# CryoClear™

## Cryogenic Vials




# Innovation

for the long-term storage of
your precious samples.

# CryoClear™ Cryogenic Vials

## Innovation to protect your precious samples.

Globe Scientific's CryoClear™ vials are designed for the cryogenic storage and transport of biological specimens at temperatures as low as -196ºC.

The vials feature an innovative screw cap that is co-molded with a layer of thermoplastic elastomer (TPE). This special process provides the leak-proof benefits of an o-ring, while eliminating the risk of contamination and sample loss associated with the use of separate o-rings. The caps feature a star shaped top cavity that is engineered to work with automatic decapping equipment. Each vial is printed with a unique barcode that may be used for automated data collection, accurate sample inventory or to conceal the sample's identity.










*CryoClear™ vials are packaged in heavy-duty, tamper-proof, resealable bags of 50. They are available for purchase by the bag or case of 500.*

### ty Guaranteed:

- Manufactured, assembled and packaged in an ISO 7 (Class 10,000) cleanroom and never exposed to outside contaminants. Meets FDA, GMP and ISO Quality Standards.
- Lot certified: samples from every lot are shipped to an independent laboratory where they are certified to be Human DNA free, DNase free, RNase free, Pyrogen free and ATP free.

### Technical Details:

- Temperature range: -196º to 121ºC
- Autoclavable
- Sterilized by beta radiation (SAL $10^{-6}$)
- Pressure tested at 95 kPa (0.95 bar, 14 psi)

### Material:

Tube: Medical grade polypropylene (PP)

Cap: Medical grade polyethylene (PE) co-molded with thermoplastic elastomer (TPE)

# Innovation.

*Color coded inserts are available to fit both internal and external caps for quick sample identification*

*Star shaped top cavity is engineered for use with automatic decapping equipment*

*Innovative screw caps are produced from medical grade polyethylene (PE) and are co-molded with a thermoplastic elastomer (TPE) to provide a 100% leak-proof seal*

*Chemical resistant caps*

*Slim profile external caps ensure better fit in standard racks and boxes*

*Produced from medical grade raw materials that will not discolor after re-sterilizing*

*Vials and caps are autoclavable*

*Standard code 128 barcode on each vial includes human readable characters printed in both left and right hand orientation for easy readability by all users.*

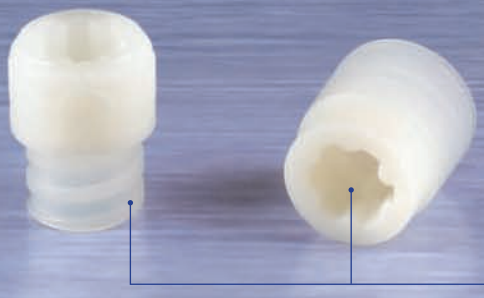
*Printed graduations for accurate measurements*

*White writing surface for specimen identification*

*Chemical resistant polypropylene (PP) vial*

*Available with round bottoms or self-standing*

*Self-standing vials interlock in Globe workstations*



## Our innovative screw caps eliminate leakage and contamination.

*CryoClear™ screw caps are co-molded with a thermoplastic elastomer (TPE) layer and are 95kPa certified to provide a 100% leak-proof seal. This proprietary molding process eliminates the risk of contamination associated with brands that use separate o-rings.*

# CryoClear™ Cryogenic Vials

## Internal Threaded Vials (shown actual size)




| Order Number | 3001 | 3002 | 3003 | 3004 | 3005 | 3006 | 3008 |
|---|---|---|---|---|---|---|---|
| Volume | 1 mL | 2 mL | 2 mL | 4 mL | 4 mL | 5 mL | 5 mL |
| Height* | 42.8 mm | 48.4 mm | 47.2 mm | 75.1 mm | 76.4 mm | 89.4 mm | 90.5 mm |
| Vial O.D. | 12.5 mm | 12.5 mm | 12.5 mm | 12.5 mm | 12.5 mm | 12.5 mm | 12.5 mm |
| Style | Self standing | Self standing | -- | -- | Self standing | -- | Self standing |
| Bottom | Conical | Round | Round | Round | Round | Round | Round |
| Packaging | 500/case, 10 bags of 50 vials (Also sold by the bag of 50) | | | | | | |

**Height with caps attached.*

## Tamper Evident, Resealable and Lot Traceable Packaging

All CryoClear™ cryogenic vials are sold in heavy-duty, tamper evident resealable plastic bags.

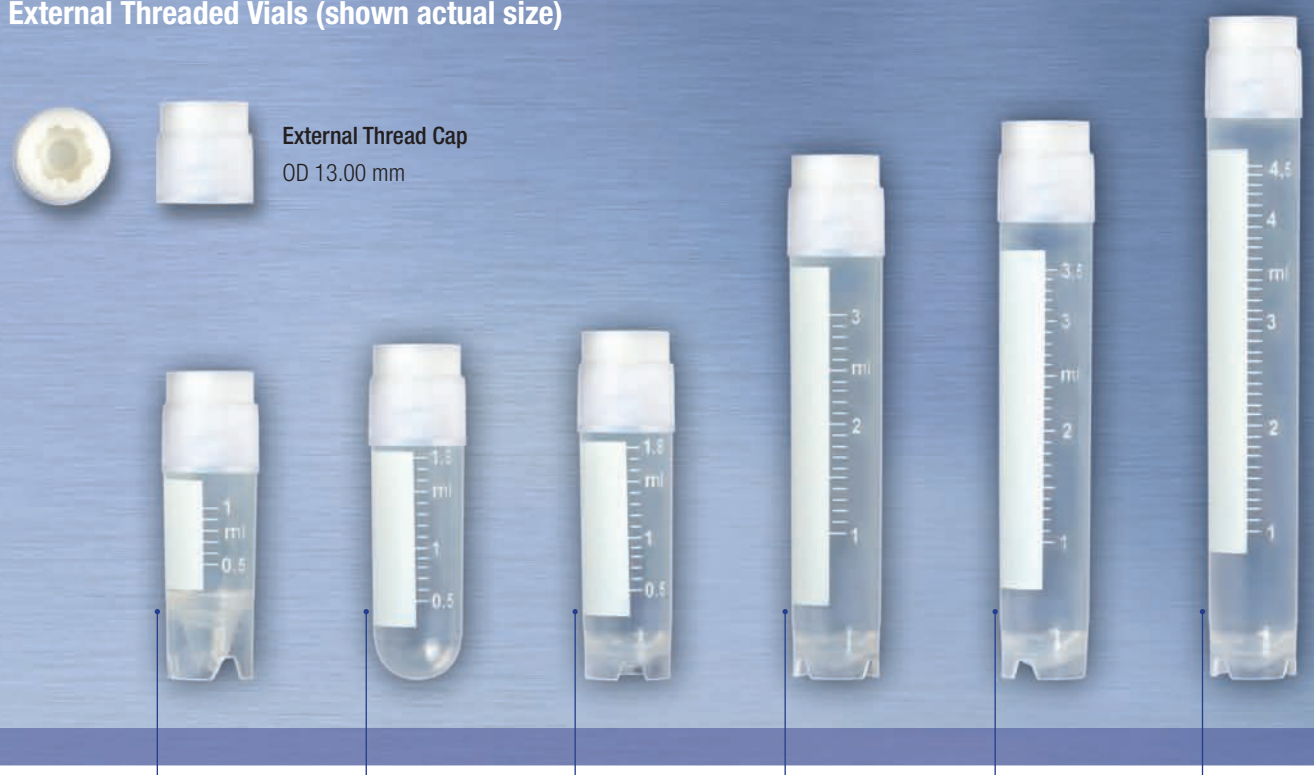
- 50 vials per bag, 10 bags per case

*Heavy-duty, tamper evident resealable plastic bags*

*Each bag labeled with manufacture date and barcoded lot number for traceability*



## External Threaded Vials (shown actual size)




| Order Number | 3010 | 3011 | 3012 | 3013 | 3014 | 3015 |
|---|---|---|---|---|---|---|
| Volume | 1 mL | 2 mL | 2 mL | 3 mL | 4 mL | 5 mL |
| Height* | 41.5 mm | 45.9 mm | 47.0 mm | 70.7 mm | 75.1 mm | 89.3 mm |
| Vial O.D. | 12.5 mm | 12.5 mm | 12.5 mm | 12.5 mm | 12.5 mm | 12.5 mm |
| Style | Self standing | -- | Self standing | Self standing | Self standing | Self standing |
| Bottom | Conical | Round | Round | Round | Round | Round |
| Packaging | 500/case, 10 bags of 50 vials (Also sold by the bag of 50) | | | | | |

**Height with caps attached.*

## Cap Inserts

Cap inserts are available in assorted colors and are ideal for color coding and sample identification. The inserts snap easily into place on both internal and external caps.

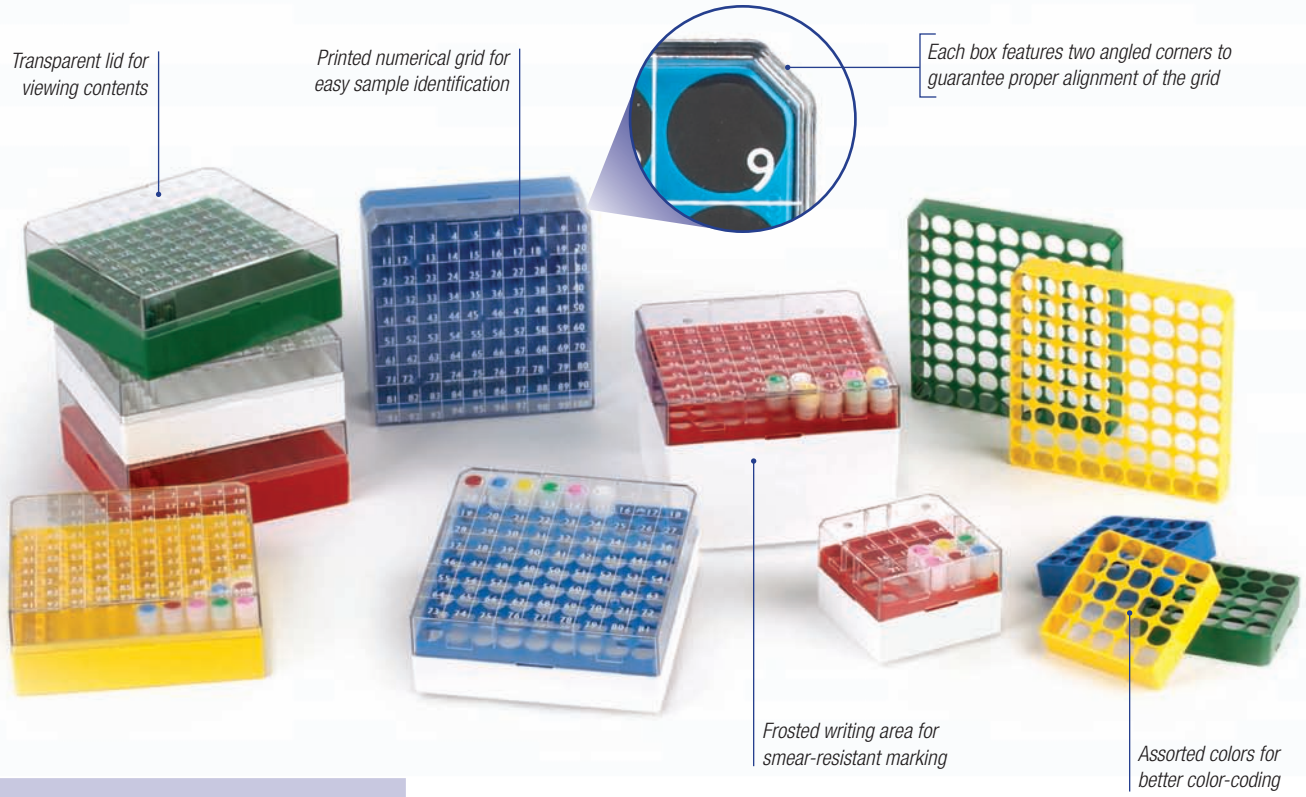
- Polypropylene (PP)
- Ideal for color coding samples



| Item # | Description | Unit |
|---|---|---|
| 30079A | Gray | 1000 |
| 30079B | Blue | 1000 |
| 30079G | Green | 1000 |
| 30079N | Orange | 1000 |
| 30079P | Pink | 1000 |

| Item # | Description | Unit |
|---|---|---|
| 30079R | Red | 1000 |
| 30079V | Violet | 1000 |
| 30079W | White | 1000 |
| 30079Y | Yellow | 1000 |
| 30079AST | Assorted | 600 |

# BioBox™ Plastic Storage Boxes




## BioBOX™ Storage Boxes with Transparent Lids

Produced from polycarbonate (PC), these storage boxes are designed to withstand temperatures of -196°C to +121°C. The boxes are available in 25-place, 81-place and 100-place sizes and are available in assorted colors.

- Polycarbonate (PC)
- Temperature range: -196°C to +121°C
- Frosted writing area for smear-resistant marking
- Printed numerical grid for easy sample identification
- Transparent lid for viewing contents
- Each box features two angled corners to guarantee proper alignment of the grid
- Autoclavable at 121°C, 15 psig (1 bar) for 20 minutes
- Boxes have vent holes for drainage and rapid freezing
- Fits in stainless steel freezer racks
- A plastic vial picker (item #30078) is supplied with each BioBox™

### BioBoxes for 1 & 2mL Vials

| Item # | Description | Dimensions (L x W x H) | Unit |
|---|---|---|---|
| 3039B | 25-place (5x5), blue | 76 x 76 x 52mm | 8 |
| 3039G | 25-place (5x5), green | 76 x 76 x 52mm | 8 |
| 3039R | 25-place (5x5), red | 76 x 76 x 52mm | 8 |
| 3039Y | 25-place (5x5), yellow | 76 x 76 x 52mm | 8 |
| 3040B | 81-place (9x9), blue | 132 x 132 x 52mm | 5 |
| 3040G | 81-place (9x9), green | 132 x 132 x 52mm | 5 |
| 3040R | 81-place (9x9), red | 132 x 132 x 52mm | 5 |
| 3040Y | 81-place (9x9), yellow | 132 x 132 x 52mm | 5 |
| 3050B | 100-place (10x10), blue | 132 x 132 x 52mm | 5 |
| 3050G | 100-place (10x10), green | 132 x 132 x 52mm | 5 |
| 3050R | 100-place (10x10), red | 132 x 132 x 52mm | 5 |
| 3050W | 100-place (10x10), white | 132 x 132 x 52mm | 5 |
| 3050Y | 100-place (10x10), yellow | 132 x 132 x 52mm | 5 |

### BioBoxes for 3, 4 & 5mL External & 5mL Internal Vials

| Item # | Description | Dimensions (L x W x H) | Unit |
|---|---|---|---|
| 3042B | 81-place (9x9), blue | 132 x 132 x 94mm | 4 |
| 3042G | 81-place (9x9), green | 132 x 132 x 94mm | 4 |
| 3042R | 81-place (9x9), red | 132 x 132 x 94mm | 4 |
| 3042Y | 81-place (9x9), yellow | 132 x 132 x 94mm | 4 |



# Vial Picker/Storage Boxes/ Workstation Racks

## Vial Picker

For the safe and convenient removal of frozen vials from storage boxes.

- Thermoplastic elastomer (TPE)

| Item # | Color | Unit |
|---|---|---|
| 30078 | Blue | 10 |



## Cardboard Storage Boxes

These economical boxes are designed for the long term storage of cryogenic vials in freezer rack systems. They have a liquid-resistant outer coating.

- Heavy-duty cardboard
- Temperature range: -196°C to +121°C
- Fits in stainless steel freezer racks

*Additional colors available by special order.*

### Storage Box for 2" Tall Vials

Dimensions: 134 x 134 x 47mm

| Item # | Description | Units |
|---|---|---|
| 3090 | 64 place (8x8), white, for up to 2" tall x 15mm wide vials | Each & 96 |
| 3091 | 81 place (9x9), white, for up to 2" tall x 13mm wide vials | Each & 96 |
| 3092 | 100 place (10x10), white, for up to 2" tall x 12mm wide vials | Each & 96 |

### Storage Box for 3" Tall Vials

Dimensions: 134 x 134 x 76mm

| Item # | Description | Units |
|---|---|---|
| 3094 | 64 place (8x8), white, for up to 3" tall x 15mm wide vials | Each & 48 |
| 3094Y | 64 place (8x8), yellow, for up to 3" tall x 15mm wide vials | Each & 48 |
| 3095 | 81 place (9x9), white, for up to 3" tall x 13mm wide vials | Each & 48 |
| 3096 | 100 place (10x10), white, for up to 3" tall x 12mm wide vials | Each & 48 |

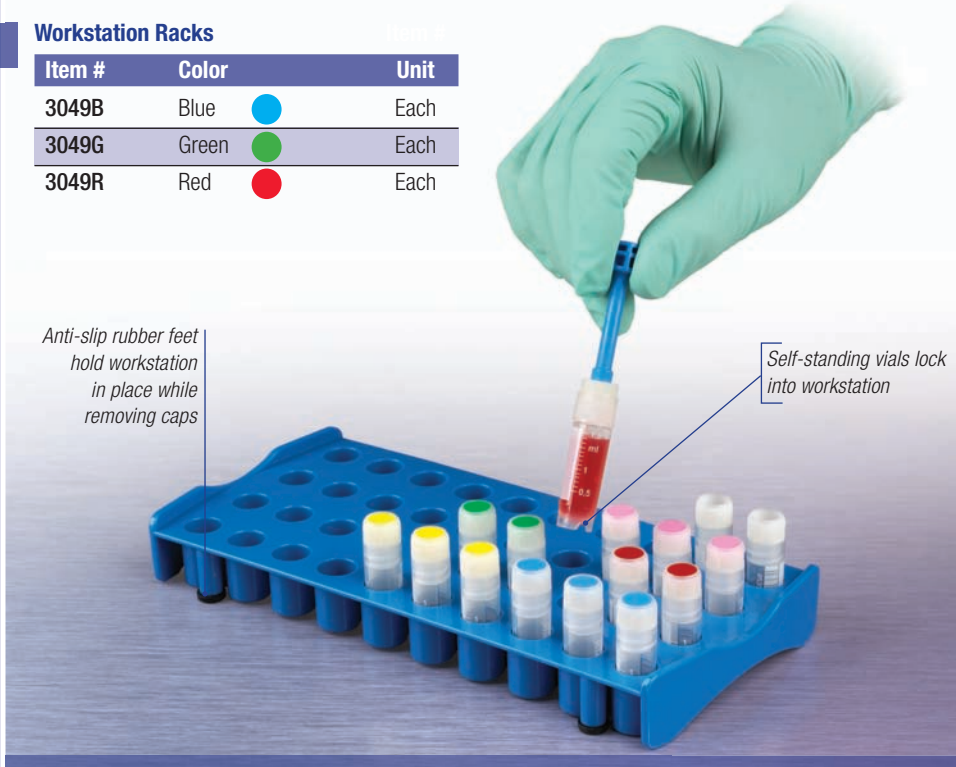
## Workstation Racks

Globe workstations accommodate both round bottom and self-standing CryoClear™ cryogenic vials. The self-standing vials lock into the rack for easy one-handed opening and closing of caps.

- 40-Place (10 x 4 format)
- Polycarbonate (PC)
- Anti-slip rubber feet
- Autoclavable at 121°C, 15 psig (1 bar) for 20 minutes
- Temperature range: -196°C to +121°C
- Dimensions: 215 x 100 x 25mm

### Workstation Racks

| Item # | Color | Unit |
|---|---|---|
| 3049B | Blue | Each |
| 3049G | Green | Each |
| 3049R | Red | Each |



# Technical Specifications/ Product Certifications

## Technical Specifications

| | |
|---|---|
| Material: Tube: | Medical/FDA Polypropylene (PP) |
| Cap: | Medical/FDA Polyethylene (PE) co-molded with a thermoplastic elastomer (TPE) layer |
| Sterilization: | Beta radiation |
| SAL level: | $10^{-6}$ |
| Autoclavable: | Tubes and caps |
| Temperature range: | -196º to +121ºC |
| Mold release agents: | None used in manufacturing |
| Maximum psi: | 14.5 psi |
| Maximum centrifugation speed: | 17530 xg (To obtain RPM, verify the diameter of the centrifuge and convert) |

For use in the vapor phase of liquid nitrogen.

*WARNING - DO NOT USE CRYOCLEAR™ VIALS IN THE LIQUID PHASE OF LIQUID NITROGEN.*

***Printing on the tubes is resistant to the following common laboratory chemicals:***

| | |
|---|---|
| Isopropyl alcohol: | 5-100% |
| Butanol: | 100% |
| DMSO: | 10-20% |
| Bleach: | 5% |
| Acetic acid: | 10% |
| Hydrochloric acids: | 10% |
| NaOH: | 10% |




## Product Certificatons

| | |
|---|---|
| Manufacturing environment: | Produced, assembled and packaged in a ISO 7 cleanroom (Class 10,000) in accordance with quality guidelines ISO 13485:2004, ISO 14644, ISO 14698 (Federal Standard 209), ISO 14000 and ISO 18000 |
| Material: | Virgin raw materials are tested according to the “United States Pharmacopia” (USP) and with the “drug master file” (DMF) at the FDA, certified under USP Class VI |
| CONEG: | This product meets CONEG requirements and therefore does not contain heavy metals in the color concentrate |
| Sterilization: | Sterilzed in accordance with EN ISO 11137 |
| DNase, RNase and pyrogen free: | Every lot is certified* by an independent laboratory to be free of DNase, RNase and pyrogens |
| Human DNA and ATP free: | Every lot is certified* by an independent laboratory to be free of Human DNA and ATP |
| Non-cytotoxic: | This product is certified* to be free of cytotoxins |
| Non-hemolytic: | This product is certified* to be free of articles causing hemolysis |
| In vitro Diagnostic Medical Device: | Complies with Directive 98/79/EC of the European Parliament and the Council of 27 October 1998 on in vitro diagnostic medical devices |
| Leak proof: | Tubes are certified leak proof at a pressure of 95 kPa (0.95 bar, 14.5 psi) by applying a closure force of not less than 8 cNm |
| IATA (International Air Transportation Association): | Can be used as a primary receptacle for the transport of diagnostic specimens as outlined by the IATA Dangerous Goods Regulations, Part 6.3,5 |

**Certificate of Analysis available upon request.*