Permeable Supports Selection Guide

Including Transwell® and Falcon® Cell Culture Inserts

CORNING

About Corning® Permeable Supports

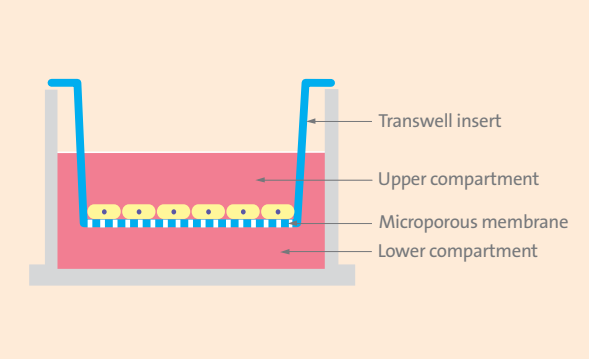
Permeable supports, also known as cell culture inserts, are an essential tool for the study of both anchorage-dependent and independent cell lines.

You can use cell culture inserts to:

- Produce a cell culture environment that closely resembles an *in vivo* state
- Allow polarized cells to carry out metabolic activities in a more natural manner because the cells feed both apically and basolaterally
- Co-culture cells with or without cell-to-cell contact
- Design a diversity of experiments using various pore sizes, membrane types, and coatings

This selection guide will help you choose the right combination of membrane type, pore size, format, and surface treatment to create a cell culture environment that more closely mimics the *in vivo* environment you desire.

Create a More Natural Environment for Your Cells



The unique, self-centered hanging design of Transwell inserts prevents medium wicking between the insert and outer well. The design also permits access to the lower compartment through windows in the insert wall, as well as undamaged co-culturing of cells in the lower compartment.

Costar® Transwell® Permeable Supports: a Laboratory Standard

Transwell inserts are convenient, ready-to-use permeable support devices pre-packaged in standard multiple well plates. The unique, self-centered hanging design prevents medium wicking between the insert and outer well. Transwell inserts are available in a wide variety of sizes, membrane types, and configurations, and they are backed by extensive citations, protocols, and technical support—all of which has helped to make them the leading brand of cell culture insert for more than 25 years.

Falcon® and Corning® BioCoat™ Inserts: Giving You More Choices than Ever Before

With the recent addition of Falcon and BioCoat inserts, Corning is now able to offer an even broader line of permeable support research tools, including Corning FluoroBlok™ light-blocking inserts and systems for migration assays, as well as BioCoat ECM-coated inserts for enhanced cell attachment, growth, and differentiation.

Falcon inserts are offered in polyester (PET) membranes and come individually packaged in a variety of pore sizes and configurations. For best results, Falcon, BioCoat, and FluoroBlok inserts should be used only with Falcon Cell Culture Companion Plates. These plates allow for a two-position orientation of the inserts for feeding and incubation of cells.

How to Use this Guide

Follow these four steps to select the optimal insert for your research.

1. Select a Membrane

Permeable supports are available with three materials of construction:

PC (Polycarbonate)

Transwell® Permeable Supports are available in a broad range of pore sizes from 0.4 to 8.0 µm. This high pore density membrane is suitable for a variety of applications. It allows for maximum diffusion when studying transport, secretions, or drug uptake.

PET (Polyester or Polyethylene Terephthalate)

Several PET membrane types are available:

- Transwell-Clear and Falcon® Transparent PET inserts permit sufficient optical transparency for visualization of cell outlines by phase contrast microscopy.
- Falcon high density (HD) PET membranes have a high pore density, which allows maximum diffusion of materials between the insert and receiver plate.
- Corning FluoroBlok™ light-blocking PET membrane is also available for simplified cell-based assays. This unique membrane blocks >99% of light transmission from 400 to 70 nm and is ideal for both endpoint and kinetic cell invasion, migration, and chemotaxis assays.

PTFE (Polytetrafluoroethylene)

Collagen-coated PTFE membranes are available in limited pore sizes (0.4 and 3.0 µm). These coated membranes promote cell attachment and allow cells to be visualized during culture.

Consult the product specification tables on the following pages for more information.

2. Select a Pore Size

In general, smaller pore sizes (0.4 and 1.0 µm) are used for culturing cells, co-culture applications, and drug transport studies. Larger pore sizes (3.0 to 8.0 µm) are recommended for chemotaxis and angiogenesis applications. Please refer to the Applications guide below for more information.

Application	Cell Type	Pore Size (µm)
Angiogenesis	Endothelial, HMVEC, HUVEC	3.0
Co-culture	Stem, neuronal, and various others	0.4, 1.0
Epithelial Cell Polarity	Epithelial cells	0.4
Migration	Endothelial, HUVEC, HMVEC Neutrophils, PMNs Lymphocytes, macrophages, monocytes Neuronal cells Dendritic cells Neurite outgrowth Epithelial fibroblasts Leukocytes Smooth muscle	3.0 3.0 3.0, 5.0 3.0 3.0, 5.0, 8.0 1.0, 3.0 8.0 3.0, 5.0 8.0
Invasion	Melanoma Glioma Lymphoma, Jurkat Osteoblasts Breast cancer Endothelial	8.0 8.0 5.0, 8.0 8.0 5.0, 8.0 3.0, 5.0, 8.0
Tissue Engineering	Human skin model	0.4, 3.0
Toxicity Testing	Mouse fibroblasts Human lung	3.0 0.4
Transport and Permeability Studies	Caco-2 MDCK	0.4, 1.0 0.4, 1 .0

3. Select a Format

- Individual inserts are used with 6, 12, and 24 multiple well plates. A large, single-well format is also available in a 100 mm dish.
- HTS insert plates are available in either 24 or 96 well formats with special receiver plates and single-well reservoirs to facilitate automation and ease of handling.
- Snapwell™ inserts are designed for use with diffusion or Ussing chambers.
- Netwell® inserts are used as tissue carriers or explants at the air-media interface. The inserts are available in 6 or 12 well plates.

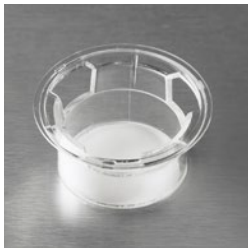
Growth Area Guide for Transwell® Inserts

Insert Diameter (mm)*	Multiple Well Plate or Dish Style	Insert Membrane Growth Area (cm^2)
4.26	96 well	0.143
6.5	24 well	0.33
12	12 well	1.12
24	6 well	4.67
75	100 mm dish	44

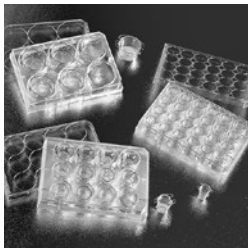
Growth Area Guide for Falcon®, Corning® FluoroBlok™, and Corning BioCoat™ Inserts

Insert Diameter (mm)*	Multiple Well Plate or Dish Style	Insert Membrane Growth Area (cm^2)
3.2	96 well	0.08
6.4	24 well	0.31/0.33**
10.5	12 well	0.90
23.1	6 well	4.2

*Values are reported as nominal and may vary due to inherent variability of our manufacturing process. To ensure success, we recommend that researchers validate their methods independent from our reported values.
**24 HTS Multiwell

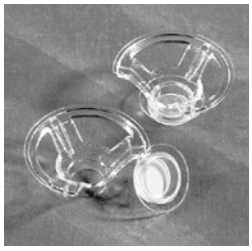


Individual inserts for 6, 12, or 24 well plates or 100 mm dishes



Coated individual inserts for cell differentiation, migration or invasion assays

HTS insert plates for automation and ease of handling



Snapwell inserts for use in diffusion or Ussing chambers

4. Select a Surface Treatment

For many applications, an extracellular matrix (ECM) coating can improve cell attachment, differentiation, and signaling. Compared to self-coated inserts, pre-coated Corning BioCoat™ inserts reduce handling steps and can enhance data reproducibility. Consult the BioCoat insert selection guide on page 7 for more information. Custom coatings and configurations are also available. If you don't see what you need, please contact Corning for more information. You'll find contact information on the back cover of this brochure.

Individual Inserts

24 and 6.5 mm Transwell inserts

Corning offers four types of individual inserts:

- Transwell® Polycarbonate (PC) translucent inserts are treated for optimal cell attachment. They are available in a variety of pore sizes ranging from 0.4 to 8.0 µm.
- Transwell®-Clear inserts feature a microscopically transparent polyester (PET) membrane that is tissue culture-treated for optimal cell attachment and growth. Transwell-Clear inserts provide better cell visibility under phase contrast microscopy and allow assessment of cell viability and monolayer formation.
- Individual Falcon® inserts are available with standard transparent PET, as well as high pore-density translucent PET for maximum diffusion when studying transport, secreation, and drug uptake.
- Light-blocking PET (see Corning® FluoroBlok™ inserts on the next page for more information).

Characteristics of Transwell Inserts

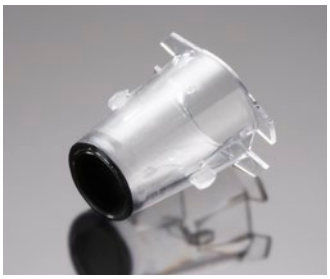
Pore Size (µm)	0.4	0.4	3.0	3.0	5.0	8.0
Membrane	PET	PC	PET	PC	PC	PC
Pore Density	4×10^6	1×10^8	2×10^6	2×10^6	4×10^5	1×10^5
Opacity	Clear	Translucent	Clear	Translucent	Translucent	Translucent
1 well		■		■		
6 well	■	■	■	■		
12 well	■	■	■	■		
24 well	■	■	■	■	■	■
Ordering Information	Page 9	Page 9	Page 9	Page 9	Page 9	Page 9

Characteristics of Falcon and Corning BioCoat Inserts

Pore Size (µm)	0.4	0.4	1.0	3.0	3.0	8.0
Membrane	PET	PET	PET	PET	PET	PET
Pore Density	1.6×10^6	1×10^8	1.6×10^6	8×10^5	2×10^6	1×10^5
Opacity	Clear	Translucent	Clear	Clear	Translucent	Clear
1 well						
6 well	■	■	■	■	■	■
12 well	■	■	■	■	■	■
24 well	■	■	■	■	■	■
Ordering Information	Page 10	Page 10	Page 10	Page 10	Page 10	Page 10

For best results, Falcon Cell Culture and BioCoat Inserts should be used together with Falcon Cell Culture Companion Plates. Falcon Cell Culture Insert Companion Plates have been specially designed to reduce the risk of evaporation or contamination due to improper fit. See page 11 for ordering information.

Individual Inserts (Continued)



FluoroBlok 6.5 mm Insert

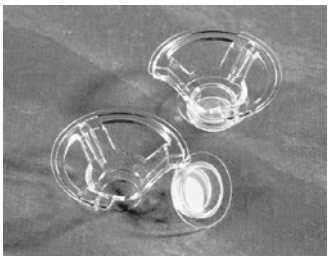
Corning® FluoroBlok™ Inserts

Corning FluoroBlok cell culture inserts are designed with a light-tight PET membrane that efficiently blocks the transmission of light from 400 to 700 nm, allowing fluorescence detection in a simplified and non-destructive manner.

Fluorescently labeled cells in the top chamber of the insert are shielded from bottom-reading fluorescence plate readers and microscopes by the FluoroBlok membrane. Labeled cells that migrate through the membrane are easily detected by a bottom-reading fluorescence plate reader, thereby eliminating cell scraping and manual cell counting. This non-destructive detection method enables both kinetic and endpoint chemotactic assays. (Note: Falcon inserts do not come with companion receiver plates. See the ordering information for companion plate catalog numbers.)

Characteristics of Corning FluoroBlok Inserts

Pore Size (µm)	3.0	8.0
Membrane	Light-blocking PET	Light-blocking PET
Pore Density	8 x 10^5	6 x 10^4
Brand	FluoroBlok	FluoroBlok
Inserts for 24 well plates	■	■
Ordering Information	Page 9	Page 9



Polycarbonate Snapwell Inserts

Polyester Snapwell Inserts

Snapwell™ Inserts

The Snapwell insert is a modified Transwell® culture insert that contains a 12 mm diameter tissue culture-treated membrane supported by a detachable ring. The inserts are primarily used for transport and electrophysiological studies. Once cells are grown to confluence, this ring-supported membrane can be placed into either vertical or horizontal diffusion or Ussing chambers.

Characteristics of Snapwell Insert Membranes

Pore Size (µm)	0.4	
Membrane	PET	PC
Pore density	4 x 10^6	1 x 10^8
Opacity	Clear	Translucent
Brand	Costar®	Costar
Inserts for 6 well plates	■	■
Ordering Information	Page 9	Page 9

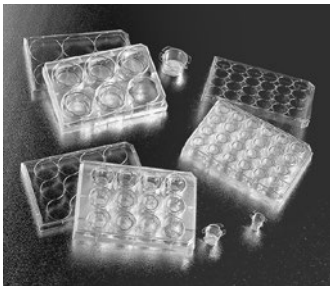
Netwell Inserts

Netwell® Inserts

Netwell Inserts have polyester (PET) mesh bottoms attached to a polystyrene ring or housing. They are used as tissue carriers, supports and strainers for culture of small organs, tissue slices, or explants at the air-media interface. They can be used to coarse filter tissue homogenates, cell suspensions, or microcarriers. Accessories allow them to be used as a handy carrier for immunocytochemical staining of tissue culture slices. See the ordering information for Netwell accessories.

Characteristics of Netwell Inserts

Mesh Size (µm)	74	500
Mesh Material	PET	PET
Sterile	Yes	Yes
Brand	Costar	Costar
Inserts for 6, 12, and 24 well plates	■	■
Ordering Information	Page 9	Page 9



BioCoat Cell Culture Inserts

ECM Coated Inserts

Corning® BioCoat™ cell culture inserts are pre-coated with extracellular matrix proteins for applications requiring a protein-coated cell surface, such as cell differentiation, migration and invasion assays. Coatings include Corning Matrigel® matrix, Fibronectin, Collagen, or Laminin.

For example, cell culture inserts coated with Fibrillar Collagen I can establish the barrier function of intestinal epithelial cell monolayers (Caco-2). Inserts coated with Corning Matrigel matrix are frequently cited for *in vitro* cell invasion assays.

Characteristics of Corning Coated Inserts

BioCoat Inserts					
Pore Size (µm)	**0.4**	**1.0**	**3.0**	**3.0**	**8.0**
Membrane	PET	PET	PET	FluoroBlok	PET
Coating:					
Collagen I	■	■	■		
Fibrillar Collagen		■			
Fibronectin	■			■	
Collagen IV		■*	■		■*
Matrigel Matrix					■
Matrigel GFR					■
6 well	■	■	■	■	■
24 well	■	■	■	■	■
Ordering Information	Page 10	Page 10	Page 10	Page 10	Page 10

*PET with Collagen IV coating is only available for 24 well plates.

BioCoat Control Inserts			
Pore Size (µm)	**0.4**	**3.0**	**8.0**
Membrane	PET	PET	PET
Pore Density	1.6×10^6	8×10^5	1×10^5
Opacity	Translucent	Translucent	Translucent
6 well	■	■	■
24 well	■	■	■
Ordering Information	Page 11	Page 11	Page 11

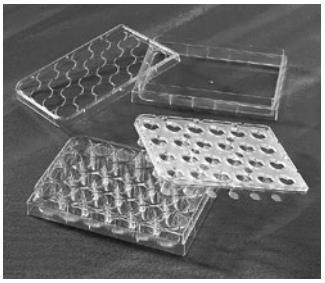
BioCoat Control Cell Culture inserts are packaged ready-to-use in Falcon® Cell Culture Compatible Plates. They may be used as control inserts along side ECM-treated inserts while studying effects of the ECM component present on the BioCoat Cell Culture inserts.

Transwell® Coated Inserts		
Pore Size (µm)	**0.4**	**3.0**
Membrane	PTFE	PTFE
Coating:		
Collagen I and III Mix	■	■
6 well	■	■
12 well	■	■
24 well	■	■
Ordering Information	Pages 11	Pages 11

Transwell-COL collagen-coated inserts have a transparent (when wet) collagen-treated PTFE membrane that promotes cell attachment and spreading, while allowing cells to be visualized during culture. The coating process covers each fibril of the matrix, thereby retaining the porosity of the membrane.

HTS Insert Plates

HTS insert plates are arrays of individual cell culture inserts connected by a rigid, robotics-friendly holder. This single-unit design makes insert plates ideal for running automated, high throughput drug transport (Caco-2 cells) cell toxicity studies or cell migration and invasion studies.



HTS Transwell Insert Plates

Falcon HTS Insert Plates

Characteristics of Uncoated HTS Insert Plates

Uncoated Transwell® HTS Insert Plates						
Pore Size (µm)	**0.4**	**0.4**	**1.0**	**3.0**	**5.0**	**8.0**
Membrane	PET	PC	PET	PC	PC	PET
Pore Density	4×10^6	1×10^8	1.6×10^6	2×10^6	4×10^5	1×10^5
Opacity	Clear	Translucent	Clear	Translucent	Translucent	Clear
24 well	■	■	■	■		
96 well		■	■	■	■	■
Ordering Information	Page 11, 13	Page 11, 13	Page 11, 13	Page 11, 13	Page 11, 13	Page 11, 13

Uncoated Falcon® HTS Insert Plates					
Pore Size (µm)	**1.0**	**3.0**	**3.0**	**8.0**	**8.0**
Membrane	PET	PET	FluoroBlok™ PET	PET	FluoroBlok PET
Pore Density	1.6×10^6	8×10^5	8×10^5	1×10^5	1×10^5
Opacity	Clear	Clear	Light-blocking	Clear	Light-blocking
24 well	■	■	■	■	■
96 well	■		■	■	■
Ordering Information	Pages 12, 13	Page 12	Pages 12, 13	Pages 12, 13	Pages 12, 13

Characteristics of Coated HTS Insert Plates

Coated HTS Insert Plates						
Pore Size (µm)	**0.4**	**1.0**		**3.0**		**8.0**
Membrane	PAMPA	PET	PET	FluoroBlok	FluoroBlok	FluoroBlok
Coatings						
Fibrillar Collagen I Fibronectin		■	■	■		
Corning® Matrigel® Matrix					■	■
Phospholipids	■					
Pore Density	–	1.6×10^6	8×10^5	8×10^5	8×10^5	6×10^4
Brand	Gentest™	BioCoat™	BioCoat	BioCoat	BioCoat	BioCoat
System				Angiogenesis Cell Migration System[a]	Angiogenesis Cell Invasion System[b]	Tumor Cell Invasion System[c]
24 well		■	■	■	■	■
96 well	■			■		■
Ordering Information	Pages 11, 12	Pages 11, 12	Pages 11, 12	Pages 11, 12	Pages 11, 12	Pages 11, 12

[a] Angiogenesis Cell Migration System: Use to evaluate endothelial cell invasion using real-time fluorescence detection in a simplified and reproducible manner. Increase screening throughput for prospective pro- and anti-angiogenic compounds. Tested for its ability to allow invasion of HUVEC cells in response to VEGF. This system consists of a receiver plate, a lid, and a Falcon Multiwell Insert Plate with 3.0 µm Corning® FluoroBlok membrane coated with human Fibronectin.

[b] Angiogenesis Cell Invasion System: A quantitative and reproducible *in vitro* model system for examining the effects of prospective compounds on endothelial cell migration. Tested for its ability to allow invasion of HMVEC-1 cells and to exclude invasion of NIH-3T3 cells. This system consists of a receiver plate, a lid, and a Falcon Multiwell Insert Plate with 3.0 µm FluoroBlok membrane coated with Matrigel Matrix.

[c] Tumor Cell Invasion System: An *in vitro* system for the study of cell invasion through a basement membrane. The system consists of Falcon inserts containing an 8 um pore size PET membrane coated with a uniform layer of Matrigel Matrix.

Ordering Information

Uncoated Individual Inserts

Transwell® Polycarbonate Membrane Permeable Supports

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Multiple Well Plate	Qty/Pk	Qty/Cs
3413	Inserts in 24 well plates	6.5	0.33	0.4	24 well	12/plate*	48
3415	Inserts in 24 well plates	6.5	0.33	3.0	24 well	12/plate*	48
3421	Inserts in 24 well plates	6.5	0.33	5.0	24 well	12/plate*	48
3422	Inserts in 24 well plates	6.5	0.33	8.0	24 well	12/plate*	48
3401	Inserts in 12 well plates	12	1.12	0.4	12 well	12/plate	48
3402	Inserts in 12 well plates	12	1.12	3.0	12 well	12/plate	48
3412	Inserts in 6 well plates	24	4.67	0.4	6 well	6/plate	24
3414	Inserts in 6 well plates	24	4.67	3.0	6 well	6/plate	24
3428	Inserts in 6 well plates	24	4.67	8.0	6 well	6/plate	24
3419	Inserts in 6 well plates	75	44	0.4	–	1/dish	12
3420	Inserts in single well plate	75	44	3.0	–	1/dish	12

*6.5 mm membrane diameter are packaged 12 inserts in a 24 well plate, 4 plates per case.

Transwell-Clear Inserts

3450	Inserts in 6 well plates	24	4.67	0.4	6 well	6/plate	24
3452	Inserts in 6 well plates	24	4.67	3.0	6 well	6/plate	24
3460	Inserts in 12 well plates	12	1.12	0.4	12 well	12/plate	48
3462	Inserts in 12 well plates	12	1.12	3.0	12 well	12/plate	48
3470*	Inserts in 24 well plates	6.5	0.33	0.4	24 well	12/plate	48
3472*	Inserts in 24 well plates	6.5	0.33	3.0	24 well	12/plate	48
3464*	Inserts in 24 well plates	6.5	0.33	8.0	24 well	12/plate	48

*6.5 mm membrane diameter are packaged 12 inserts in a 24 well plate, 4 plates per case.

Snapwell™ Inserts*

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Membrane	Qty/Pk	Qty/Cs
3407	Inserts in 6 well plates	12	1.12	0.4	Polycarbonate	6	24
3801	Inserts in 6 well plates	12	1.12	0.4	Clear Polyester	6	24

*Diffusion Chambers are available through Harvard Apparatus (www.harvardapparatus.com)

Corning® FluoroBlok™ Cell Culture Inserts for 24 Well Plate

351151	Inserts in 24 well plates	6.4	0.3	3.0	PET	1	48
351152	Inserts in 24 well plates	6.4	0.3	8.0	PET	1	48
353504	24 well cell culture insert companion plate	–	–	–	–	1	50

Netwell® Inserts

Cat. No.	Description	Diameter (mm)	Polyester Membrane Mesh Size (µm)	Color	Qty/Pk	Qty/Cs
3477	Inserts in 12 well plates	15	74	n/a	12/plate	48
3478	Inserts in 12 well plates	15	440	n/a	12/plate	48
3479	Inserts in 6 well plates	24	74	n/a	6/plate	48
3480	Inserts in 6 well plates	24	440	n/a	6/plate	48

Netwell Accessories

3517	Netwell Reagent Tray, black	–	–	Black	–	200
3519	Netwell Reagent Tray, white	–	–	White	–	200
3520	Netwell 12 Well Carrier Kit for 15 mm inserts	–	–	–	–	8
3521	Netwell 6 Well Carrier Kit, for 24 mm inserts	–	–	–	–	8

Ordering Information (Continued)

Falcon® Transparent PET Membrane Inserts

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Membrane	Qty/Pk	Qty/Cs
353095	Inserts for 24 well plates	6.4	0.3	0.4	PET	1	48
353102	Inserts for 24 well plates	6.4	0.3	1.0	PET	1	48
353096	Inserts for 24 well plates	6.4	0.3	3.0	PET	1	48
353180	Inserts for 12 well plates	10.5	0.9	0.4	PET	1	48
353103	Inserts for 12 well plates	10.5	0.9	1.0	PET	1	48
353181	Inserts for 12 well plates	10.5	0.9	3.0	PET	1	48
353090	Inserts for 6 well plates	23.1	4.2	0.4	PET	1	48
353102	Inserts for 6 well plates	23.1	4.2	1.0	PET	1	48
353091	Inserts for 6 well plates	23.1	4.2	3.0	PET	1	48

Falcon Translucent, High Density PET Membrane Inserts

353492	Inserts for 24 well plates	6.4	0.3	0.4	HD PET	1	48
353092	Inserts for 24 well plates	6.4	0.3	3.0	HD PET	1	48
353097	Inserts for 24 well plates	6.4	0.3	8.0	HD PET	1	48
353494	Inserts for 12 well plates	10.5	0.9	0.4	HD PET	1	48
353292	Inserts for 12 well plates	10.5	0.9	3.0	HD PET	1	48
353182	Inserts for 12 well plates	10.5	0.9	8.0	HD PET	1	48
353493	Inserts for 6 well plates	23.1	4.2	0.4	HD PET	1	48
353092	Inserts for 6 well plates	23.1	4.2	3.0	HD PET	1	48
353093	Inserts for 6 well plates	23.1	4.2	8.0	HD PET	1	48

Coated Individual Inserts

Corning® BioCoat™ Collagen I Cell Culture Inserts

354442	Inserts in four 6 well plates	23.1	4.2	0.4	PET	6	24
354444	Inserts in two 24 well plates	6.4	0.3	0.4	PET	12	24
354580	Inserts in four 6 well plates	23.1	4.2	1.0	PET	6	24
354482	Inserts in two 24 well plates	6.4	0.3	1.0	PET	12	24
354540	Inserts in four 6 well plates	23.1	4.2	3.0	PET	6	24
354541	Inserts in two 24 well plates	6.4	0.3	3.0	PET	12	24

Corning BioCoat Collagen IV Cell Culture Inserts

354591	Inserts in two 24 well plates	6.4	0.3	1.0	PET	12	24
354544	Inserts in four 6 well plates	23.1	4.2	3.0	PET	6	24
354545	Inserts in two 24 well plates	6.4	0.3	3.0	PET	12	24

Corning BioCoat Fibrillar Collagen Cell Culture Inserts

354472	Inserts in four 6 well plates	23.1	4.2	1.0	PET	6	24
354474	Inserts in two 24 well plates	6.4	0.3	1.0	PET	12	24

Corning BioCoat Fibronectin Cell Culture Inserts

354440	Inserts in four 6 well plates	23.1	4.2	0.4	PET	6	24
354445	Inserts in two 24 well plates	6.4	0.3	0.4	PET	12	24
354543	Inserts in two 24 well plates	6.4	0.3	3.0	PET	12	24

Corning BioCoat Cell Environments and Corning BioCoat Matrigel® Invasion Chambers

354481	Matrigel® Invasion Chambers in four 6 well plates	23.1	4.2	8.0	PET	6	24
354480	Matrigel Invasion Chambers in two 24 well plates	6.4	0.3	8.0	PET	12	24
354483	Growth Factor Reduced Matrigel Invasion Chambers in two 24 well plates	6.4	0.3	8.0	PET	12	24

Corning BioCoat Intestinal Epithelium Differentiation Environment*

355057	Contains specially formulated serum-free medium, culture supplements, sodium butyrate, and 24 BioCoat Fibrillar Collagen inserts in two 24 well plates	6.4	0.3	1.0	PET	1 Kit	24

*Visit www.corning.com/lifesciences for kit details.

Corning® BioCoat™ Companion Plates and Lid

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Membrane	Qty/Pk	Qty/Cs
353502	6 well plate, clear, flat bottom, standard tissue culture-treated	–	–	–	–	1	50
353503	12 well plate, clear, flat bottom, standard tissue culture-treated	–	–	–	–	1	50
353504	24 well plate, clear, flat bottom, standard tissue culture-treated	–	–	–	–	1	50
355467	6 well, deep well plate, clear, flat bottom, standard tissue culture-treated	–	–	–	–	1	4

Corning BioCoat Control Cell Culture Inserts

354570	Inserts in four 6 well plates	23.1	4.2	0.4	PET	6	24
354572	Inserts in two 24 well plates	6.4	0.3	0.4	PET	12	24
354567	Inserts in four 6 well plates	23.1	4.2	1.0	PET	6	24
354569	Inserts in two 24 well plates	6.4	0.3	1.0	PET	12	24
354573	Inserts in four 6 well plates	23.1	4.2	3.0	PET	6	24
354575	Inserts in two 24 well plates	6.4	0.3	3.0	PET	12	24
354576	Inserts in four 6 well plates	23.1	4.2	8.0	PET	6	24
354578	Inserts in two 24 well plates	6.4	0.3	8.0	PET	12	24

Transwell®-COL Collagen-coated Inserts*

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Multiple Well Plate	Qty/Pk	Qty/Cs
3491	Inserts and 6 well plates	24	4.67	0.4	6 well	1	24
3492	Inserts and 6 well plates	24	4.67	3.0	6 well	1	24
3493	Inserts and 12 well plates	12	1.12	0.4	12 well	1	24
3494	Inserts and 12 well plates	12	1.12	3.0	12 well	1	24
3495*	Inserts and 24 well plates	6.5	0.33	0.4	24 well	1	24
3496*	Inserts and 24 well plates	6.5	0.33	3.0	24 well	1	24

*Includes inserts packaged separately with multiwell plates.

HTS Insert Plates

HTS Transwell-24 Well Permeable Supports

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Membrane	Qty/Pk	Qty/Cs
3396	HTS Transwell-24, individual	6.5	0.33	0.4	PC	1	2
3397	HTS Transwell-24, bulk	6.5	0.33	0.4	PC	12	12
3398	HTS Transwell-24, individual	6.5	0.33	3.0	PC	1	2
3399	HTS Transwell-24, bulk	6.5	0.33	3.0	PC	12	12
3395	HTS Transwell nontreated reservoir	–	–	–	–	12	48
3378	HTS Transwell-24, bulk	6.5	0.33	0.4	PET	12	12
3379	HTS Transwell-24, individual	6.5	0.33	0.4	PET	1	2

Corning BioCoat HTS Caco-2 Assay System

Contains specially formulated serum-free medium, culture supplements, sodium butyrate, and BioCoat Fibrillar Collagen 24 Well Insert System

354801	BioCoat HTS Caco-2 Assay System, 1 plate/kit	6.4	0.3	1.0	PET	–	1
354802	BioCoat HTS Caco-2 Assay System , 5 plates/kit	4.4	0.3	1.0	PET	–	5

Corning BioCoat FluoroBlok Fibronectin Cell Culture Inserts

354597	Individual inserts in two 24 well plates	6.4	0.3	3.0	PET	–	24

Corning BioCoat Collagen I 24 Multiwell Insert Systems

354598	With 24 well plate and lid	6.4	0.3	3.0	PET	–	24

Ordering Information (Continued)

Corning® BioCoat™ Fibrillar Collagen I 24-Multiwell Insert System

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Membrane	Qty/Pk	Qty/Cs
354803	With feeder tray and lid	6.4	0.3	1.0	PET	1	1
354804	With feeder tray and lid	6.4	0.3	1.0	PET	1	5
Corning BioCoat (Fibronectin) Angiogenesis System: Endothelial Cell Migration							
354143	24 Multiwell Insert System	6.4	0.3	3.0	PET	1	1
354144	24 Multiwell Insert System	6.4	0.3	3.0	PET	1	5
354147	96 Multiwell Insert System	3.2	0.08	3.0	PET	1	1
354148	96 Multiwell Insert System	3.2	0.08	3.0	PET	1	5
Corning BioCoat (Matrigel®) Angiogenesis System: Endothelial Cell Invasion							
354141	24 Multiwell Insert System	6.4	0.3	3.0	FluoroBlok	1	1
354142	24 Multiwell Insert System	6.4	0.3	3.0	FluoroBlok	1	5
Corning BioCoat (Matrigel) Tumor Invasion Systems							
354165	24 Multiwell Insert System	6.4	0.3	8.0	FluoroBlok	1	1
354166	24 Multiwell Insert System	6.4	0.3	8.0	FluoroBlok	5	5
354167	96 Multiwell Insert System	3.2	0.08	8.0	FluoroBlok	1	1
354168	96 Multiwell Insert System	3.2	0.08	8.0	FluoroBlok	5	5
Corning Gentest™ Pre-Coated PAMPA Plate System							
353015	96 well insert system pre-coated with structured layers of phospholipids			0.4	PVDF	5	5
Falcon® 24 Well Insert Systems							
351180	Insert plate with feeder tray and lid	6.4	0.3	1.0	PET	1	1
351181	Insert plate with feeder tray and lid	6.4	0.3	1.0	PET	5	5
351182	Insert plate with 24 well plate and lid	6.4	0.3	3.0	PET	1	1
351183	Insert plate with 24 well plate and lid	6.4	0.3	3.0	PET	5	5
351184	Insert plate with 24 well plate and lid	6.4	0.3	8.0	PET	1	1
351185	Insert plate with 24 well plate and lid	6.4	0.3	8.0	PET	5	5
351186	Feeder tray with lid	6.4	0.3	–	–	5	5
353047	24 well plate, standard tissue culture-treated	6.4	0.3	–	–	1	50
353226	24 well plate, standard tissue culture-treated	6.4	0.3	–	–	6	36
353935	24 well plate, standard tissue culture-treated	6.4	0.3	–	–	10	60
353847	24 well plate, Corning Primaria™ Surface	6.4	0.3	–	–	1	50
351147	Non-treated surface	6.4	0.3	–	–	1	50
Corning FluoroBlok™ 24 Multiwell Insert Systems							
351155	Insert plate with 24 well plate and lid	6.4	0.3	3.0	PET	1	1
351156	Insert plate with 24 well plate and lid	6.4	0.3	3.0	PET	5	5
351157	Insert plate with 24 well plate and lid	6.4	0.3	8.0	PET	1	1
351158	Insert plate with 24 well plate and lid	6.4	0.3	8.0	PET	5	5
351186	24 well feeder tray with lid	–	–	–	–	5	5
Falcon 24 Well Plates							
353047	Standard tissue culture	–	–	–	–	1/tray	50
353226	Standard tissue culture	–	–	–	–	6/bag	36
353935	Standard tissue culture	–	–	–	–	10/RS Tray*	60
353847	Corning Primaria™ surface	–	–	–	–	1/tray	50
351147	Non-treated surface	–	–	–	–	1/tray	50

*Ready-Stack Tray

HTS Transwell®-96 Well Permeable Supports

Cat. No.	Description	Membrane Diameter (mm)	Growth Surface Area (cm^2)	Membrane Pore Size (µm)	Membrane	Qty/Pk	Qty/Cs
3381	HTS Transwell-96 System, reservoir and receiver plates with 2 lids	4.21	0.143	0.4	PC	1	1
3391	HTS Transwell-96 System, reservoir and receiver plates with 2 lids	4.21	0.143	0.4	PC	1	5
3380	HTS Transwell-96 System, reservoir and receiver plates with 2 lids	4.21	0.143	1.0	PET	1	1
3392	HTS Transwell-96 System, reservoir and receiver plates with 2 lids	4.21	0.143	1.0	PET	1	5
3385	HTS-Transwell-96 well plate, receiver plate and lid, individual	4.21	0.143	3.0	PC	1	2
3386	HTS-Transwell-96 well plate, receiver plate and lid, bulk	4.21	0.143	3.0	PC	4	8
3387	HTS-Transwell-96 well plate, receiver plate and lid, bulk	4.21	0.143	5.0	PC	4	8
3388	HTS-Transwell-96 well plate, receiver plate and lid, individual	4.21	0.143	5.0	PC	1	2
3374	HTS-Transwell-96 well plate, receiver plate and lid, individual	4.21	0.143	8.0	PET	1	2
3384	HTS-Transwell-96 well plate, receiver plate and lid, bulk	4.21	0.143	8.0	PET	4	8
3382	HTS Transwell-96 receiver plate with lid	4.21	0.143	–	–	10	10
3383	HTS Transwell-96 reservoir plate media stabilizer and lid	4.21	0.143	–	–	10	10
3583	HTS Transwell-96 black receiver plate with lid, standard tissue culture-treated	4.21	0.143	–	–	10	10
3783	HTS-Transwell-96 white receiver plate and lid, standard tissue culture-treated	4.21	0.143	–	–	10	10
Falcon® 96 Well Insert System							
351130	Insert plate with feeder tray and lid	3.2	0.08	1.0	PET	1	1
351131	Insert plate with feeder tray and lid	3.2	0.08	1.0	PET	5	5
353938	Insert plates with 96 square well, angled-bottom plates and lids	3.2	0.08	1.0	PET	5	5
353925	96 square well, angled-bottom plates and lids	–	–	–	–	5	5
353924	96 well feeder tray and lid	–	–	–	–	5	5
Corning® FluoroBlok™ 96 Multiwell Insert Systems							
351161	Insert plate with 96 square well	3.2	0.08	3.0	PET	1	1
351162	Angled bottom plates and lids	3.2	0.08	3.0	PET	5	5
351163	Angled bottom plates and lids	3.2	0.08	8.0	PET	1	1
351164	Angled bottom plates and lids	3.2	0.08	8.0	PET	5	5
353928	96 square well, flat bottom plate	–	–	–	–	5	5

Additional Resources

Below is a sampling of the many resources available for permeable support users on the Corning Life Sciences website. Visit **www.corning.com/lifesciences** to access documents, videos, and more.

Protocols

- Cell Migration, Chemotaxis and Invasion Assay Protocol (CLS-AN-061)
- Cell Migration, Chemotaxis and Invasion Assay Using Staining Protocol (CLS-AN-211)
- Fixation and Staining Procedure for Transwell® Inserts Protocol
- Preparation of Transwell Inserts for Histology Protocol
- Trypsinization Procedure for Transwell Inserts Protocol (CLS-AN-033)

References and Bibliographies

- Testing Cell Monolayer Integrity on Transwell Permeable Supports (CLS-AN-047W)

Selection and Use Guide

- Transwell® Permeable Supports Selection and Use Guide (CLS-CC-007W)

Technical Reports

- Compatible Fluorophores and Dyes for Corning FluoroBlok™ Inserts and Insert Systems (CLS-DL-CC-077)
- Considerations when Optimizing your Chemotaxis or Invasion Assay with Corning Transwell Permeable Supports (CLS-AN-188)
- Corning HTS Transwell-96 Permeable Support Protocols for Drug Transport Application Note (CLS-AN-058)
- Design and Evaluation of an Automation-Compatible Multiwell Insert for Cell-Based Assay (CLS-DL-CC-072)
- *In Vitro* Study of Cytokine-mediated Activation of Endothelial Cell Permeability Using Falcon® Cell Culture Permeable Supports (CLS-DL-CC-068)
- Migration of Human Mesenchymal Stem Cells using Corning FluoroBlok™ Inserts (CLS-DL-CC-054)
- New PET Membrane for Corning FluoroBlok™ 3.0 µm and 8.0 µm Pore Size Cell Culture Inserts (CLS-DL-CC-042)
- Preparation of Falcon Cell Culture Permeable Supports for Confocal Indirect Immuno-fluorescence: Fixation and Staining of Caco-2/bbe (C2) Cells with Various Dyes (CLS-DL-CC-079)
- Screening of Anti-Metastatic Compounds by a Fluorescence-Based Tumor Cell Invasion Assay (CLS-DL-CC-076)
- Use of Falcon® Cell Culture Permeable Supports to Reconstruct a Differentiated Human Epidermis *In Vitro* (CLS-DL-CC-066)

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Corning Incorporated
Life Sciences

836 North St.
Building 300, Suite 3401
Tewksbury, MA 01876
t 800.492.1110
t 978.442.2200
f 978.442.2476

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Worldwide Support Offices

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