box.



CoolCell 5ml
3.5 to 5ml cryo tubes



CoolCell SV-series
2ml and 10ml serum vials

Color	Part Number	Description	Number of Tubes	Fill Volume Per Tube	Dimensions (diameter x Height)
Purple	BCS-136	CoolCell, purple	12, 1ml or 2ml cryogenic tubes	1ml	4.6 x 4.3 inches (11.7 x 10.0 cm)
Green	BCS-136G	CoolCell, green	12, 1ml or 2ml cryogenic tubes	1ml	4.6 x 4.3 inches (11.7 x 10.0 cm)
Orange	BCS-136O	CoolCell, orange	12, 1ml or 2ml cryogenic tubes	1ml	4.6 x 4.3 inches (11.7 x 10.0 cm)
Pink	BCS-136PK	CoolCell, pink	12, 1ml or 2ml cryogenic tubes	1ml	4.6 x 4.3 inches (11.7 x 10.0 cm)
Purple	BCS-170	CoolCell FTS30, purple	30, 1ml or 2ml cryogenic tubes	1ml	6.5 x 4.5 inches (16.5 x 11.5 cm)
Green	BCS-170G	CoolCell FTS30, green	30, 1ml or 2ml cryogenic tubes	1ml	6.5 x 4.5 inches (16.5 x 11.5 cm)
Orange	BCS-170O	CoolCell FTS30, orange	30, 1ml or 2ml cryogenic tubes	1ml	6.5 x 4.5 inches (16.5 x 11.5 cm)
Pink	BCS-170PK	CoolCell FTS30, pink	30, 1ml or 2ml cryogenic tubes	1ml	6.5 x 4.5 inches (16.5 x 11.5 cm)
Purple	BCS-171	CoolCell 5ml, purple	12, 3.5ml to 5.0ml cryogenic tubes	3.5ml, 4.0ml, 5.0ml	3.8 x 5.8 inches (9.5 x 14.5 cm)
Purple	BCS-172	CoolCell SV2, purple	12, 2ml injectable serum vials	2ml	4.6 x 4.3 inches (11.7 x 10.9 cm)
Purple	BCS-262	CoolCell SV10, purple	6, 10ml injectable serum vials	5ml	4.6 x 4.3 inches (11.7 x 10.9 cm)

Made in USA. Patents Pending.



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