

At ThermoGenesis, we understand how critical it is to protect the viability of your high value cells. That's why we take painstaking measures to safeguard your valuable investments, using unrivaled technologies and achieving unequalled results. To see for yourself, contact ThermoGenesis for more information.

BIOARCHIVE SYSTEM ORDERING INFORMATION

BioArchive System		Catalog Number	Quantity
BioArchive Cryopreservation System	100 to 120 VAC	8-4000-0	1
System Includes:			
• BioArchive Cryopreservation Unit		• Articulating Arm	
• Barcode Scanner		• Laptop with SMS Software	
• Controlled Rate Freezer Units (2)		• Retrieval Cartridge Unit	
• Roll of Barcode Label Set for Canister and Freezing Bag		• Magnetic Retrieval Device	
		• Barcode Label Printer with MORPHER	
BioArchive Cryopreservation System	200 to 240 VAC	8-4000-1	1
Canister Opening Tool		7-01-140	100/box
Fill/Seal Jig		7-63-051	1
Manual Retrieval Device		7-80-001	1
Overwrap Sealing System (110V)		8-6200-0	1
Overwrap Sealing System (220V)		8-6200-1	1
Consumables		Catalog Number	Quantity
Thermal Ribbon (for Zebra/ZBI label duplicator)		2-00-001	1
Barcode Label Set (for use with manual processing sets)		6-01-036	1000/roll
Canisters		8-4360	100/box
Canister Sleeves		6-16-202	100/box
Overwrap Bags		7-01-150	100/box
Processing Supplies		Catalog Number	Quantity
Transfer/Freezing Bag Set		8-0343-0	24/box
Cell Wash Infusion Bag Set		8-0344-0	24/box
Freezing Bag		8-0346-0	48/box

1. Rubenstein P. Cord blood banking for clinical transplantation. *Bone Marrow Transplantation* 2009;44:635-642.
* When used in conjunction with the AXP® System.

2. NYBC Rubinstein, P. et al. "Clinical Outcome of Unrelated Cord Blood Transplants: An analysis of Processing Method and Freezer Storage on Transplants from New York Blood Center National Cord Blood Program." March 14, 2007

For ordering information, contact your local distributor or visit us at: www.ThermoGenesis.com

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Direct: 916.858.5100
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BioArchive® System

Automated Cryopreservation Storage and Retrieval

Precise and dependable preservation, tracking, and retrieval of high value cells.



INSURANCE TODAY FOR A VIABLE FUTURE.

The BioArchive® System is the world's leading system for preserving and protecting high value cells. It uses proven, computer-controlled technology and tracking software to provide the best protection for today's valuable samples to meet tomorrow's cell therapy needs.

- Constant temperature control through closed-system sample handling with robotic storage and retrieval
- Delivers up to 94% post-thaw cell viability^{1*}
- Individual storage and retrieval of cell samples results in minimal exposure to transient warming events (TWE)
- Automated tracking of samples throughout cryopreservation assures maximum confidence and compliance

Clinicians are exploring the **POTENTIAL OF CELL THERAPY** to treat a variety of disorders and injuries. Meanwhile, blood banks and laboratories are focused on safely processing, manufacturing and storing these cells. Research suggests that a number of cell types can be a potent and powerful part of future therapeutic success. A critical factor in sustaining their viability for future use depends on the consistency and security of the preservation and retrieval process. With the BioArchive® System, you get the assurance of knowing you've protected your valuable investment with a precise and reliable system—one that can fulfill the promise of cell therapies yet to be discovered.

SUPERIOR DESIGN. UNSURPASSED VIABILITY.

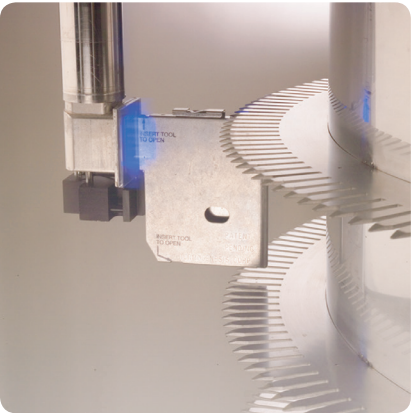
- Viable CD34+ stem cell recovery is consistently > 97%, higher than other available systems¹
- Fully automated, closed system ensures cell integrity
- Precise robotic storage and retrieval minimizes TWEs
- Over 3,600 sample capacity



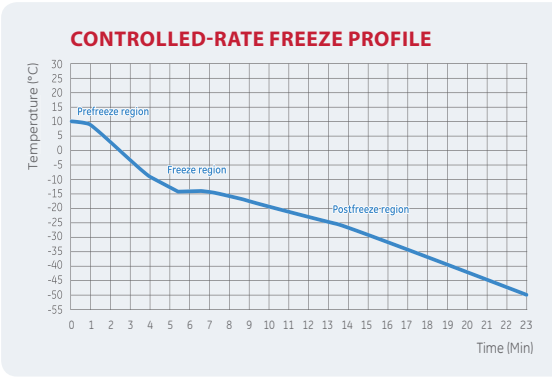
Retrieval cartridge with canister sleeve and canister in sleeve.

CONTROLLED FREEZING. CONFIDENT RESULTS.

- Individually monitored, controlled-rate freezing ensures sample integrity during the freeze cycle
- Nitrogen vapor initiates a 3-step freezing process to prevent shock freezing and carefully and precisely achieving a -50°C temperature prior to final storage at -196°C
- During the controlled-rate freezing process, a discreet sensor monitors the sample temperature
- Each sample is placed in an unique location so it can be independently retrieved
- Three-dimensional, 25mL, dual-compartment blow-molded (DCM) freezing bag and Teflon® overwrap further ensures precise, uniform freezing rates and added protection of sample



Barcode sample tracking identifies a discreet location for every sample.



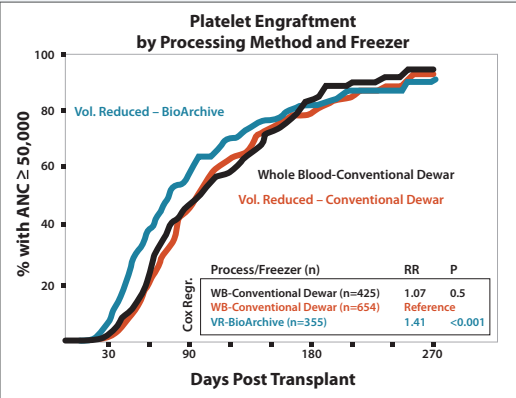
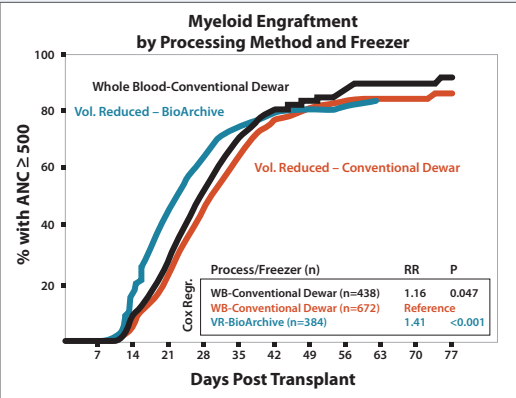
An individual controlled-rate freeze profile is created for each separate sample.

TRACKING WITH CERTAINTY. STORING WITH CONFIDENCE.

- Software provides accurate, individualized, fully documented freeze and sample tracking, history, and inventory
- Robotic arm retrieves sample via integrated bar code reader
- Data acquisition storage information is accessed via the sample's unique barcode
- Software helps comply with cGMP and cGTP requirements

SAFETY FOR SAMPLES. SAFE FOR THE OPERATOR.

- Multiple safety controls protect cell preservation and operator
- Magnetic stainless steel canisters firmly house overwrapped DCM freezing bags, enabling precise robotic insertion, and retrieval from liquid nitrogen
- Vacuum-insulated reservoir helps maintain constant temperatures and a safe environment
- Robotic arm identifies and retrieves only the desired sample, protecting all other samples from TWEs
- Robotic functions reduce operator exposure to liquid nitrogen
- Insulated retrieval cartridge helps protect handler from exposure to liquid nitrogen and samples to TWEs
- Uninterrupted power supply
- Liquid nitrogen control system



- BioArchive freezer and storage enhances myeloid and platelet engraftment compared to conventional Dewars²
- Improves post-thaw recovery and viability²
- Minimizes transient warming events (TWEs)²