

To make your
workflow excellent.



Ready. Set. Grow!

Cell culture products
by SARSTEDT



SARSTEDT quality seal for cell and tissue culture products

Come Grow With Us – Cell and tissue cultures today are not just used in basic research, but increasingly also in applied biotechnology and clinical and pharmaceutical research. Products of the highest purity and quality are required for toxicity tests, quality controls of biochemical processes, industrial production systems (e.g., production of monoclonal antibodies) and many more applications. Compliance with

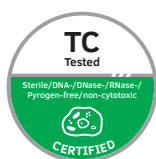
quality standards for cell and tissue culture is necessary to ensure that experiments are comparable and reproducible.

To meet these demands, SARSTEDT has been producing a wide product range of certified consumables for work with cell and tissue cultures for over 25 years.

TC tested

Since 1990, SARSTEDT has offered its customers high-quality cell culture products made under cleanroom conditions by trained personnel in protective clothing and using automated production processes.

In accordance with our basic principle that products which come into contact with cells must not have a disruptive effect on the cells, these products are produced under the strictest cleanroom conditions and are labeled with the 'TC Tested' quality logo.



We guarantee compliance with the following limits:

- Sterility validated in accordance with the ISO 11137 series of standards
- Pyrogens/endotoxins <0.06 EU/ml
- Non-cytotoxic in accordance with the ISO 10993 series of standards
- Human DNA <0.5 pg/μl
- Bacterial DNA <0.02 pg/μl
- DNase <7.1 x 10⁻⁵ U/μl
- RNase <1.4 x 10⁻¹⁰ Kunitz units/μl

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 interfering substances. SARSTEDT CryoPure tubes are therefore subjected to a large number of tests and certified as follows after passing the defined tests:



We guarantee compliance with the following limits:

- **Sterile**
Based on ISO 11137
- **Non-pyrogenic/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
- **Free from DNase/RNase**
DNase <1x10⁻⁵ U/μl, RNase <1x10⁻⁹ Kunitz units/μl
- **CE IVD**



Try it out for free and
with no obligation!

cellculture.
sarstedt.com/en

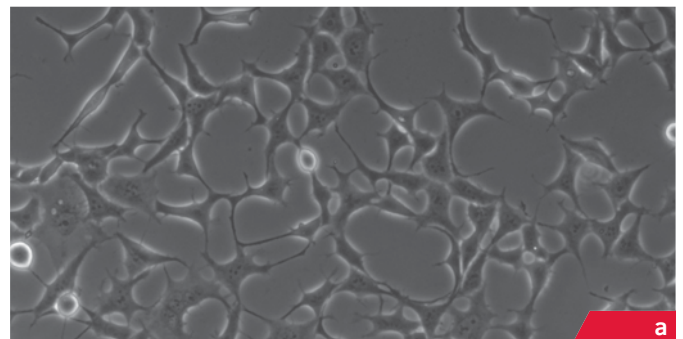
Growth surfaces and colour coding

A basic requirement for the successful cultivation of cells in vitro is to simulate the in vivo environment of the relevant cell type as accurately as possible. The surface condition of the culture vessel is particularly important because many cell types can only survive, proliferate and differentiate following successful adhesion. To meet the requirements of as many cell

types as possible, SARSTEDT produces flasks, dishes and plates with three different growth surfaces. To ensure clear identification of the collection tubes even after they have been removed from the packaging, the products are labeled as follows according to the SARSTEDT colour coding system:

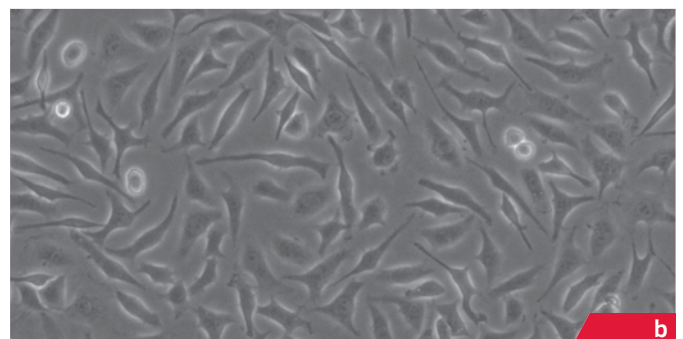
SARSTEDT standard surface for adherent cells

Hydrophilic groups are introduced into the surface via a special treatment of the polystyrene surface. This enables the binding of cell surface proteins and thus the adhesion of the cells to the plastic surface. The hydrophilic standard growth surface, which is coded red, therefore provides an optimum culture substrate for many adherent cells.



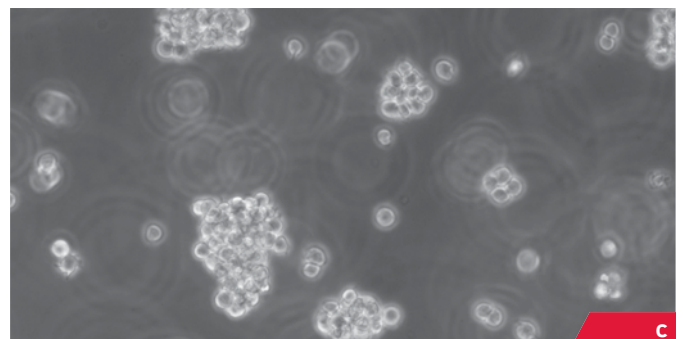
SARSTEDT Cell⁺ surface for challenging adherent cells

Primary cells, sensitive cell culture lines and cells which are cultivated under serum-reduced/serum-free conditions have particularly high requirements for the surface of the cell culture vessel. The yellow-coded Cell⁺ growth surface has been developed specifically for such cells. A special treatment of the plastic surface introduces additional polar groups into the hydrophilic surface. This leads to a better imitation of the in vivo environment and thus to the adhesion of difficult cells. Due to its properties, the Cell⁺ surface can eliminate the need for coated culture vessels in many cases.



SARSTEDT suspension culture surface

For suspension cells (mostly cells of lymphoid origin, hybridoma cells, etc.) that are not cultivated adherently in solution, culture vessels with the green, hydrophobic growth surface are ideally suited. The hydrophobic surface minimises cell losses caused by unwanted microadhesion during sub-cultivation.



100 µm

The cultivation of various cell types on SARSTEDT growth surfaces clearly shows the vitality of the various cell types*. a) HEK293 cells cultivated on the standard TC surface for 48 h. b) CHO cells cultivated under serum-reduced conditions (1%) on the Cell⁺ surface for 24 h. c) Jurkat cells cultivated on the suspension cell surface for 72 h. The measuring bar corresponds to 100 µm.

* Our 'Growth Surface References' brochure (20.783) provides an overview of cells that have been successfully cultivated on our various growth surfaces.

Cell culture basics





Cell culture flasks

For cell culture, SARSTEDT offers flasks with a growth area of 25 cm², 75 cm² and 175 cm².

All cell culture flasks are made of high-grade transparent polystyrene, which is processed into a flat growth area that is ideal for microscopic observation. All cell culture flasks are tested and certified according to the 'TC Tested' quality seal (see p. 2).

Product characteristics of SARSTEDT cell culture flasks

The flask geometry has the following distinguishing characteristics:

- All corners accessible with serological pipettes and cell scrapers. **(1)**
- Large labeling fields on both sides of the neck as well as printed white scale on one side and engraved graduation marks on the other make work easier. **(2)**
- Flasks are highly stable against overturning, which reduces the risk of contamination. In addition, the stacking rim allows flasks to be stored securely on top of each other.
- The optimised, canted flask neck and the anti-drip rim allow for easy tilting of the medium, while reducing the risk of contamination from medium spilling over. **(3)**
- The lot No. and expiration date are printed on each flask for easy traceability after removal from the packaging. **(4)**
- All SARSTEDT cell culture flasks are available with three different growth surfaces and can be clearly identified by the coloured lids:

red	=	adherent cells
yellow	=	challenging adherent cells
green	=	suspension cells



The quick-release cap is particularly user-friendly, because only a 1/3 turn is needed to close or open it. The ribbed quick-release cap is available in two designs:

- The **filter cap** has a membrane with a pore size of 0.2 µm, ensuring a consistent, sterile gas exchange. The hydrophobic properties of the filter also minimise the risk of contamination.
- The **2-position screw cap** (= without filter) enables gas-tight sealing of the flasks in the closed position, while cells can be cultivated with uniform gas exchange in the ventilation position (arrows point up and down). A recognisable 'click' confirms that the cap has been secured in the ventilation position and will not fall off. A gap in the ribbing, together with arrows on the cap, allow for a simple haptic and visual check of the closure position during work and in the incubator.



Ordering information

Colour code*	Growth area [cm ²]	Cap	Recommended working volume [ml]	Max. volume [ml]	Packaging bag/box	Order no.
■	24.7	without filter	7	12.5	10/300	83.3910
■	24.7	with filter	7	12.5	10/300	83.3910.002
■	74.2	without filter	21	55	5/100	83.3911
■	74.2	with filter	21	55	5/100	83.3911.002
■	174.5	without filter	50	125	5/40	83.3912
■	174.5	with filter	50	125	5/40	83.3912.002
■	24.7	without filter	7	12.5	10/300	83.3910.300
■	24.7	with filter	7	12.5	10/300	83.3910.302
■	74.2	without filter	21	55	5/100	83.3911.300
■	74.2	with filter	21	55	5/100	83.3911.302
■	174.5	without filter	50	125	5/40	83.3912.300
■	174.5	with filter	50	125	5/40	83.3912.302
■	24.7	without filter	7	12.5	10/300	83.3910.500
■	24.7	with filter	7	12.5	10/300	83.3910.502
■	74.2	without filter	21	55	5/100	83.3911.500
■	74.2	with filter	21	55	5/100	83.3911.502
■	174.5	without filter	50	125	5/40	83.3912.500
■	174.5	with filter	50	125	5/40	83.3912.502

* ■ = adherent cells ■ = challenging adherent cells ■ = suspension cells



Cell culture dishes

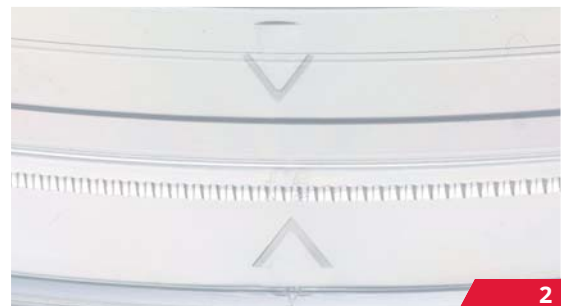
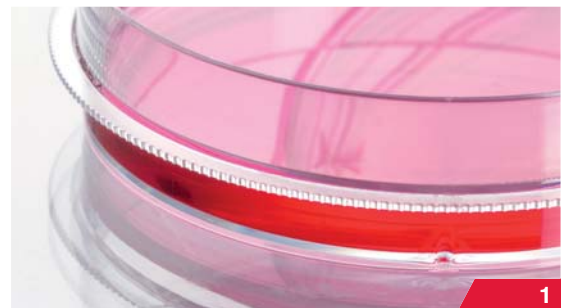
For the cultivation of cells in cell culture dishes, SARSTEDT offers 35 mm, 60 mm, 100 mm and 150 mm dishes that are tested and certified according to the 'TC Tested' quality seal (see p. 2). The dishes are produced from high-grade transparent polystyrene, meaning that a planar growth surface of excellent transparency is produced, allowing visual inspection of cell growth.

Product characteristics of SARSTEDT cell culture dishes

The cell culture dishes have the following distinguishing characteristics:

- The new SUREGrip is a raised, rough ring around the dish base that permits secure and convenient gripping of both parts of the dish, even when stacked. **(1)**
 - Automatic secure handling of the dish reduces the risk of contamination.
- Clearly visible and tangible arrows on the lid and dish enable the two parts to be placed together correctly. **(2)**
- Continuous gas exchange and a secure fit of the lid are ensured by ventilation cams in the lid.
- Distinct stacking rings on the lid and base allow for secure stacking of several dishes.
- For better traceability, even after removal from the packaging, each dish is labeled using the colour code as well as the lot No. and expiration date. **(3)**
- All cell culture dishes are available with three different growth surfaces:

red	=	adherent cells
yellow	=	challenging adherent cells
green	=	suspension cells



The cell culture dishes are packed in a bag with a re-sealable mini-grip, which is closed with a tamper-evident seal until it is opened for the first time.

Ordering information

Colour code*	Diameter / height [mm]	Growth area [cm ²]	Recommended working volume [ml]	Packaging bag/box	Order no.
■	35/10	9.4	3	10/500	83.3900
■	60/15	22.1	5	10/500	83.3901
■	100/20	58.8	13	10/300	83.3902
■	150/20	151.4	36	5/100	83.3903
■	35/10	9.4	3	10/500	83.3900.300
■	60/15	22.1	5	10/500	83.3901.300
■	100/20	58.8	13	10/300	83.3902.300
■	150/20	151.4	36	5/100	83.3903.300
■	35/10	9.4	3	10/500	83.3900.500
■	60/15	22.1	5	10/500	83.3901.500
■	100/20	58.8	13	10/300	83.3902.500

* ■ = adherent cells ■ = challenging adherent cells ■ = suspension cells



Cell scrapers

For easy and complete collection of adherent cells

- Ergonomic polystyrene handle with ribbed, non-slip grip
- Cell-friendly blade made of a highly flexible, rubber-like material
- For all cell scrapers, the blade can easily be switched from the scraper to the lifter position
- Three sizes: S, M and L
- Individually sterile packed, non-pyrogenic/endotoxin-free and non-cytotoxic



Scraper position



Rotate the blade by ¼ turn to reach the 'Lifter position'

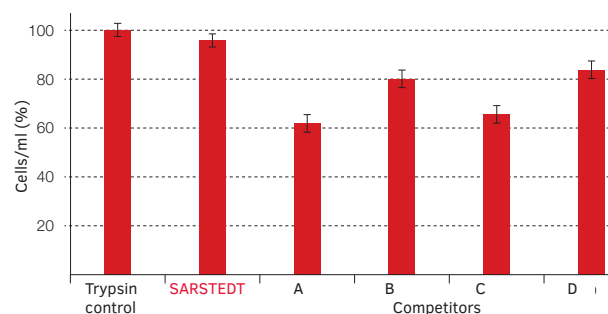
Lifter position



Comparison of the SARSTEDT cell scrapers with four competitor cell scrapers:

The figure shows that, in a comparison with the Trypsin control, it was possible to detach the highest cell count per ml when using the SARSTEDT cell scrapers (96%). With the competitor products (A, B, C and D), the cell yields were between 62% and 84% in a comparison with the Trypsin control. The quality of the cell scrapers was compared by cultivating cells under the same conditions and harvesting them using the same technique. Cell vitality, on the other hand, was approx. 95% for all cell scrapers.

Cell scrapers – comparison



Ordering information, cell scraper

Name	Blade length [cm]	Handle length [cm]	Packaging blisters/box	Field of use:	Order no.
Cell scraper with 2-position blade, size S	1.35	24.0	1/100	• Cell culture flasks: T-25 • Cell culture plates: 24-, 12-, 6-well • Cell culture dishes • Cell culture tubes	83.3950
Cell scraper with 2-position blade, size M	1.7	24.0	1/100	• Cell culture flasks: T-75 • Cell culture plates: 12- and 6-well • Cell culture dishes: 35 x 10 / 60 x 15 / 100 x 20 / 150 x 20	83.3951
Cell scraper with 2-position blade, size L	1.7	36.0	1/100	• Cell culture flasks: T-175 • Cell culture plates: 12- and 6-well • Cell culture dishes: 35 x 10 / 60 x 15 / 100 x 20 / 150 x 20 • Roller bottles	83.3952

Cell culture plates



For multiple cultivation on a medium to small scale, SARSTEDT offers cell culture plates with 6, 12, 24, 48 and 96 wells. The plates are produced from high-grade transparent polystyrene and both the wells and the entire plate are exceptionally flat and uniform. The highly transparent base is suitable for microscopic measurements from below. All cell culture plates are tested and certified according to the 'TC Tested' quality seal (see p. 2).

Product characteristics of SARSTEDT cell culture plates

The external dimensions of SARSTEDT cell culture plates are based on ANSI/SLAS standard 1-2004: Microplates – Footprint Dimensions and can be used for analyses in device holders with these dimensions. Further characteristics of the plates are as follows:

- For better traceability, even after removal from the packaging, each plate is labeled with the colour code as well as the lot No. and expiration date. **(1)**
- For quick guidance when filling the wells, the wells are alphanumerically labeled on the edge **(2)** and in the areas between the wells **(3)**.
- Free-standing wells reduce the risk of contamination when pipetting. **(3) + (4)**
- Non-slip side grids in the base make it easier to securely grasp the entire plate. The transparent side walls of the base allow visual inspection of the medium. **(4)**
- Both air vents and condensation rings are integrated into the lid; together, they ensure consistent gas exchange while simultaneously minimising evaporation.
- All cell culture dishes are available with three different growth surfaces:

red	=	adherent cells
yellow	=	challenging adherent cells
green	=	suspension cells



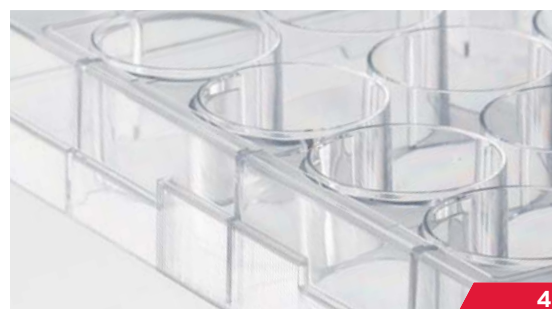
1



2



3



4

Ordering information

Colour code*	Number of wells	Base shape	Growth area per well [cm ²]	Working volume [ml]	Packaging bag/box	Order no.
■	6	□	9.07	4	1/50	83.3920
■	6	□	9.07	4	5/100	83.3920.005
■	12	□	3.65	2	1/50	83.3921
■	12	□	3.65	2	5/100	83.3921.005
■	24	□	1.82	1	1/50	83.3922
■	24	□	1.82	1	5/100	83.3922.005
■	48	□	0.64	0.5	1/50	83.3923
■	48	□	0.64	0.5	5/100	83.3923.005
■	96	□	0.29	0.2	1/50	83.3924
■	96	□	0.29	0.2	5/100	83.3924.005
■	96	U	–	max. 0.31	1/50	83.3925
■	96	V	–	max. 0.29	1/50	83.3926
■	6	□	9.07	4	1/50	83.3920.300
■	12	□	3.65	2	1/50	83.3921.300
■	24	□	1.82	1	1/50	83.3922.300
■	48	□	0.64	0.5	1/50	83.3923.300
■	96	□	0.29	0.2	1/50	83.3924.300
■	6	□	9.07	4	1/50	83.3920.500
■	12	□	3.65	2	1/50	83.3921.500
■	24	□	1.82	1	1/50	83.3922.500
■	48	□	0.64	0.5	1/50	83.3923.500
■	96	□	0.29	0.2	1/50	83.3924.500
■	96	U	–	max. 0.31	1/50	83.3925.500
■	96	V	–	max. 0.29	1/50	83.3926.500

* ■ = adherent cells ■ = challenging adherent cells ■ = suspension cells



BIOFLOAT™ – Spheroid culture



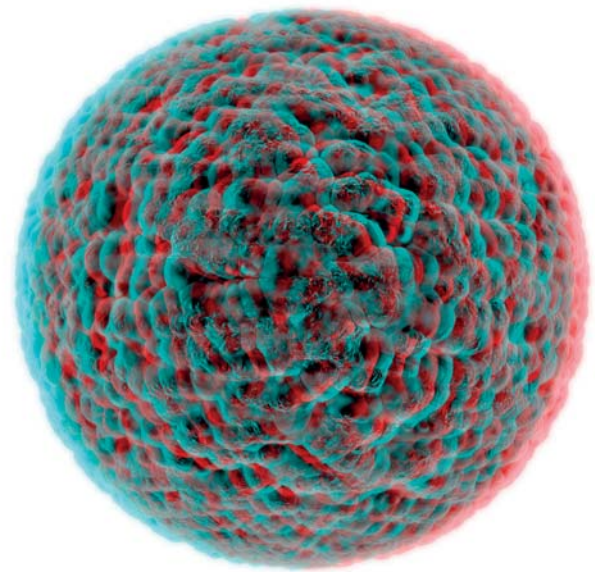
BIOFLOAT™
3D cell culture
technology

In many areas of biomedical research, in vitro models are indispensable. The most conventional form is the two-dimensional cell culture, but discrepancies often occur when transferring the results to an entire organism. The aim of the three-dimensional cell culture is therefore to close this gap between the in vitro and in vivo situation.

Spheroid cultures offer a simple and cost-effective variant of 3D cell culture. The cells form a three-dimensional cellular aggregate with pronounced cell-cell and cell-matrix contacts.

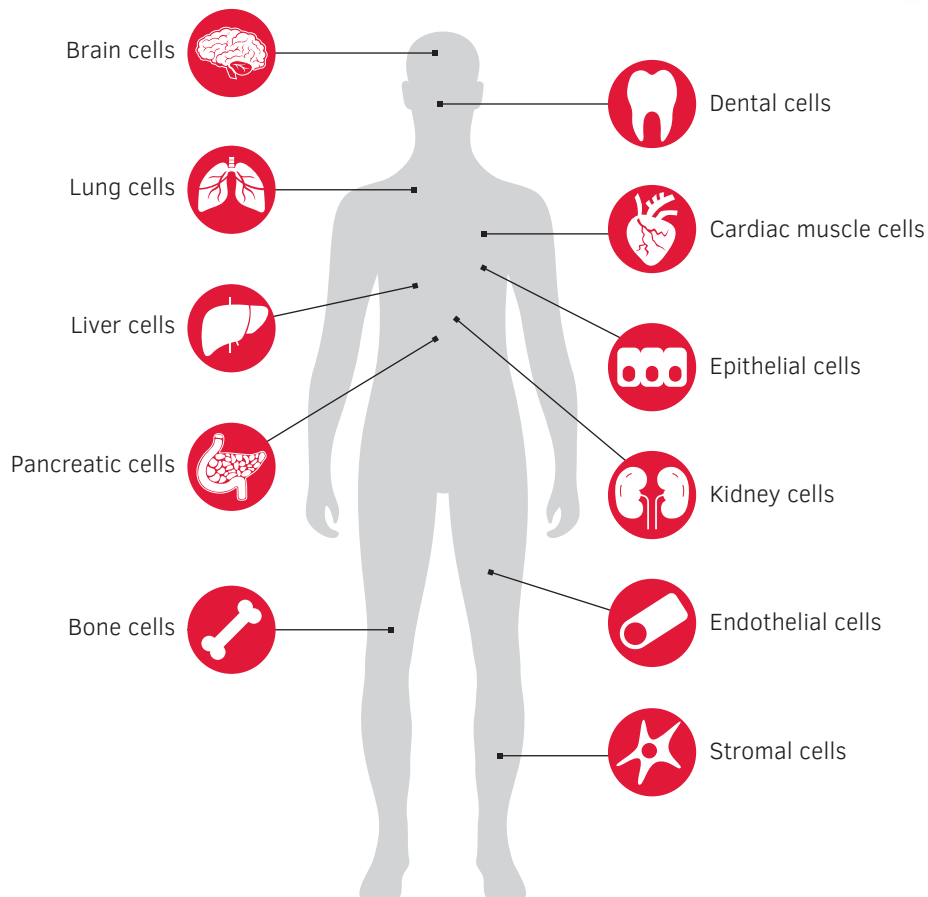
BIOFLOAT™ solves your spheroid culture challenges

Some challenging spheroid cultures have already been successfully established using the BIOFLOAT™ cell culture surface (e.g., spheroids from primary hepatocytes).



Advantages of spheroid culture

- Increased cell-cell contacts
- Pronounced extracellular matrix
- Improved in vitro model



Detailed list of tested
cell types/ cell lines:

[sarstedt.com/
biofloat-zt-en](https://sarstedt.com/biofloat-zt-en)

Nice and round – 3D cell cultures with BIOFLOAT™ cell culture plates

BIOFLOAT™ – Benefits at a glance

- Easy handling thanks to robust coating
- Defined and xeno-free composition for a safe cultivation with high reproducibility
- Fast and reliable spheroid formation for better planning of your daily laboratory routine

The reliable quality of the BIOFLOAT™ cell culture surface enables the formation of perfect spheroids even for challenging cells. This also includes cells that do not form spheroids on existing products.

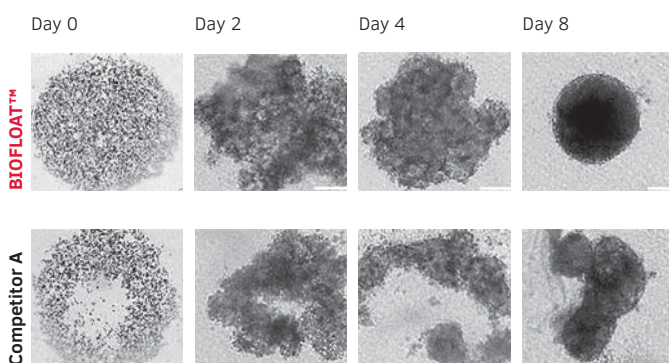


Fig. 100 µl of a suspension of primary human hepatocytes at a concentration of 25,000 cells/ml (equivalent to 2,500 cells/well) were seeded per well of a 96-well plate. After spheroid formation, 50 µl of medium were exchanged every 48–72 h.

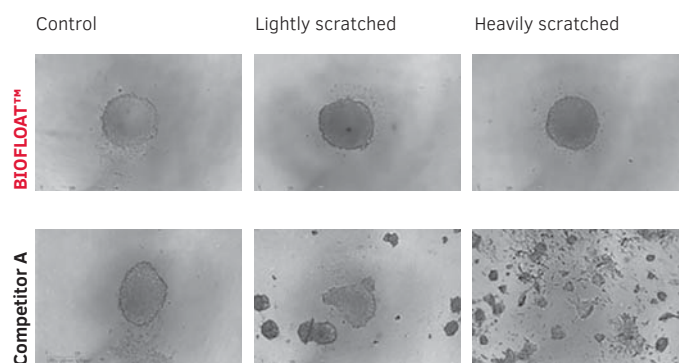


Fig. The well base of a 96-well plate was lightly scratched (once all around with moderate pressure) and heavily scratched (30 seconds with strong pressure) using a standard pipette tip. 200 µl of a suspension of 3T3 cells with a concentration of 30,000 cells/ml (corresponding to 6,000 cells/well) were then seeded per well.

The SARSTEDT BIOFLOAT™ plate is individually sterile-packed in an aluminium bag. It is also endotoxin-free and non-cytotoxic.

Ordering information

Name	Number of wells	Base shape	Packaging	Order no.
Cell culture plate, 6-well, surface: BIOFLOAT™, flat base	6		1 pc./aluminum bag 3 pcs./inner box	83.3920.400
Cell culture plate, 24-well, surface: BIOFLOAT™, flat base	24		18 pcs./outer box	83.3922.400
Cell culture plate, 96-well, surface: BIOFLOAT™, round base	96		1 pc./aluminum bag 4 pcs./inner box 24 pcs./outer box	83.3925.400



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free & without
obligation!

[sarstedt.com/
biofloat-en](https://sarstedt.com/biofloat-en)



TC inserts



SARSTEDT TC (Tissue Culture) inserts are easy-to-use inserts for TC plates. When used in combination with our TC plates, the inserts form a 2-compartment cell culture system in which the *in vivo* situation of cells can be simulated extremely well. This makes our TC inserts suitable for performing many complex experiments in cell and tissue culture:

- Transport, secretion and diffusion studies
- Migration experiments
- Cytotoxicity tests
- Co-cultures
- Transepithelial electrical resistance (TEER) measurements
- Primary cell cultures
- 3D cell cultures
- etc.

The particularly user-friendly design of the suspended SARSTEDT TC inserts has the following features:

- Durable frame made from highly transparent polystyrene (PS).
- Asymmetrical design for easy pipetting in the well (Fig. 1a).
- Spacers prevent liquid from being drawn up between the insert and the well.
- Lowered top edge for optimal gas exchange (see Fig. 1b).

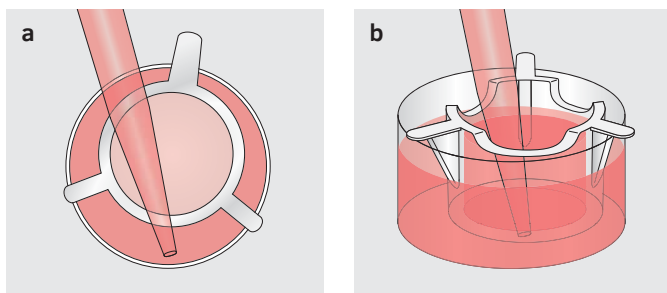


Figure 1

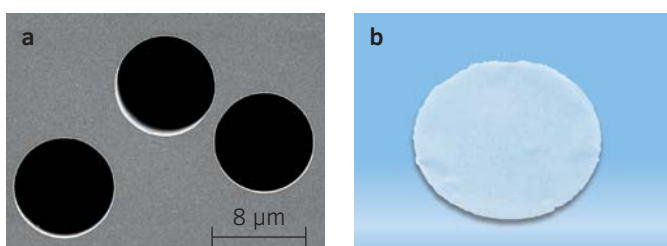


Figure 2

Membrane properties

The TC inserts are provided with a PET (polyester) membrane and are available in five different pore sizes (0.4 μm , 1 μm , 3 μm , 5 μm and 8 μm) and two optical properties (transparent and translucent). The advantages of our PET membrane are:

- Ultra-thin, high-quality track-etched PET membrane with a defined pore size (Fig. 2a).
- Both translucent (higher pore density, optically cloudy) and transparent membranes (lower pore density) have a more defined pore density.
- Optimal cell adhesion due to surface treatment (TC treated) on both sides.
- Chemical properties of the PET membrane minimise the non-specific binding of molecules.
- High chemical resistance for easy fixing and staining of cells.
- Detached membranes remain flat for convenient further processing and microscopy (Fig. 2b).

General information on the application of SARSTEDT TC inserts:

- Membranes with small pore sizes (0.4 μm , 1 μm) are suitable for applications in which the migration of cells through the membrane pores is not desired. In co-culture experiments, for example, cells can be cultivated in close proximity to one another without the cell types becoming mixed together.
- Membranes with larger pores are recommended for experiments in which the migration of cells through the pores to the underside of the membrane should be possible. Depending on the cell type, membranes with a pore size of 3 μm , 5 μm or 8 μm should be used for performing chemotaxis, invasion and migration studies.
- Translucent membranes with a pore diameter of 0.4 μm allow optimal basolateral diffusion for transport, secretion, diffusion and cytotoxicity studies, due to the high pore density.
- Translucent membranes are suitable for both electron microscopy and TEER (transepithelial electrical resistance) experiments.
- Transparent membranes can be used for both light and electron microscopy.

The TC inserts are compatible with the corresponding TC plates (see page 12 and 13).

All designs are non-pyrogenic/endotoxin-free, non-cytotoxic and available in sterile, individual packaging.

Ordering information

Format	Membrane material	Pore Ø [µm]	Pore density [pores/cm²]	Optical property	Membrane thickness [µm]	Growth area [cm²]	Working volume [ml]		Packaging blisters/box	Order no.
							Insert	Well		
6-well	PET	0.4	1 x 10 ⁸	Translucent	12	4.5	1–4	2.4–4.8	1 / 24	83.3930.040
	PET	0.4	2 x 10 ⁶	Transparent	12	4.5	1–4	2.4–4.8	1 / 24	83.3930.041
	PET	1.0	2 x 10 ⁶	Transparent	11	4.5	1–4	2.4–4.8	1 / 24	83.3930.101
	PET	3.0	2 x 10 ⁶	Translucent	9	4.5	1–4	2.4–4.8	1 / 24	83.3930.300
	PET	5.0	6 x 10 ⁵	Translucent	10	4.5	1–4	2.4–4.8	1 / 24	83.3930.500
	PET	8.0	2 x 10 ⁵	Translucent	11	4.5	1–4	2.4–4.8	1 / 24	83.3930.800
12-well	PET	0.4	1 x 10 ⁸	Translucent	12	1.1	0.2–0.8	1.2–2.4	1 / 48	83.3931.040
	PET	0.4	2 x 10 ⁶	Transparent	12	1.1	0.2–0.8	1.2–2.4	1 / 48	83.3931.041
	PET	1.0	2 x 10 ⁶	Transparent	11	1.1	0.2–0.8	1.2–2.4	1 / 48	83.3931.101
	PET	3.0	2 x 10 ⁶	Translucent	9	1.1	0.2–0.8	1.2–2.4	1 / 48	83.3931.300
	PET	5.0	6 x 10 ⁵	Translucent	10	1.1	0.2–0.8	1.2–2.4	1 / 48	83.3931.500
	PET	8.0	2 x 10 ⁵	Translucent	11	1.1	0.2–0.8	1.2–2.4	1 / 48	83.3931.800
24-well	PET	0.4	1 x 10 ⁸	Translucent	12	0.3	0.1–0.4	0.8–1.6	1 / 48	83.3932.040
	PET	0.4	2 x 10 ⁶	Transparent	12	0.3	0.1–0.4	0.8–1.6	1 / 48	83.3932.041
	PET	1.0	2 x 10 ⁶	Transparent	11	0.3	0.1–0.4	0.8–1.6	1 / 48	83.3932.101
	PET	3.0	2 x 10 ⁶	Translucent	9	0.3	0.1–0.4	0.8–1.6	1 / 48	83.3932.300
	PET	5.0	6 x 10 ⁵	Translucent	10	0.3	0.1–0.4	0.8–1.6	1 / 48	83.3932.500
	PET	8.0	2 x 10 ⁵	Translucent	11	0.3	0.1–0.4	0.8–1.6	1 / 48	83.3932.800





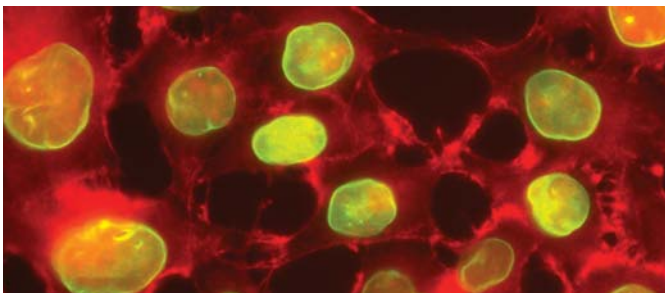
lumox[®]



lumox® cell culture products are characterised by their thin, gas-permeable film base. Gas permeability and the short diffusion paths ensure optimum gas exchange. The lumox® film base has very low autofluorescence in comparison with conventional polystyrene bases (Fig. 1) and has a higher light transmission in comparison with conventional polystyrene or glass bases (Fig. 2). The minimal autofluorescence and the good light transmission of the lumox® film lead to a consistently high sensitivity in assays and when using imaging and reader technologies. lumox® products enable a range of applications from normal cell culture through to the automated analysis of fluorescence-based cell assays.

lumox® – Benefits at a glance

- Minimal autofluorescence
- High transparency
- Gas-permeable film base
- Optimal growth
- Ideal for microscopic analyses



Cells simply grow better

The gas permeability of the film base of lumox® products offers numerous advantages. The cells grow directly at the boundary between the gaseous and liquid phase, where the culture medium cannot act as a diffusion barrier. The extremely short diffusion paths ensure optimum gas exchange. This means that the cells are directly supplied with oxygen, while also allowing metabolic waste products, such as CO₂, to escape.

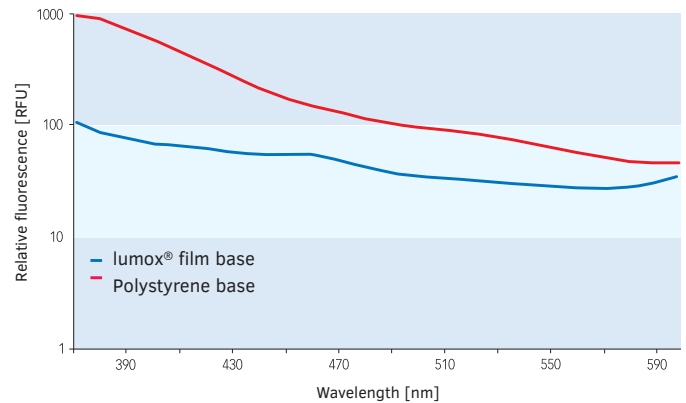


Figure 1: Fluorescence measurement of the lumox® film and the polystyrene base at 330 nm

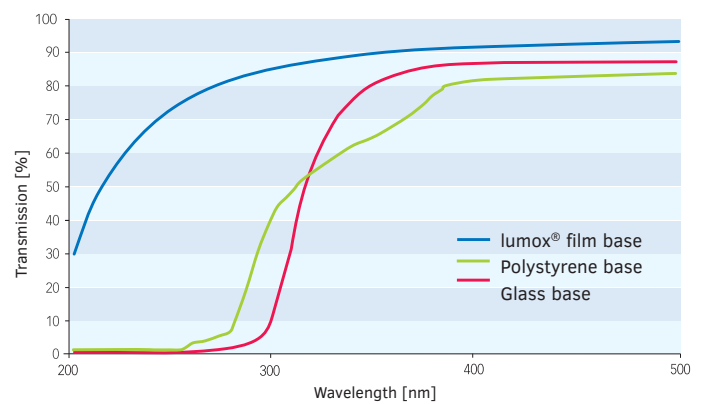


Fig. 2 Light transmission measurement. Detection of low signals, particularly possible with wavelengths of 200–300 nm

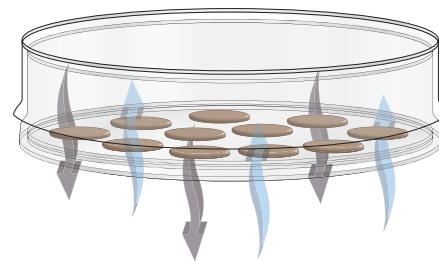


Fig. 3 Gas exchange via the lumox® film base



Fig. 4 No gas exchange possible in conventional cell culture vessels via the polystyrene or glass base

lumox® dish – The gas-permeable tissue culture dish

The lumox® dish consists of a crystal-clear polystyrene cover and a polystyrene frame with a transparent base made of gas-permeable, ultra-thin (25 µm) lumox® film. The lumox® dish is available with a diameter of 35 mm and 50 mm. Adherently growing cells can be cultivated on the hydrophilic cultivation surface. For further analyses, such as electron microscopy, the film can be cut out using a scalpel. The lumox® dish is sterile, certified non-pyrogenic/endotoxin-free and non-cytotoxic.



Ordering information – lumox® dish

Name	Surface	Diameter/height [mm]	Growth area [cm²]	Working volume [ml]	Packaging inner box/case	Order no.
lumox® dish 35		35/6	6.3	2.5	50/250	94.6077.331
lumox® dish 50		50/12	20.4	5 – 10	50/200	94.6077.410

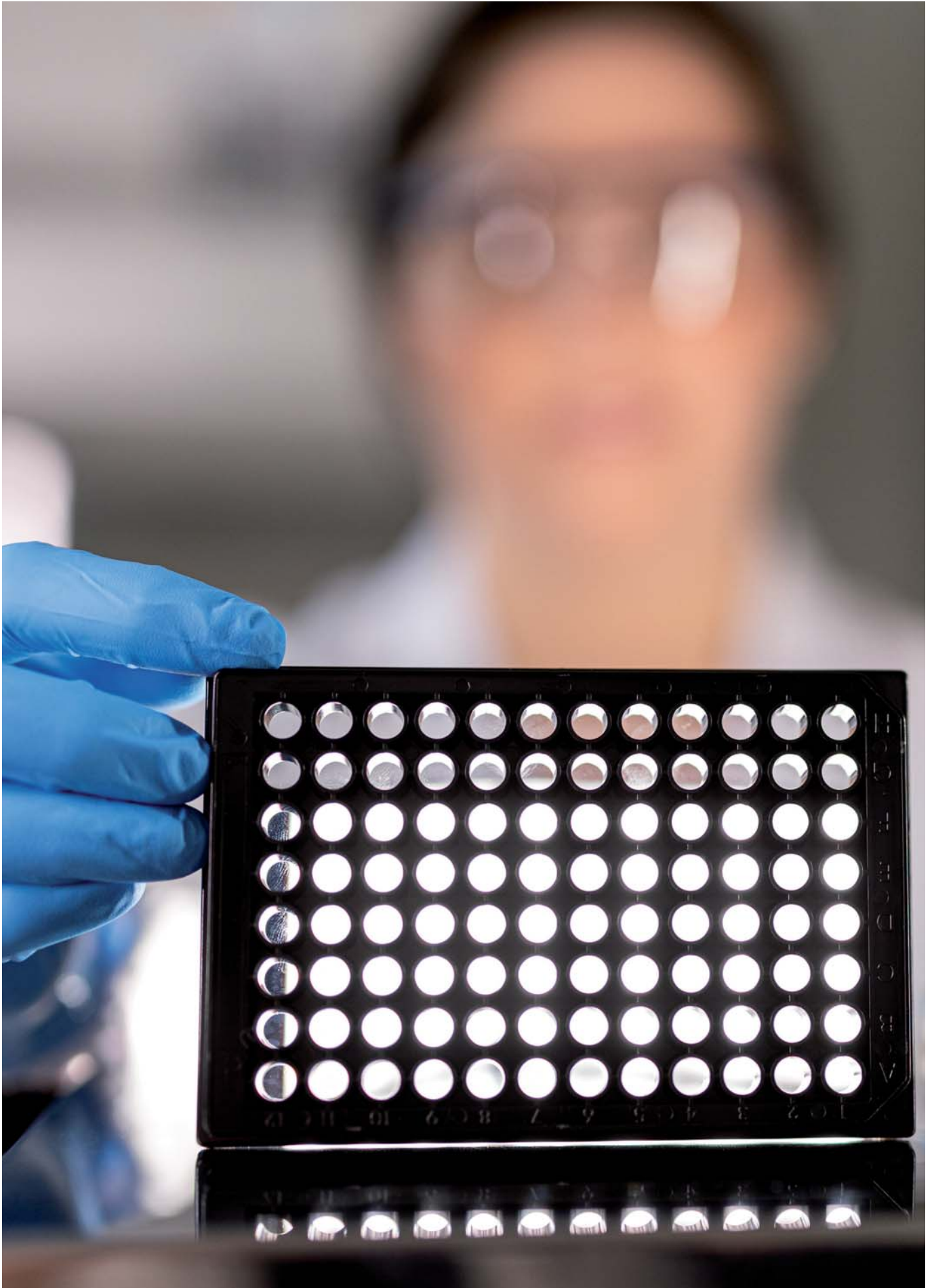


lumox® multiwell – The multiwell plate with low autofluorescence

lumox® multiwell plates consist of a black polystyrene frame (standard dimensions) with a transparent base made from the thin (50 µm), gas-permeable lumox® film. The 24-well, 96-well and 384-well formats are available for selection. All designs are sterile, certified non-pyrogenic/endotoxin-free and non-cytotoxic.

Ordering information – lumox® multiwell

Name	Surface	Growth area per well [cm²]	Working volume per well [µl]	Packaging bag/box	Order no.
lumox® multiwell, 24-well		1.90	500 – 1500	20	94.6110.024
lumox® multiwell, 96-well		0.34	25 – 340	20	94.6120.096
lumox® multiwell, 384-well		0.11	10 – 130	20	94.6130.384



x-well cell culture chambers

The x-well cell culture chambers enable the cultivation and analysis of cells on a slide. Together with a polystyrene attachment, the slides form single or multi-chamber vessels. Irrespective of whether you are performing fluorescence or light microscopy analyses on living or fixed cells, individual examinations or parallel test series, our comprehensive x-well product range offers ideal solutions for your applications. All products are sterile, certified non-pyrogenic/endotoxin-free and non-cytotoxic.

- Time-efficient execution of histological and fluorescence staining
- Small compartments for cost-efficient performance of experiments
- Microscope slides with excellent optical properties
- Cultivation of adherent cells
- High chemical resistance



x-well PCA – removable

The slide of the x-well PCA cell culture chambers is made of a plastic from the polyolefin family and has the advantage of lower autofluorescence and higher chemical resistance in comparison with polystyrene.

- Slide in standard format with labeling field
- PCA shows only low autofluorescence
- Chamber can be detached from the slide without the aid of a tool
- Optimal magnification up to 400x (40x objective)

x-well glass – removable

The standard format glass slide combines ideal growth conditions for cells with outstanding optical properties. The high chemical resistance also permits the use of most fixatives and stains.

- Slide in standard format with labeling field
- Minimal autofluorescence
- Chamber can be detached from the slide without the aid of a tool
- Optimal magnification up to 400x (40x objective)

x-well coverglass

The x-well coverglass cell culture chambers have a base thickness of 170 µm and are therefore particularly well suited for high-resolution and confocal microscopy.

- Minimal autofluorescence
- Slides in short format without labeling field
- Slide is not removable
- Optimal magnification up to 1,000x (100x objective)

x-well lumox® – removable

The growth area of the lumox® x-well slide is made of gas-permeable lumox® film. The excellent optical properties of the film base make x-well lumox® particularly suitable for fluorescence-based cell analyses.

- Slides with thin lumox® film (50 µm) in standard format with labeling field
- Minimal autofluorescence and high transparency
- Chamber can be detached from the slide without the aid of a tool
- Optimal magnification up to 400x (40x objective)

Ordering information – x-well

PCA	lumox®	Glass	Coverglass	Growth area [cm ²]	Working volume per well [ml]	Packaging blisters/box	Format
-	-	94.6170.102	-	9	4	6/96	1-well
94.6140.402	94.6150.401	94.6170.402	94.6190.402	1.9	1	6/96	4-well
94.6140.802	94.6150.801	94.6170.802	94.6190.802	0.8	0.5	6/96	8-well
94.6140.002	-	-	-	9	4	6/96	Flask

quadriPERM® – Tissue culture dish for parallel analyses

quadriPERM® is a versatile square tissue culture dish that is impressive on account of the following benefits:

Tissue culture dish for parallel analyses

quadriPERM® has four compartments of identical size for parallel cell cultivation under the same conditions. Suspension cells can be cultivated directly in the quadriPERM®. The x-well products or DIN slides can be placed in the compartments for the cultivation of adherent cells.

Easy handling

In the quadriPERM®, the cells can be supplied with new medium quickly and easily. Furthermore, the external dimensions of a quadriPERM® dish comply with the ANSI/SLAS (formerly ANSI/SBS) standard, so that quadriPERM® dishes, like all SARSTEDT TC plates, can easily be microscopically examined.

Versatile applications

Besides cell cultivation, the quadriPERM® can also be used for a range of different applications. The tissue culture dish can be used for in-situ preparations of chromosomes for cytogenetic studies. Fixation and histological, immunocytochemical or immunofluorescence staining are also possible. In addition, quadriPERM® can even be used as a multi-purpose vessel for denaturation, hybridisation or membrane washing. Additional applications include:

- Parallel analyses
- Incubation of slides
- Immunohistology
- Immunocytochemistry
- Fluorescence in-situ hybridisation (FISH)
- Cell microarrays
- Mycoplasma tests
- Northern, Southern or Western blot

Certified quality

quadriPERM® dishes are sterile, certified non-pyrogenic/ endotoxin-free and non-cytotoxic.

Ordering information – quadriPERM®

Name	Cultivation surface per unit [cm ²]	Working volume per unit [ml]	Packaging bag/box	Order no.
quadriPERM®	24.9	approx. 10	12/48	94.6077.307



miniPERM[®] bioreactor



The miniPERM® is an easy-to-handle bioreactor developed for the cultivation of eukaryotic cells (mammalian, insect and plant cells) at high density and thus for biomass production as well as the production of cell products. The sub-division of the bioreactor into production and nutrient modules, together with rotating cultivation, enables the production of highly concentrated cell products in small volumes. Therefore, depending on the cell line, cell densities of more than 10^7 cells/ml and product concentrations of several mg/ml can be achieved. This makes the miniPERM® bioreactor a cost-effective and time-saving alternative to conventional cell culture flasks, roller bottles and fermentation systems.

Advantages of the miniPERM® bioreactor:

- High cell densities
- High product concentrations
- Easy handling
- Multiple harvests
- Different sizes of the production module

The miniPERM® bioreactors are suitable for a wide range of applications* such as:

- Cultivation of hybridoma cells for producing antibodies
- Cultivation of transfected cells for producing recombinant proteins or for virus production
- Biomass products of eukaryotic and prokaryotic cells



* References:

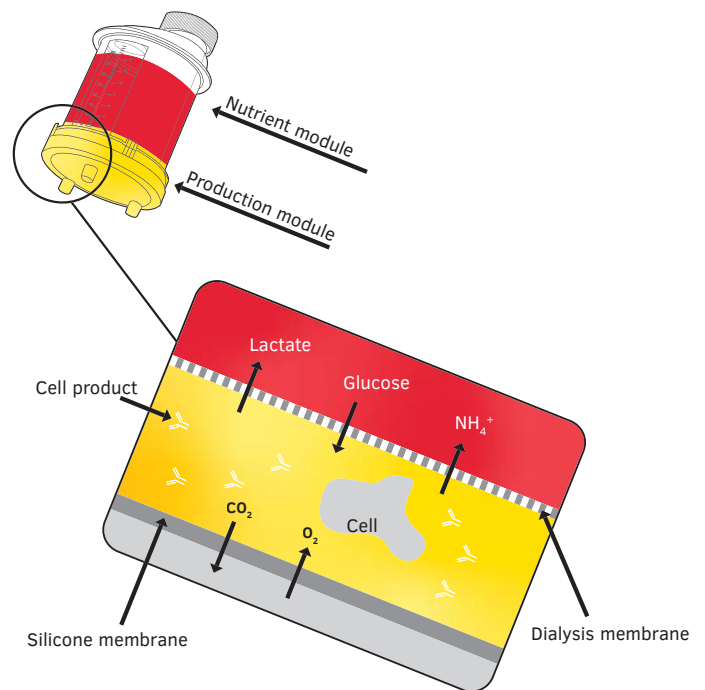
Belin, V., Rousselle, P., Production of a recombinantly expressed laminin fragment by HEK293-EBNA cells cultured in suspension in a dialysis-based bioreactor, *Protein Expression & Purification*, 48: 43-48 (2006)

Konstantinov, S. et al., Three-Dimensional Bioreactor Cultures: A Useful Dynamic Model for the Study of Cellular Interactions, *Ann. N. Y. Acad. Sci.* 1030: 103-115 (2004)

Further literature and user reports are available upon request.

The principle

The miniPERM® bioreactor is subdivided into a production module and a nutrient module (two-compartment system) by a dialysis membrane. The dialysis membrane has an exclusion size of 12.5 kDa, so that neither cells nor secreted cell products (> 12.5 kDa) can diffuse into the nutrient module. At the same time, the exchange of nutrients and cell metabolites takes place via the dialysis membrane. The gas exchange is effected via a thin, gas-permeable silicone membrane on the outward-facing side of the production module.



miniPERM® modules

- The miniPERM® classic production module is suitable for the cultivation of suspension cells. With a cell culture volume of 35 ml, it is the ideal production unit for research laboratories.
- The miniPERM® nutrient module holds 450 ml of cell culture medium (working volume) and has a screw cap with a gas-permeable membrane for optimal supply of oxygen and nutrients to the cells in the production module.



The bioreactor and accessories

miniPERM® bioreactors

- **miniPERM® sterile:**
The production and nutrient modules are connected, sterile, certified non-pyrogenic/endotoxin-free and non-cytotoxic and are supplied as disposable bioreactors.
- **miniPERM® reusable:**
The nutrient module is autoclavable and designed for multiple use. The production modules are sterile, certified non-pyrogenic/endotoxin-free and non-cytotoxic and are available as individually packed single-use products.

miniPERM® accessories

The following accessories are available for easy handling of the miniPERM® bioreactor:

- sterile disposable syringes (2 ml, 50 ml)
- miniPERM® stand
- sterile screw caps for the modules
- sterile needles (25G x 5/8")
- sterile filling tube

miniPERM® Start-up support kit

This kit contains all the accessories required for the initial start of the culture, sampling and harvesting.

Ordering information – miniPERM®

Description		Packaging units/box	Order no.
miniPERM® classic	Bioreactor, sterile	2	94.6001.059
miniPERM® classic	Production module, sterile	4	94.6001.055

Ordering information – Accessories

Description		Packaging units/box	Order no.
Nutrient module for miniPERM®, autoclavable		4	94.6001.153
miniPERM® stand		4	94.6001.054
Screw caps for production module, sterile		6	94.6001.036
Screw cap for nutrient module, sterile		16	94.6077.037
Luer needle, 25G x 5/8", sterile		100	94.6077.135
Disposable syringe 2 ml Luer, sterile		100	94.6077.136
Disposable syringe 50 ml, Luer lock, sterile		60	94.6077.137
Filling tube 5", Luer, sterile		50	94.6077.138
Start-up support kit	Quantity	1	94.6001.094
• Disposable syringe 50 ml Luer Lock, sterile	8		
• Disposable syringe 2 ml, Luer, sterile	20		
• Filling tube 5", Luer, sterile	8		
• Luer needle, 25G x 5/8", sterile	20		
• Septum seal, sterile	6		
• miniPERM® stand	1		

CryoPure freezing system



SARSTEDT's CryoPure collection tubes for vital preservation are tested and certified for the protection of the cell material (also see p. 2):

- **Sterile**
Based on ISO 11137
- **Non-pyrogenic/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**



SARSTEDT offers a professional freezing system with a wide range of highly transparent CryoPure tubes for storing cell materials and their components at temperatures down to -196 °C.

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)**
- For more compact storage (10x10 format), we offer a 2ml CryoPure tube with **internal thread and silicone O-ring**. **(1)**

Inspiringly ergonomic

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

Impressively combinable

The combination of 6 different cap colours with colour-coded inserts in 6 different colours provides up to 36 colour combinations for visual coding and easy sample identification.

Optimum design

- The optimum inner contour of the bottom of the CryoPure tubes facilitates residue-free sample collection.
- The base is designed to be free-standing. **(3)**
- The skirted base of the CryoPure tubes allows for convenient single-hand handling of the tubes in the CryoRack 40 and most other commercially available work racks. **(4)**



1



2



3



4

CryoPure 1.2 ml tubes with external thread

Screw cap		Nominal volume	Packaging	Order no.	
white		1.0 ml	50/bag 500/inner box 2,000/box	72.377	
red		1.0 ml		72.377.002	
yellow		1.0 ml		72.377.004	
green		1.0 ml		72.377.005	
violet		1.0 ml		72.377.007	
Colour mix	    	1.0 ml		72.377.992	

CryoPure 2.0 ml tubes with external thread

white		1.8 ml	50/bag 500/inner box 2,000/box	72.379	
red		1.8 ml		72.379.002	
yellow		1.8 ml		72.379.004	
green		1.8 ml		72.379.005	
blue		1.8 ml		72.379.006	
violet		1.8 ml		72.379.007	
Colour mix	    	1.8 ml		72.379.992	

CryoPure 5.0 ml tubes with external thread

white		4.5 ml	25/bag 250/inner box 1,000/box	72.383	
red		4.5 ml		72.383.002	
yellow		4.5 ml		72.383.004	
green		4.5 ml		72.383.005	
violet		4.5 ml		72.383.007	
Colour mix	    	4.5 ml		72.383.992	

CryoPure 2.0 ml tubes with internal thread and silicone seal

white		1.6 ml	50/bag 500/inner box 2,000/box	72.380	
red		1.6 ml		72.380.002	
yellow		1.6 ml		72.380.004	
green		1.6 ml		72.380.005	
blue		1.6 ml		72.380.006	
violet		1.6 ml		72.380.007	
Colour mix	    	1.6 ml		72.380.992	

Ordering information – colour-coded inserts for CryoPure tubes

Colour		Packaging	Order no.
white		100/bag – 3,000/box	65.386
red		100/bag – 3,000/box	65.386.002
yellow		100/bag – 3,000/box	65.386.004
green		100/bag – 3,000/box	65.386.005
blue		100/bag – 3,000/box	65.386.006
violet		100/bag – 3,000/box	65.386.007
Colour mix		100/bag – 5 colours – 2,500/box	65.386.992

CryoRack 40/work rack

- 4 rows of 10 holes each for a total of 40 CryoPure tubes
- Interlocking connection with tube bases allows single-handed operation
- Coloured alphanumeric coding for easy sample assignment
- Slip-resistant rubber feet

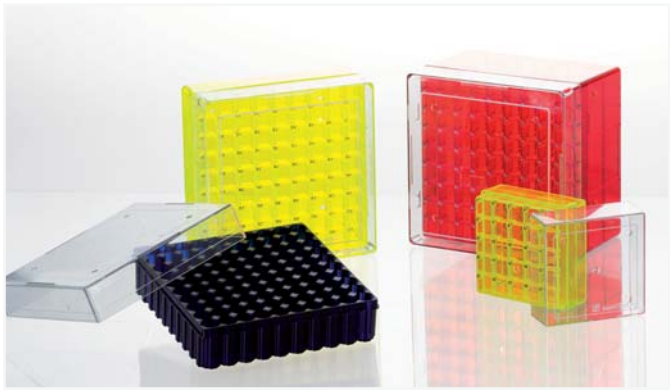
Ordering information – CryoRack 40

Packaging	Order no.
1/bag – 10/box	93.856.040



Cryoboxes for low-temperature storage

- High-quality polycarbonate storage boxes for storage at temperatures down to -196 °C
- Numerical coding for each tube location in the box enables easy sample identification
- Crystal-clear lid design and coloured base parts with large apertures for rapid ventilation
- Various box designs for commercially available 1.2/2.0 and 5.0 ml CryoPure tubes
- Flexible storage capacities with box formats 5 x 5, 9 x 9 and 10 x 10
- Autoclavable (121 °C, 20 min.)



Dimensions

Suitable for cryo tubes	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 (WxDxH) 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	Colour	Order number			
5/bag – 20/box		93.872.225	93.873.281	93.874.210	93.875.281
5/bag – 20/box		93.872.425	93.873.481	93.874.410	93.875.481
5/bag – 20/box		93.872.625	93.873.681	93.874.610	93.875.681



Cell strainers

The SARSTEDT cell strainers offer an innovative, fast and easy-to-handle solution for producing single-cell suspensions (primary cell cultures, flow cytometry). They have a high-quality nylon strainer and are available in 40, 70 and 100 µm pore sizes.

Product characteristics of SARSTEDT cell strainers

The following characteristics simplify work processes and reduce the risk of contamination:

- Quick identification of the pore size through colour-coded products – 40 µm (blue), 70 µm (white) and 100 µm (yellow). **(1)**
- The cell strainers are individually packed in sterile blister packaging and can be conveniently removed thanks to the all-round closed design including handle. This minimises the risk of accidentally contaminating the filter by touching it. **(2)**
- Four supports along the edge ensure continuous ventilation during filtration. This minimises the risk of the cell strainer overflowing from the 'air lock' effect. **(3)**
- The cell strainers are stackable. This enables multi-stage filtration of cell suspensions, e.g., after organ digestion to obtain primary cells. **(4)**
- The cell strainers are compatible with conventional 50 ml centrifugation tubes. **(5)**
- The adapter enables their use with a variety of other tubes with smaller diameters (15 ml, 5 ml, Ø 17 x 100 mm, Ø 12 x 75 mm FACS tubes). **(6)**
- Cell strainers and adapters are certified as sterile, non-pyrogenic/endotoxin-free and non-cytotoxic.



Ordering information – Cell strainers

Name	Pore size [µm]	Colour code	Packaging blisters/box	Order no.
Cell strainer, sterile	40		1 / 50	83.3945.040
Cell strainer, sterile	70		1 / 50	83.3945.070
Cell strainer, sterile	100		1 / 50	83.3945.100
Adapter for cell strainers	–	–	1 / 25	83.3945.999

Filtropur V and Filtropur BT

The Filtropur product range is suitable for the filtration of aqueous solutions (e.g., cell culture media) and includes filtration units for a wide range of volumes. The filter membranes are available with different pore sizes and can, therefore, be used for a wide range of applications. The Filtropur product range is characterised by its variability, cost-effectiveness and speed:

Filtropur V and Filtropur BT vacuum filtration

Filtropur V and Filtropur BT were mainly developed for cell culture applications and are equipped with polyethersulfone (PES) membrane filters. These products are, therefore, ideal for the cold sterilisation of cell culture media and aqueous protein solutions.

- Filtropur V and Filtropur BT are available with three pore sizes (0.45 µm, 0.22 µm and 0.1 µm).
- The 0.1 µm PES membrane is used for the effective prevention and removal of mycoplasma from solutions.
- Ergonomically shaped, stable, sterile collection bottles are available for volumes from 250 ml to 1,000 ml.
- The PES membrane enables a high throughput while simultaneously reducing the filtration time and is characterised by its low protein absorption.
- Filtropur V and Filtropur BT are certified as sterile, non-pyrogenic/endotoxin-free and non-cytotoxic.

Vacuum filtration units*

	Name	Filtration volume [ml]	Ø membrane [mm]	Membrane/pore size	Packaging bag/box	Order no.
	Filtropur V 25	250	50	PES/0.22 µm	1/12	83.3940.501
	Filtropur V 50	500	75	PES/0.45 µm	1/12	83.3941.500
	Filtropur V 50	500	75	PES/0.22 µm	1/12	83.3941.501
	Filtropur V 50	500	75	PES/0.1 µm	1/12	83.3941.502
	Filtropur V 100	1,000	91	PES/0.45 µm	1/12	83.3942.500
	Filtropur V 100	1,000	91	PES/0.22 µm	1/12	83.3942.501

* Each filtration unit comes with a sterile-packed screw cap for the collection vessel.

Bottle top filter for storage vessels, outside diameter max. 45 mm

	Name	Filtration volume [ml]	Ø membrane [mm]	Membrane/pore size	Packaging bag/box	Order no.
	Filtropur BT 25	250	50	PES/0.22 µm	1/24	83.3940.511
	Filtropur BT 50	500	75	PES/0.45 µm	1/24	83.3941.510
	Filtropur BT 50	500	75	PES/0.22 µm	1/24	83.3941.511

Filtration collection vessels for Filtropur

	Name	Filtration volume [ml]	Design	Packaging bag/box	Order no.
	Collection vessel for Filtropur	250	With screwed-on lid	1/24	83.3940.505
		500	With screwed-on lid	1/24	83.3941.505
		1,000	With screwed-on lid	1/24	83.3942.505

Filtropur S, Filtropur S plus and Filtropur L

Filtropur S, Filtropur S plus and Filtropur L

Filtropur S, Filtropur S plus and Filtropur L are suitable for filtering aqueous solutions and are characterised by the following properties:

- Low protein adsorption and high flow rate due to the use of Filtropur membranes
- Small dead volume
- Sterile, non-pyrogenic/endotoxin-free and non-cytotoxic
- Biocompatibility due to GF pre-filter which is 100% free from binding agents, and membranes that are 100% free of wetting agents

Filtropur S and Filtropur S plus

The Filtropur S and Filtropur S plus syringe filters are often used for the sterile filtration of cell culture media, cell culture additives and buffers, as they reliably remove microorganisms and particles from the solutions to be filtered. The syringe filters are available with a pore size of 0.2 µm and 0.45 µm.

Filtropur L

The ready-to-use Filtropur L products have a polyethersulfone (PES) membrane with an integrated glass fibre (GF) pre-filter. In combination with a membrane pump, Filtropur L filters are suitable for rapid sterile filtration of cell culture media and aqueous solutions with a volume of up to 10 liters. Filtropur L filters are available with either a Luer lock or a tube connector.

Ordering information – Filtropur

	Name	Application	Ø membrane [mm]	Membrane/ pore size	Packaging bag/ box	Order no.
	Filtropur S 0.45 syringe filters	Ultra-purification/ clear filtration	28	PES / 0.45 µm	1/50, sterile	83.1826
	Filtropur S 0.2 syringe filters	Sterile filtration	28	PES / 0.2 µm	1/50, sterile	83.1826.001
	Filtropur S plus 0.2 syringe filters	Sterile filtration/ to increase the total filtration volume	28	CA/GF / 0.2 µm	1/50, sterile	83.1826.102
	Filtropur L 0.2 S* Inlet: Tube connector	Sterile filtration	64	PES/GF / 0.2 µm	1/50, sterile	83.3944
	Filtropur L 0.2 LS* Inlet: Luer lock	Sterile filtration	64	PES/GF / 0.2 µm	1/50, sterile	83.3944.001

* For pressure filtration

Serological pipettes

Automatic-Sarpette®



Serological pipettes

- Made of crystal-clear polystyrene
- Larger pipetting volume due to negative graduations
- Variable working method due to reverse scaling
- Optimised mouthpiece for universal fit in the most common pipetting aids
- Guide ribs on the mouthpiece of the 25 ml pipettes ensure a secure fit in the retaining adapter of pipetting aids
- Simple volume identification with international colour code on each individual blister pack
- Easy-to-open, anti-static packaging
- Available in individual sterile* packaging or in a bag of 25 units

* Individually packaged pipettes are sterile and certified non-pyrogenic/endotoxin-free and non-cytotoxic.



Ordering information – Serological pipettes 1 ml, 2 ml, 5 ml, 10 ml, 25 ml, 50 ml

Total volume / graduation		Design	Colour code	Packaging units/bag/box	Order no.
1 ml	1/100 ml	Plugged, individually packaged, sterile	Yellow	100/1,000	86.1251.001
1 ml	1/100 ml	Plugged, sterile, in 25 units	Yellow	25/1,000	86.1251.025
2 ml	1/100 ml	Plugged, individually packaged, sterile	Green	100/1,000	86.1252.001
2 ml	1/100 ml	Plugged, sterile, in 25 units	Green	25/1,000	86.1252.025
5 ml	1/10 ml	Plugged, individually packaged, sterile	Blue	50/500	86.1253.001
5 ml	1/10 ml	Plugged, sterile, in 25 units	Blue	25/500	86.1253.025
10 ml	1/10 ml	Plugged, individually packaged, sterile	Orange	50/500	86.1254.001
10 ml	1/10 ml	Plugged, sterile, in 25 units	Orange	25/500	86.1254.025
25 ml	2/10 ml	Plugged, individually packaged, sterile	Red	25/200	86.1685.001
25 ml	2/10 ml	Plugged, sterile, in 20 units	Red	20/200	86.1685.020
50 ml	1/2 ml	Plugged, individually packaged, sterile	Purple	30/90	86.1256.001

Aspiration pipette, polystyrene

- For aspirating liquids using a vacuum pump
- Individually packaged in sterile paper/peel-off plastic packaging
- Non-pyrogenic/endotoxin-free and non-cytotoxic
- Without print, without cotton plugs

Ordering information, aspiration pipette

Total volume / graduation	Design	Packaging units/box	Order number
2 ml/without graduation	Without plug and print, individually packaged, sterile	1/box	86.1252.011

Automatic-Sarpette®

The ergonomically shaped SARSTEDT Automatic-Sarpette® enables convenient and fatigue-free working even with prolonged pipetting.

- Ergonomic design and optimal weight distribution
- One-handed operation for convenient use
- Three adjustable pump speeds
- Precise and sensitive control of the filling and dispensing speed using two pipetting buttons
- Optimum fit of all plastic and glass pipettes thanks to silicone pipette holder with graduated steps
- A 50 ml pipette can be filled in under 10 seconds at maximum motor power
- Low-noise pump motor for pleasant work
- NiMH battery with an operating time of up to 8 hours
- LED display for monitoring battery charge



Ordering information – Automatic-Sarpette®

Name	Packaging	Order no.
Automatic-Sarpette® incl. EU charger, table stand, wall bracket, 2 replacement filters (0.45 µm and 0.20 µm)	1 unit/box	90.189.200
Automatic-Sarpette® incl. GB charger, table stand, wall bracket, 2 replacement filters (0.45 µm and 0.20 µm)	1 unit/box	90.189.202
Automatic-Sarpette® incl. US charger, table stand, wall bracket, 2 replacement filters (0.45 µm and 0.20 µm)	1 unit/box	90.189.203
Automatic-Sarpette® incl. AUS charger, table stand, wall bracket, 2 replacement filters (0.45 µm and 0.20 µm)	1 unit/box	90.189.204
Automatic-Sarpette® incl. KR charger, table stand, wall bracket, 2 replacement filters (0.45 µm and 0.20 µm)	1 unit/box	90.189.205
Replacement filter for Automatic-Sarpette®, pore size: 0.45 µm	5 pieces/bag	90.189.220
Replacement filter for Automatic-Sarpette®, pore size: 0.2 µm	5 pieces/bag	90.189.221
Silicone adapter for Automatic-Sarpette®	1 piece/bag	90.189.222
Replacement batteries for Automatic-Sarpette®	2 pieces/bag	90.189.223

Conical tubes, 15 ml and 50 ml volume, sterile

- Particularly clear polypropylene (PP) enables unrestricted inspection of the sample material
- Printed graduations and labeling field
- Graduations and labeling field are resistant to ethanol and methanol
- Can be centrifuged up to 20,000 x g* (Exception: 62.559.001 only up to 8,000 x g)
- Sterile, non-pyrogenic/endotoxin-free, non-cytotoxic



Volume [ml]	Length [mm]	Diameter [mm]	Version	Packaging bag/box	Order no.
50	115	28	With skirted base, red cap, assembled	25/300	62.559.001
50	114	28	Red cap, assembled	25/polystyrene rack/300	62.547.004
50	114	28	Red cap, assembled	25/300	62.547.254
15	120	17	Red cap, assembled	50/polystyrene rack/500	62.554.002
15	120	17	Red cap, assembled	50/500	62.554.502

* Tested at 20 °C for 30 minutes with a liquid density of 1.06 g/ml and centrifugal inserts adapted to the conical base of the tube.

Cell culture tubes, crystal-clear PS, sterile

The pre-treated polystyrene tubes with screw caps are particularly suitable for:

- Cultivation of small cell populations
- Cultivation of suspension or monolayer cultures
- The screw cap enables uniform ventilation and gas-tight sealing of the cells



Volume [ml]	Length [mm]	Diameter [mm]	Version	Packaging bag/box	Order no.
15	125	16	Red cap, TC-treated	5/1,000	83.9923.945
12	99	16	Red cap, TC-treated	5/1,000	83.9923.943
10	97	16	Red cap, conical base, TC-treated	5/1,000	83.9923.929

Tube with 2-position closure, sterile

The ventilation cap has a two-position closure. The first position (plug lightly fitted) enables ventilation of the inside of the tube. When securely pressed down, the plug tightly seals the tube in the second position.



Volume	Length	Diameter	Version	Packaging bag/box	Order no.
5 ml	75 mm	12 mm	Without print	25/1,000	55.526.006 PP
5 ml	75 mm	12 mm	Without print	25/1,000	55.476.013 PS
13 ml	100 mm	16 mm	Printed graduation	25/500	62.515.006 PP
13 ml	100 mm	16 mm	Printed graduation	individually packaged, sterile • 500/box	62.515.028 PP

For further versions from our tube range, please refer to our 'Tube Finder' at www.sarstedt.com.

If you have any questions:
We'd be happy to help!

Visit our website:
www.sarstedt.com

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with no obligation!

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