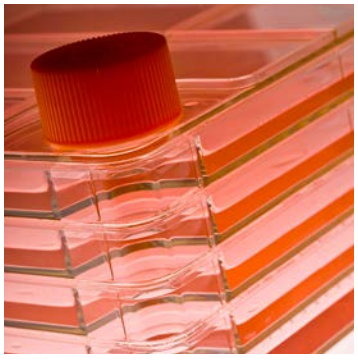
Corning® CellSTACK® Culture Chambers

Grow More Cells with Corning



CORNING

Corning® CellSTACK® Culture Chambers

A full line of Corning CellSTACK Culture Chambers

Corning CellSTACK Chamber, 10-Stack

Available in Five Sizes

- 1-Stack with 636 cm^2 cell growth area
- 2-Stack with 1,272 cm^2 cell growth area
- 5-Stack with 3,180 cm^2 cell growth area
- 10-Stack with 6,360 cm^2 cell growth area
- 40-Stack with 25,440 cm^2 cell growth area

Features and Benefits

- **Greater Chamber Durability**
  - Superior mechanical strength and structural integrity
  - Self-venting caps prevent pressure build-up during transport
  - 100% leak tested prior to shipping
- **Greater Cleanliness**
  - Improved assembly procedures reduce particulates
  - Nonpyrogenic
  - Sterile
- **Continuous Supply Reliability**
  - Manufactured in USA under GMP conditions
- **Easier to Use**
  - Larger openings with threaded closures and vented caps
  - Footprint identical to competitor's product
  - Fully closed system option available
  - Accessories complementary to competitors' products

Corning CellSTACK Culture Chambers

The Corning CellSTACK Culture Chambers are one of Corning Life Sciences' most reliable and fully tested cell culture products. Whether your cells grow attached or in suspension, Corning has cell culture scale-up products that will meet your requirements.

The innovative design of Corning CellSTACK Culture Chambers is functionally superior to any similar working product.

- Two 26-mm diameter filling ports allow direct access to chamber bottom providing greater flexibility for filling and emptying by pouring, pipetting, or via tubing in a fully closed system.
- Standard 33 mm threaded caps have 0.2 µm pore nonwettable membranes sealed directly to the caps to allow gas exchange.
- Optional 33 mm threaded caps are available with chemically resistant, heat sealable flexible tubing to allow direct transfer of media and cells via pumping or gravity feed.
- Polystyrene construction: USP Class VI material provides excellent optical clarity and mechanical strength.

CellSTACK Culture Chambers are available with three different surfaces:

- Corning CellBIND® surface
- Ultra-Low Attachment surface
- Tissue Culture-treated surface

Corning® CellBIND® Surface

Increase Cell Growth and Yields with Corning CellBIND Surface

Corning CellBIND surface is a novel cell culture surface. The Corning CellBIND surface enhances cell attachment under difficult conditions, such as reduced-serum or serum-free medium, resulting in higher cell yields.

Developed by Corning scientists, this technology uses a microwave plasma process for treating the culture surface. This process improves cell attachment by incorporating significantly more oxygen into the cell culture surface, rendering it more hydrophilic (wettable) and increasing surface stability.

Benefits

- Better cell attachment leads to increased cell growth and yields
- More consistent and even cell attachment
- More quickly adapts cells to reduced-serum or serum-free conditions
- Reduces premature cell detachment from confluent cultures
- May eliminate the need for tedious, time-consuming, expensive and low stability biological coatings
- Requires no refrigeration or special handling and is stable at room temperature

Same High Quality Standards as Other Corning Vessels

- Manufactured from optically clear polystyrene
- QC testing for consistency and reproducibility
- Nonpyrogenic and sterile
- Printed lot numbers for quality assurance and tracking
- Printed with the Corning CellBIND Surface label to differentiate from standard treatment cell culture products and to avoid mix-ups.

Corning Ultra-Low Attachment Surface

Unique hydrogel surface inhibits cell attachment

The same Ultra-Low Attachment surface that you have used on microplates, dishes, and flasks is available on CellSTACK® Culture Chambers.

The Ultra-Low Attachment surface is a unique covalently bonded hydrogel surface that is hydrophilic and neutrally charged. It minimizes cell attachment, protein absorption, and enzyme activation. The surface is noncytotoxic, biologically inert, and nondegradable.

The Ultra-Low Attachment surface is designed for:

- Maintaining cells in a suspended, unattached state
- Preventing stem cells from attachment-mediated differentiation
- Preventing anchorage-dependent cells from dividing
- Reducing binding of attachment and serum proteins to the substrate

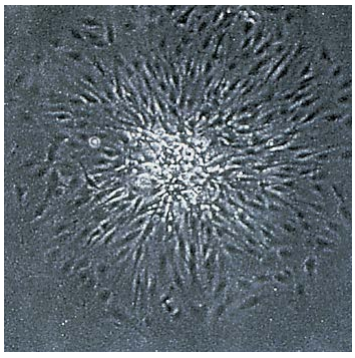
Corning Surfaces for Cell Culture

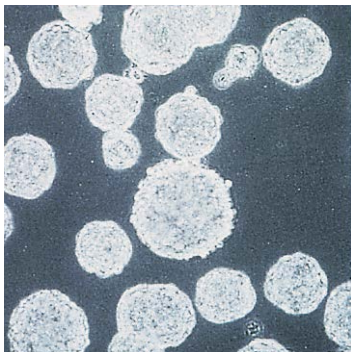
Untreated polystyrene has an uncharged, hydrophobic surface to which cell attachment proteins bind poorly. This results in poor and very uneven cell attachment and growth.

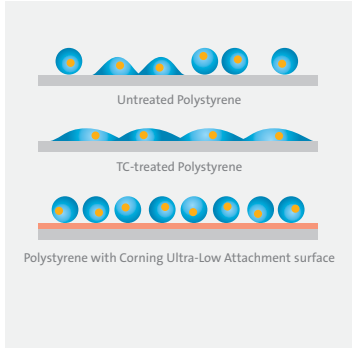
Tissue culture (TC)-treated polystyrene has a negatively charged, hydrophilic surface to which cell attachment proteins bind evenly. This provides a good surface for cell attachment and growth.

The Ultra-Low Attachment surface has a neutral, hydrophilic hydrogel coating which greatly reduces binding of attachment proteins. This minimizes cell attachment and spreading.

The following reference is recommended for customers who want additional information on the differences of these cell culture surfaces: M. Shen and T. A. Horbett. The effects of surface chemistry and adsorbed proteins on monocyte/macrophage adhesion to chemically modified polystyrene surfaces. J. Biomedical Material Research, 2001, Dec 5; Vol. 57(3):336-345.







C6 glioma cell colony on Tissue Culture-treated surface (top left) and spheroid colonies on Ultra-Low Attachment surface (top right).

Ordering Information

Corning® CellSTACK® Culture Chambers

Cat. No.	Growth Area (cm^2)	Description	Qty/Pk	Pk/Cs
3268	636	1-Stack, TC-treated, sterile	1	8
3330	636	1-Stack, Corning CellBIND® surface, sterile	1	8
3303	636	1-Stack, Ultra-Low Attachment surface, sterile	1	8
3269	1,272	2-Stack, TC-treated, sterile	1	5
3310	1,272	2-Stack, Corning CellBIND surface, sterile	1	5
3319	3,180	5-Stack, TC-treated, sterile	1	2
3313	3,180	5-Stack, TC-treated, sterile	1	8
3311	3,180	5-Stack, Corning CellBIND surface, sterile	1	2
3270	6,360	10-Stack, TC-treated, sterile	1	2
3271	6,360	10-Stack, TC-treated, sterile	1	6
3312	6,360	10-Stack, Corning CellBIND surface, sterile	1	2
3320	6,360	10-Stack, Corning CellBIND surface, sterile	1	6
3272	25,440	40-Stack, TC-treated, sterile	1	2
3321	25,440	40-Stack, Corning CellBIND surface, sterile	1	2

Corning CellSTACK Filling Accessories

Cat. No.	Description	Qty/Pk	Pk/Cs
3969	Solid cap, 33 mm threaded cap	1	6
3968	Vented cap, 33 mm threaded cap with 0.2 µm pore hydrophobic membrane	1	6
3281	Vented filling cap, 33 mm threaded cap with 3/8" (9.5 mm) ID tubing and 50 mm filter with 0.2 µm pore hydrophobic membrane	1	5
3282	Filling cap, 33 mm threaded cap with 1/8" (3.2 mm) ID tubing and a female Luer 1/8" (3.2 mm) hose barb with male Luer lock plug	1	5
3283	Filling cap, 33 mm threaded cap with 3/8" (9.5 mm) ID tubing and 5/16" (7.94 mm) ID barbed fitting	1	5

For more specific information on claims, visit **www.corning.com/certificates**.

Warranty/Disclaimer: Unless otherwise specified, all products are for research use or general laboratory use only.* Not intended for use in diagnostic or therapeutic procedures. Not for use in humans. These products are not intended to mitigate the presence of microorganisms on surfaces or in the environment, where such organisms can be deleterious to humans or the environment. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications. ***NOTE:** The following products and their sterile accessories are considered US class I medical devices: Tissue culture plates, flasks and dishes (area >100 cm^2), multilayer flasks, spinner flasks, Erlenmeyer flasks, Corning HYPER*Flask*® vessels, Corning CellSTACK® chambers, centrifuge tubes, cell culture tubes, cryogenic vials, roller bottles, microcarrier beads. Falcon IVF products are US class II and CE marked per the EU medical device directive 93/42/EEC.

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