

# CryoPure freezing system

Efficient and reliable cryopreservation



*Come Grow With Us*

## CryoPure – quality guarantee

To avoid exposing cell samples and their components to additional risks of contamination with disruptive substances during 'vital preservation', CryoPure tubes are subjected to stringent testing

Having passed these defined test procedures, the CryoPure tubes are certified as follows:



- ✓ Sterile
- ✓ Pyrogen-free/endotoxin-free
- ✓ Non-cytotoxic
- ✓ Non-mutagenic
- ✓ IVD CE

## We guarantee compliance with the following:

- Sterility validated according to the ISO 11137 series of standards
- Pyrogens/endotoxins <0.06 EU/ml
- Non-cytotoxic in accordance with the ISO 10993 series of standards
- Non-mutagenic according to the Ames Test II



## Exceptional versatility

- Ultra-transparent CryoPure tubes are available with secure external thread and a volume of 1.2 to 5 ml to reduce the risk of contamination
- For increased storage density (10 x 10 grid), a 2 ml CryoPure tube with internal thread and silicone seal is available
- The optimized internal contour of the base of the tube facilitates residue-free sampling



## Innovative ergonomics

- The QuickSeal sealing mechanism enables ergonomic and secure opening and closing of both types of cap with just one turn
- The skirted base design enables convenient handling with one hand in the CryoRack 40 and in most common racks










## Color-coded organization

- Up to 36 coding possibilities, with 6 cap colors and 6 color-coded inserts
- Blue screw caps available for 2 ml CryoPure tubes











CryoPure 1.2 ml tubes with external thread

Order no	Screw cap	Nominal volume	Packaging
72.377	White 	1.0 ml	50/bag 500/inner box 2,000/case
72.377.002	Red 	1.0 ml	
72.377.004	Yellow 	1.0 ml	
72.377.005	Green 	1.0 ml	
72.377.007	Violet 	1.0 ml	
72.377.992	Color mix 	1.0 ml	










CryoPure 2.0 ml tubes with external thread

Order no	Screw cap	Nominal volume	Packaging
72.379	White 	1.8 ml	50/bag 500/inner box 2,000/case
72.379.002	Red 	1.8 ml	
72.379.004	Yellow 	1.8 ml	
72.379.005	Green 	1.8 ml	
72.379.006	Blue 	1.8 ml	
72.379.007	Violet 	1.8 ml	
72.379.992	Color mix 	1.8 ml	











CryoPure 5.0 ml tubes with external thread

Order no	Screw cap	Nominal volume	Packaging
72.383	White 	4.5 ml	25/bag 250/inner box 1,000/case
72.383.002	Red 	4.5 ml	
72.383.004	Yellow 	4.5 ml	
72.383.005	Green 	4.5 ml	
72.383.007	Violet 	4.5 ml	
72.383.992	Color mix 	4.5 ml	











CryoPure 2.0 ml tubes with internal thread and silicone O-ring

Order no	Screw cap	Nominal volume	Packaging
72.380	White 	1.6 ml	50/bag 500/inner box 2,000/case
72.380.002	Red 	1.6 ml	
72.380.004	Yellow 	1.6 ml	
72.380.005	Green 	1.6 ml	
72.380.006	Blue 	1.6 ml	
72.380.007	Violet 	1.6 ml	
72.380.992	Color mix 	1.6 ml	



Color-coded inserts for CryoPure tubes

Order no	Color	Packaging
65.386	White 	100/bag • 3,000/case
65.386.002	Red 	
65.386.004	Yellow 	
65.386.005	Green 	
65.386.006	Blue 	
65.386.007	Violet 	
65.386.992	Color mix 	



CryoRack 40/Work Rack

- Accommodates 40 tubes (4 rows of 10 wells)
- Skirted tube bases interlock with CryoRack for easy one-handed handling
- Colored alphanumeric coding for easy sample assignment
- Slip-proof rubber feet
- Autoclavable, 121 °C, 20 min.



Ordering information – CryoRack 40

Order no	Packaging
93.856.040	1/bag • 10/case

## Cryo boxes for low-temperature range storage

- High-grade polycarbonate storage boxes for deep-freeze down to -196 °C
- Easy sample identification via numerical coding of each tube storage space in the box
- Optically clear lid and colored base with large apertures for rapid ventilation
- Range of box versions to accommodate standard 1.2, 2.0, 3.5 and 5.0 ml Cryo tubes
- Flexible use of storage capacity, with box formats 5 x 5, 9 x 9, 10 x 10
- Autoclavable, 121 °C, 20 min.



Numerical coding

## Cryo boxes for low-temperature range storage

Compatible tube sizes	1.2–2.0 ml			3.5–5.0 ml
Format	5 x 5	9 x 9	10 x 10	9 x 9
Storage capacity	25	81	100	81
Box size (W x D x H) in mm	75 x 75 x 52	132 x 132 x 53	132 x 132 x 53	132 x 132 x 95
	Internal and external thread		Internal thread	Internal and external thread
Ideal for tubes with				

Packaging	Color	Order number			
5/bag 20/case	Red	93.872.225	93.873.281	93.874.210	93.875.281
	Yellow	93.872.425	93.873.481	93.874.410	93.875.481
	Blue	93.872.625	93.873.681	93.874.610	93.875.681

## Safety notice

For safety reasons, CryoPure tubes should always be cryogenically stored in the gas phase. During the freezing process, a vacuum builds up inside the containers, the size of which is dependent on the filling volume (freezing quantity). If the CryoPure tubes are kept in liquid phase, liquid nitrogen may enter the tubes due to this vacuum. During tube removal/ the thawing process, the liquid nitrogen becomes gas and creates internal pressure. This can lead to infectious material escaping from the tubes, or the tubes exploding. If liquid nitrogen enters the containers, this can also lead to the contamination of the sample material with impure nitrogen.

When dealing with CryoPure tubes, the customary safety measures should always be observed:

- Only store the tubes in the gas phase.
- Fill containers to the fill mark.
- Close tubes by hand, do not overtighten and do not use tools.
- Protective clothing, face protection, eye protection and gloves should be used.
- During thawing, place the tubes in a container (e.g. water bath) with a cover.

*Please observe your internal laboratory safety guidelines!*

## Standard protocol for freezing mammalian cells

- Wash the cells with PBS.
- Detach the cells using a suitable method for the cell type (e.g. treating the cell layer with EDTA, trypsin or EDTA-trypsin solution).
- Stop the reaction with serum-containing cell culture medium.
- Determine the number of cells using a Neubauer counting chamber.
- Centrifuge the cells (5 min., 350 x g, RT), discard any excess.
- Resuspend the cell pellet in serum-containing culture medium, adjust the cell count to approx. 10<sup>7</sup> cells/ml.
- Add 1 volume double concentration freezing medium (e.g. 50% medium, 30% FCS, 20% DMSO); the cell count should be approx. 5 x 10<sup>6</sup> cells/ml.
- Fill the CryoPure tubes up to the fill mark.
- Freeze the samples in an insulated container at -80°C, ensuring a cooling rate of approx. 1°C/min. The cells should be stored at -80°C for at least 6 hours. Depending on cell type, cells may also be kept viable at -80°C for several days.
- Transfer the tubes to the nitrogen tank.

## Standard protocol for thawing

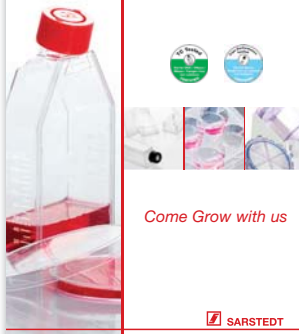
- Quickly remove CryoPure tubes from the nitrogen container and place into a 37°C water bath and cover.
- After thawing, quickly disinfect the tubes with 70% alcohol and let dry. Transfer the cell suspension into a 15 ml centrifuge tube (e.g. item no 62.554.100).
- Add culture medium and centrifuge the cells (5 min., 350 x g, RT).
- Discard the excess and resuspend the cells in a suitable amount of fresh cell culture medium.
- Fill a cell culture flask and incubate.



If you have any questions,  
we are happy to help!

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**Growth Surface References**  
Which options do I have for the cultivation of my cells?



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**lumox® & x-well Technology**



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**Sarstedt Cell Strainer** **NEW!**  
Quick and easy filtration of single-cell suspensions



The Sarstedt Cell Strainer provides an innovative, fast and easy-to-handle solution for single-cell suspensions primary cell cultures, flow cytometry.

**Features and Benefits:**

- Color-coded pore sizes – 40µm (Black), 70µm (White) and 100µm (Yellow)
- Concentrated the cells towards the apex and cell handling.
- Four ports on the handle enable continuous filtration during filtration to prevent the 'air lock' effect and the cell strainer from clogging.
- Adjustable height enables multi-angle filtration.
- Compatible with standard 50ml centrifuge tubes.
- Adapts enable compatibility with a large number of smaller tubes (e.g. 15ml centrifuge tubes, 12 x 75mm FACS tubes).

Color	Pore Size	Material	Part No.
Black	40µm	PS	80.380.001
White	70µm	PS	80.380.002
Yellow	100µm	PS	80.380.003

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