



WHEATON[®]

Integrated BioBanking System
The Solution for Your Sample Management

Enhancing Storage and Tracking

www.wheaton.com



Tracking. Storage. Quality. Customized.

WHEATON®

Integrated BioBanking System

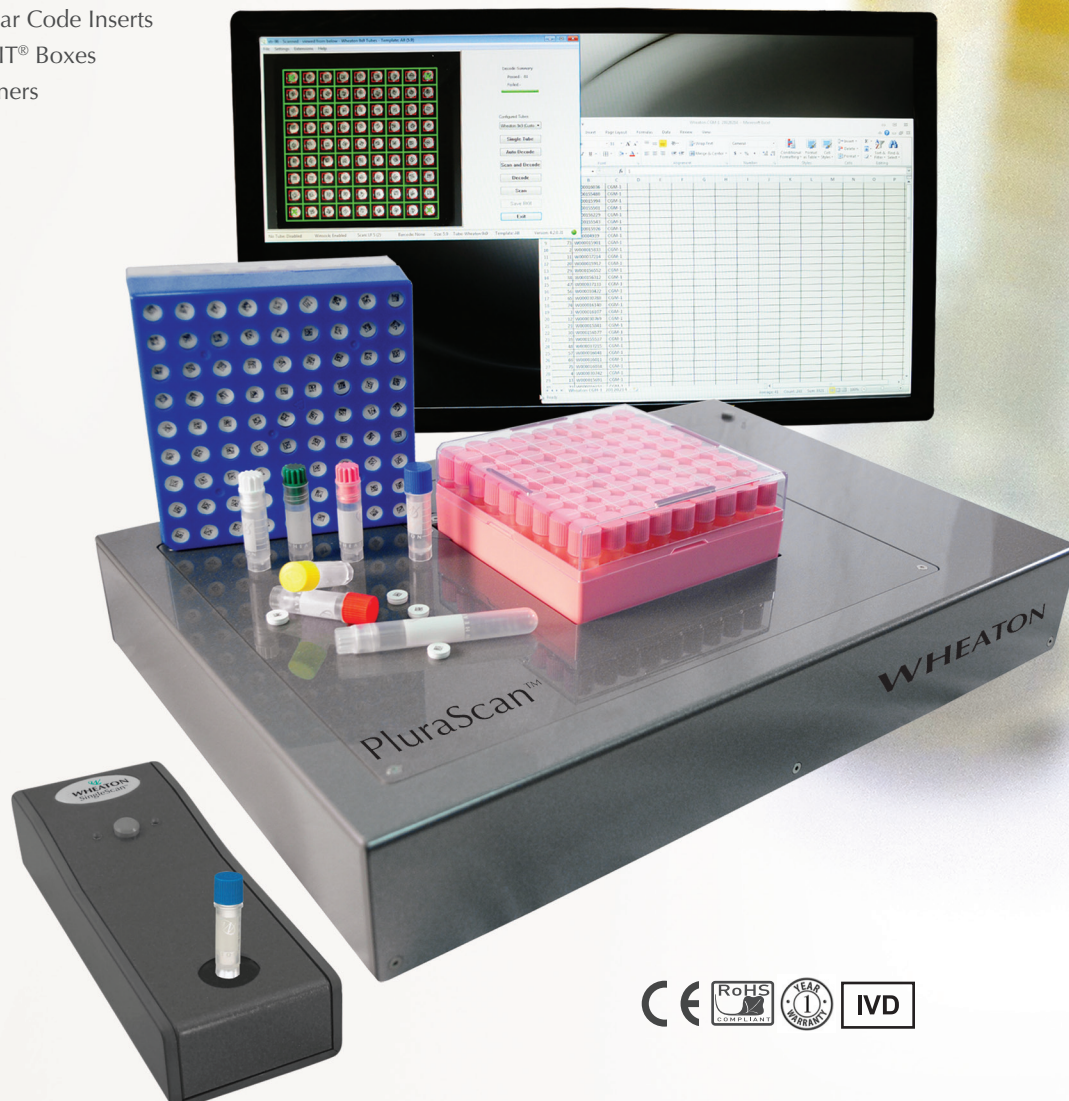
The Solution for Your Sample Management

Enhancing Storage and Tracking

WHEATON understands that when it comes to BioBanking, sample integrity means everything. With the addition of the new WHEATON PluraScan™ 2D Bar Code Reader to the WHEATON cryogenic product line, sample integrity is secure and traceable. The WHEATON PluraScan™, designed to capture data stored on the 2D Data matrix bar codes of cryogenic storage vials, is able to scan and read the individual bar code insert on each vial stored in WHEATON's open-bottom KeepIT® Boxes. With a built-in frost reduction system, the WHEATON PluraScan™ is able to scan up to 40 WHEATON KeepIT® boxes immediately after removal from ultra-low temperature storage. The acquired, decoded 2D data are imported into most laboratory information management systems (LIMS) and databases, ensuring a reliable method of storing, tracking and retrieving sample vials.

Sample Storage, Traceability and Management:

- Ampules
- CryoELITE® Vials
- 2D Bar Code Inserts
- KeepIT® Boxes
- Scanners



Integrated BioBanking System

Complete Solutions for Your Sample Management

The WHEATON 2D Integrated BioBanking System is a comprehensive offering of high quality products customized to enhance the storage, tracking and management of your vital samples. Whether you require the storage of irreplaceable samples in glass cryogenic ampules or plastic cryogenic vials, bar coding options for sample traceability or color coded storage to track specific projects or samples, WHEATON provides you with the tools that make your job easier and more efficient while having the confidence in trusting the WHEATON standard... because it's your life's work.

Ampules

Cryogenic WHEATON Cryule® Ampules are ideal for **long-term storage integrity** due to their tamper evident seal. Ampules are not manufactured pre-bar coded, enabling WHEATON to provide customization of the bar codes according to the customer specifications. For use with scanners, a 2D bar code is applied to the ampule. The ceramic bar code is durable when used in extreme temperatures.

CryoELITE® Vials

WHEATON CryoELITE Cryogenic Vials offer **unrivaled cap seals that exceed DOT and IATA regulations**. Optional 2D Data Matrix Bar Code Inserts provide a **unique identifier for traceability**. The bottom format allows for an unrestricted view of the 2D bar code, convenient for automated scanning. Made from low binding, cryogenic grade virgin polypropylene, with lot certified RNase/DNase and Endotoxin free certification, providing assurance of product integrity. Colored caps allow for color coding projects along with WHEATON color coded KeepIT Boxes.

2D Bar Codes

When purchasing freestanding WHEATON CryoELITE Vials, you can also purchase optional 2D Data Matrix Bar Code Inserts that allow for the **immediate bar coding of your samples**. The insert can also be applied to the vial at a future date, which eliminates jeopardizing the integrity of your sample by transferring it to another vial. The 2D Data Matrix Bar Code Insert press fits and locks into place in the bottom of the vial. 2D bar codes are machine readable symbols of rows of encrypted data arranged in a rectangular or square pattern that store large amounts of data. Number sequencing on bar codes is guaranteed not to duplicate.

KeepIT® Boxes

WHEATON KeepIT Boxes provide an **ideal method for the batching and storing of samples**. The openings in the bottom of the box facilitate the scanning of either CryoELITE Vials with 2D Data Matrix Bar Code Inserts or ceramic 2D bar code labeled Cryule® Ampules.

SingleScan™ Bar Code Reader

The WHEATON SingleScan Bar Code Reader is **able to read 1D and 2D bar codes**. Linear bar codes are black and white vertical bars located on the side of the ampule that contain various amounts of data ranging from simple number chains to large amounts of numeric and alphanumeric data sets. 2D bar codes are machine readable symbols of rows of encrypted data arranged in a rectangular or square pattern that store large amounts of data.

PluraScan™ Bar Code Reader

The WHEATON PluraScan Bar Code Reader is **able to read 2D bar coded vials or ampules stored in compatible, bottom readable WHEATON KeepIT Boxes**. Once the bar code is attached to the ampule or vial, the bar codes can be scanned and read using the WHEATON SingleScan or the WHEATON PluraScan Bar Code Reader. Bar code identification can be simply stored in a Microsoft® Excel® file or any other data collection system.

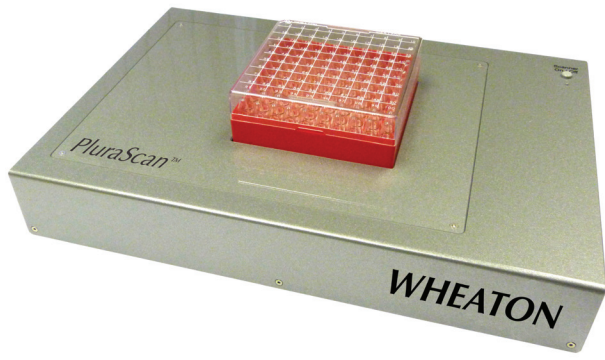


Integrated BioBanking System

Versatile and Reliable Bar Code Readers

Tracking

The WHEATON PluraScan Bar Code Reader is a sophisticated 2D Data Matrix Bar Code Reader capable of reading bar codes from a wide range of manufacturer and label printers. The PluraScan Bar Code Reader is **out of the box compatible** with the WHEATON KeepIT Boxes for use with the WHEATON CryoELITE Vials yet is versatile and can be adapted for use with multiple different rack and box formations.



PluraScan™ Bar Code Reader

- 2D Data Matrix Bar Code Reader
- Works with WHEATON KeepIT® boxes and WHEATON Cryogenic CryoELITE® Vials and Cryule® Ampules
- Integrated frost reduction system allows multiple racks to be read
- Flexible software integration
- Capable of reading bar codes from a wide range of manufacturer and label printers



Cat. No.	Description	Qty
03-410-049- []*	PluraScan™ Bar Code Reader	1

SingleScan™ Bar Code Reader

- Plug and play design enables easy set up with no software installation required
- USB interface allows easy connection to computer
- Reads 1D linear bar codes and 2D Data Matrix bar codes on any vial or ampule
- Inputs decoded bar code ID into any software application where cursor is placed



Cat. No.	Description	Qty
02-912-950	SingleScan™ Bar Code Reader	1



2D Data Matrix Bar Code Bottom Insert

- When purchasing WHEATON CryoELITE® freestanding vials, you can purchase an optional 2D Data Matrix Bar Code Insert that allows for immediate bar coding of your samples. The insert can also be applied to the vial at a future date, which eliminates jeopardizing the integrity of your sample by transferring it to another vial
- 2D Data Matrix Bar Code Insert press fits and locks into place in bottom of vial

Cat. No.	Description	Sterile	Qty / Case
03-410-320	2D Data Matrix Bar Code Bottom Insert	Yes	500
03-410-321	2D Data Matrix Bar Code Bottom Insert	No	500

WHEATON® Scanner Technical Information

	SingleScan™	PluraScan™
Code Formats		
1D Linear	✓	—
2D Data Matrix	✓	✓
ISO 16022	✓	✓
Square & Rectangular Format	✓	✓
ECC 200	✓	✓
0-20 Grid Sizes	✓	✓
White on Black & Black on White	✓	✓
Numeric	✓	✓
Alphanumeric	✓	✓
Sensor Type	1.3 million pixel CMOS sensor	CCD Image Sensor
Light Source	Class 2M visible laser diode at 630nm	CCFL (Cold Cathode Fluorescent Light Source)
Dimensions (W x D x H)	61mm x 167mm x 41.2mm	75cm x 50cm x 30cm
Power	USB Hub (5V)	AC 100 to 240V, +10%/-10%, Less than 8W
User Interface	Keyboard Wedge	WHEATON GUI, including Windows® operating system TCP/IP, ODBC
Cable Interface	USB	USB 2.0 USB 1.1 (B Type)
Operating System	Factory configured for Windows® operating systems compatibility. Also compatible with non-windows operating systems	Windows® 7, 2000, XP
Ambient Operating Temperature	5 to 50°C	
Storage Temperature	-20 to 65°C	
Operating Humidity	(Non-condensing) 5 to 95°C	

Plug Style	
[A]	North American Cord, 120V
[B]	Japan Cord, 100V
[C]	Europe Cord, 230V
[D]	UK Cord, 230V
[F]	Australia / China, 240V
[G]	Italy / Chile, 230V
[J]	India Cord, 230V

* When ordering, please reference the letter corresponding to the correct electrical cord.

Integrated BioBanking System

Reliable, Secure, Organized Storage

CryoELITE® Cryogenic Vials

- Unrivaled cap seal exceeds DOT and IATA regulations ensuring ultimate protection of samples during transportation and demanding freeze-thaw handling
- Lot certified RNase/DNase and Endotoxin Free providing assurance of product integrity
- Loctagon™ Vial Skirt provides stability in freestanding position
- Colored caps allow for color coding projects along with WHEATON colored freezer and storage boxes



Cat. No.	Size (mL)	Color	Writing Patch	Sterile	Dimensions Dia x H (mm)	Qty / Case
CryoELITE® Cryogenic Vials, Freestanding, Internal Thread						
02-912-710	1.2	Natural	Yes	Yes	12 x 40	500
02-912-703	2	Natural	Yes	No	12 x 50	1000
02-912-704	2	Natural	No	No	12 x 50	1000
02-912-717	2	Natural	Yes	Yes	12 x 50	500
02-912-711	2	White	Yes	Yes	12 x 50	500
02-912-712	2	Red	Yes	Yes	12 x 50	500
02-912-713	2	Pink	Yes	Yes	12 x 50	500
02-912-714	2	Yellow	Yes	Yes	12 x 50	500
02-912-715	2	Green	Yes	Yes	12 x 50	500
02-912-716	2	Blue	Yes	Yes	12 x 50	500
02-912-718	3	Natural	Yes	Yes	12 x 63	500
02-912-719	4	Natural	Yes	Yes	12 x 77	500
02-912-720	5	Natural	Yes	Yes	12 x 91	500

Cat. No.	Size (mL)	Color	Writing Patch	Sterile	Dimensions Dia x H (mm)	Qty / Case
CryoELITE® Cryogenic Vials, Freestanding, External Thread						
03-411-400	0.5	White	Yes	Yes	12 x 49	500
02-912-727	1.2	Natural	Yes	Yes	12 x 37	500
02-912-723	2	Natural	Yes	No	12 x 49	1000
02-912-724	2	Natural	No	No	12 x 49	1000
02-912-737	2	Natural	Yes	Yes	12 x 49	500
02-912-728	2	White	Yes	Yes	12 x 49	500
02-912-729	2	Red	Yes	Yes	12 x 49	500
02-912-730	2	Pink	Yes	Yes	12 x 49	500
02-912-731	2	Yellow	Yes	Yes	12 x 49	500
02-912-732	2	Green	Yes	Yes	12 x 49	500
02-912-733	2	Blue	Yes	Yes	12 x 49	500
02-912-734	3	Natural	Yes	Yes	12 x 63	500
02-912-735	4	Natural	Yes	Yes	12 x 78	500
02-912-736	5	Natural	Yes	Yes	12 x 93	500

Cryule® Cryogenic Ampule

- For biological sample preservation in glass
- Allows for storage at low temperatures
- Made from low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements
- Can be used in the vapor phase of liquid nitrogen
- Special design allows for storage at low temperatures as well as rapid thawing



Cat. No.	Size (mL)	Dia x H (mm)	*OD at Top (mm)	Qty / Case
06-400A	1	10.5 x 61	5	144
02-912-614	1.2	11.8 x 58	5	144
02-911-620	1.5	11.5 x 61	5	144
06-400D	2	11.5 x 70	5	144
02-911-621	5	16.5 x 98	8	144
02-911-622	10	19.5 x 114	9	144

* Approximate OD



CryoELITE® Cryogenic Vials, Round Bottom

- Exacting round bottom allows for up to 17,000 MAX RCF (xG)
- Screw cap can be easily removed with one hand
- Unrivaled cap seal exceeds DOT and IATA regulations ensuring ultimate protection of samples during transportation and demanding freeze-thaw handling
- Lot certified RNase / DNase and endotoxin free and non-pyrogenic providing assurance for sample integrity
- Made from low binding, cryogenic grade virgin polypropylene

Cat. No.	Size (mL)	Color	Writing Patch	Sterile	Dimensions Dia. x H (mm)	Qty / Case
CryoELITE® Vials, Round Bottom, Internal Thread						
02-912-705	1.2	Natural	Yes	Yes	12 x 39	500
02-912-706	2	Natural	Yes	Yes	12 x 49	500
02-912-701	2	Natural	Yes	No	12 x 49	1000
02-912-702	2	Natural	No	No	12 x 49	1000
02-912-707	3	Natural	Yes	Yes	12 x 63	500
02-912-708	4	Natural	Yes	Yes	12 x 76	500
02-912-709	5	Natural	Yes	Yes	12 x 90	500
CryoELITE® Vials, Round Bottom, External Thread						
02-912-725	1.2	Natural	Yes	Yes	12 x 35	500
02-912-726	2	Natural	Yes	Yes	12 x 49	500
02-912-721	2	Natural	Yes	No	12 x 49	1000
02-912-722	2	Natural	No	No	12 x 49	1000

Integrated BioBanking System

Reliable, Secure, Organized Storage



CryoFile® and CryoFile® XL Storage Boxes

- Use with cryogenic vials
- Partitions numbered from 1 – 81 for easy content identification
- Numbering system printed on lid and bottom of box
- Six colors provide easy sample identification
- Water repellent allows for longer durability
- For use with vapor phase of liquid nitrogen
- Dimensions (L x W x H): CryoFile® (130 x 130 x 52mm) / CryoFile® XL (130 x 130 x 97mm)

Cat. No.	Fits	Color	Qty/Case
CryoFile® Storage Box			
13-709-100	1.2 & 2mL Vials	Green	15
13-709-102	1.2 & 2mL Vials	Yellow	15
13-709-104	1.2 & 2mL Vials	Pink	15
13-709-106	1.2 & 2mL Vials	White	15
13-709-108	1.2 & 2mL Vials	Blue	15
13-709-110	1.2 & 2mL Vials	Red	15
CryoFile® XL Storage Box			
13-709-101	3, 4 & 5mL Vials	Green	15
13-709-103	3, 4 & 5mL Vials	Yellow	15
13-709-105	3, 4 & 5mL Vials	Pink	15
13-709-107	3, 4 & 5mL Vials	White	15
13-709-109	3, 4 & 5mL Vials	Blue	15
13-709-111	3, 4 & 5mL Vials	Red	15

Cryule® Vial Freezer Box

- Stores 1 and 2mL cryogenic vials
- Polyethylene coating chipboard for use with vapor phase of liquid nitrogen
- Holds 81 freestanding or round bottom vials
- Dimensions (L x W x H): 1mL (133 x 133 x 32mm) / 2mL (133 x 133 x 44mm)

Cat. No	Fits	Dimensions (mm)	Qty/Case
12-009-30	1mL Cryule® Vials	133 x 133 x 32	15
12-009-31	2mL Cryule® Vials	133 x 133 x 44	15



KeepIT® 25 Freezer Boxes



KeepIT® 81 - 100 Freezer Boxes

KeepIT® Freezer Boxes

- KeepIT® Freezer Boxes provide an ideal method for batching and storing samples
- Six different colors match the colors of CryoELITE® Cryogenic Vials, creating alternatives for batching and identifying groups of samples
- KeepIT®-25 accommodates up to 25 internal or external threaded cryogenic Vial Sizes: 1.2 - 2mL
- KeepIT®-81 accommodates 81 external threaded cryogenic vials Vial Sizes: 1.2 - 2mL
- KeepIT®-100 accommodates up to 100 internal threaded cryogenic vials Vial Sizes: 1.2 - 2mL
- Openings in bottom facilitate scanning CryoELITE® 2D Data Matrix Bar Code Inserts
- Made from Eastman Tritan™ BPA free, shatter resistant resin
- Standard footprint compatible with liquid nitrogen storage shelves and freezer drawers

Cat. No.	Color	Qty/Case
KeepIT®-25 For External Thread Vials		
03084101	White	10
03084102	Red	10
03084103	Pink	10
03084104	Yellow	10
03084105	Green	10
03084106	Blue	10

Keep-IT®-81 For External Thread Vials		
13-709-116	White	10
13-709-117	Red	10
13-709-114	Pink	10
13-709-112	Yellow	10
13-709-113	Green	10
13-709-115	Blue	10

KeepIT®-100 For Internal Thread Vials		
13-709-121	White	10
13-709-122	Red	10
13-709-123	Pink	10
13-709-124	Yellow	10
13-709-125	Green	10
13-709-126	Blue	10

WHEATON offers **reliable solutions for biospecimen storage, processing and tracking** based on the specific needs of each sample and **designed specifically for the needs of researchers**. The development of large-scale screening abilities has led to significant new discoveries in many fields; however, this growth in technology has led to the concurrent need for better biospecimen management.

WHEATON is proud to partner with researchers to simplify biospecimen management with a fully **integrated system** consisting of a 2D bar coded CryoELITE® Cryopreservation Vials, glass Cryule Ampules and E-Z Ex-Traction® MicroTubes that interact with KeepIT® CryoStorage Boxes and Bar Code Scanners.

The included packaged software allows for the data to be manipulated prior to export such that it can be **directly imported into most LIMS and database systems**. The dependable CryoELITE® Vials are traceable using a 2D bar code located on the bottom of each vial, securely held in KeepIT® Freezer Boxes and scanned through the bottom of the box, simply by placing the box on the scanner. Thus, **precious samples, stored as tissue, cells, DNA, RNA, protein, or sera and plasma, can be easily and reliably stored, tracked and retrieved**.



Cathie Miller, PhD
Global Product Manager
BioBank, Cryogenic, VAS

“Cathie Miller (Ph.D., Microbiology and Immunology, University of Louisville Medical School, University of Louisville, 1997) is a Global Product Manager at WHEATON. Her expertise is in genetics, biotechnology and cancer therapeutics. In her previous roles as a basic scientist and a director of a large international patient registry and repository, she has dealt extensively on issues of cryostorage, biobanking and data integrity.

Before coming to WHEATON, Dr. Miller was Director of the Human Biological Data Interchange at the NDRI, a Philadelphia-based international organization that facilitates the involvement of human biospecimens for biomedical research. Additionally, Dr. Miller’s previous research included areas of cancer therapeutics, virology and immunology. Previously, Dr. Miller has been employed by the Henry Ford Health System (Detroit, MI) as a Senior Scientist and the University of Michigan (Ann Arbor, MI) as a Research Associate. Dr. Miller was a postdoctoral fellow at the Wistar Institute and the University of Pennsylvania, both in Philadelphia, PA.”



Share



What’s the CryoFeed?

The WHEATON CryoFeed is a place where you can come to find the latest biobank related news and technical tips for topics like sample containment, management (tracking, batching and storing) and processing.

We built the WHEATON CryoFeed just for you. Over the course of each week, our technical experts receive hundreds of questions from you about sample containment-related issues like material compatibility.

Along with news items such as regulatory updates, the CryoFeed will feature answers to many of these technical questions.

You can sign up for free updates at www.cryofeed.com by leaving us your e-mail in the Free Updates box.

If you find the WHEATON CryoFeed to be helpful, we would certainly appreciate you spreading the good word.



For customer service, call 1-800-766-7000.
To fax an order, use 1-800-926-1166.
To order online: www.fishersci.com

Cryule®, CryoELITE®, KeepIT®, E-Z Ex-Traction® and WHEATON® are registered trademarks of WHEATON Industries Inc. PluraScan™, SingleScan™, Loctagon™, and BioBanking Solutions™ are trademarks of WHEATON Industries Inc. Eastman Tritan™ is a trademark of Eastman Chemical Co. Microsoft®, Excel® and Windows® are registered trademarks or trademarks of Microsoft Corporation in the United States and / or other countries.

Copyright © 2013 WHEATON Industries Inc. Printed in USA.

FBRO_004 05/2013