# Tissue Culture Products

Cell and Tissue Culture Products series, including CellDETACH<sup>™</sup> Temperature-Responsive Culture Surface Products, CellATTACH<sup>™</sup> Surface Products, Cell and Tissue Culture Products, Roller Bottles, Bio-Reaction Tubes and so on, are all innovatively designed by JET engineers and manufactured in 100,000 grade clean room environment under the control of ISO 9001:2008 and ISO 13485 quality management system. All the JET BIOFIL Products are manufactured with 100% USP VI crystal class virgin polystyrene(GPPS) and equal high quality polyethylene(PE) to eliminate all extraneous materials and ensure the integrity cells. Furthermore, the high transparency of high class material ensures good observability. In addition, all the products are sterilized by gamma irradiation and certified DNase/RNase free and non-pyrogenic. Products are modified with vacuumgas plasma causing the very hydrophobic polystyrene surface to become negatively charged and hydrophilic, allowing cells to attach evenly and consistently. And our own technological transformed vacuum-gas plasma machine has been applied to adherent and suspension cell lines.





# JET CellFac<sup>™</sup> Products

In the past ten years, due to the rapid development of biological products, the traditional method of obtaining biological products from animal tissues by biochemical technology has been far from meeting the needs of the market, and in vitro large-scale culture of animal cells which is applied to express specific proteins, monoclonal antibodies and interferon and product virus vaccine has become the most common technology currently.

At present, the common methods of cell culture include conventional cell culture dish, plate, flask, roller bottle, bioreactor, etc. The above cell culture devices have the following serious defects: 1) the unit volume of cell culture vessel and apparatus provides a surface area for cell growth, cell growth density is low, the number of harvested cells in a single culture is low, and a large amount of materials, labor and time are needed in repeated cultures.

2) conventional cell culture dish, plate and bottle are all open type, so contamination is prone to happen in the process of liquid adding, inoculation and cell harvesting. JET CellFac<sup>™</sup> Products developed by JET is made from medical-grade general purpose polystyrene (GPPS) that is a polymer (patent number:ZL201220167380.4ZL201220167162.0), and is an ideal tool for large-scale cell culture and the production of cellular drug.





- \* The culture device with monolayer or up to 10 layers can realize large-scale cell culture by one time
- \* Available in surface treated, or non-treated
- \* The device is assembled by hydrophobic membranes with a aperture of  $0.22\mu m$  to avoid potential contamination in gas exchange
- The device does not absorb cytokines and growth factors, and conventional trypsin digestion method is applied in cell harvesting
- \* Strict integrity tested
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic & DNase/RNase-free

#### **Ordering Information**

- \* Individually packaged in peel-to-open plastic blister pack
- \* Every case has printed with lot No. for quality traceability

#### **Guidelines For Use**



Pour the media directly into the Cell Factory system



Equilibrate by placing the Cell Factory system on the side with the small port



Carefully tilt the Cell Factory system to a horizontal incubation position with the filling inlet up



Incubate following appropriate protocol

Cat.No.	Layers Qty.	Appro.Cell Growth Area(cm²)	Working Volume (ml)	Material	Description	Sterile	Qty.per bag/Case
UCF010001	1	656	130-200	PS/HDPE		Y	1/8
UCF010002	2	1296	260-400	PS/HDPE	Non-Treated, Vent Cap	Y	1/6
UCF010005	5	3216	650-1000	PS/HDPE		Y	1/4
UCF010010	10	6416	1300-2000	PS/HDPE		Y	1/2
UCF011001	1	656	130-200	PS/HDPE	Surface	Y	1/8
UCF011002	2	1296	260-400	PS/HDPE	Treated, Vent Cap	Y	1/6
UCF011005	5	3216	650-1000	PS/HDPE		Y	1/4
UCF011010	10	6416	1300-2000	PS/HDPE		Y	1/2





Turn 90° so the filling inlet is inan upward position, The medium will be separated, with equalamounts in each chamber



Loosen the cap and empty directly into the reservoir







# **CellBOX**<sup>™</sup>

- \* Made from high grade gamma resistance polystyrene
- \* The culture device with monolayer or up to 10 layers can realize large-scale cell culture by one time
- \* Easy to use and standardized operation ensures uniform cell growth
- \* Suitable for most adherent cell lines
- \* Linear amplification, easy to expand to the industrial scale
- \* Transparent material can be observed directly under a microscope
- \* Modular design can be multi-level series or parallel
- \* It can be equipped with a variety of online monitoring instruments
- \* Strict integrity tested
- \* Sterilized by gamma irradiation
- \* DNase/RNase-free & Non-pyrogenic

Cat.No.	Description	Sterile	Qty. Per bag/case
UCB010001	1 layer, Surface Treated	Y	1/8
UCB010010	10 layers. Surface Treated	Y	1/8







Cells grow on an affinity surface



The medium is flowing through the surface slowly, can promote cell 's growth and wash away metabolic waste.





Peristaltic Pump



Solution Bottle



The Electrode Adapter



#### JET CellSCAFFOLD<sup>™</sup> 3D Cell Culture Products



JET CellSCAFFOLD<sup>™</sup> 3D cell culture series include culture plates with 6, 12 and 24 wells and culture dishes in sizes of 35mm, 60mm and 70mm. They are all made of polystyrene (GPPS), a high molecular material.3D scaffold for cell culture is able to simulate the threedimensional structure of the cells in animals and the human body to the maximum extent, to provide an ideal environment for the interaction between cells, to greatly improve culture area, and to extremely improve the yield of cell culture. JET 3D scaffold for cell culture which is a patented product (patent number: ZL201620728244.6, ZL201620728243.1, 201510783345.3) is an ideal tool for three-dimensional cell culture, cell-cell interaction mechanism, cell immunotherapy, stem cell therapy, drug screening and the production of cellular drug.

- of culture results in 3D cell culture
- interaction between cells
- separating steps
- \* Open pores with high connectivity, facilitating nutrient absorption and metabolism
- \* 3D scaffold with larger surface area than regular cell culture products, material efficient
- \* Strict integrity tested
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic & DNase/RNase-free

There are four layers in one scaffold . And 4 different colors corresponding that . From plan view and vertical view. In accordance with both pictures, obviously showing this structure consisting of four layers of fibre, waved verticalto each other, and not overlapping.





\* The whole 3D scaffold for cell culture is made from polystyrene that is a polymer, with a mean wire diameter of  $500\mu m$ , a mean wire spacing of 260µm, and high regularity. The product is structured with 3-dimensional channels, and has extremely high connectivity, facilitating the transmission of nutrients, the consistency of metabolic activity and the accuracy

\* 3D cell culture is more likely to the expression of cell functions as compared with 2D, and simulates the three-dimensional structure of the cells in animals and the human body to the maximum extent, providing an ideal environment for the

\* Polystyrene-made, cytokine and growth factor resistant, easy cell secretion collection, time-saving and free from extra



#### **3D Cell Culture Plate**

Cat.No. Well Qty.	Scaffold	Size	e	Description	Scaffold	Surface	Charilla	Qty.per	
	Package	Fiber Diameter(µm)	Pore Width(µm)	Description	(mm)	Area(cm²)	Sterile	bag/case	
TDP032006	6	3	500	260		33.5*1.6	143	Y	1/8
TDP032012	12	6	500	260	Standard, Surface treated	21.0*1.6	113	Y	1/8
TDP032024	24	12	500	260		15.0*1.6	115	Y	1/8

#### **3D Cell Culture Dish**

Cat.No. Diameter In (cm) Po	Scaffold	Size	•	Description	Scaffold	Surface	Sterile	Qty.per	
	Package	Fiber Diameter(µm)	Pore Width(µm)	Description	(mm)	Area(cm²)	orenie	bag/case	
TDD032035	3.5	1	500	260		32.0*1.6	43	Y	1/40
TDD032060	6.0	1	500	260	Standard,	51.0*1.6	109	Y	1/30
TDD032070	7.0	1	500	260	Service Redred	67.5*1.6	191	Y	1/30

#### Easy to Use



Prepare the required volume of cell suspension



Ensure that the 3D Scaffold is fully covered with cell suspension and avoid overflow.



After finishing vaccinal cell, put the dish into a 37°C and 5% CO<sub>2</sub> incubator for culturing for three hours.



After three hours, slowly add the cell culture medium through the dish's internal wall.





Use tweezers to pick up the 3D scaffold and place it into the tissue culture dish.



Place the 3D Scaffold into the incubator once the cell culture medium covers the Scaffold completely.

#### JET CellSLIP<sup>™</sup> Cell Slide

With the continuous updating and rapid development of life sciences research, technical indexes analyzed and observed by cell culture experiment are increasing, and their covered fields are expanding. Cell slide is a material of in vitro cell experiment achieved by adherent cells growing adherent to a certain solid surface (e.g., cover glass, slide glass) according to requirements for experimental research. HE staining and immunocy to chemistry of a large number of cell slides are often required in many research projects with massive samples and numerous indicators to be measured. However, routine cell slides used currently have serious defects. For instance, cell slides are prone to be damaged because they are made of glass; cell slides are difficult to control due to no handle; cells can grow in any part of the cell slide and their container when culturing, etc. JET cell slide and culture dish which is a patented product (patent number: ZL201520113833.9, ZL201420594580.7, ZL201420594259., ZL200610047607.0) solves various defects of existing cell slides and contributes to simple and easy operation of above experimental studies and application.

- \* The cell slide is made from PET, has high strength and is unbreakable
- \* Only the surface of the cell slide undergoes high hydrophilic treatment, so cells are easy to grow adherent to the cell slide; while other parts receive hydrophobic treatment, thus cells are difficult to grow
- \* There are 2 specifications with different diameters: 8 and 10mm; the number of cell slides with single dish : 12/18/32/45
- \* Transparency and light transmittance of the cell slide are good; therefore, cells can be clearly observed under a light microscope and a fluorescence microscope
- \* The specific set structure of the cell slide can realize the development of multi-factor, multi-index and multi-level in vitro study under the same conditions, resulting in accurate and reliable research results
- \* Cell culture once can prepare multiple cell slides for different studies and objectives, increasing work efficiency;
- \* The handle of the cell slide tilts with a certain angle, which is convenient for operators to directly clamp. The handle is engraved with numbers, facilitating identification;
- \* The product and forceps for the cell slide are both sterilized with gamma ray, and should be used immediately after opening
- \* Dnase RNase-free & Non-pyrogenic

#### Ordering Information

- \* The cell slide is made from medical-grade high-transparent PET/PETG, the culture surface undergoes high hydrophilic treatment
- \* The integrated cell slides are fixed in the culture dish; if further test is necessary after cell culture, the cell slides can be taken out one by one and placed in a culture plate or other containers with a corresponding specifications
- \* Each box of products is matched with individually packed sterile metal tweezers;
- \* Individually packaged in peel-to-open plastic blister pack
- \* Every case has printed with lot No. for quality traceability

13









#### Easy to use



				Desdcription			
Cat.No.	Dish(cm)	Cell slide Qty.	Diameter(mm)	Appro.Cell Growth Area(cm²)Single	Appro.Cell Growth Area(cm²)Total	Corresponding Plate	Qty.per bag/case
CXD206008	E E	18	8	0.50	9.00	48	1/40
CXD206010	0	12	10	0.79	9.42	48	1/48
CXD310008	10	45	8	0.50	22.50	48	1/24
CXD310010	10	32	10	0.79	25.12	48	1/24

#### **Confocal Dish**

- \* Available with 2 different glass bottom sizes of 15mm and 20mm
- \* Glass thickness: 0.12-0.16mm
- \* Borosilicate glasses is with high homogeneity , low bubble and inclusion content
- \* Medical grade shadowless glue, highy transparent achromatic
- \* Suitable for fluorescent microscope experiments, confocal microscopy and phase-contrast microscopic experiments, etc
- \* Dish surface is smooth and free from striation to maximize usable area for growth
- \* The rim on upper side of the lid mates with the dish brim for easy and secure stack
- \* Lids with several little chimbs to shape vents are available for very effective gas exchange
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic

Cat.No.	Pore Diameter(mm)	Surface Type	Sterile	Qty. per bag/case
BDD011035	15	Standard	Y	10/240
BDD012035	20	Surface treated	Y	10/240
BDD001035	15	General,	Y	10/240
BDD002035	20	Non-treated	Y	10/240









#### **Cover Glass**

Cat.No.	Pore Diameter(mm)	Sterile	Qty. per bag/case
BDC000015	15	Y	100
BDC000020	20	Y	100

#### **CellDETA<sup>™</sup> Temperature-Responsive Cell Culture Surface**

Thank you for using a product with temperature-responsive culture surface. The temperature-sensitive polymer with thickness of 15-20 nanometer chemically covalently immobilized on the culture surface. Cells can be spontaneously intactly detached from temperature-responsive culture surface around 20-25°C without enzymatic processing which is well known for its disfunction of cells. Keeping their activities is possible with temperature-responsive culture surface for cell culture.

#### Applications

Ideal product for intactly harvesting cells, especially for fragile cells such as stem cells and neuron cells, and macrophage cells etc., and also for tissue culture, extra cellular matrix research, and so on.

#### Cautions

- \* Please ensure that there is no damage to the package and read the following instructions carefully to ensure the maximum performance of this product .
- \* The product is intended for research purposes only. Any other use is not warranted by Jet coporation. Do not use the product for clinical or diagnostic purposes. Products with temperatureresponsive surface are intended for single-use only.
- \* Do not re-use the product as cell secreted and medium-derived components may be adsorbed to the surface after cell harvest, compromising performance in repeated use.
- \* Re-sterilization and scratching of the culture surface may compromise the temperature-responsive surface properties.

#### In vitro cell culture

- \* The temperature-responsive polymer chemically covalently grafted to the culture surface area becomes slightly hydrophobic above 32°C, allowing cells to adhere. So it is recommended that cells are preferable incubated at 37°C.
- \* The temperature-responsive surface becomes hydrophilic below 32°C, causing cell detachment from the surface.
- \* To avoid undesired cell detachment during seeding cells and medium changes, prewarming culture surface and culture medium (37°C) to facilitate cell attachment is suggested. Observations under a microscope should also be kept short in order to prevent cooling and undesired cell detachment. Seed cells evenly over the culture area to avoid uneven distribution of the cells in culture .
- \* Attachment time for cells may vary with cell type .
- \* Should you have difficulty in attaching cells, pre-coating of the culture surface with collagen, fibronectin, polylysine, laminin or the use of medium with serum may ease cell attachment .





#### **Cells harvest**

- \* Culture cells on temperature-responsive surface to a density before confluence, that is cell-cell junctions are not established, cells harvest are readily conducted by slight agitation and pipetting
- \* Place the product with temperature-responsive surface in an environment set at 20-25°C in order to detach the cells. Alternatively, the product may be placed at room temperature (20–25°C) under sterile conditions. For quicker cell detachment, the culture medium can be exchanged to 20-25°C culture medium prior to detachment.
- \* Cells should detach spontaneously under pipetting with transfer pipettes or serological pipettes after keeping at 20-25°C within 15-30 minutes, some cells may not detach completely,



depending on the cell type. The product with temperature-responsive surface becomes more hydrophilicly with decreasing the temperature of culture environ detaching of cells from temperature-responsive surface.

\* Normally the longer time required to harvest cells by conventional enzymatic processing, the stronger the cell attaching ability. Cells with stronger attaching ability that fail to detach spontaneously from temperature-responsive surface by slight pipetting can be detached by stronger pipetting or gently flushing the surface with medium after culturing at much lower temperature for longer time ( for example, at 4oC for 60 minutes ).

#### Storage

The product should be stored at room temperature (20–30°C) and out of direct sunlight.

#### Disposal

Ensure the used product without biological and chemical pollution to the environment and disposed as recyclable plastics. The product is prepared and shipped under high quality control. However, should you have any daims or questions, please contact us for free.

#### **CellDETA<sup>™</sup> Cell and Tissue Culture Flasks**

Cat.No.	Volume(mi)	Surface Type	Sterlle	Cell Growth Area(cm <sup>2</sup> )	Oty.per bag/case
CDF022250	250	CellDETACH <sup>™</sup> Temperature-Responsive Culture Surface	Y	75.0	1/100

#### **Round-Bottom Tubes with Dual-position Cap**

- \* Made with high-quality polypropylene.
- \* Molded graduations stand out distinctly on these optically clear tubes.
- \* Colorless and transparent are perfect for biological reaction experiments.
- Thicker walls will not crush.
- Available in sterilized or non-sterilized.
- \* DNase/RNase-free and non-pyrogenic.

Cat.No.	Volume (ml)	Description	Sterile	Qty.per bag/case
TUB000140	14	Polypropylene, Clear,	N	50/500
TUB011140	14	17*100mm,Round	Y	25/500
TUB021140	14	Bottom Tube	Y	25/500







# **Cellattach<sup>TM</sup> Surface Products**

The CellATTACH<sup>™</sup> surface treatment is a latest technology which invented by JET's R&D team. This super hydrophilic surface offers a significant advantage over traditional cell culture surface. CellATTACH<sup>™</sup> surface treatment can improve cell spreading and attachment, is suitable for the cells that may adhere poorly due to cell phenotype, stressful culture conditions or those which normally require additional biological coatings for attachment.







#### **CellATTACH<sup>™</sup> Cell and Tissue Culture Flasks**

- \* Available with 5 different growth areas of 12.5cm<sup>2</sup>, 25cm<sup>2</sup>, 75cm<sup>2</sup>, 182cm<sup>2</sup>, 300cm<sup>2</sup>
- \* CellATTACH<sup>™</sup> Surface Treated
- Flacks surface is flat and free from striation to maximize usable growth area
- \* 2 different cap styles can be used in both open and closed systems
- Innovative angled neck design offers good pipet and cell scraper access in
- \* Upper triangular and wider base shape provides stability
- \* Protrudent ridge on the back side of the flask makes it easy for stacking
- \* Special area near the neck for easy mark writing
- Both flask sides have engraved graduation
- \* Strict integrity tested
- \* Sterilized by gamma irradiation
- \* DNase/ RNase-free & Non-pyrogenic

#### **CellATTACH<sup>™</sup> Cell and Tissue Culture Plates**

- \* Available with 6 different growth surface areas of 6, 12, 24, 48, 96 and 96U wells
- \* CellATTACH<sup>™</sup> Surface Treated
- \* Uniform well volume ensures equal growth surface area
- Flat well bottom and round bottom plate
- \* Well surface is smooth and free from striation to maximize usable growth area
- \* Raised rims on wells with the uniform rings on the lid to reduce evaporation
- \* Single position lid reduces the risks of cross-contamination and the handling mistakes
- ✤ Wells are labeled with alphanumeric code for easy identification
- Suitable for all common instruments and automation
- Sterilized by gamma irradiation
- DNase/ RNase-free & Non-pyrogenic

Cat.No.	Volume(ml)	Surface Type	Appro.Cell Growth Area(cm <sup>2</sup> )	Cap Styles	Sterile	Oty.per bag/case
CAF011025	25		12.5	Standard	Y	10/200
CAF012025	25		12.5	Vent	Y	10/200
CAF011050	50		25.0	Standard	Y	10/200
CAF012050	50		25.0	Vent	Y	10/200
CAF011250	250	CellATTACH <sup>™</sup>	75.0	Standard	Y	5/100
CAF012250	250	Surface Treated	75.0	Vent	Y	5/100
CAF011600	600		182.0	Standard	Y	5/40
CAF012600	600		182.0	Vent	Y	5/40
CAF011850	850		300.0	Standard	Y	3/18
CAF012850	850		300.0	Vent	Y	3/18

Cat.No.	Well Qty.	Bottom	Surface Type	Cell Growth Area(cm <sup>2</sup> )	Oty.per bag/case
CAP011006	6	Flat		1.90-2.90	1/100
CAP011012	12	Flat		0.76-1.14	1/100
CAP011024	24	Flat	CellATTACH™	0.38-0.57	1/100
CAP011048	48	Flat	Surface Treated	0.19-0.29	1/100
CAP011096	96	Flat		0.075-0.20	1/100
CAP012096	96	U		0.1-0.2	1/100





#### **CellATTACH<sup>™</sup> Cell and Tissue Culture Dishes**

- Available with 6 different diameters of 3.5cm, 6.0cm, 7.0cm,
  9.0cm, 10.0cm and 15.0cm
- \* CellATTACH<sup>™</sup> Surface Treated
- \* Flat bottom uniform wall thickness ensures distortion-free bottom
- \* The rim on bottom side of the lid mates with the dish brim for easy and secure stack
- \* Lids with several little chimbs to shape vents are available for very effective gas exchange
- \* Numeric Scale 12, 3, 6, 9 divides dish into quadrants for easy orientation
- \* DNase/ RNase-free & Non-pyrogenic

Cat.No.	Diameter(mm)	Surface Type	Cell Growth Area(cm²)	Sterile	Qty.per bag/case
CAD010035	35		8.5	Y	10/240
CAD010060	60		21.2	Y	10/240
CAD010070	70	CellATTACH™	36.3	Y	10/240
CAD010090	90	Surface Treated	58.4	Y	10/240
CAD010100	100		60.8	Y	10/240
CAD010150	150		143.0	Y	5/80











#### **Cell and Tissue Culture Plates**

#### Cell and Tissue Culture Plates are ideal for cell growth and cell yields on multiple, compare and other analyse.

- \* Available with 8 different growth surface areas of 4, 6, 12, 24, 48, 96, 96U, 384 wells
- \* Available in surface-treated or non-treated
- \* Uniform well volume ensures equal growth surface area
- \* Flat well bottom and round bottom plate
- \* Well surface is smooth and free from striation to maximize usable growth area
- \* Raised rims on wells with the uniform rings on the lid to reduce evaporation
- \* Single position lid reduces the risks of cross-contamination and the handling mistakes
- \* Wells are labeled with alphanumeric code for easy identification
- \* Suitable for all common instruments and automation
- \* Sterilized by gamma irradiation
- \* DNase/RNase-free & Non-pyrogenic

Cat.No.	Well Oty	Surface Type	Max Well Volume(ml)(single well)	Lid	Sterile	Oty.per bag/case
TCP001004	4		1.50	Y	Y	1/100
TCP001006	6		17.0	Y	Y	1/100
TCP001012	12		6.80	Y	Y	1/100
TCP001024	24		3.50	Y	Y	1/100
TCP001048	48	General,	1.55	Y	Y	1/100
TCP001096	96	Norricated	0.39	Y	Y	1/100
TCP002096	96		0.32	Y	Y	1/100
TCP001384	384		0.14	Y	Y	1/100



Cat.No.	Well Oty	Surface Type	Max Well Volume(ml)(single well)	Cell Growth Area(cm <sup>2</sup> )(single well)	Lid	Sterile	Oty.per bag/case
TCP011004	4		1.50	1.96	Y	Y	1/100
TCP011006	6		17.0	9.60	Y	Y	1/100
TCP011012	12		6.80	3. 85	Y	Y	1/100
TCP011024	24		3.50	1.93	Y	Y	1/100
TCP011048	48	Standard,	1.55	0.84	Y	Y	1/100
TCP011096	96	surface treated	0.39	0. 33	Y	Y	1/100
TCP012096	96U		0.32	0. 58	Y	Y	1/100
TCP011384	384		0.14	0. 1135	Y	Y	1/100



#### **Order Information**

\* Individually packaged in peel-to-open paper/plastic blister pack \* Every case has printed with lot No. for quality traceability







atencion.clientes@akralab.es · 902 222 275 · 965 116 521 · www.akralab.es



19.98 3

.07



48 Well Plate



12 Well Plate



96-U Well Plate

#### Polycarbonate (PC) Membrane Tissue Culture Plate Inserts

- \* The polycarbonate plate inserts feature a thin, semitransparent polycarbonate membrane that is available in six pore sizes from  $0.1 \mu m$  to  $12.0 \mu m$ . All inserts are treated for optimal cell attachment. The polycarbonate plate.
- \* Inserts are sterile and assembled with well plates and resist most fixing and staining agents. All plates come with lids.



#### Polyester (PET) Membrane Tissue Culture Plate Inserts

Tissue Culture Plate Inserts feature a thin, microscopically polyester membrane that is tissue culture treated for optimal cell attachment and growth. Tissue Culture Plate Inserts provide excellent cell visibility under phase contrast microscopy and allow assessment of cell viability and monolayer formation. Tissue Culture Plate Inserts are sterile and can be assembled with 6, 12 and 24 well plates. All plates come with lids.



Cat.No.	W/ell	Pore Size(µm)	Growth area for insert menbrane(cm <sup>2</sup> )	Sterllize	Oty.per bag/case
TCS000006	6	0.1	4.67	Y	6/24
TCS001006	6	0.4	4.67	Y	6/24
TCS005006	6	1.0	4.67	Y	6/24
TCS002006	6	3.0	4.67	Y	6/24
TCS003006	6	8.0	4.67	Y	6/24
TCS100006	6	12.0	4.67	Y	12/48
TCS000012	12	0.1	1.12	Y	12/48
TCS010012	12	0.4	1.12	Y	12/48
TCS005012	12	1.0	1.12	Y	12/48
TCS020012	12	3.0	1.12	V	12/48
TCS030012	12	8.0	1.12	Y	12/48
TCS100012	12	12.0	1.12	Y	12/48
TCS000024	24	0.1	0.33	Y	12/48
TCS001024	24	0.4	0.33	Y	12/48
TCS005024	24	1.0	0.33	Y	12/48
TCS002024	24	3.0	0.33	Y	12/48
TCS003024	24	8.0	0.33	Y	12/48
TCS100024	24	12.0	0.33	Y	12/48
TCS004024	24	5.0	0.33	Y	12/48

Cat.No.	Well	Pore Size(µm)	Growth area for insert menbrane(cm <sup>2</sup> )	Sterllize	Oty.per bag/case
TCS010006	6	0.1	4.67	Y	6/24
TCS011006	6	0.4	4.67	Y	6/24
TCS015006	6	1.0	4.67	Y	6/24
TCS012006	6	3.0	4.67	Y	6/24
TCS013006	6	8.0	4.67	Y	6/24
TCS010012	12	0.1	1.12	Y	12/48
TCS011012	12	0.4	1.12	Y	12/48
TCS015012	12	1.0	1.12	Y	12/48
TCS012012	12	3.0	1.12	Y	12/48
TCS013012	12	8.0	1.12	Y	12/48
TCS010024	12	0.1	0.33	Y	12/48
TCS011024	24	0.4	0.33	Y	12/48
TCS015024	24	1.0	0.33	Y	12/48
TCS012024	24	3.0	0.33	Y	12/48
TCS013024	24	8.0	0.33	Y	12/48



#### **Cell Culture Inserts**





The surface of the cell culture insert is super hydrophilic and placed in a 24-well culture plate for ease of cell culture without the need for a matrix coating and can be optimized for 3-d cell imaging.

Our cell culture inserts and plates meet ANSI standards and are equipped with alphanumeric well identification; all items are USP Class VI, sterile and include lids.

#### **Application Examples**

#### **Transport studies**

- \* Molecules including hormones and growth factors
- \* Drug transport across epithelial (Caca-2) and endothelial barriers
- \* Drug transport across brain microvascular endothelial cells

#### **Co-cultivation studies**

- \* Cell-cell interaction
- \* Cell-marix cell interaction
- \* Cell-substrate interaction

#### **Tissue engineering**

- \* Angiogensis
- \* Dermal/epidermal and epithelial tissue models

Cat.No.	Pore Size (µm)	Culture Area (cm²)	Suggested working Volume (ml)	No.insert/ multi -dishes	No. of multi-dishes/ case
TCS021024	0.4	0.47	1.1	24	4
TCS031024	3.0	0.47	1.1	24	4



#### **Cell and Tissue Culture Flasks**

#### Cell and Tissue Culture Flasks are perfect for cell growth and cell yields aim on little and medium input volume

- \* Available with 5 different growth areas of 12.5cm<sup>2</sup>, 25cm<sup>2</sup>, 75cm<sup>2</sup>, 182cm<sup>2</sup>, 300cm<sup>2</sup>
- \* Available in surface-treated or Non-treated
- \* Flacks surface is flat and free from striation to maximize usable growth area
- \* 2 different cap styles can be used in both open and closed systems
- \* Innovative angled neck design offers good pipet and cell scraper access in
- \* Upper triangular and wider base shape provides stability
- \* Protrudent ridge on the back side of the flask makes it easy for stacking
- \* Special area near the neck for easy mark writing
- \* Both flask sides have engraved graduation
- \* Strict integrity tested
- \* Sterilized by gamma irradiation
- \* DNase/RNase-free and Non-pyrogenic







Cat.No.	Volume(ml)	Surface Type	Working Volume(ml)	Cap Styles	Sterile	Oty.per bag/case	Cat.No.	Volume(ml)	Surface Type	Appro.Cell Growth Area(cm <sup>2</sup> )	Cap Styles	Sterile	Oty.per bag/case
TCF001025	25		20	Standard	Y	10/200	TCF011025	25		12.5	Standard	Y	10/200
TCF002025	25		20	Vent	Y	10/200	TCF012025	25		12.5	Vent	Y	10/200
TCF001050	50		40	Standard	Y	10/200	TCF011050	50		25.0	Standard	Y	10/200
TCF002050	50		40	Vent	Y	10/200	TCF012050	50		25.0	Vent	Y	10/200
TCF001250	250	General, Non-treated	175	Standard	Y	5/100	TCF011250	250	Standard,	75.0	Standard	Y	5/100
TCF002250	250		175	Vent	Y	5/100	TCF012250	250	Surface treated	75.0	Vent	Y	5/100
TCF001600	600		400	Standard	Y	5/40	TCF011600	600		182.0	Standard	Y	5/40
TCF002600	600		400	Vent	Y	5/40	TCF012600	600		182.0	Vent	Y	5/40
TCF001850	850		800	Standard	Y	3/18	TCF011850	850		300.0	Standard	Y	3/18
TCF002850	850		800	Vent	Y	3/18	TCF012850	850		300.0	Vent	Y	3/18

#### **Ordering Information**

- upright and reduce contamination



\* Vacuum Package in durable zip resealable self-standing plastic bags that allow flasks to remain

\* Every package bag is labeled with lot number for quality traceability

#### **600ml Tissue Culture Extended Flasks**

Cat.No.	Volume(ml)	Surface Type	Working Volume(ml)	Cap Styles	Sterile	Qty. per bag/case
TCF101600	600	General Non-treated	500	Standard	Y	5/40
TCF102600	600	General, Non-treated	500	Vent	Y	5/40
Cat.No.	Volume(ml)	Surface Type	Appro.Cell Growth Area(cm <sup>2</sup> )	Cap Styles	Sterile	Qty. per bag/case
Cat.No.	Volume(ml) 600	Surface Type Standard,	Appro.Cell Growth Area(cm <sup>2</sup> ) 182.0	Cap Styles Standard	Sterile Y	Qty. per bag/case







Standard polyethylene caps can be used in closed systems, providing a liquild and gas sheer seal. But it can be simply unscrew the cap one quarter of a turn, this cap can also be used in open system.

Vented polyethylene caps contain a  $0.22 \mu m$  hydrophobic filter to allow gas exchange and minimize risk of cross-contamination.



# **Cell and Tissue Culture Dishes**

#### Cell and Tissue Culture Dishes are ideal containers for cell growth and yields aim on little and medium input volume, and also useful in sample separation, pre-treatment, storage and so on.

- \* Available in surface-treated or non-treated
- \* Flat bottom uniform wall thickness ensures distortion-free bottom
- \* Dish surface is smooth and free from striation to maximize usable area for growth
- \* The rim on upper side of the lid mates with the dish brim for easy and secure stack
- \* Lids with several little chimbs to shape vents are available for very effective gas exchange \* Sterilized by gamma irradiation
- \* Non-pyrogenic

#### **Order Information**

- reduce contamination

Cat.No.	Diameter(mm)	Surface Type	Dimension(mm)	Appro.Cell Growth Area(cm <sup>2</sup> )	Lid	Sterile	Oty.per bag/case
TCD000018	18		12.1×17.8	12.0	Y	Y	10/600
TCD000035	32.8		12.5×37.8	8.5	Y	Y	10/960
TCD000060	52.0		17.8×58.8	21.2	Y	Y	10/600
TCD000070	68.0	General	15.0×73.5	36.3	Y	Y	10/600
TCD000090	84.6	Non-treated	17.0×91.5	55.0	Y	Y	10/500
TCD000100	87.8		22.0×95.6	60.8	Y	Y	10/300
TCD000150	135.5		21.9×143	143.0	Y	Y	1/120
TCD001150	135.5		21.9×143	143.0	Y	Y	5/100
TCD010018	18	_	12.1×17.8	12.0	Y	Y	10/600
TCD010035	32.8		12.5×37.8	8.5	Y	Y	10/960
TCD010060	52.0		17.8×58.8	21.2	Y	Y	10/600
TCD010070	68.0	Standard	15.0×73.5	36.3	Y	Y	10/600
TCD010090	84.6	Surface treated	17.0×91.5	55.0	Y	Y	10/500
TCD010100	87.8		22.0×95.6	60.8	Y	Y	10/300
TCD010150	135.5		21.9×143	143.0	Y	Y	1/120
TCD050150	135.5		21.9×143	143.0	Y	Y	5/100

**Tissue Culture Products** 



\* Available with 7 different diameters of 1.8, 3.5, 6.0, 7.0, 9.0, 10.0 and 15.0cm

\* Package in durable zip resealable self-standing plastic bags that allow dishes to remain upright and

\* Every package bag is labeled with lot number for quality traceability



#### 6cm Cell and Tissue Culture Center-well Dish

- \* Available in surface treated or non-treated
- \* Cell growth area of center well is 3.35cm<sup>2</sup>
- \* Dish surface is smooth and free from striation to maximize usable area for growth
- \* The rim on upper side of the lid mates with the dish brim for easy and secure stack
- \* Lids with several little chimbs to shape vents are available for very effective gas exchange
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic and DNase/RNase-free

Cat.No.	Diameter(mm)	Surface Type	Dimension(mm)	Appro.Cell Growth Area (cm²)	Lid	Sterile	Qty.per bag/case
TCD100060	54.7	General, Non-treated	13.9*54.7	3.35	Υ	Y	10/600
TCD110060	54.7	Standard, Surface Treated	13.9*54.7	3.35	Y	Y	10/600













### **Solution Bottles**

#### Solution Bottles are safe for solution storage. The material specialty ensures the bottles chemical-resistant.

- \* Available with 5 different volumes of 150, 250, 500, 1000 and 2000ml
- \* Light weight
- \* Heavy wall construction and edge knurls on the cap for easy screw
- \* Designed wide and easy access mouth for efficiently and stably pour out
- \* Engraved or silk-printed graduation
- \* Special concave for easy handling
- \* Sterilized by gamma irradiation
- \* DNase/RNase-free & Non-pyrogenic

Cat.No.	Volume(mi)	Sterile	Oty.per bag/case
CTF010150	150	Y	1/24
CTF010250	250	Y	1/24
CTF010500	500	Y	1/24
CTF010001	1000	Y	1/24
CTF010002	2000	Y	1/12

#### **Flat Blade Cell Lifter**

#### Flat Blade Cell Lifter is manufactured with exclusively high-grade polyethylene(PE) wich is tensile to make sure the manual harvesting of cells well.

- \* Available with 2 different styles of 9.0mm Narrow Blade and 2.5mm J-Hook
- \* Convenient operation, special blade design minimizes cell damage
- \* Individually wrapped
- \* Steriliezd by gamma irradiation
- \* DNase/RNase-free and Non-pyrogenic

Cat.No.	Total Length(cm)	Blade Length(mm)	Material	Blade Position	Sterile	Oty.per bag/case
CSC012023	23.4	9.0	PE	J-Hook	Y	1/100
CSC011030	23.4	2.5	PE	Narrow Blade	Y	1/100

#### **Exchangeable Cell Blade and Lifter**

Cat.No.	Description	Sterile	Oty. per bag/case
CSC013001	Light Green, 9.0 mm J-Hook	Y	1/200
CSC013002	Light Green, 2.5mm Narrow Blade	Y	1/200



#### Order Information

- \* Single package in easy-open packs to assure contamination-free
- \* Bottle cap is individually packed in package bag
- \* Every package bag is labeled with lot number for quality traceability

# **Cell scrapers**

- \* Availiable with 2 different lengths of 25cm, 2.0cm blade; 39cm, 3.0cm blade
- \* Two positions of blade: scraper and lifter
- \* Material: Blades/TPE; Handle/ABS
- \* Special developed to make the process of scraping off and collecting cells more easier and effective
- \* These particularly thin, swiveling, flexible blades are easy to use, cells from any damage
- \* Slender, tepid, easy to blow to them and collect cells
- \* Sterilized by Gamma irradiation
- \* Individually wrapped
- \* DNase/RNase-free & Non-pyrogenic



Cat.No.	Blade(cm)	Total Length(cm)	Matenrial	<b>Blade Position</b>	Sterile	Oty.per bag/case
CSC011025	2.0	25	Blades/TPE; Handle/ABS	Scraper	Y	1/100
CSC012025	2.0	25	Blades/TPE; Handle/ABS	Lifter	Y	1/100
CSC011039	3.0	39	Blades/TPE; Handle/ABS	Scraper	Y	1/100
CSC012039	3.0	39	Blades/TPE; Handle/ABS	Lifter	Y	1/100

# Rotatable<sup>™</sup> Cell Scrapers

Changes of the blade angle of the Rotatable<sup>™</sup> cell scraper require slight pressure on the handle using the forfinger, thus pushing the handle downward towards the floor of the container.

- \* Available with 2 different lengths of 23cm, 30cm
- \* Material: blades/PE, handle/ABS
- \* Free rotating blade to twist to the desired direction
- \* Total access to all corner
- \* Small raised knobs on the handle
- \* Individually wrapped
- \* Sterilized by gamma irradiation
- \* DNase/RNase-free & Non-pyogenic

#### **Order Information**

- \* Available with individually wrapped in easy-to-open bag
- \* Every case has printed lot No.for quality traceability

Cat.No.	Blade(cm)	Total Length(cm)	Material	Sterile	Oty.per bag/case
CSC211023	1.25	23	Blades/PE; Handle/ABS	Y	1/150
CSC211030	1.25	30	Blades/PE; Handle/ABS	Y	1/150
CSC212023	1.95	23	Blades/PE; Handle/ABS	Y	1/150
CSC212030	1.95	30	Blades/PE; Handle/ABS	Y	1/150









#### **Cell Strainers**

suspensions and clinical samples prior to analysis.

- ★ Available in 3 mesh sizes, 40µm, 70µm, and 100µm
- \* 3 different colors: bule, white, and yellow, for easy identification
- \* Improved uniformity of single cell suspensions
- Made of a strong nylon mesh with evenly spaced mesh pores
- \* The extended lip on the strainer enables aseptic handling with forceps
- \* Design to fit perfectly into a JET 50ml conical tube
- \* Ready-to-use, sterilized by gamma irradiation
- \* Individually packaged
- \* DNase & RNase-free
- \* Non-pyrogenic

Cat.No.	Capacity(µI)	Color	Sterile	Qty. per bag/case
CSS010040	40	Blue	Y	1/50
CSS010070	70	Natural	Y	1/50
CSS010100	100	Yellow	Y	1/50

#### **Pestles for Cell Strainer**

- \* Using PP materials, high hardness, wear resistance
- \* A mesh bottom line, grinding better
- \* Handle special process design, non-slip and easy grip
- \* And supporting the use of cell strainer, reduce sample loss
- \* Non-pyrogenic and certified DNase/RNase-free

#### Order Information

- \* Easy to tear the paper and plastic individually packaged, easy to open use
- \* Use with anti-press 200 pounds, high-quality packaging cartons, better protection of the product
- \* Each package is printed with lot number, to facilitate quality tracking

Cat.No.	Volume(ml)	Colour	Material	Sterile	Oty.per bag/case
CSP001001	13.5	Fluorescent green	PP	Y	1/100





#### Cell strainers are manufactured from a strong nylon mesh with evenly spaced mesh pores and gamma resistant. These cell strainers are sterile, rapid, easy-to-use devices for isolating primary cells to consistently obtain a uniform single-cell suspension from tissues. Protect your valuable flow cytometry and cell sorting instrumentation by reliably removing clumps and debris from cell

#### **Order Information**

\* Single package in easy-to-open bag to assure contamination-free

\* Every case has printed lot No. for quality traceability

#### **Bio-Reaction Tubes**

Bio-Reaction tubes are manufactured from high quality polypropylene, offer a convenient and economical option for small scale, high density suspension cell culture. Bio-reaction tubes consist of centrifuge tubes with a 0.22µm hydrophobic membrane in the vent cap. These tubes are perfect for biological reaction experiments that require aseptic conditions with free gas exchange.

- \* Available with 2 volumes of 15 and 50ml
- \* Conical bottom and self-standing bottom
- \* Caps have an ultrasonically welded 0.22µm hydrophobic membrane to allow gas exchange
- \* With a large unerasable frosting white printed writing area
- \* Save money with the ability to culture and centrifuge in one tube
- \* Maximum RCF is 12,000xg
- \* Engraved graduation at the conical bottom of each tube
- \* Leak proof
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic

#### **Order Information**

- \* Tubes are packaged in durable and resealable(zip closure) bags
- \* Every bag/case has printed lot No. for quality traceability

	the states	E A	
	1 and a starter	1.9	6.11

Cat.No.	Volume(ml)	Bottom	max Rotate Speed(xg)	Sterile	Package	Oty.per bag/case
BRT000015	15	Conical	12,000	Y	Re-sealable bag	10/100
BRT010015	15	Conical	12,000	Y	Rack	50/300
BRT000050	50	Conical	12,000	Y	Re-sealable bag	10/100
BRT010050	50	Conical	12,000	Y	Rack	25/300
BRT011050	50	Self-standing	6,000	Y	Re-sealable bag	10/100

#### **Bio-Reaction Cap**

Cat.No.	Volume(ml)	Speciality	Sterile	Oty.per bag/case
BRC000050	50	Tube Cap	Υ	25/1000









#### **Roller Bottles for Cell and Tissue Culture**

Roller Bottles are optimal applications for large yield of cell growth and multiplication, that can be used in both research and manufacturing, including the growing of mammalian cells for purposes of virus propagation and bio-product production.

- \* Available with 3 bottle volumes of 1000ml, 2000ml, 5000ml
- \* Available surface-treated or non-treated
- \* Designed in large knurls on the cap for easy grip
- \* 2 different cap styles can be used in both open and closed systems
- \* Every bottle has silk-printed graduation
- \* Suitable for all the common instruments and automation
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic

#### **Order Information**

- \* Single package in peel to open plastic bags to assure contamination free
- \* Bottle cap is individually wrapped in package bag
- \* Every package case has labeled lot Number

Cat.No.	Volume(ml)	Surface Type	Appro.Cell Growth Area(cm <sup>2</sup> )	Cap Style	Sterile	Oty.per bag/case
TCB001001	1000		490	Standard	Y	1/24
TCB002001	1000		490	Vent	Y	1/24
TCB001002	2000	Connel New treated	850	Standard	Y	1/12
TCB002002	2000	General, Non-treated	850	Vent	Y	1/12
TCB001005	5000		1700	Standard	Y	1/12
TCB002005	5000		1700	Vent	Y	1/12

Cat.No.	Volume(ml)	Surface Type	Appro.Cell Growth Area(cm <sup>2</sup> )	Cap Style	Sterile	Oty.per bag/case
TCB011001	1000		490	Standard	Y	1/24
TCB012001	1000		490	Vent	Y	1/24
TCB011002	2000		850	Standard	Y	1/12
TCB012002	2000	Standard	850	Vent	Y	1/12
TCB031002	2000	Surface Treated	1900	Standard	Y	1/12
TCB032002	2000		1900	Vent	Y	1/12
TCB011005	5000		1700	Standard	Y	1/12
TCB012005	5000		1700	Vent	Y	1/12



\* Wide cell growth area of 490cm<sup>2</sup>, 850cm<sup>2</sup>, 1700cm<sup>2</sup>, 1900cm<sup>2</sup> for adhesions and huge growth volume for suspension

\* Bottle surface is smooth and free from striation to maximize usable area for growth

#### Single well plates

- \* Single well plates have increased in internal plating dimension, providing larger area for area cell growth
- \* Plates have standard external footprint, making them compatible with other instruments that accept SBS-standard plates
- For use in applications where cell attachment is not desired
- \* Temperature range:-20°C to 50°C
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic & DNase/RNase-free

#### **Plastic Blister Packaged**

Cat.No.	Well Qty.	Surface Type	Working Volume (cm²)	Lid	Sterile	Qty. per bag/
TCP011001	1	Standard, surface treated	93.5-94	Y	Y	1/100
TCP001001	1	General, Non-treated	93.5-94	Y	Y	1/100

#### Tyvek Paper, Individually Packaged

Cat.No.	Well Qty.	Surface Type	Working Volume (cm²)	Lid	Sterile	Qty. per bag/o
TCP010001	1	Standard, surface treated	93.5-94	Y	Ŷ	1/200
TCP000001	1	General, Non-treated	93.5-94	Y	Y	1/200

#### **96 Well Detachable Flat Plate**

- \* Uniform well volume ensures equal growth surface area
- Flat well bottom with 96 well detachable frames
- \* Well surface is smooth and free from striation to maximize usable growth area
- \* Raised rims on wells with the uniform rings on the lid to reduce evaporation
- \* Single position lid reduces the risks of cross-contamination and the handling mistakes
- \* Wells are labeled with alphanumeric code for easy identification
- \* Suitable for all common instruments and automation
- \* 8 well strip is supplied in order to satisfy different sample quantity and economize coat
- \* Sterilized by gamma irradiation
- \* Non-pyrogenic

#### **Order Information**

- \* Individually packaged in peel-to-open paper/plastic blister pack
- \* Every case has printed with lot No. for quality traceability

Cat.No.	Cat.No. Description	
TCP011896	Frame for 8w x 12 strips, Standard, Surface treated, Sterile	1/100
TCP001896	Frame for 8w x 12 strips, General, Non- treated, Sterile	1/100







ase

ase









