


The Next Generation Frozen Biospecimen Container Is Here

Proviasette[™] - Improve Sample Quality, Access, and Organization of High-Value Frozen Tissue

The Problem: Whether you are an individual researcher, tissue procurement manager or running a large biorepository, the increasingly widespread reliance on biospecimens to support clinical studies puts significant demands on tissue banking and cryopreservation operations. Problems include valuable samples that are lost or misplaced, samples rendered useless due to altered tissue morphology or sample desiccation, outmoded containers, or even lid seizure during prolonged storage. Any of these can lead to failure of mission-critical studies. For larger repositories, challenges include rapid sample accessioning, freezer optimization, and inventory management where efficiency can significantly improve quality and reduce cost.

The Solution: To help improve quality and logistics around the banking of human or animal biospecimens, Provia Labs developed the *Proviasette*[™], the next-generation biospecimen storage container. The *Proviasette*[™] improves upon a design used by dozens of leading academic and commercial laboratories to efficiently store hundreds of thousands of snap frozen and OCT-embedded biospecimens in -80 °C or vapor-phase LN2 freezers.



Engineered to:

- Prevent cap seizure
- Withstand >95 kPa
- Minimize tissue desiccation

Ideal for:

- Ideal for snap frozen samples
- Ideal for OCT embedded samples
- 1.80 cm x 1.70 cm x 1.00 cm well
- Convenient access to samples

Biorepository Optimization:

- Save time and money
- Improved sample quality
- Rapid box scanning

Additional Features:

- Frosted front improves label adhesion
- Bottom insert to secure secondary label
- RFID/MEMS future compatibility
- Maintains tissue orientation
- Preserves tissue morphology
- Accepts multiple barcode formats

Ergonomic design to:

- Maximize freezer optimization
- Integrate with sample tracking IT

Having worked in the industry for over 10 years with hundreds of thousands of samples and dozens of clients, the team at Provia wanted to offer all researchers, tissue bankers, and clinicians *a better mousetrap* for the banking and cryopreservation of high value biospecimens. “We listened to customer feedback and designed the *Proviasette*[™] with features that reflect the real-world needs of the biobanking community”, states Peter Minor, former director of Cytomyx, a Boston-based biorepository, and current product manager at Provia Laboratories in Lexington, MA.

Storing valuable research and clinical grade frozen biospecimens in foil, bags, or cryovials can prove disadvantageous and problematic. Glass cryovials can break. Narrow-necked cryovials can limit the dimensions of banked tissues and make the sample difficult to extract. Tissue stored in foil or bags may be subject to tissue desiccation due to airflow contiguous to the sample.

“After an extensive search for storage containers for bigger tissue pieces we settled on the Proviasette containers, which allow storage of samples up to 1.5x1.5x.5cm. Proviasettes also make the perfect storage container for OCT-embedded tissue pieces. Long over are the times of storing OCT blocks in the plastic cryomolds they were embedded in, wrapping them in plastic wrap and aluminum foil, struggling with non-sticking labels or disappearing hand writing on the outside of those packages. Now, we embed and freeze the tissue in the same plastic cryomold (10x10x5mm), pop out the frozen OCT block, and transfer it into a pre-cooled Proviasette. All samples are of the same shape and size and can be stored in boxes with 7x3 grids with a barcode label attached to the face side of the cassette. Proviasettes have made our life in the bank a lot easier in regards to processing, labeling, and storing of bigger tissue pieces and OCT blocks.”

- Alexandra Lerch-Gaggl, PhD
Scientific Director of the Pediatric BioBank & Analytical Tissue Core
Children’s Research Institute, Milwaukee, WI, USA

The dual polymer construction of the *Proviasette*[™] is certified 95kPa compliant, and is virtually indestructible in a lab setting and prevents the cap and base from seizing at low temperatures. The form factor allows users to quickly access and manipulate samples while maintaining tissue orientation and morphology. To facilitate sample management and organization, the *Proviasette*[™] has two surfaces to accommodate barcode labels. Provia custom-designed a 21-cell box insert which fits neatly into a standard 5"x5"x2" freezer box to be used in a freezer rack/shelf environment. Up to 8400 samples can fit in a standard -80°C freezer. The *Proviasette*[™] is compatible with common methods used to track biospecimens including hand-written labels, home-grown databases, commercial biospecimen management software, and emerging electronic tracking technologies. The time required for sample accessioning and manipulation can be reduced by a factor of 3-5 versus other storage containers. An optional snap-in module provides forward compatibility with emerging MEMS (micro-electromechanical systems) tracking technologies.

In summary, the *Proviasette*[™] offers the optimal way to maintain the integrity and tracking of stored biospecimens, especially high value cryopreserved biospecimens used in clinical research.



Request your complimentary sample at www.proviasette.com/sample or call 1 (877) 867-5753, x306.

About Provia Laboratories, LLC

Provia Laboratories, LLC (<http://www.provialabs.com>) is a healthcare services company headquartered in Lexington, Massachusetts which specializes in high-quality biobanking. Provia offers a variety of products for use in complex biobanking environments to improve sample logistics, security, and quality. In addition, the company advises industrial, academic, and governmental clients on matters related to the preservation of biological specimens for research and clinical use. The company's Store-A-Tooth[™] service platform enables the collection, transport, processing, and storage of dental stem cells for potential use in future stem-cell therapies or research. Provia Labs is a member of ISBER and ESBB.