

*To make your
workflow excellent.*



CryoPure freezing system

Efficient and reliable cryopreservation



Life Science

Revitalise your cryopreservation

Cryo Performance Tested

During 'vital preservation' in CryoPure tubes, cell and tissue samples must not be exposed to additional risks in terms of contamination with disruptive substances. Sarstedt CryoPure tubes are therefore subjected to a number of tests and, after passing the defined examinations, are certified as follows:

We guarantee compliance with the following limits:

- **Sterile**
Based on ISO 11137
- **Pyrogen-free/endotoxin-free**
<0,06 EU/ml
- **Non-cytotoxic**
In compliance with ISO 10993-5
- **Non-mutagenic**
Proof of assessment of mutagen-free status was conducted according to Ames Test II
- **DNA-free**
Human DNA <0.5 pg/μl, bacterial DNA <0.02 pg/μl
- **DNase/RNase-free**
DNase <1x10⁻⁵ U/μl, RNase <1x10⁻⁹ Kunitz units/μl
- **CE IVD**



CryoPure freezing system

Versatile design

- CryoPure tubes with **external thread** and a volume of 1.2 ml to 5 ml in order to reduce the risk of contamination. **(1)**
- CryoPure tubes with **internal thread and silicone O-ring** are available with a volume of 2 ml to increase the storage density (10 x 10 grid). **(1)**

Inspirational ergonomics

The QuickSeal sealing mechanism enables ergonomic and secure opening and closing of both types of cap with just one turn. **(2)**

Exceptional versatility

The combination of 6 different cap colours with 6 different cap insert colours provides up to 36 colour-coding options for visual coding and easy sample identification. **(3)**

Optimum design

- The optimum internal contour of the base of the CryoPure tube facilitates residue-free sampling.
- Free-standing design.
- The base of the CryoPure tubes allows the convenient single-hand handling of the tubes in CryoRack 40 and most other conventional work stands. **(4)**



1



2



3



4

Efficient and reliable

Ordering information

CryoPure 1.2 ml tubes with external thread

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

CryoPure 2.0 ml tubes with external thread

White ☐	1.8 ml	50/500/2,000	72.379	
Red ☒	1.8 ml	50/500/2,000	72.379.002	
Yellow ☒	1.8 ml	50/500/2,000	72.379.004	
Green ☒	1.8 ml	50/500/2,000	72.379.005	
Blue ☒	1.8 ml	50/500/2,000	72.379.006	
Violet ☒	1.8 ml	50/500/2,000	72.379.007	
Colour mix ☐ ☒ ☒ ☒ ☒ ☒	1.8 ml	50/500/2,000	72.379.992	

CryoPure 5.0 ml tubes with external thread

White ☐	4.5 ml	25/250/1,000	72.383	
Red ☒	4.5 ml	25/250/1,000	72.383.002	
Yellow ☒	4.5 ml	25/250/1,000	72.383.004	
Green ☒	4.5 ml	25/250/1,000	72.383.005	
Violet ☒	4.5 ml	25/250/1,000	72.383.007	
Colour mix ☐ ☒ ☒ ☒ ☒ ☒	4.5 ml	25/250/1,000	72.383.992	

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

White ☐	1.6 ml	50/500/2,000	72.380	
Red ☒	1.6 ml	50/500/2,000	72.380.002	
Yellow ☒	1.6 ml	50/500/2,000	72.380.004	
Green ☒	1.6 ml	50/500/2,000	72.380.005	
Blue ☒	1.6 ml	50/500/2,000	72.380.006	
Violet ☒	1.6 ml	50/500/2,000	72.380.007	
Colour mix ☐ ☒ ☒ ☒ ☒ ☒	1.6 ml	50/500/2,000	72.380.992	

Colour-coding inserts for CryoPure tubes

Screw cap	Packaging bag/box	Order no	
White ☐	100 / 3,000	65.386	
Red ☐	100 / 3,000	65.386.002	
Yellow ☐	100 / 3,000	65.386.004	
Green ☐	100 / 3,000	65.386.005	
Blue ☐	100 / 3,000	65.386.006	
Violet ☐	100 / 3,000	65.386.007	
Colour mix ☐ ☐ ☐ ☐ ☐	100 (5 colours) / 2,500	65.386.992	



CryoRack 40/Work Rack

- 4 rows of 10 wells for 40 tubes
- One-handed handling thanks to base locking
- Coloured alphanumeric coding for easy sample assignment
- Slip-proof due to rubber feet
- Autoclavable, 121 °C, 20 min.

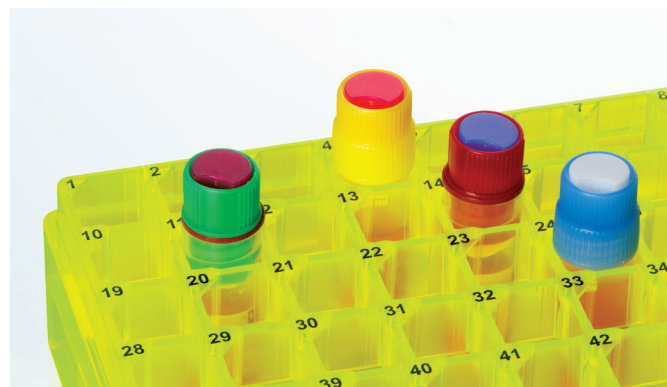
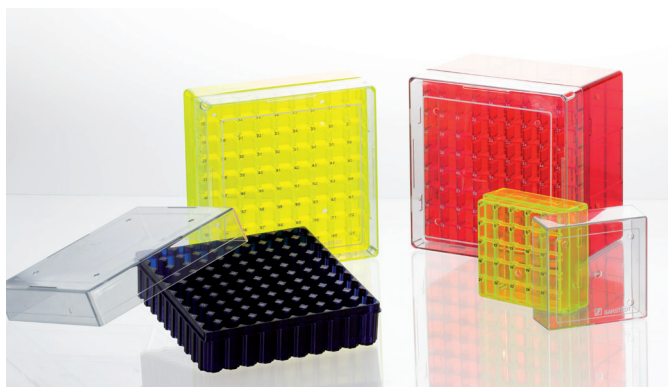
Ordering information – CryoRack 40

Packaging bag/box	Order no
1 / 10	93.856.040



Cryo boxes for low-temperature range storage

- High-grade polycarbonate storage boxes for deep-freeze areas down to -196 °C
- Easy sample identification via numerical coding of each tube storage space in the box
- Optically clear lid and coloured 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

Dimensions

Suitable for cryo tubeas	1.2 - 2.0 ml	1.2 - 2.0 ml	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				 

Ordering information – cryo boxes

Packaging bag/box	Colour	Order number			
5/20	■	93.872.225	93.873.281	93.874.210	93.875.281
5/20	■	93.872.425	93.873.481	93.874.410	93.875.481
5/20	■	93.872.625	93.873.681	93.874.610	93.875.681

Safety and Handling Instructions

Safety notice

For safety reasons, CryoPure tubes should always be 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 quantity (freezing quantity). If the CryoPure tubes are kept in liquid nitrogen, 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. 10^7 cells/ml.
- Add 1 volume double concentration freezing medium (e.g. 50% medium, 30% FCS, 20% DMSO); the cell count should be approx. 5×10^6 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. $1^\circ\text{C}/\text{min}$. 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

- The CryoPure tubes are taken from the nitrogen container, quickly moved into a 37°C water bath and covered.
- After thawing, the tubes are quickly disinfected with 70% alcohol, dried, and the cell suspension is then transferred into a 15 ml centrifuge tube (e.g. item no 62.554.002).
- 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'd be happy to help!

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