



# Product selection guide for every step of your cell culture workflow

From culture to discovery

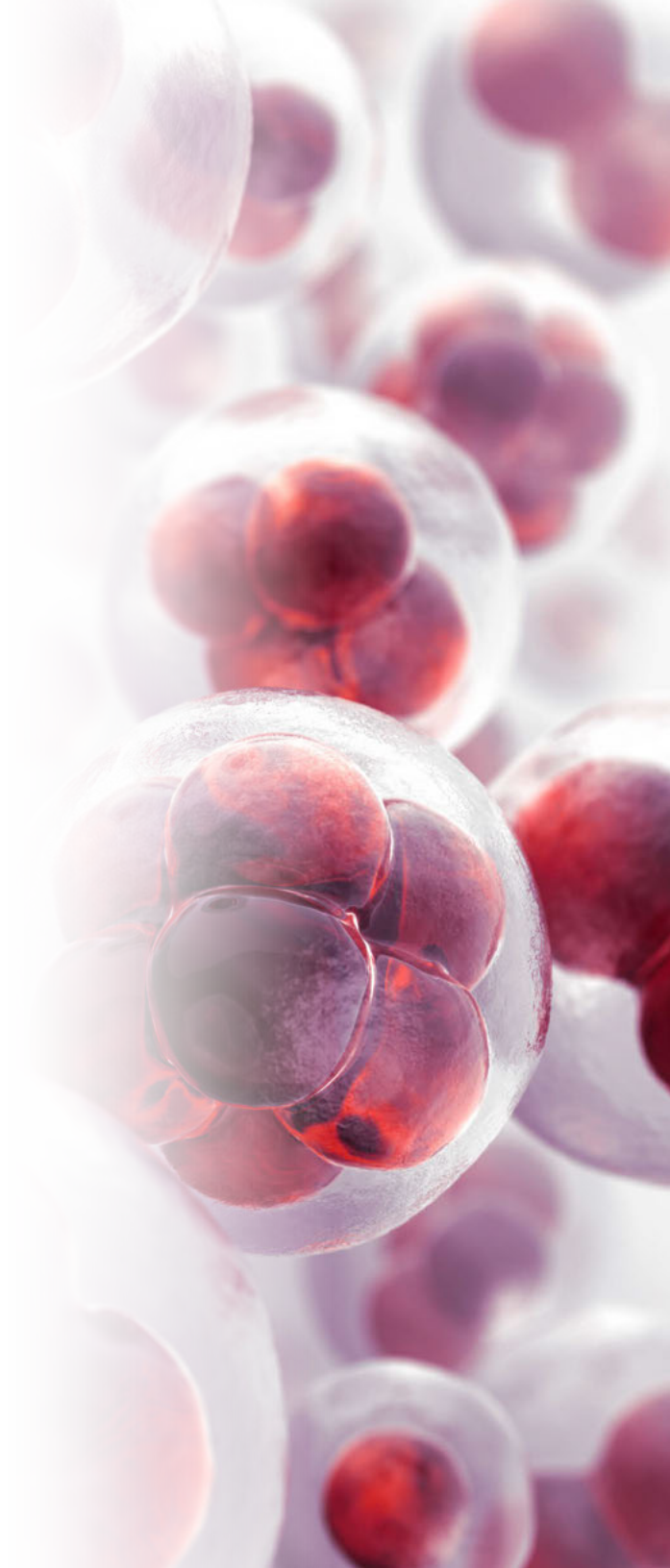
# Culture with confidence

Thermo Scientific™ Nunc™ and Nalgene™ cell culture products have been used by researchers for more than 60 years in labs around the world.

We take pride in supplying products with consistent high quality to help ensure you get the most reproducible and reliable results in your research. Our products are manufactured using only high-quality raw materials that comply with USP Class VI testing. Most of our cell culture products are tested with trusted Gibco™ media to confirm optimal cell growth across multiple cell lines. This selection guide will help you find the most relevant cell culture surface and format for every step of your workflow—from culture to discovery.



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# Surfaces

## Choosing the best growth surface for your cells

To help ensure optimal results for different cell types, we offer a range of Thermo Scientific™ cell culture surfaces. Let us help guide your selection to choose the culture surface for your applications.

### **Nunc™ Delta surface for adherent cells**

A standard tissue culture (TC) surface modification that makes the polystyrene surface more hydrophilic, thus facilitating maximum adhesion for a broad range of cell types.

### **Nunc™ poly-D-lysine or collagen I-coated surface, and Nunc™ Lab-Tek™ II CC<sup>2</sup>™ modified glass surface for primary cells and sensitive cells**

The extracellular matrix (ECM)-coated surfaces imitate the growth environment of cells inside a living body—ideal for cells that don't grow well on the regular TC surface. Collagen I is of animal origin, whereas Nunc poly-D-lysine is fully synthetic. The CC<sup>2</sup> glass surface mimics poly-D-lysine surface properties, but without the coating material.

### **Nunc™ UpCell™ surface for adherent cultures that require enzyme-free cell detachment**

Enables harvesting of cells in single-cell suspensions or as contiguous cell sheets by temperature reduction to preserve cell membranes and membrane molecules, and helps create 3D tissue models without artificial scaffold material.

### **Nunc™ non-treated surface for suspension culture**

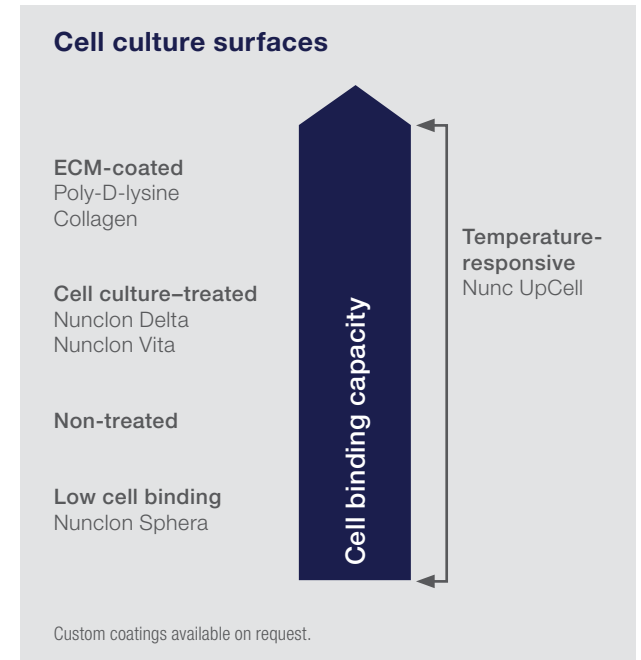
High-quality, optically clear virgin polystyrene with a hydrophobic surface is ideal for suspension cell culture, and also useful for a variety of biochemical assays.

### **Nunclon™ Sphera™ surface for spheroid-organoid culture**

Using this surface, cells grow and aggregate with virtually no attachment to the culture vessel; suitable for spheroid culture, organoid culture, and 3D culture.

### **Custom coating**

If you have any specific need in your research, we can coat cell culture surfaces according to a custom protocol. Contact our technical sales specialists for more information.



# Flasks

## Nunc cell culture flasks—designed for the way you work

Thermo Scientific™ cell culture flasks are designed for culture consistency, cell health, and reproducibility. Select the surface and ancillary options you're looking for in a tissue culture flask from our comprehensive portfolio. Choose from a variety of surfaces and sizes with culture areas ranging from 25 cm<sup>2</sup> to 500 cm<sup>2</sup> to suit your specific applications and cell types.

### **Nunc™ EasYFlask™ flasks**

#### **Designed for convenience**

- Angled, extra-wide neck provides easier access to growth surface with cell scrapers or pipettes
- Ergonomic design with 1/3-turn cap enables one-handed operation and avoids wrist strain
- Molded and printed graduations help enable easy and quick measurement of growth media



Nunc EasYFlask flasks

### **Nunc™ standard flasks**

#### **Designed with a straight neck and barcoding option for automation cell culture**

### **Nunc™ T300 flasks**

#### **Designed for durability and ease of use**

- One-piece design with straight neck and grip notches
- Largest single-layer, cell culture–treated flask on the market
- Prominent stacking feet on upper surface enable reliable stacking of multiple flasks in incubators and culture hoods



Nunc standard flasks

Nunc T300 flasks

### **Nunc™ TripleFlask™ flasks**

#### **Designed for cell culture expansion without expanding footprint of the flask**

- 3-layer flask providing 3 times the growth surface of a T175 flask for the same footprint, saving space in the incubator
- Barcoding option for automation cell culture



Nunc TripleFlask flasks

**Table 1. Nunc flasks.**

Flask type	Surface area (cm <sup>2</sup> )	Working volume (mL)	Neck style	Cap type	Barcoding	Cat. No. by surface				
						Nunclon Delta for adherent cells	Non-treated for suspension cells	Nunclon Sphera for spheroid-organoid culture	Poly-D-lysine for primary and sensitive cells	Collagen I for primary and sensitive cells
EasYFlask	25	7	Angled	Filtered		156367	169900	174951	132703*	132706*
				Solid		156340				
	75	25		Filtered		156499	156800	174952	132704*	132707*
				Solid		156472				
	175	55		Filtered		159910	159926		132705*	132708*
				Solid		159920				
	225	70		Filtered		159934				
				Solid		159933				
Standard flask	25	7	Angled	Filtered		136196				
				Solid		163371				
	80	30	Straight	Filtered		178905				
				Solid		153732				
	175	68		Filtered		178883				
				Filtered	•	178983				
				Solid		156502				
				Solid						
T300 flask	300	150		Straight	Filtered		132098			
					Solid		132097			
TripleFlask	500	200	Straight	Filtered		132913	132903			
				Filtered	•	132920				
				Solid		132867				

\* Aseptically sterile.

Find out more about Nunc cell culture flasks at [thermofisher.com/cellcultureflasks](https://www.thermofisher.com/cellcultureflasks)

# Dishes and multidishes

## Nunc cell culture dishes and multidishes—a better way to handle your cells

Thermo Scientific™ Nunc™ cell culture dishes are available in a wide selection of formats, materials, and surface modifications. Each is designed and produced under the highest quality standards to promote healthy cells and reproducible results. Each selection offers excellent optical quality for manual and automated imaging and is compatible with automated equipment and instruments.

### **Nunc™ EasYDish™ dishes**

- Designed to improve handling, stacking, and transporting of cell cultures in the lab
- Beveled grip makes it easier to grasp and manage dish with gloved hand
- Raised outer edge on the lid helps keep stacked dishes stable



Nunc EasYDish dishes

### **Nunc™ standard dishes**

- Available in round, rectangular, and square formats
- Available with or without air vent



Nunc standard dishes

### **Nunc™ glass bottom dishes**

- Combines the convenience of a standard 35 mm dish with the imaging benefits of coverglass to provide optimum optical characteristics required for high-magnification microscopy and confocal imaging
- Cell culture–treated glass to enhance cell attachment and growth



Nunc glass bottom dishes

### **Nunc™ multidishes**

- Designed to prevent evaporation and cross-contamination with one-way lid orientation and rings in lid over each well
- Available with round or rectangular wells



Nunc multidishes

**Table 2. Nunc dishes and multidishes.**

Dish type	Format (mm)	Surface area (cm <sup>2</sup> )	Air vent	Cat. No. by surface				
				Nunclon Delta for adherent cells	Non-treated for suspension cells	Nunclon Sphera for spheroid-organoid culture	UpCell for adherent culture plus trypsin-free cell harvesting	Cell culture-treated glass for high-quality imaging
Round EasYDish	35 x 10	8.8	•	150460				
	60 x 15	21.5	•	150462				
	100 x 15	56.7	•	150464				
	100 x 20	56.7	•	150466				
	150 x 20	145	•	150468				
Round standard dish	35 x 10	8.8		150318				
			•	153066	171099	174943	174904	150680, 150682
	60 x 15	21.5		150326				
			•	150288	150340	174944	174903	
	100 x 15	56.7	•	150350		174945	174902	
100 x 20	•		172931					
150 x 20	145	•	168381					
Rectangular dish	128 x 86	84		165218	242811			
Square dish	245 x 245	500		166508	240835			

Multidish type	Well shape	Surface area/well (cm <sup>2</sup> )	Large packaging	Cat. No. by surface					
				Nunclon Delta for adherent cells	Non-treated for suspension cells	Nunclon Sphera for spheroid-organoid culture	UpCell for adherent culture plus trypsin-free cell harvesting	Poly-D-lysine-coated for sensitive cells	Collagen I-coated for sensitive cells
4-well	Round	1.9		176740	179820				
	Rectangle	21.8		167063	267061				
6-well	Round	9.6		140675	150239	174932	174901	152035**	152034**
			•	140685					
8-well	Rectangle	10.5		167064					
12-well	Round	3.5		150628	150200	174931	174900		
24-well	Round	1.9		142475	144530	174930	174899	152025**	
			•	142485					
48-well	Round	1.1		150687	150787		174898		
			•	152640					

\*\* Aseptically sterile.

Find out more about Nunc cell culture dishes at [thermofisher.com/cellculturedishes](https://thermofisher.com/cellculturedishes)

Find out more about Nunc cell culture multidishes at [thermofisher.com/cellcultureplates](https://thermofisher.com/cellcultureplates)

# Microplates

## Nunc microplates—designed for your specific application needs

Whether you're culturing individual cell lines or scaling up for high-throughput screening, or anything in between, there is a Thermo Scientific™ Nunc™ microplate for your needs. Advances in manufacturing for surface technology, well geometry, and optical flatness mean we have a plate tailored for your specific application.

### **Nunc™ Edge 2.0 plates**

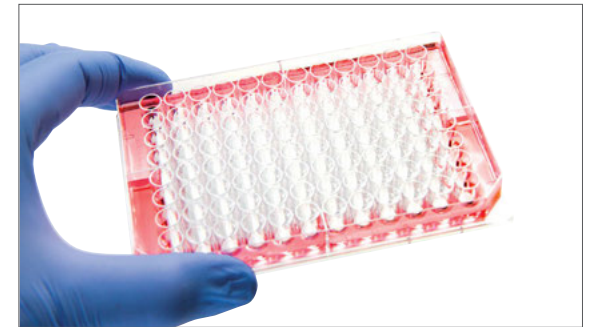
- Designed to eliminate evaporation and improve cell growth consistency across the 96 wells with a built-in reservoir surrounding the wells that can be filled with medium or gel

### **Nunc™ standard plates**

- Available in clear, black, and white to suit different detection technologies used by plate readers
- Available with 96, 384, and 1,536 wells for high-throughput screening (HTS) applications

### **Nunc™ optical bottom plates**

- With superior imaging quality and minimal background noise and crosstalk between wells, these plates are optimized for fluorescence and luminescence imaging applications



Nunc Edge 2.0 plate



Nunc standard plates



Nunc optical bottom plates



**Table 3. Nunc microplates.**

Microplate type	Bottom	Well shape	Color	Lid	Large packaging	Cat. No. by surface						
						Nunclon Delta for adherent cells	Non-treated for suspension cells	Nunclon Sphera for spheroid-organoid culture	UpCell for adherent culture plus trypsin-free cell harvesting	Poly-D-lysine for primary and sensitive cells	Collagen I for primary and sensitive cells	CC <sup>2</sup> glass for primary and sensitive cells
96-well	Solid	Flat (F)	Clear	•	•	168055						
						167008		174927	174897	152039 <sup>†</sup>	152038 <sup>†</sup>	
						156545						
	Solid with reservoirs (Edge plate)	Flat (F)	Clear	•	•	161093	260860					
						167425	267427					
						167542	267544					
	Solid	Flat (F)	White	•	•	136101	236105					
						136102	236107					
						137101	237105					
			Black	•	•	137103	237107					
				•	•	143761	262162					
		Round (U)	Clear	•	•	163320		174925				
						168136	268200	174929				
		Conical (V)	Clear	•	•	249662						
						249940						
	•					•	277143					
	•					•	249952					
	Optical coverglass	Flat (F)	White	•	•	164590						
			Black	•	•	164588	265300 <sup>†</sup>				160376	
Optical polymer film	Flat (F)	White	•	•	165306				152028 <sup>†</sup>	152040 <sup>†</sup>		
		Black	•	•	165305	265302 <sup>†</sup>			152037 <sup>†</sup>	152036 <sup>†</sup>		
			•	•		265301 <sup>†</sup>						
384-well	Solid	Flat (F)	Clear	•	•	164688	265202					
						265203						
			White	•	•	164610						
				165195	262360 <sup>†</sup>							
	Black	•	•	164564								
					262260 <sup>†</sup>							
	Solid shallow-well	Flat (F)	Clear				264704 <sup>†</sup>					
			White				264706 <sup>†</sup>					
			Black				264705 <sup>†</sup>					
	Optical coverglass	Flat (F)	Black	•	•	164586						
Optical polymer film	Flat (F)	White	•	•	142762							
		Black	•	•	142761				152029 <sup>†</sup>	152041 <sup>†</sup>		
							242764 <sup>†</sup>					
1,536-well	Solid	Flat (F)	Clear				253614 <sup>†</sup>					
			White				253607 <sup>†</sup>					
			Black				253601 <sup>†</sup>					

† Aseptically sterile.  
‡ Non-sterile.

For barcoding the plate, go to [thermofisher.com/barcodeconfigurator](https://thermofisher.com/barcodeconfigurator)  
Find out more about Nunc cell culture plates at [thermofisher.com/cellcultureplates](https://thermofisher.com/cellcultureplates)

# Chamber slides and coverglasses

Nunc chamber slides and chambered coverglasses—  
superior cell imaging performance simplified

Efficiency is everything. The Thermo Scientific™ Nunc™ Lab-Tek™ and Lab-Tek™ II chamber slide system and chambered coverglasses simplify your cell imaging workflow by allowing you to culture, modify, stain, and analyze—all in a single device.

## **Nunc chamber slides**

- Chamber slides are designed for growth, fixation, staining, and microscopic examination of cultured cells on a single surface with removable medium chambers

## **Nunc chambered coverglasses**

- Chambered coverglasses with lids are intended for high-magnification live imaging of cells using an inverted microscope

## **Nunc™ Lab-Tek™ flasks on slides**

- Ideal for cell karyotyping using single-cell autoradiography or single-cell immunofluorescence



Nunc chamber slides



Nunc chambered coverglasses



Nunc Lab-Tek flasks on slides

**Table 4. Nunc chamber slides and chambered coverglasses.**

Chamber slide type	Number of wells	Surface area/well (cm <sup>2</sup> )	Chamber—removable	Sealant	Cat. No. by slide material		
					Glass	Permanox™ slides	CC <sup>2</sup> glass
Lab-Tek	1	9.4	Yes, no tool needed	Silicone, medical grade	177372	177410	
	2	4.2			177380	177429	
	4	1.8			177399	177437	
	8	0.8			177402	177445	
	16	0.4			178599		
Lab-Tek II	1	8.6	Yes, tool provided	Biocompatible acrylic adhesive	154453		154739
	2	4.0			154461		154852
	4	1.7			154526		154917
	8	0.7			154534		154941

Chambered coverglass type	Number of wells	Surface area/well (cm <sup>2</sup> )	Chamber—removable	Borosilicate coverglass thickness (mm)	Cat. No. by coverglass thickness
Lab-Tek	1	9.4	No	0.13–0.17	155361
	2	4.2			155380
	4	1.8			155383
	8	0.8			155411
Lab-Tek II	1	8.6	No	0.16–0.19	155360
	2	4.0			155379
	4	1.7			155382
	8	0.7			155409

Flask on slide type	Number of wells	Surface area/well (cm <sup>2</sup> )	Suggested working volume (mL)	Cat. No. by slide material	
				Glass	TC-treated polystyrene
SlideFlask	1	9.0	2.5–5		170920
Flaskette	1	10.0	2.5–5	177453	

Find out more about Nunc chamber slides and chambered coverglasses at [thermofisher.com/chamberslides](https://www.thermofisher.com/chamberslides)

# Cell culture inserts

## Nunc cell culture inserts and carrier plate systems—versatility and convenience for your permeable cell culture applications

When your cell-based research calls for more than the standard culture vessel, the porous membrane-based Thermo Scientific™ Nunc™ cell culture inserts enable the versatility you need by allowing the attached cells to be exposed to different conditions on the apical and basal sides, as well as allowing molecules and cells to migrate, diffuse, or be actively transported across the growth surface. The unique Thermo Scientific™ Nunc™ carrier plate systems simplify procedures that require an air–liquid interface and change of medium by allowing the inserts to be hung in three precise positions in the wells.

### Nunc cell culture inserts

- Polycarbonate (PC) inserts have high pore density to allow more exchange of growth medium through the membrane for transport studies and co-culture
- PC porous membrane material is optimized for cell growth and is well suited for barrier assays, and tumor migration and invasion studies

### Nunc carrier plate systems

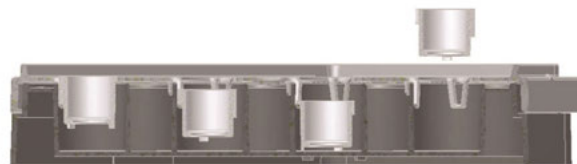
- Ability to adjust the hanging height of inserts in the multiwell plate—optimized for culture at the air–liquid interface with precise position control
- Extends cell feeding interval of air–liquid interface culture by putting more medium in each well with the insert at the highest hanging position
- Ability to lift all the inserts from the multiwell plate at once, saving time when changing medium



Nunc cell culture inserts



Nunc carrier plate system



Cross-section view of a Nunc carrier plate system

**Table 5. Choose insert pore size by application.**

Cell culture applications		Insert pore size		
		0.4 µm	3 µm	8 µm
Transport studies	Molecules including hormones and growth factors	•	•	
	Drug transport across epithelial (e.g., Caco-2) and endothelial barriers			
	Drug transport across brain microvascular endothelial cells			
Co-culture studies	Cell–cell interactions	•	•	
	Cell–substrate interactions			
Tissue engineering	Angiogenesis	•	•	
	Dermal or epidermal and epithelial tissue models			
Chemotaxis studies	Migration of cells including eosinophils and macrophages		•	•
Invasion studies	Tumor invasion and metastasis models		•	•
	Invasion inhibitors			
	Extracellular matrix effects			

**Table 6. Nunc cell culture inserts and carrier plate systems.**

Membrane	Plate	Inserts/plate	Surface area/insert (cm <sup>2</sup> )	Carrier plate	Cat. No. by membrane pore size		
					0.4 µm	3 µm	8 µm
Polycarbonate	24-well	12	0.5		140620	140627	140629
		24		•	141002	141004	141006
	12-well	12	1.1		140652	140654	140656
				•	141078	141080	141082
	6-well	6	3.1		140640	140642	140644
			4.1		140660	140663	140668

Find out more about Nunc cell culture inserts and carrier plate systems at [thermofisher.com/cellcultureinserts](https://www.thermofisher.com/cellcultureinserts)

# Shaker flasks

## Nalgene shaker flasks—your choice for optimal scale-up

Save preparation time and avoid contamination risk with sterile Thermo Scientific™ Nalgene™ single-use PETG Erlenmeyer flasks—ideal for suspension cell culture, medium preparation, mixing, and storage.

### Key features

- Made with crystal clear, break-resistant, bisphenol A (BPA)-free PETG
- Sterile with 10<sup>-6</sup> sterility assurance level (SAL)
- Made for single use to reduce cross-contamination and eliminate need for cleaning
- Collapse when autoclaved—reducing biohazardous waste volume
- Graduated for quick volume assessment
- Validation binder available upon request to help jump-start your validation process
- Options of solid or filtered cap for adequate gas exchange
- Plain or baffled bottom to suit needs for reducing shear stress or improving aeration



**Table 7. Nalgene single-use PETG Erlenmeyer flasks.**

Bottom style	Volume (mL)	Cap type	Cat. No.
Plain	125	Filtered	4115-0125
		Solid	4112-0125
	250	Filtered	4115-0250
		Solid	4112-0250
	500	Filtered	4115-0500
		Solid	4112-0500
	1,000	Filtered	4115-1000
		Solid	4112-1000
	2,000	Filtered	4115-2000
		Solid	4112-2000
	2,800	Filtered	4115-2800
		Solid	4112-2800
Baffled	125	Filtered	4116-0125
		Solid	4113-0125
	250	Filtered	4116-0250
		Solid	4113-0250
	500	Filtered	4116-0500
		Solid	4113-0500
	1,000	Filtered	4116-1000
		Solid	4113-1000
	2,000	Filtered	4116-2000
		Solid	4113-2000
	2,800	Filtered	4116-2800
		Solid	4113-2800

# Accessories

## Nunc cell culture accessories—aid your research with simplicity

Complementing the essential cell culture devices, Thermo Scientific™ cell culture accessories bring convenience and compatibility to every step of your cell culture workflow.

### Nunc™ conical tubes—a clear advantage in sample processing and tracking

- Nunc™ EZFlip™ conical tubes with proprietary hinged-cap design can be opened and closed with one hand
- Nunc standard conical tubes are available with environment-friendly and recyclable plastic rack

### Nunc™ serological pipettes feature:

- Easy, color-coded packaging to simplify size selection
- PET filter plug to help prevent contamination
- Free of RNases, DNases, and human DNA
- Wide range of packaging options to suit your recycling needs and reduce impact on the environment

### Nunc™ cell scrapers—ultimate flexibility

- Individually wrapped, with flexible blade for optimal removal of cells
- Provide an alternative solution to cell dissociation enzymes

**Table 8. Nunc conical tubes.**

Tube type	Volume (mL)	Max RCF <sup>§</sup> (x g)	Cat. No. by packaging	
			Loose	Racked
Standard conical	15	10,500	339650	339651
	50	17,000	339652	339653
EZFlip conical	15	8,500	362694	362695
	50	9,500	362696	362697

§ Relative centrifugal force (RCF) is determined by centrifuge model, rotor–adapter combination, and centrifugation conditions (e.g., temperature, time, acceleration, deceleration, sample volume, etc.).

**Table 9. Nunc serological pipettes.**

Volume (mL)	Color code	Cat. No. by packaging		
		Individual (paper and plastic)	Individual (plastic)	Bulk
1	Yellow	170353N	170364N	170371N
2	Light Green	170354N	170365N	170372N
5	Blue	170355N	170366N	170373N
10	Orange	170356N	170367N	170374N
25	Red	170357N	170368N	170375N
50	Purple	170358N	170369N	170376N

**Table 10. Nunc cell scrapers.**

Length (cm)	Cat. No. by packaging	
	50/case	250/case
23	179693PK	179693
32	179707PK	179707

**Table 11. Nunc key products.**

<b>Category</b>	<b>Description</b>	<b>Type or packaging</b>	<b>Cat. No.</b>
<b>Nunc EasYDish Cell Culture Dishes</b>	Nunc EasYDish Dish, Nunclon Delta certified	35 mm diameter x 13 mm high, 8.8 cm <sup>2</sup> culture area	150460
		60 mm diameter x 16 mm high, 21.5 cm <sup>2</sup> culture area	150462
		100 mm diameter x 17 mm high, 56.7 cm <sup>2</sup> culture area	150464
		100 mm diameter x 21 mm high, 56.7 cm <sup>2</sup> culture area	150466
		150 mm diameter x 21 mm high, 145 cm <sup>2</sup> culture area	150468
<b>Nunc EasYFlasks Cell Culture Flasks</b>	Nunc EasYFlask, Nunclon Delta certified	25 cm <sup>2</sup> culture area	156367
		75 cm <sup>2</sup> culture area	156499
		175 cm <sup>2</sup> culture area	159910
		225 cm <sup>2</sup> culture area	159934
<b>Nunc Cell Culture Plates</b>	Nunc cell culture multidishes, Nunclon Delta certified	4-well	176740
		6-well	140675
		12-well	150628
		24-well	142475
		48-well	150687
	Nunc Edge 2.0 96-well cell culture microplate	Nunclon Delta certified	167425
		Non-treated	267427
	Nunc F96-well microplate, Nunclon Delta certified	Black	137101
White		136101	
<b>Nunc Conical Tubes</b>	Nunc 15 mL Conical Centrifuge Tubes	Bulk pack	339650
		Racked	339651
	Nunc 50 mL Conical Centrifuge Tubes	Bulk pack	339652
		Racked	339653
<b>Nunc Serological Pipettes</b>	Nunc Serological Pipettes, individually wrapped, paper/plastic peel	1 mL	170353N
		2 mL	170354N
		5 mL	170355N
		10 mL	170356N
		25 mL	170357N
		50 mL	170358N









Find out more at [thermofisher.com/cellcultureplastics](https://www.thermofisher.com/cellcultureplastics)

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