NEST®

PRODUCT CATALOGUE

NEST International

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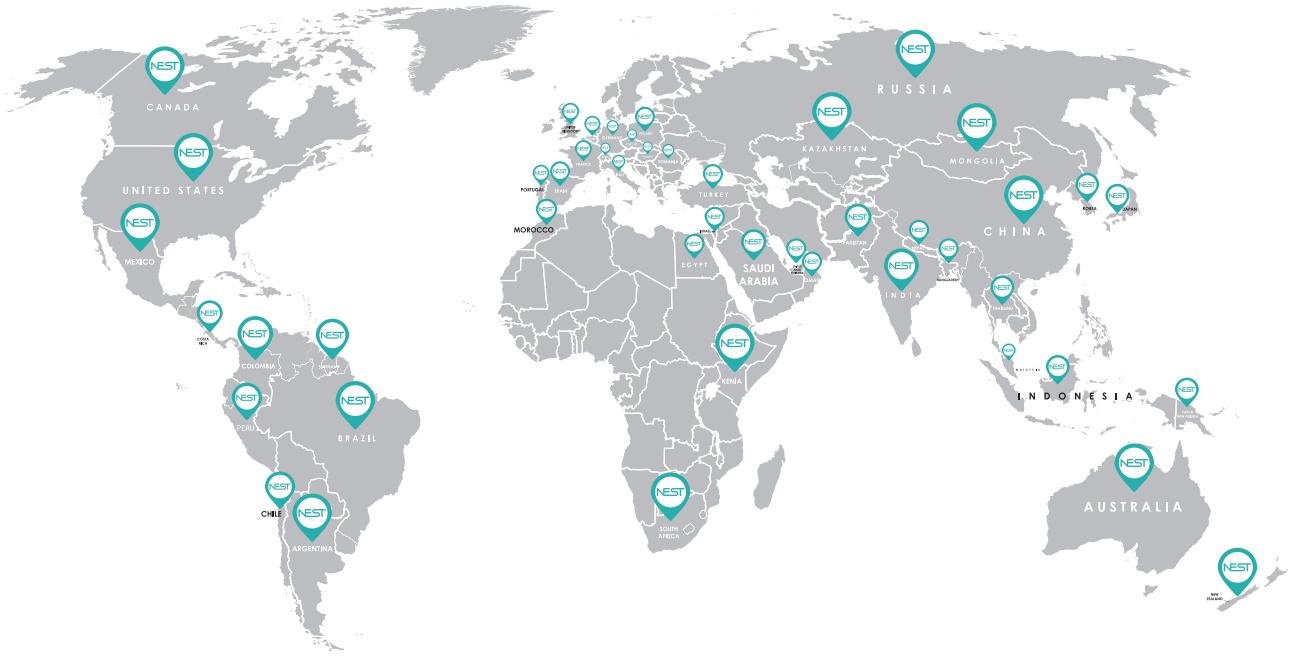

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YouTube

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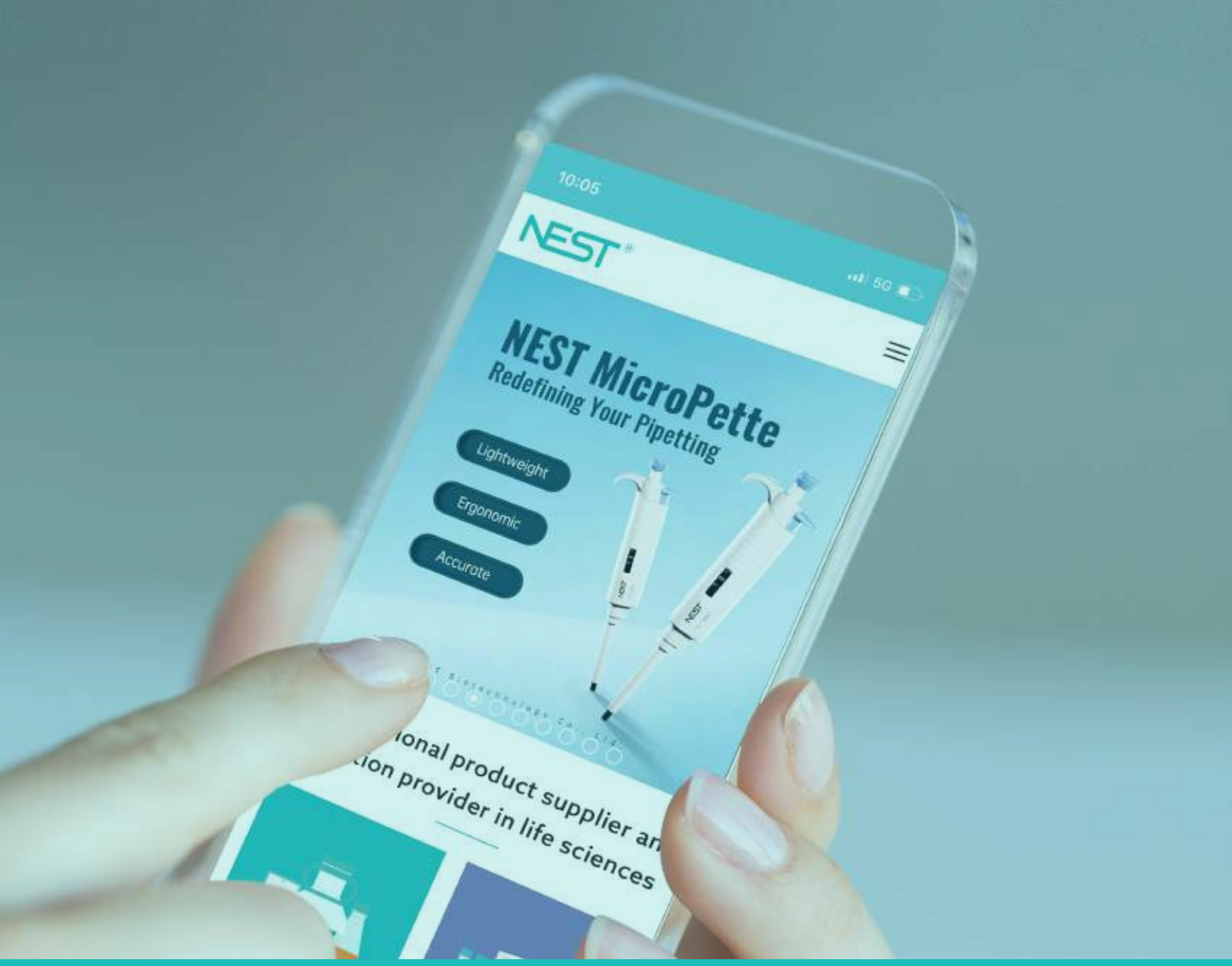

Have you checked out the new designs and functions on our website?

COA/COC Download

Documents Download

Cross-Reference Tool

PCR Product Compatibility Reference Tool

Closed System Customization

Exploring more in-depth information?

Missed out specific details?

Scann the QR codes above to experience NEST online services.

You can also visit **https://www.cell-nest.com/**

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COMPANY PROFILE

A leading life science plastic consumables manufacturer.

Established in 2009, Wuxi NEST Biotechnology Co., Ltd. (NEST) is renowned for its brand "NEST" and is dedicated to the research, development, and manufacturing of high-quality life sciences products. As our International business expands, our products have been successfully exported to numerous countries such as North America, Europe, Japan, Korea, India, and more.

2011, NEST passed the standard of the quality management system of ISO 9001.

2014, NEST passed the standard of the quality management system of ISO 11137.

2016, NEST passed the standard of the quality management system of ISO 13485.

2020, NEST obtained the medical device production license.

In addition to these certifications, we also gained CE and FDA standards.

NEST Scientific Inc. (USA)

With the development of the business, we have established deep cooperation and built strong relationships with overseas customers in order to send the products to customers in North America more quickly. Nest Scientific Inc., a branch of Wuxi NEST Biotechnology Co., Ltd., was established in New Jersey, the USA in 2013. Composed by a professional team with rich experience in training and sales skills, NEST Scientific USA can provide professional training as well as great communication with customers in-depth in order to understand customers' demands better and quicker. In 2022, NEST is opening a new 48,000ft^2 warehouse located in Phoenix, AZ. This new warehouse allows for more space to receive in and stock items as well as lower shipping costs for distributors on the west coast.

To further expand our footprints globally, and to respond the request for more timely service from NEST's accumulating industrial customers including CDMOs, vaccine plants and third-party testing companies, etc., we are setting up subsidiaries in Netherland, UAE and Japan to duplicate our US successful experience.

Overseas Branches

NEST brand is continuously expanding its overseas market. With a steady increase in overseas business volume, NEST's presence has extended to the Americas, Europe, the Middle East, and East Asia. In 2013, the US branch was officially established, and a new warehouse was completed in the US in 2022. Additionally, NEST has subsidiaries in Rotterdam, the Netherlands; Sharjah, the United Arab Emirates; and Tokyo, Japan. These subsidiaries have successfully provided integrated storage, transportation, and sales services, ensuring NEST brand's supply in overseas markets. Currently, NEST products are sold in many countries worldwide, including North America, Europe, Japan, South Korea, and India.

Customized Consumables

NEST offers a wide range of consumables, including plates, bottles, dishes, tubes, and other cell culture consumables. You can freely choose our standardized products in specific packaging or request customized solutions such as closed systems.Should you have any requirements, please feel free to contact us.

West Coast Address of USA:
641 S 53rd Ave, Phoenix, AZ 85043 USA

Corporate Address of USA:
3 Convery Blvd, Woodbridge, NJ 07095 USA

Wuxi NEST Biotechnology Co., Ltd.

Your best choice for medical laboratory consumables.

NEST is dedicated to researching and developing innovative plastic consumables suitable for life sciences research and medical establishments. There are more than 600 plastic consumables that can be widely used for cell culture, molecular biology, immunoassays, liquid handling, and storage such as cell culture plates, Erlenmeyer flasks, BioFactory, pipette tips, etc. More than 100 medical plastic consumables and reagents can be used in molecular diagnosis and vaccination, such as disposable samplers, transport media, swabs, nucleic acid extraction kits, and disposable intranasal atomization devices. In order to provide a more comprehensive and convenient service, we work closely with our affiliated company Wuxi Tech-star Technology Co., Ltd. We also provide lab instruments such as centrifuges, metal baths, BioBank, etc.

Quality Guaranteed
Experienced team & a complete plastic consumables production line.

A complete plastic consumables production line is in NEST's possession, where all the procedures from mold-making, injection molding to sterilization, are done efficiently in our own factory. Precision molds, high-quality raw material, and advanced equipment are in position to manufacture products and perform quality testing under strict and comprehensive rules, ensuring our products meet the highest quality and performance standards expected by hospitals, research institutions, and industrial, clinical laboratories, to which we supply products.

- **Excellent mold-making ability.**

  With over 30 years' experience, our senior R&D team utilize high-quality mold-making equipment imported from Germany in combination of professional mold analysis software to accomplish precision molds development tasks.

- **Injection molding in Class 10,000 and Class 100,000 cleanroom in strict quality control.**

  Owing to the 2700 m^2 Class 10,000 cleanroom and 6800 m^2 Class 100,000 cleanroom, all-electric high-speed injection molding machines imported from Japan and the raw material which is in line with USP Class VI requirements, production and quality control are performed strictly in accordance with the corresponding SOP.

- **Sterilization by electronic beam irradiation.**

  The Rhodotron TT200 electron accelerator, whose sterilization process has been certified by the ISO 11137 quality system, was imported from the IBA company, a world leader in the E-Beam sterilization industry in Belgium. Compared with sterilization by cobalt 60 or ethylene oxide sterilization, sterilization by electronic beam irradiation is more efficient and safer which requires less time and will not produce any chemical residue.

ISO 9001

ISO 13485

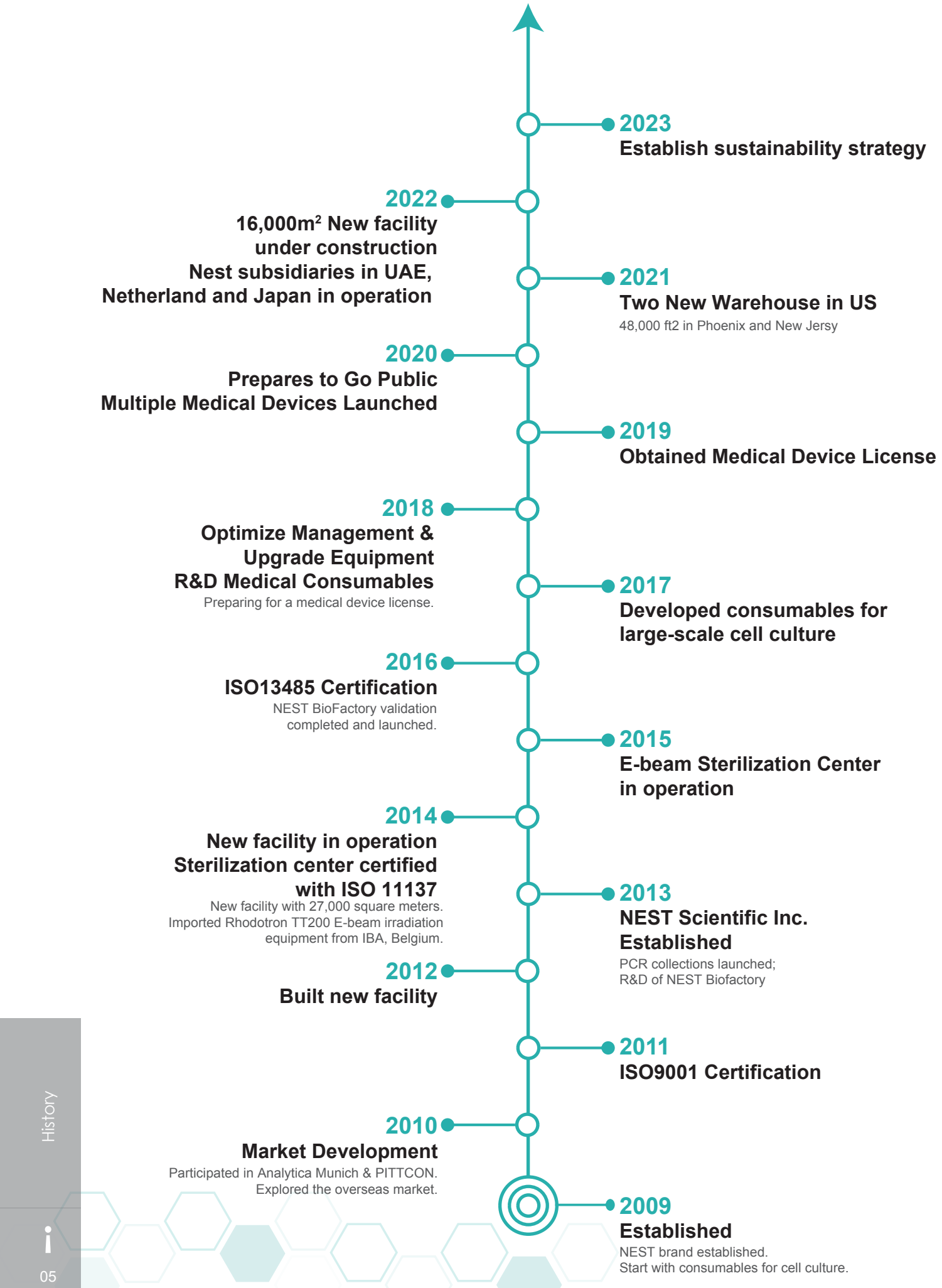
ISO 11137

JSDA

CE

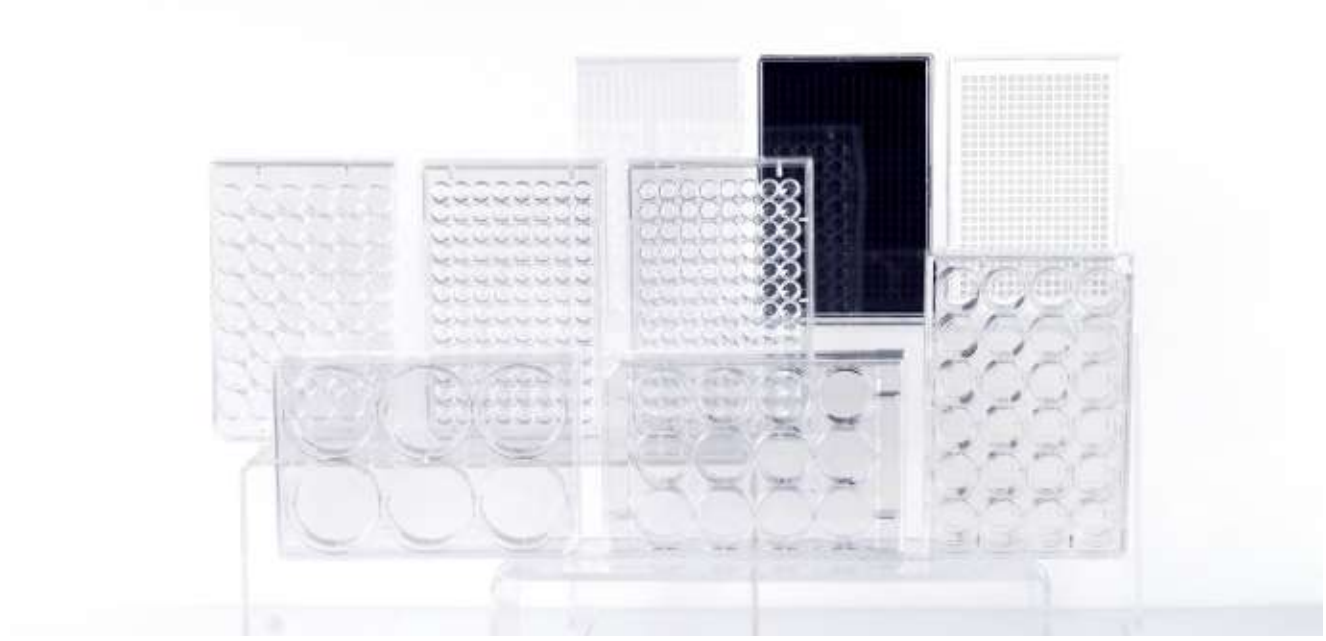
CE
(Medical Consumables)

FDA


2023
Establish sustainability strategy
2022
16,000m² New facility under construction
Nest subsidiaries in UAE, Netherland and Japan in operation
2021
Two New Warehouse in US
48,000 ft2 in Phoenix and New Jersy
2020
Prepares to Go Public
Multiple Medical Devices Launched
2019
Obtained Medical Device License
2018
Optimize Management & Upgrade Equipment
R&D Medical Consumables
Preparing for a medical device license.
2017
Developed consumables for large-scale cell culture
2016
ISO13485 Certification
NEST BioFactory validation completed and launched.
2015
E-beam Sterilization Center in operation
2014
New facility in operation
Sterilization center certified with ISO 11137
New facility with 27,000 square meters.
Imported Rhodotron TT200 E-beam irradiation equipment from IBA, Belgium.
2013
NEST Scientific Inc. Established
PCR collections launched;
R&D of NEST Biofactory
2012
Built new facility
2011
ISO9001 Certification
2010
Market Development
Participated in Analytica Munich & PITTCON.
Explored the overseas market.
2009
Established
NEST brand established.
Start with consumables for cell culture.

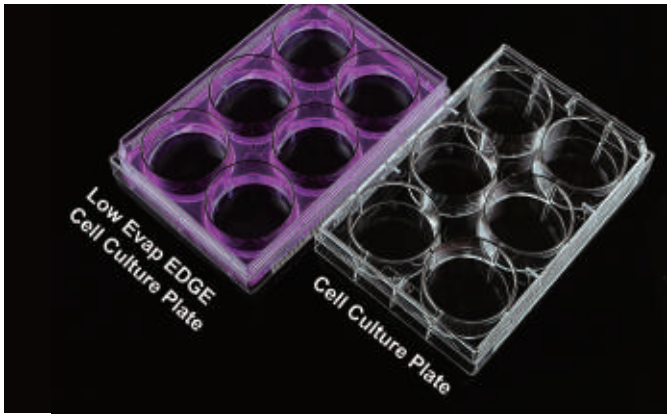
Cytology

Cell Culture Plate



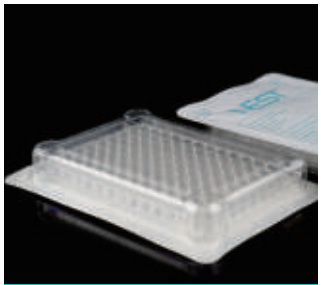
- Sterilized by E-beam, SAL=10^{-6}.
- High clarity, 100% virgin polystyrene.
- The configuration complies with the ANSI-SBS format.
- The plate lid is designed with cut corners and a condensation ring, reducing the risk of contamination.
- Non-Pyrogenic, DNase/Rnase free.
- The bottom is flat and clear, with each hole labeled for easy differentiation.
- The plate features a non-slip ridge on the side for easy gripping, while the protruding points on the bottom help to prevent noise during transfer.

*The TC-treated ones are intended for adherent cell culture, while the non-treated ones are suitable for suspension cell culture.



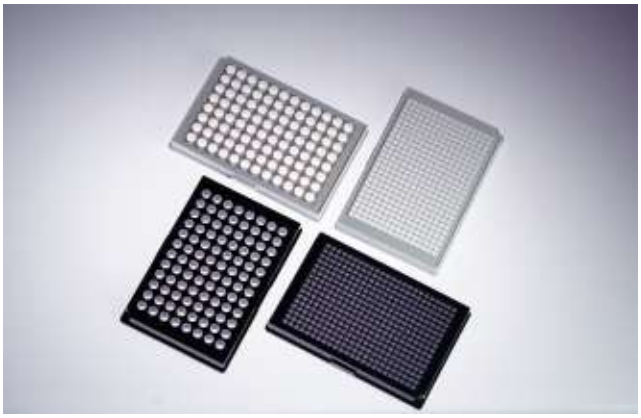
Low Evap EDGE Cell Culture Plate

Grooves are designed at the edge of the culture plate to help cells maintain their optimal state during cell culture. They provide a stable temperature and balanced humidity environment for the plate, which reduces or eliminates edge effects and ensures uniformity in cell growth.



Individually Packaged

Plastic Bag Package



Black/White Clear Bottom Cell Culture Plate

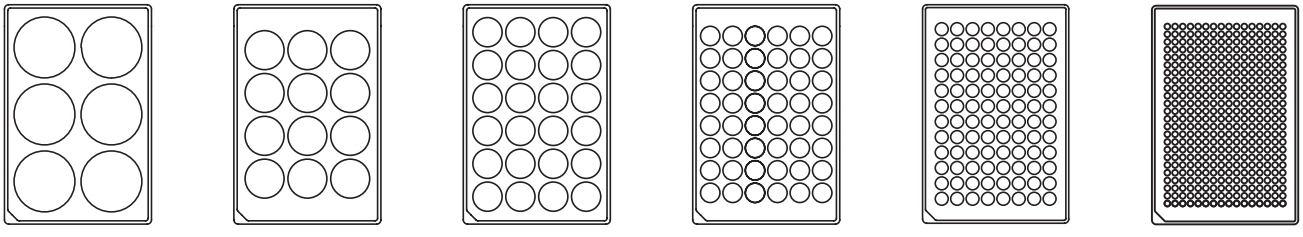
- The bottom of the wells is made of high-transparency PS material, ensuring uniform thickness and excellent light transmission performance. This material avoids optical distortion even under high magnification microscopy. On the other hand, the well walls are made of light-shielding PS material to prevent cross-contamination.
- Plates with a black frame are commonly used for fluorescence detection, while plates with a white frame are typically used for luminescence detection. Occasionally, white-framed plates are also used to enhance fluorescence signal intensity.

Product	Recommendation Experiment-Bottom Reading	Notes
White, transparent bottom	• Colorimetric Assay/ Absorbance • Chemiluminescence Method	Cellular visualization operations permitted in cell detection and analysis and confocal microscopy experiments.
Black, transparent bottom	• Fluorescence Intensity Method (FI) • Fluorescence Resonance Energy Transfer (FRET)	

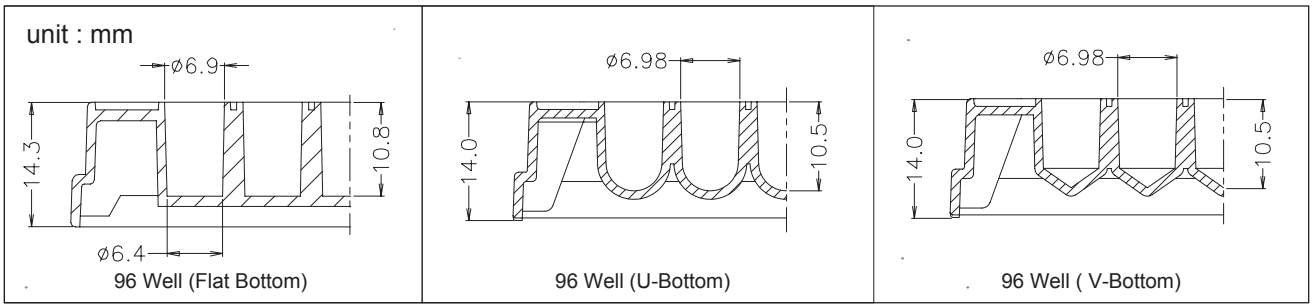
Cell Culture Plate

Well Number	Cell Growth Area (cm²)	Recommended Medium Volume (mL)	Bottom Type	Colour	Packaging	/Pack	/Case	Cat. No.	
								TC Treated	Non-Treated
6 Well	9.5	1.9-2.9	⊔	Clear	Individually Packaged	1	50	703001	703011
					Plastic Bag Package	10	50	703002	703012
6 Well Low Evap EDGE Plate					Individually Packaged	1	50	714011	714001
12 Well	3.6	0.76-1.14			Individually Packaged	1	50	712001	712011
					Plastic Bag Package	10	50	712002	712012
24 Well	1.9	0.38-0.57			Individually Packaged	1	50	702001	702011
					Plastic Bag Package	10	50	702002	702012
48 Well	0.88	0.19-0.285			Individually Packaged	1	50	748001	748011
					Plastic Bag Package	10	50	748002	748012
96 Well	0.32	0.1-0.2	⊔	Clear	Individually Packaged	1	100	701001	701011
					Plastic Bag Package	10	100	701002	701012
	0.66		U		Individually Packaged	1	100	701101	701111
	0.41		V		Individually Packaged	1	100	701201	701211
	0.32		⊔	White	Individually Packaged	1	100	701301	701311
				Black	Individually Packaged	/	/	/	/
96 Well Clear PS Bottom	0.32	0.1-0.2	⊔	White, transparent bottom	Individually Packaged	1	30	701701	/
				Black, transparent bottom	Individually Packaged	1	30	701401	/
96 Well Low Evap EDGE Plate	0.32	0.1-0.2	⊔	Clear	Individually Packaged	1	100	713011	713001
384 Well	0.11	0.025-0.05	⊔	Clear	Individually Packaged	1	100	761001	761011
					Plastic Bag Package	10	100	761002	761012
				Black	Individually Packaged	1	100	761301	761311
				White	Individually Packaged	1	100	761601	761611
				White, transparent bottom	Individually Packaged	1	30	761701	/
				Black, transparent bottom	Individually Packaged	1	30	761401	/

Technical Drawing of Cell Culture Plates



6 Well | 12 Well | 24 Well | 48 Well | 96 Well | 384 Well



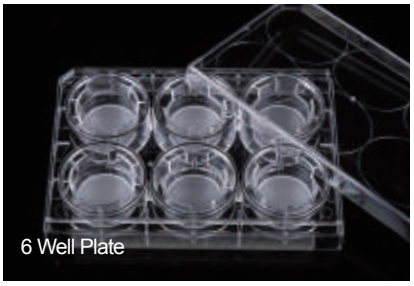
96 Well (Flat Bottom) | 96 Well (U-Bottom) | 96 Well (V-Bottom)

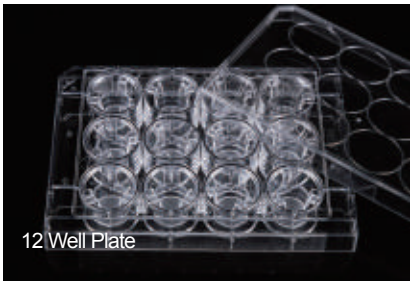
Cell Culture Insert

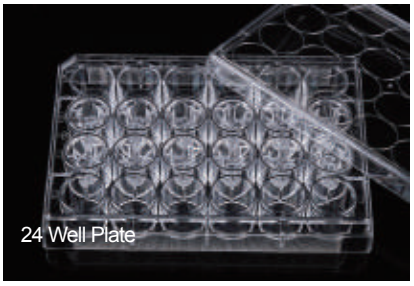
Cell and tissue culture technologies have an increasing importance in the fields of basic and applied life science. New culture vessels and new surfaces for cell adsorption are continuously emerging, in order to simulate the internal environment as much as possible for culture of some special cell lines. Logically, using permeable supports with a microporous membrane becomes the basic method for culturing these cells. Permeable supports may effectively improve the culture of polar cells, because these supports allow cells to secrete on and absorb molecules from their basal and apical surfaces to metabolize in a more natural way, as well as to stimulate the in vivo environment to the maximum extent for culturing of some special cell lines.

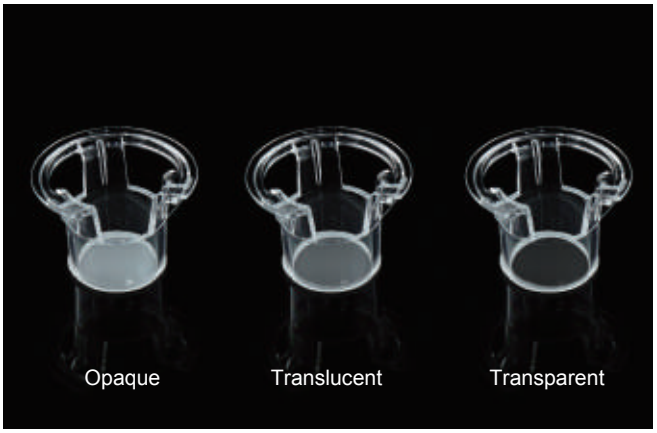
Features

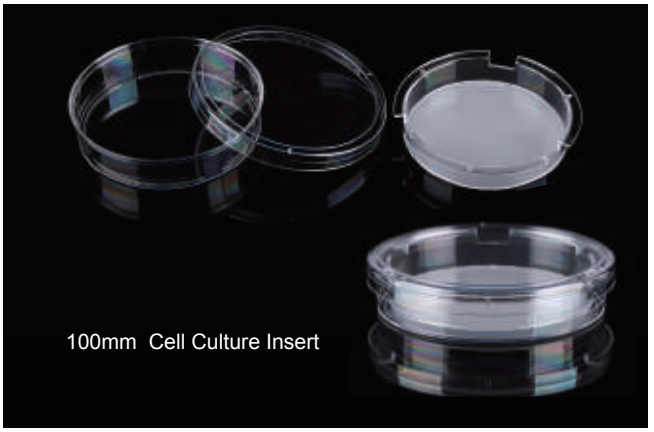
- Sterilized by E-beam, SAL=10^{-6}.
- Vacuum Plasma tissue culture treatment.
- Non-Pyrogenic, DNase/Rnase free.
- A rich selection of matching plates: 6-well, 12-well, 24-well.
- Passed the USP VI toxicity test.
- Cell culture plates are made of high clarity, 100% virgin polystyrene.
- Clear lot number for batch traceability.
- Innovative edge design for convenient sample loading.
- Low protein binding to ensure accurate results.
- Compatible with most solvents used for fixing and staining.


6 Well Plate


12 Well Plate


24 Well Plate


Opaque Translucent Transparent


100mm Cell Culture Insert

Application Directions and Types

Applications	Cells	Pore size of Membrane
ADME (transport and permeation of compounds through the enterocyte barrier)	Caco-2, MDCK	0.4 μm
Co-culture and cell differentiation, cell imaging	Primary cells, tumor, stem cells	0.4 μm, 1.0 μm
Cell migration and invasion (angiogenesis)	Endotheliocytes	3.0 μm
Cyto-chemotaxis (migration) or endothelial migration	Leukocytes	
Axonal hyperplasia	Neurons	
Tumor cell migration and invasion	Tumor-derived cells	8.0 μm
Hematostaxis or migration through endotheliocytes	Leukocytes	
Co-culture	Tumor stem cells	
Transport and secretion of macromolecules or viruses		1.0 μm, 3.0 μm

Product Specification

Cell Culture Insert

Specifications	Insert (Pcs/Plate)	Insert Diameter (mm)	Volume of Each Well (mL)	Inner Volume of Insert (mL)	Membrane Growth Area of Insert (cm^2)
6 Well Plate	6	24	2.6	1.5	4.67
12 Well Plate	12	12	1.5	0.5	1.12
24 Well Plate	12	6.5	0.6	0.1	0.33
100mm Dish	1	75	13	9	44

Pore Size of Membrane (μm)	0.4	1.0	3.0	5.0	8.0
Membrane Density (Well/cm^2)	$1x10^8$	$2x10^7$	$2x10^6$	$4x10^5$	$1x10^5$

Order Information (Insert+Plate Configuration)

Note: The inserts are TC-treated. Please refer to the table below to check if the plates are also TC-treated.

Pore Size (μm)	Description	Packaging		PC Membrane			PET Membrane		
		/Pack	/Case	Transparence	TC Treated	Non-Treated	Transparence	TC Treated	Non-Treated
0.4	6 Cell Culture Inserts + 6 Well Plate	6	24	Opaque	723101	723111	Opaque	723121	723131
	12 Cell Culture Inserts + 12 Well Plate	12	48	Opaque	724101	724111	Opaque	724121	724131
	12 Cell Culture Inserts + 24 Well Plate	12	48	Opaque	725101	725111	Opaque	725121	725131
1	6 Cell Culture Inserts + 6 Well Plate	6	24	Opaque	/	/	Opaque	723421	723431
	12 Cell Culture Inserts + 12 Well Plate	12	48	Opaque	/	/	Opaque	724421	724431
	12 Cell Culture Inserts + 24 Well Plate	12	48	Opaque	/	/	Opaque	725421	725431
3	6 Cell Culture Inserts + 6 Well Plate	6	24	Translucent	723001	723011	Translucent	723021	723031
	12 Cell Culture Inserts + 12 Well Plate	12	48	Translucent	724001	724011	Translucent	724021	724031
	12 Cell Culture Inserts + 24 Well Plate	12	48	Translucent	725001	725011	Translucent	725021	725031
	100 mm Cell Culture Insert-Dish	1	10	Translucent	726001	/	Translucent	/	/
5	12 Cell Culture Inserts + 12 Well Plate	12	48	Translucent	724201	724211	Translucent	/	/
	12 Cell Culture Inserts + 24 Well Plate	12	48	Translucent	725201	725211	Translucent	/	/
8	6 Cell Culture Inserts + 6 Well Plate	6	24	Translucent	723301	723311	Transparent	723321	723331
	12 Cell Culture Inserts + 12 Well Plate	12	48	Translucent	724301	724311	Transparent	724321	724331
	12 Cell Culture Inserts + 24 Well Plate	12	48	Translucent	725301	725311	Transparent	725321	725331

Cell Culture Inserts

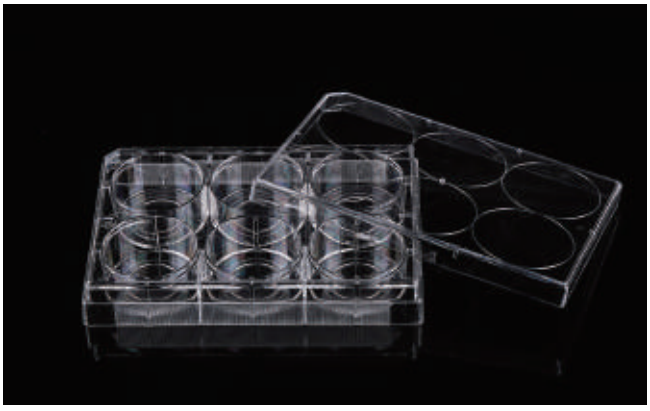
Pore Size (μm)	Specification	Description	Packaging	PC Membrane		PET Membrane	
				Transparence	TC Treated	Transparence	TC Treated
0.4	6 well	Cell Culture Inserts	1 pc/blister, 8 pcs/plate, 48 pcs/case	/	/	Opaque	723122
	12 well	Cell Culture Inserts	1 pc/blister, 8 pcs/plate, 48 pcs/case	/	/	Opaque	724122
	24 well	Cell Culture Inserts	1 pc/blister, 8 pcs/plate, 48 pcs/case	/	/	Opaque	725122
8	24 well	Cell Culture Inserts	1 pc/blister, 8 pcs/plate, 48 pcs/case	Translucent	725302	/	/

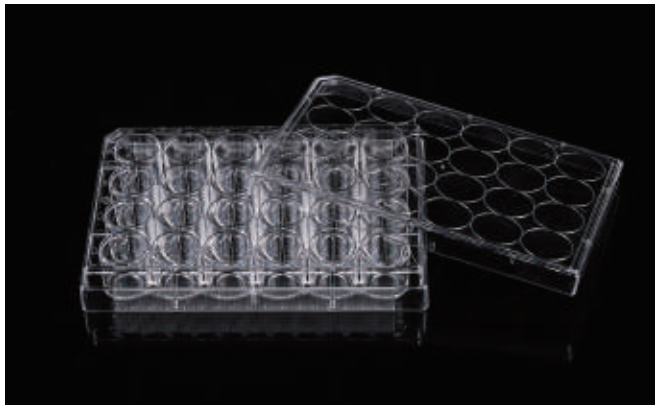
Glass Bottom Cell Culture Dish & Plate

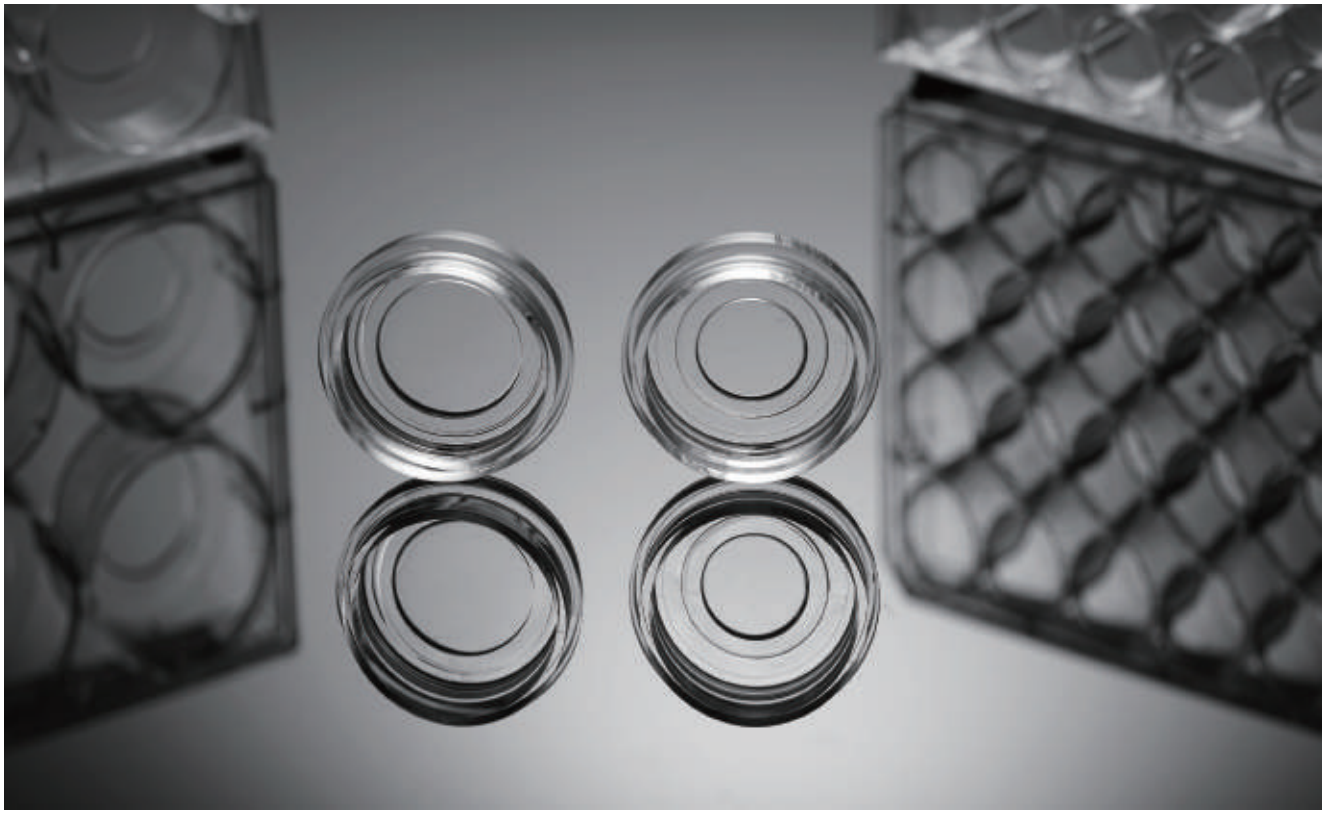
NEST glass bottom series are applied in confocal microscope, high resolution microscope, differential interference contrast microscope, polarized light microscope and phase contrast microscope for cell observation.

Features

- Can be used for live cell observation.
- Special bottom design for easy grip.
- Round cover glass inserts for good appearance.
- Medical adhesive glue to guarantee non-cytotoxicity.
- Sterilized by E-beam, SAL=10^{-6}.
- Made of high clarity, 100% virgin polystyrene and high clarity glass as bottoms.
- High quality cover glass of standard thickness.





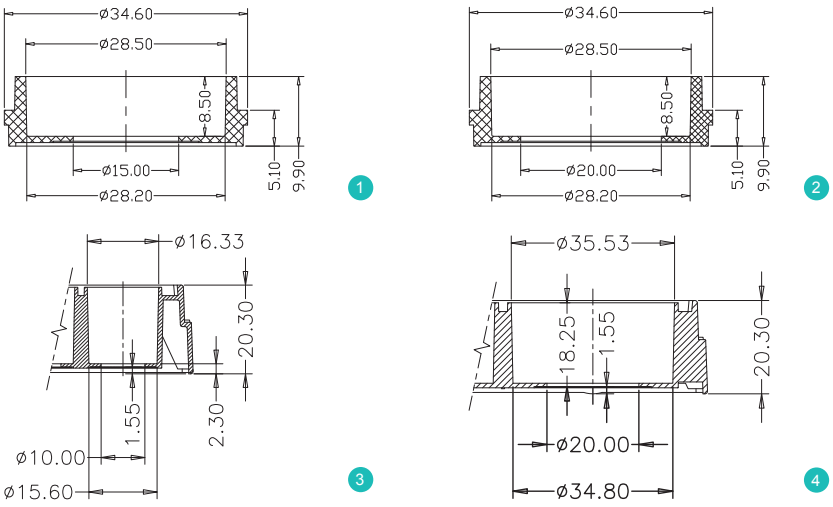


Glass Bottom Culture Dish

Type (mm)	Glass Diameter (mm)	Cultivation Area (cm²)	TC	/Pack	/Case	Cat.No.
28.2	15	6.2	Yes	10	200	801002
28.2	20	6.2	Yes	10	200	801001
28.2	20	6.2	Yes	1	20	801021 Blister package
28.2	15	6.2	Yes	1	20	801022

Glass Bottom Culture Plate

Spec (Well)	Glass Diameter (mm)	Cultivation Area (cm²)	TC	/Pack	/Case	Cat.No.
6	34.8	9.5	Yes	1	10	801004
24	15.6	1.9	Yes	1	10	801006



Unit: mm

1. Φ15 Glass Bottom Dish
2. Φ20 Glass Bottom Dish
3. 24 Well Glass Bottom Plate
4. 6 Well Glass Bottom Plate

Cover Glass

Features

- High quality glass, non-cytotoxic.
- Sterile, non-treated.
- Manufactured in class 100,000 clean room.
- Resistant to organic solvent.
- Autoclavable.
- Suitable for used in confocal experiment.

Glass Diameter (mm)	Thickness (mm)	/Pack	Application	Cat.No.
14	0.17	100	24 Well Cell Culture Plate	801010
15	0.17	100	24 Well Cell Culture Plate	801007
18	0.17	100	12 Well Cell Culture Plate	801011
20	0.17	100	12 Well Cell Culture Plate	801008
25	0.17	100	6 Well Cell Culture Plate	801009

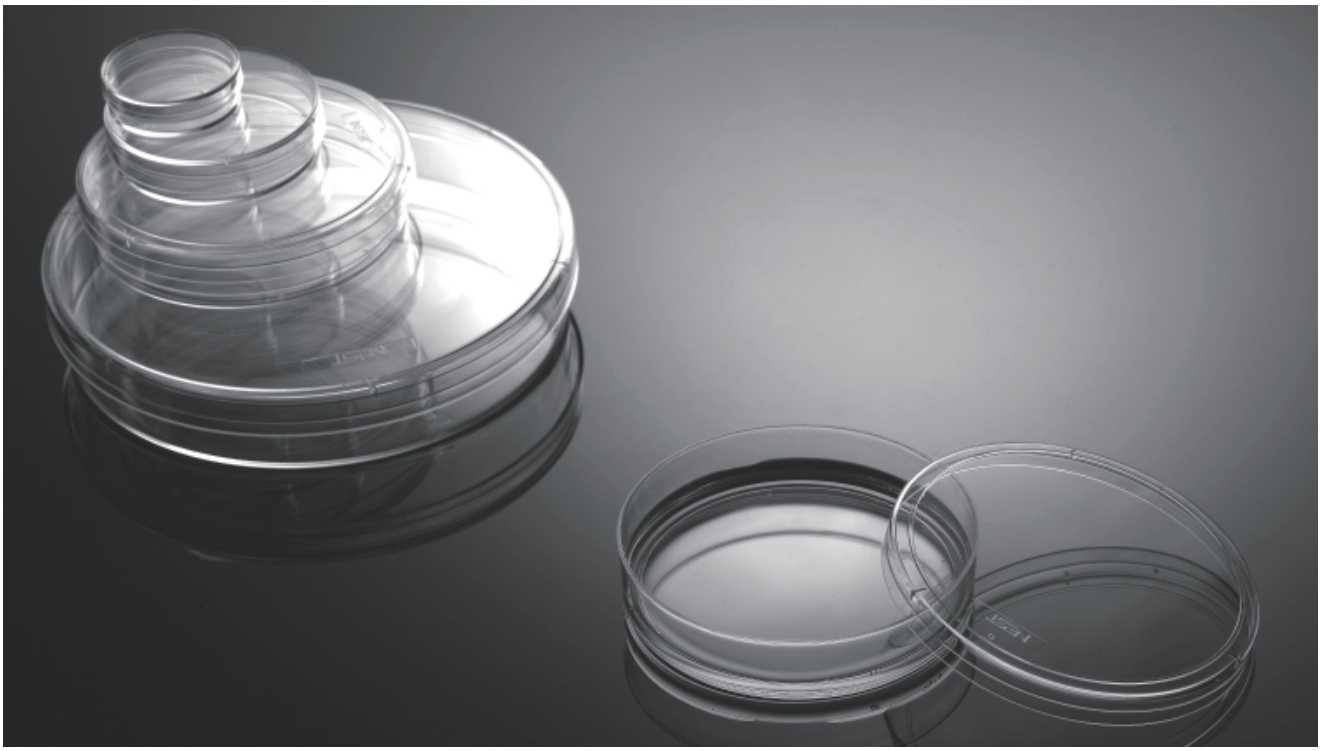
Tips:
terilization: If the glass needs to be sterilized after a long period of non-use, it is recommended to wrap it in tin foil and sterilize it at 180°C i n a metal container for two hours.
Coating: Coating can be done with polylysine, collagen, extracellular matrix, and some commercially available reagents containing layer adhesive protein, fibronectin, and proteoglycan, which can improve cell adhesion.

Cell Culture Dish

NEST cell culture dishes are ideal for all types of culturing where microscopic examination is required. Numeric indicators on the bottom of each plate allow users to identify the location of cells.

Features

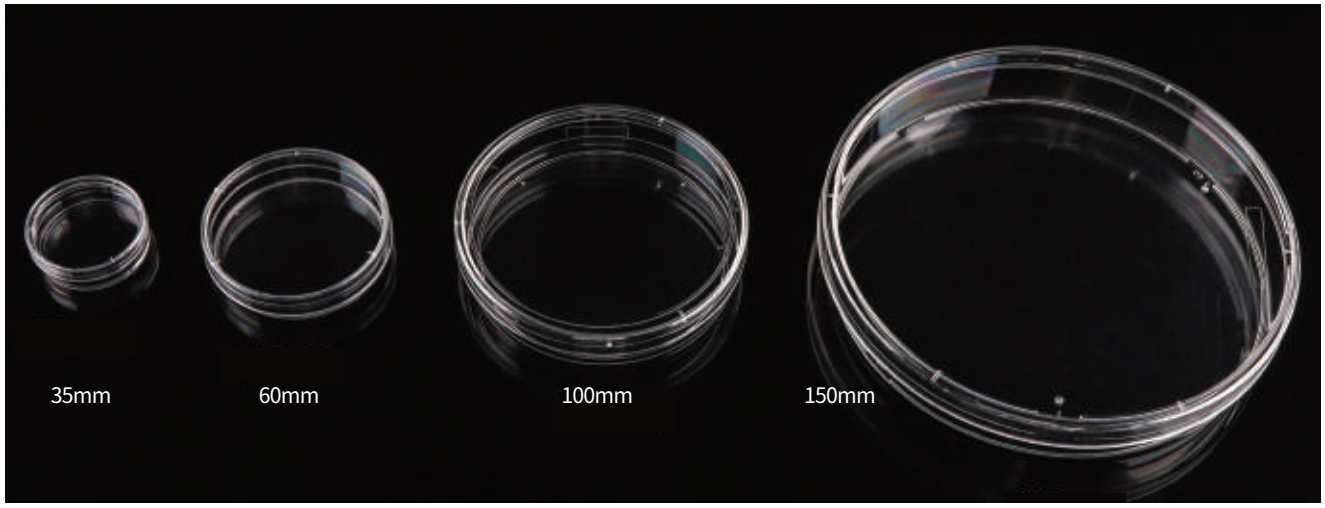
- High clarity, 100% virgin polystyrene.
- Flat transparent surface for distortion-free observation.
- Vacuum plasma TC treatment, excellent cell adsorption.
- Stackable for easy storage and handling.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.



Sterilized Packing

Vent points for Gas Exchange

Feature




35 mm Dish with Griping Ring


60 mm Dish with Griping Ring


100 mm Dish with Griping Ring

Cell Culture Dish

Specification (mm)	Height (mm)	Cell Growth Area (cm^2)	Rcommended Medium Volume (mL)	Types	Packing		Cat.No.
					/Pack	/Case	
35	12	8.5	1.8-2.7	Regular	20	25	706001
				Easy Grip	20	25	706201
60	15	22.9	4.2-6.3	Regular	20	25	705001
				Easy Grip	20	25	705201
100	20	57.6	11-16.5	Regular	5	60	704004
					10	30	704002
					20	15	704001
		59.3		Easy Grip	10	30	704202
					20	15	704201
150	25	150.1	30.4-45.6	Regular	5	20	715001

Actual diameter is smaller than the indicated
35 mm dish bottom inner diameter: 35.0 mm
60 mm dish bottom inner diameter: 54.0 mm
100 mm dish bottom inner diameter: 85.6 mm
150 mm dish bottom inner diameter: 138.2 mm
100 mm easy grip dish bottom inner diameter: 86.9 mm

Cell Culture Flask

NEST's Cell Culture Flasks whose cell growth areas ranging from 25cm^2 to 225cm^2 are available.These flasks are available as issue culture treated or non-treated as well as with a vent cap or plug seal cap to meet your requirements.

Features

- Made of high clarity, 100% virgin polystyrene.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.
- Frosted writing and clear graduations.
- Notched bottom for slip free slip stacking.
- Clear lot number for batch traceability.
- Packaged in sterile, zip-sealable bags.

3 / 5 - Layer Cell Culture Flask

- Made of high clarity, 100% virgin polystyrene.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.
- 3-Layer Cell Culture Flask Growth area: 520 cm².
  5-Layer Cell Culture Flask Growth area: 870 cm².
- Individually packaged in sterile bag.

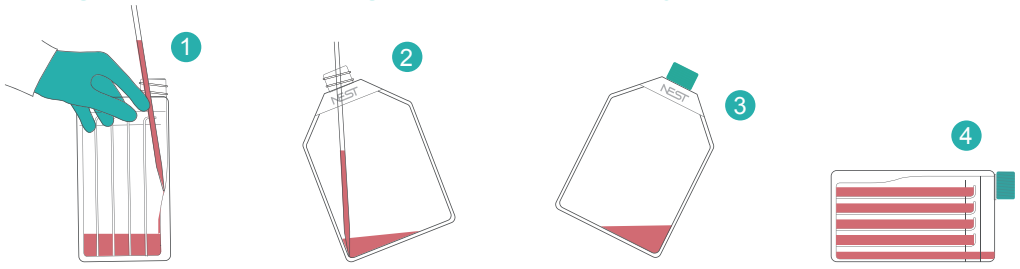
T150 U-Shaped Canted Neck Cell Culture Flask

Yellow caps for non-treated flask

Vent caps with 0.22 μm hydrophobic filters to eansure gas exchange without contamination

Feature

User guide for seeding cells into a 5-layer Cell Culture Flask



1.Prepare cell suspension of the required concentration, then mix it with medium evenly in a container. A volume of 30-50 mL per layer is recommended .

2. Slowly add the mixed solution into the 5-layer Cell Culture Flask with a serological pipette. To avoid foam or bubbles, it is recommended to set the pipette firmly against the wall, enable the stream to flow along the slope, and save a little liquid in the pipette each time.

Notes: While a 10 ml pipette can disperse the medium at the bottom, a 25 ml pipette will only reach up to the NEST mark to disperse the medium.

3. Position the Multi-layer Flask upright with the NEST mark facing you, tilt it 45° clockwise and let stand in this position for a while to level the liquid in each layer.

4. Gently lay it flat onto the workbench with NEST mark facing upwards.

5. Gently shake it from side to side to distribute cells evenly onto culture surfaces.

Notes: be careful to shake gently to avoid foam or bubbles and spilling liquid from each layer.

6. Transfer the flask to the incubator for incubation

Culture medium removal

1. Aspiration

Tilt the flask 45° clockwise with the NEST mark facing you. counter-clock wise to a 45° angle while inverting the Multi-Flask toward you. Then reach the serological pipette into the bottom for fully aspiration.

2. Pouring

Tilt the flask 45° counterclockwise with the NEST mark facing you, pour the spent media from the flask.

Tips: A NEST 10mL serological pipette is suggested for fully aspiration.

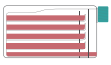
Cell harvesting

1. Rinse off the residual serum with buffer, add digestion solution (≥5mL per layer) and mix evenly. Then, follow Steps 3-4 to distribute to dissociating reagent to each layer.
2. Let stand for 2 min, then neutralize and mix with inactivating solution following steps 3-4. Gently swirl to dislodge cells completely.
3. Transfer the solution in a centrifuge tube or other containers by aspiration or pouring.
4. Rinse the flask with buffer for three times, then transfer the buffer into the centrifuge tube for passage and counting.

Tips: Search "NEST Multi-layer Flask" video on YouTube(@nest-wuxi4075).

Cell Culture Flask

Cell Growth Area (cm^2)	Maximum Graduated Volume (mL)	Rcommended Medium Volume (mL)	Size(mm)			Packing		TC Treated		Non-Treated	
			Base Height	Width	Length	/Pack	/Case	Plug seal caps	Vent caps	Plug seal caps	Vent caps
25	30	5-7.5	25.9	53.8	97.13	10	20	707001	707003	707011	707013
75	225	15-22.5	35.7	89.56	160.01	5	20	708001	708003	708011	708013
150	375	30-45	40.3	110.75	203	5	8	720001	720003	720011	720013
175	400	35-52.5	39.1	120.51	217.9	5	8	709001	709003	709011	709013
225	700	45-67.5	46.05	137	238.5	5	5	721001	721003	721011	721013
520 (3-layer)	50	60-100	60.1	120.5	203	1	12	731301	731302	/	/
870 (5-Layer)	50	100-150	84.3	120.5	203.6	1	8	731001	731002	/	/



Precautions:

It is important to handle multi-layer Cell Culture Flasks with caution to avoid the formation of bubbles. The presence of bubbles can lead to the creation of siphon bridge at the baffle, resulting in the upper layer of culture medium flowing down to the bottom.

Cell Culture Flask Closed System Solution

❶ Filter

The Pre-installed filter on the cap facilitates gas exchange during liquid transfer, and allows for subsequent cell culture.

❷ Clamp

Clamp should keep open for gas exchange during liquid transfer. After the transfer is complete, it can be closed for the growth of anaerobic cells and viruses.

❸ Thermoplastic Elastomer Tube (TPE Tube)

TPE tube can be connected to the tubing system via a tube sealing machine under non-sterile conditions.

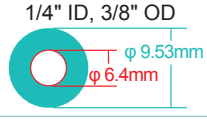
❹ PTFE Tube

PTFE tubing is placed inside the bottle below the filter to facilitate gas exchange during liquid transfer.

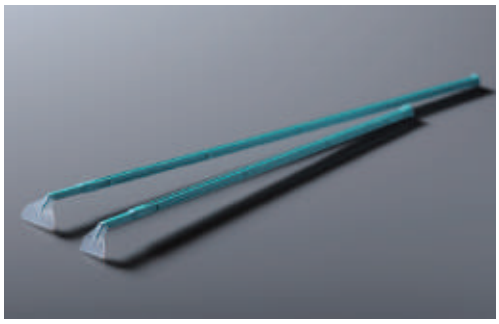
The range of T-flask Closed System allow for aseptic transfer of liquids, during which culture media or cells can be transferred into or out of bioreactors or BioFactorie without the need to open the cap. After the transfer, the culture media and cells can be directly cultured inside the flask, eliminating the exogenous contamination risk for drug development and other production processes. In addition, it also reduces the unnecessary time wasted for tubing designing, assembly, and sterilization, thereby improving production efficiency.

Removal of culture media

- Allows for cell culture and liquid transfer without the need to open the cap and hence minimizes the risk of contamination during liquid transfer.
- Intended for both aerobic cells (by opening the clamp) and anaerobic cells (by closing the clamp).
- Liquid transfer can be achieved by gravity without the need for peristaltic pumps.
- The one-piece injection moulding for bottle and cap reduces the risk of leakage and media residue.
- The TPE tube can be sealed in non-sterile environments.
- The high-quality materials makes smooth inner wall of the tube and ensures excellent transfer performance.
- Sterility assurance level (SAL)= 10-6.
- Free from endotoxins and animal-derived components.

Growth Area (cm^2)	Tubing Measurements			Membrane Area of 0.2μm Filter	/Case	Cat.No.
	Diameter	Length	Joint Connection			
25	1/4" ID, 3/8" OD 	40cm	aseptic welding /heat sealing	4.5cm^2	4	C92032-BZB040A
75						C92131-BZB040A
225						C92231-BZB040A

Cell Scraper

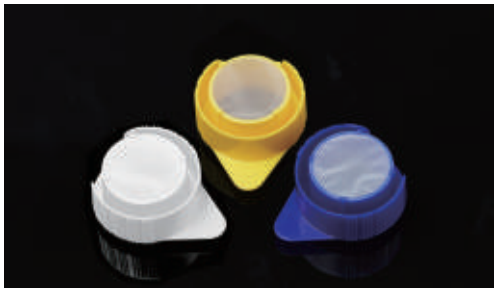


Features

- Free rotating blade, makes the blade twist to the right direction.
- Two sizes are available.
- Easy-tear sterile packing.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.
- Individually packaged.

Spec(mm)		Colour	Sterile	/Case	Cat.No.
Total Length	Blade Width				
220	13	Blue handle + transparent blade	Yes	100	710001
280	20	Blue handle + transparent blade	Yes	100	710011

Cell Strainer



Features

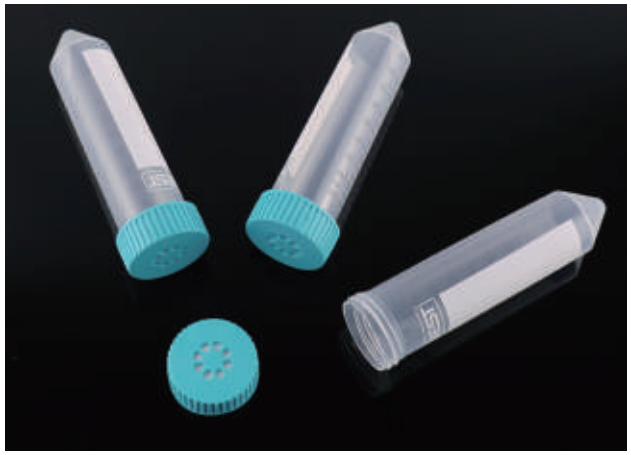
- Ideal for stem cell and tissue-derived primary cell preparation.
- Fits nearly all 50ml conical tubes.
- Tab molded within upper ring enables easy sterile handling.
- Sterilized by Gamma ray.
- Non-Pyrogenic, DNase/Rnase free.
- Individually packaged.

Spec (μm)	目数	Color	/Pack	/Case	Cat.No.
40	360	Blue	1	50	258366
70	220	White	1	50	258365
100	150	Yellow	1	50	258364

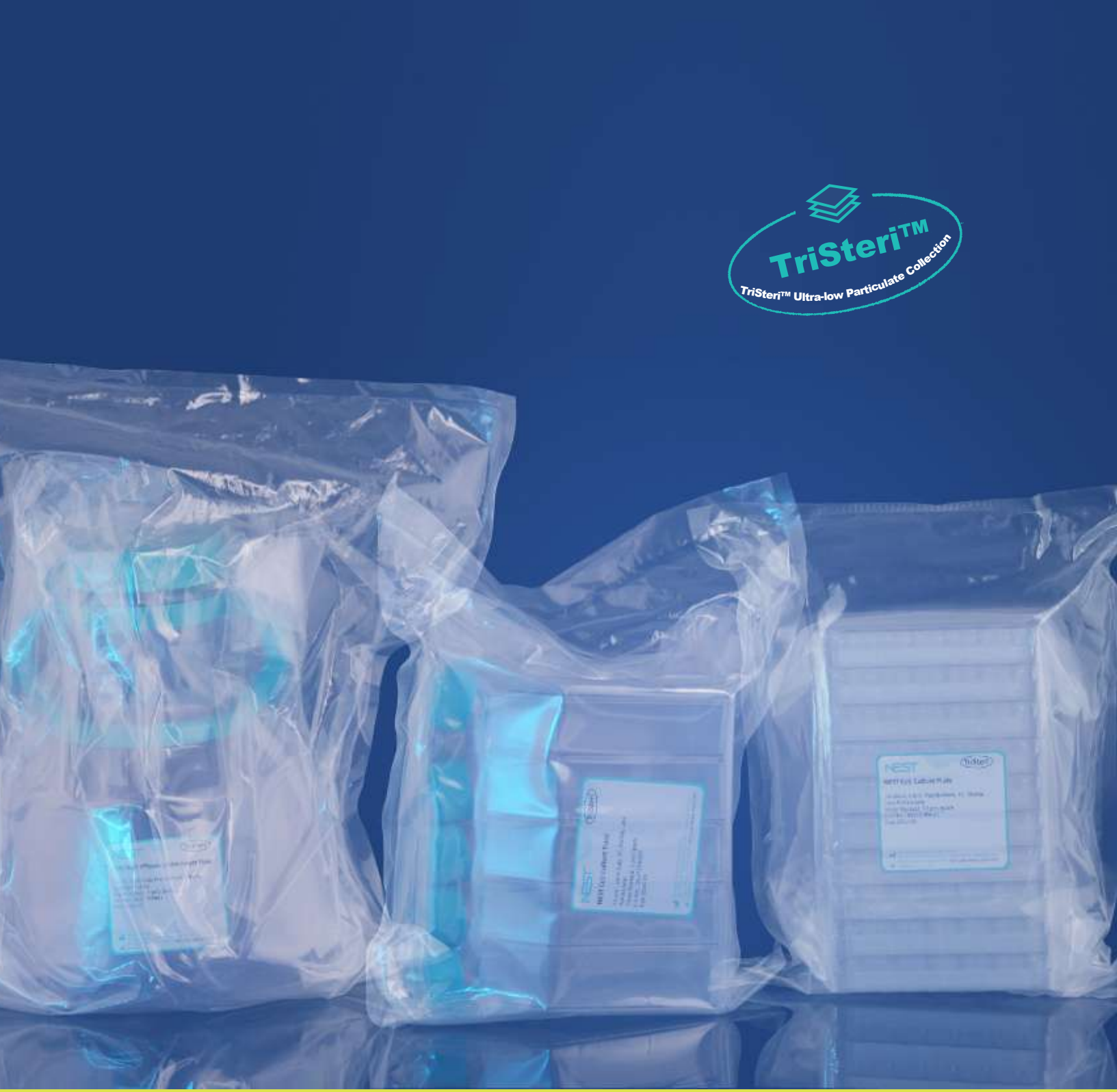
50mL Min Bioreactor

Features

- USP VI Polypropylene.
- High transparency, easy to observe.
- Vent caps with 0.22 μm hydrophobic filters for gas exchange without contamination.
- Packaged in sterile, zip-sealable bags.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.
- Suitable for used for centrifugation.



Volume (mL)	/Pack	/Case	Cat.No.
50 mL Vent caps Sterile	10	10	788211



TriSteri™

TriSteri™ Ultra-low Particulate Collection

Product overview

Regular packaging may unintentionally introduce pollutants into the cleanroom area if pollutants adhere to the outside of the packaging bag. However, triple packaging of TriSteri TM Ultra-low Particulate Collection are designed to meet the higher demands of cleanrooms. The outer packaging acts as a barrier, preventing pollutants from entering sensitive production areas and greatly enhancing the safety of samples in a sterile environment.

Product Quality Inspection

- Each batch of products undergoes insoluble particle testing according to the Chinese Pharmacopoeia.
- All products undergo two visual inspections to ensure that every product leaving the facility is free from visible foreign substances.
- Each minimum packaging is labeled with a batch number for easy quality inquiries.

Accreditation Certifications

- Compliant with ISO 13485 (Medical Device Quality Management System) and ISO 9001.
- Sterility Assurance Level (SAL) reaches 10-6, free from DNase/R Nase, endotoxins, and cytotoxicity.

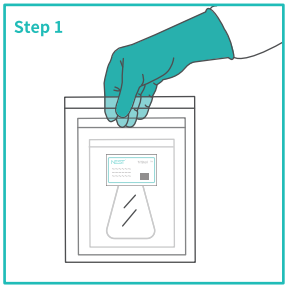
Production Environment

- Products are produced and packaged in Class 100,000 cleanroom and partial Class 1000,000 cleanroom.
- Packaging materials are produced in Class 10,000 cleanroom.

Raw Material Verification

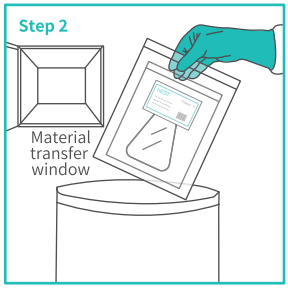
- All injection molded components are made from medical-grade materials.

Instructions for Use



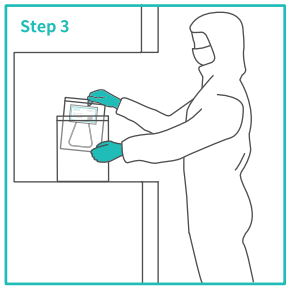
Step 1

Inspect the product's appearance and packaging integrity.
Check the information on the label, such as expiration date and batch number.



Step 1

For unsterile environment In a non-clean environment, open the outermost packaging and transfer the two inner bags to the Material Delivery Window for sterilization.



Step 1

For sterile environment Open the second inner bag carefully in the cleanroom. Remove the innermost packaging from the second inner bag, transferring it to the sterile operation table.

Step 1

For sterile operation station Open the final layer of packaging in the sterile operation table and remove the required consumables.

Triple Packed Products for clean room applications

Triple packed products are used where sterile transfer of products is essential. Contamination adhering to the outside of the bag can be carried into clean room areas with single packaging. Therefore, all single packed materials must be wiped clean with 70 % alcohol or other disinfectant. Triple packed products eliminate the need for such cleaning procedures. It prevents contamination from reaching highly sensitive production areas, simplify handling and reduce processing time.

Order Information

Product	Description (sterile, TriSteri™)			Triple Packaging			Cat.No.
	Specification	Cap	Other	Pcs/Pk	Pk/Cs	Pcs/Cs	
Cell Culture Plates	6 Well	/	Clear, Flat Bottom, TC	1	50	50	703009
	24 Well	/	Clear, Flat Bottom, TC	1	50	50	702009
	48 Well	/	Clear, Flat Bottom, TC	1	50	50	748009
	96 Well	/	Clear, Flat Bottom, TC	1	100	100	701009
Cell Culture Dish	100*20 mm	/	TC	1	50	50	704009
	150*25 mm	/	TC	1	50	50	715009
Cell Culture Flask	25 cm^2	Vent Cap	TC	1	200	200	707009
	75 cm^2	Vent Cap	TC	1	100	100	708009
	150 cm^2	Vent Cap	TC	1	40	40	720009
	175 cm^2	Vent Cap	TC	1	40	40	709009
	225 cm^2	Vent Cap	TC	1	25	25	721009
Multi-layer Cell Culture Flask	5-layer	Vent Cap	TC	1	8	8	731009
Erlenmeyer Flask	125 mL	Seal Cap	PC, Flat Bottom	1	24	24	781109
	250 mL	Seal Cap	PC, Flat Bottom	1	12	12	782109
	500 mL	Seal Cap	PC, Flat Bottom	1	12	12	783109
	1000 mL	Seal Cap	PC, Flat Bottom	1	6	6	784109
	125 mL	Vent Cap	PC, Flat Bottom	1	24	24	781119
	250 mL	Vent Cap	PC, Flat Bottom	1	12	12	782119
	500 mL	Vent Cap	PC, Flat Bottom	1	12	12	783119
	1000 mL	Vent Cap	PC, Flat Bottom	1	6	6	784119
	125 mL	Seal Cap	PC, Baffled	1	24	24	781209
	250 mL	Seal Cap	PC, Baffled	1	12	12	782209
	500 mL	Seal Cap	PC, Baffled	1	12	12	783209
	1000 mL	Seal Cap	PC, Baffled	1	6	6	784209
	125 mL	Vent Cap	PC, Baffled	1	24	24	781219
	250 mL	Vent Cap	PC, Baffled	1	12	12	782219
	500 mL	Vent Cap	PC, Baffled	1	12	12	783219
	1000 mL	Vent Cap	PC, Baffled	1	6	6	784219
High Efficiency Erlenmeyer Flask	2000 mL	Seal Cap	PC, Flat Bottom	1	4	4	785109
	3000 mL	Seal Cap	PC, Flat Bottom	1	4	4	786109
	3000 mL	Seal Cap	PC, Flat Bottom	1	4	4	786509
	5000 mL	Seal Cap	PC, Flat Bottom	1	4	4	787009
	2000 mL	Vent Cap	PC, Flat Bottom	1	4	4	785119
	3000 mL	Vent Cap	PC, Flat Bottom	1	4	4	786119
	3000 mL(Wide Mouth)	Vent Cap	PC, Flat Bottom	1	4	4	786519
	5000 mL	Vent Cap	PC, Flat Bottom	1	4	4	787019
	2000 mL	Seal Cap	PC, Baffled	1	4	4	785129
	3000 mL	Seal Cap	PC, Baffled	1	4	4	786129
	3000 mL(Wide Mouth)	Seal Cap	PC, Baffled	1	4	4	786529
	5000 mL	Seal Cap	PC, Baffled	1	4	4	787029
	2000 mL	Vent Cap	PC, Baffled	1	4	4	785139
	3000 mL	Vent Cap	PC, Baffled	1	4	4	786139
	3000 mL(Wide Mouth)	Vent Cap	PC, Baffled	1	4	4	786539
	5000 mL	Vent Cap	PC, Baffled	1	4	4	787039

Order Information

Product	Description (sterile, TriSteri™)			Triple Packaging			Cat.No.
	Specification	Cap	Other	Pcs/Pk	Pk/Cs	Pcs/Cs	
BioFactory	2 Layer	Two wide mouths	TC	1	8	8	771109
	5 Layer	Two wide mouths	TC	1	4	4	771209
	10 Layer	Two wide mouths	TC	1	6	6	771309
Cryogenic Tubes	1.0	External Thread	/	5	20	100	618909
	1.5	External Thread	/	5	20	100	606909
	2.0	External Thread	/	5	20	100	607409
	4.0	External Thread	/	5	20	100	608409
	5.0	External Thread	/	5	20	100	609409
Centrifuge Tube	15	/	/	5	100	500	601009
	50	/	/	5	50	250	602009
250/500mL Centrifuge Tube	250	Vent Cap	/	6	17	102	622009
	500	Vent Cap	/	6	6	36	623009

Bioprocessing Solutions

OptiFlask® Erlenmeyer Flask

NEST Erlenmeyer Flask collection is designed for suspension cell culture, and is ideal for small-scale research and industrial production of vaccines, proteins, monoclonal antibodies and biopharmaceuticals.

NEST provides Erlenmeyer Flasks in sizes ranging from 125 to 3000mL, as well as High Efficiency Erlenmeyer Flasks in sizes of 2-5L. Each size option comes with a choice of a seal or vent cap, as well as the option of a flat bottom or a bottom with baffles. The Erlenmeyer Flasks are available in both PC and PETG.

Accordingly, NEST offers customized transfer caps that are compatible with our Erlenmeyer Flask collection. These caps come in various sizes and can also be tailored to accommodate diverse requirements, allowing for liquid transfer and cultivation in a closed environment.

Strict product quality supervision

Production environment--Class 10,000 clean production workshop

NEST Factory™ is produced in a dedicated 10,000-class clean room, and other products are produced in a 100,000-class clean room.

Production material--Strictly selected polystyrene conforming to USP Class VI standard

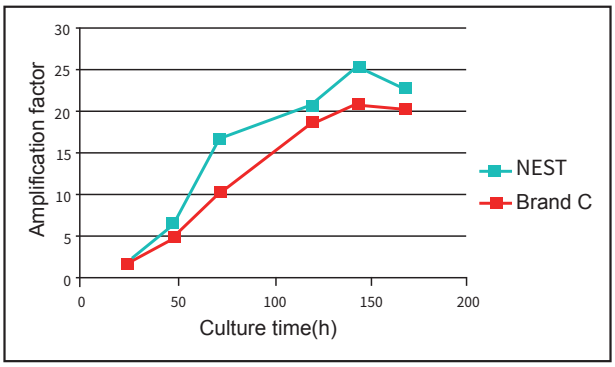
Quality Assurance from Professional Testing Agencies

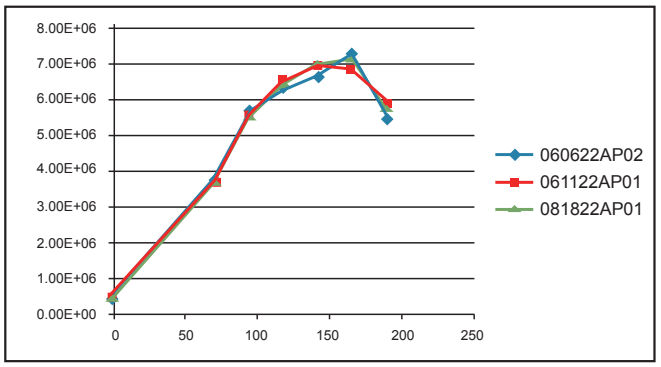
NEST ensures top product quality, stability, safety, applicability, and effectiveness through the implementation of state-of-the-art production technology and a strict quality control system. All our product ranges have undergone rigorous validation by professional testing institutions possessing national testing qualifications (CMA, CNAS). The internationally recognized testing results provide further assurance.

Performance Testing

Relevant performance testings include sealing test, pressure resistance test, inter-batch stability, endotoxin, nucleic acid enzyme, and cell culture comparative experiments.

Sample batch	Culture time(h)	72	76	120	144	168	192
060622AP02	Cell count	3.82×10^6	5.78×10^6	6.46×10^6	6.79×10^6	7.48×10^6	5.59×10^6
	Amplification factor	12.72	19.25	21.53	22.63	24.94	18.62
061122AP01	Cell count	3.69×10^6	5.67×10^6	6.66×10^6	7.09×10^6	7.05×10^6	5.95×10^6
	Amplification factor	12.30	18.91	22.19	23.62	23.51	19.83
0818224P01	Cell count	3.72×10^6	5.60×10^6	6.58×10^6	7.13×10^6	7.32×10^6	5.88×10^6
	Amplification factor	12.40	18.66	21.93	23.78	24.40	19.59





Biosafety testing

Refer to <<State Food and Drug Administration National Standards for Packaging Materials and Containers in Direct Contact with Drugs (Series 6)>>, The product is tested for cytotoxicity, sensitization, intradermal irritation, acute systemic toxicity and hemolysis.

Physical and chemical safety testing

Refer to <<State Food and Drug Administration National Standards for Packaging Materials and Containers in Direct Contact with Drugs (Series 6)>>, The products are tested for insoluble particles, ignition residues, metal elements, and dissolved substances (clarity, color, pH, UV absorbance, non-volatile matter, easy oxides, heavy metals).

Testing item	Detection limit (mg/L)	Test result (mg/L)
Lead	0.05	N.D.
Tin	0.04	N.D.
Cadmium	0.02	N.D.
Chromium	0.03	N.D.

Testing item	Requirement or detection limit	Testing result
Reducing substances (consumption of c(1/5KMnO4)=0.01mol/L)	≤0.5 mL	0.12
Acid-base pH (compared with blank solution)	＜1	0.22
Evaporated residue, mg/50mL	＜2.5 mg	0.9
UV absorbance 230nm~360nm	＜0.05	0.0070
Appearance	Colorless and transparent	Colorless and transparent
Lead content，μg/mL	＜0.05	Below the detection limit
Tin content，μg/mL	＜0.04	Below the detection limit
Cadmium content，μg/mL	＜0.02	Below the detection limit
Chromium content，μg/mL	＜0.03	Below the detection limit

Sterility and particle guarantee

NEST ensures thorough testing of its products through examinations of the irradiation process, packaging, and insoluble particles. The verification of the irradiation dose distribution is conducted in accordance with ISO 11137-1:2015, meeting the necessary requirements for sterilization irradiation dose (SAL=10^{-6}).

OptiFlask® Erlenmeyer Flask

Erlenmeyer Flask, Flat-bottom

Erlenmeyer Flask, Baffled

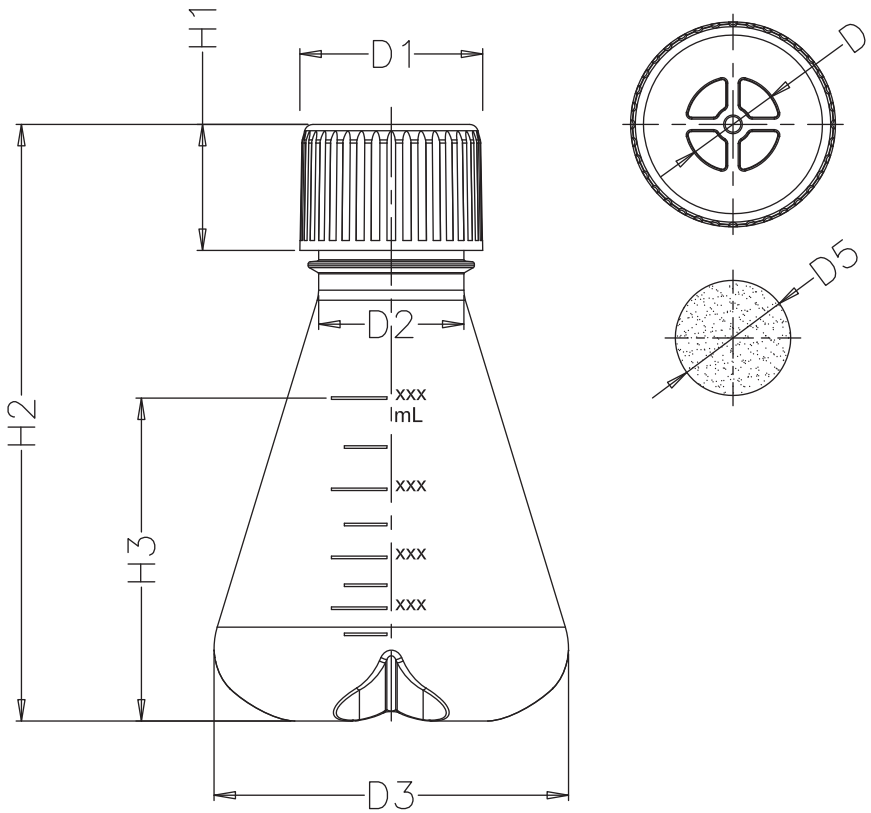
- Erlenmeyer Flask collection is suitable for suspension cell culture or bacterial culture, and can also be used for medium preparation, mixing, and storage.
- The body is made of PETG/PC, and the cap is made of PP.Both materials comply with USP Class VI.
- Qualified by the USP Class 6 Standard, PC bottle with high transparency, is resistant to strong impact, oxidation and high temperature up to 121℃.
- Vent caps with 0.22 μm hydrophobic filters for gas exchange without contamination.
- The baffled bottom can improve gas exchange efficiency and ensure better oxygen dissolution in the culture medium, but it also increases cell shear force.

Feature

- Individually packaged in sterile bags
- There's a scale made by injection molding on the flask body to facilitate observing the filled liquid volume.
- Non-Pyrogenic, DNase/Rnase free.
- Sterilized by E-beam, SAL=10^{-6}.

Erlenmeyer Flask

Volume (mL)	Bottom Type	D1	D2	D3	D4 Seal Cap	D4 Seal Cap	H1	H2	H3	Packing		PETG		PC	
										/Pack	/Case	Seal Cap	Vent Filter Cap	Seal Cap	Vent Filter Cap
125	Flat-bottom	38.00	29.30	65.80	14.85	22.50	29.50	115.00	59.20	1	24	781001	781011	781101	781111
	Baffled	38.00	29.30	65.80	14.85	22.50	29.50	113.00	57.20	1	24	781301	781311	781201	781211
250	Flat-bottom	42.80	34.00	83.00	21.65	27.00	29.50	139.70	73.10	1	12	782001	782011	782101	782111
	Baffled	42.80	34.00	83.00	21.65	27.00	29.50	139.70	73.10	1	12	782301	782311	782201	782211
500	Flat-bottom	48.00	39.00	101.00	21.65	27.00	29.50	179.00	104.50	1	12	783001	783011	783101	783111
	Baffled	48.00	39.00	101.00	21.65	27.00	29.50	178.00	103.50	1	12	783301	783311	783201	783211
1000	Flat-bottom	48.00	39.00	128.00	21.65	27.00	29.50	207.70	142.40	1	6	784001	784011	784101	784111
	Baffled	48.00	39.00	128.00	21.65	27.00	29.50	204.20	138.90	1	6	784301	784311	784201	784211
2000	Flat-bottom	54.00	46.90	162.00	19.00	27.00	25.00	285.50	152.30	1	6	/	/	785001	785011
	Baffled	54.00	46.90	162.00	19.00	27.00	25.00	285.50	152.30	1	6	/	/	/	/
3000	Flat-bottom	75.50	72.50	230.00	36.00	44.00	25.00	253.50	97.00	1	4	/	/	786001	786011
	Baffled	75.50	72.20	230.00	36.00	44.00	25.00	253.50	97.00	1	4	/	/	786005	786015



OptiFlask® Erlenmeyer Flask, High Efficiency

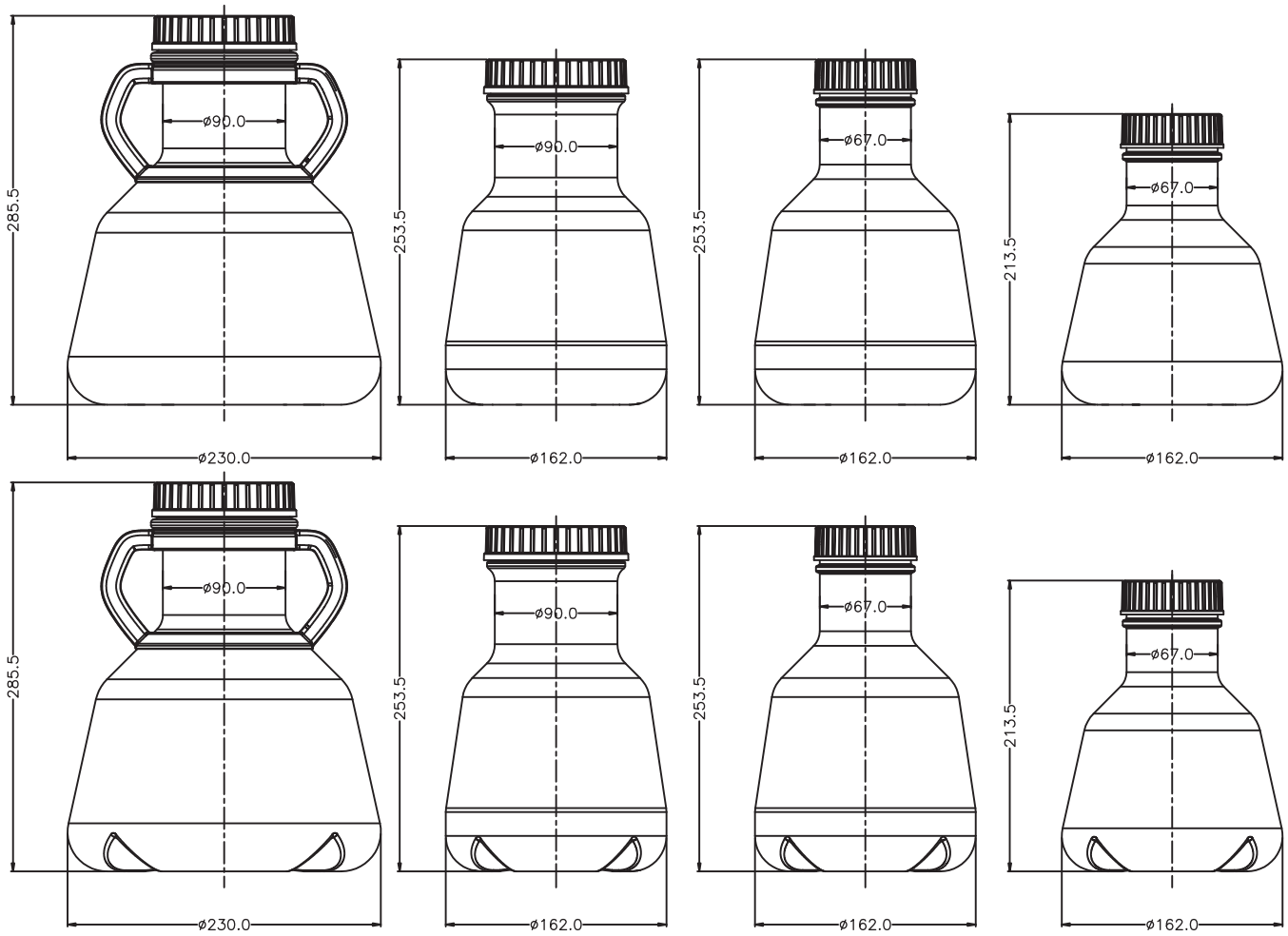
High-efficiency, large-volume culture flasks allow cells to show strong viability with large expression amount of proteins in the culture of mammalian cells and insect cells. During the culturing process, the use rate of the shaker is significantly increased, and the survival rate and viability of cells are both dramatically elevated. NEST culture flasks also provide high repeatability, which allows highly inter-batch consistency of cell growth and yield.

Feature

- Qualified by the USP Class 6 Standard, PC bottle with high transparency, is resistant to strong impact, oxidation and high temperature up to 121℃.
- Obvious and accurate scale.
- The vent cap is covered with a 0.2 μm vent membrane, watertight but not airtight.
- Equipped with transfer Cap, more safe and convenient operation.
- Individually packaged in sterile bag.
- Non-Pyrogenic, DNase/Rnase free.
- Suitable for suspension cell culture or bacterial culture, as well as for medium preparation, mixing, and storage
- Sterilized by E-beam, SAL=10^{-6}.

Erlenmeyer Flask, High Efficiency

Volume (L)	Dimension (mm)			Cap Style	/Case	Cat.No.	
	Height	Bottleneck Dia	Bottom Dia			Flat-bottom	With Baffles
2.0	213.5	67	162	Seal Cap	4	785101	785105
	213.5	67	162	Vent Filter Cap	4	785111	785115
3.0	253.5	67	162	Seal Cap	4	786101	786105
	253.5	67	162	Vent Filter Cap	4	786111	786115
3.0 (Wide-mouth)	253.5	90	162	Seal Cap	4	786501	786505
	253.5	90	162	Vent Filter Cap	4	786511	786515
5.0	253.5	90	230	Seal Cap	4	787001	787005
	253.5	90	230	Vent Filter Cap	4	787011	787015

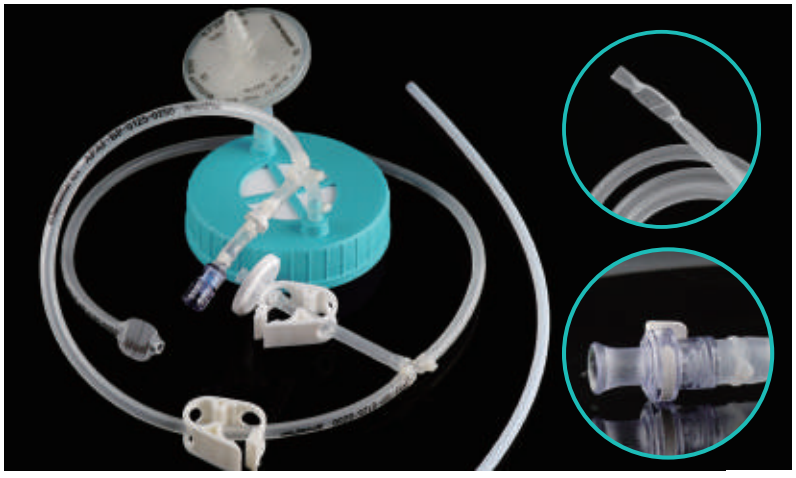


Accessories

- Closed system reduces the risks of contamination during liquid transfer.
- One-piece construction of caps and connectors reduces the risk of leakage and media residue.
- Caps of various diameters are available and aseptic welding of liquid inlet tubing under normal conditions is supported.
- High-quality materials and smooth inner wall of the tubing provide an excellent transfer performance.
- Sterilized by E-beam, SAL=10^{-6}.
- Endotoxin-free, and no ingredients of animal origin.
- Individually packaged in sterile bag.

Bi-directional Liquid Transfer Cap System

- For aseptic transfer of culture medium and cell culture solution.
- One end of the pipeline is connected to the MPC series connector, which increases the convenience and safety in use. The male connector and the sealing cap are tightly connected to prevent accidental disconnection, and the connector can be rotated to reduce pipeline distortion.



Multifunction Liquid Transfer Cap

Compatible with 2/3/5L high efficient Erlenmeyer flasks. Different from bi-directional liquid transfer cap, the multifunctional transfer cap can be directly placed in an incubator for culture after the liquid transfer is completed. It can reach a large air flux. The quick sampling connector is composed of a sampling nozzle and a one-way valve, which can prevent the liquid from flowing backwards during the sampling process and ensure the aseptic sampling. The liquid inlet tubing is provided with a PTFE needle filter, which solves the issue of liquid remaining in the tubing during the feeding process.

Inverted Liquid Transfer Caps

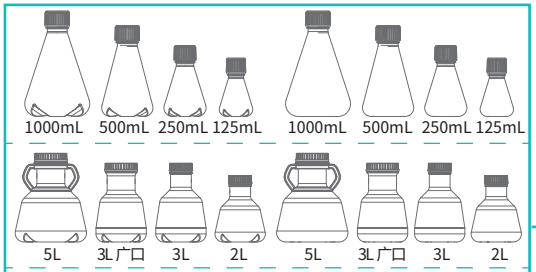
- No need for other equipment, and no damage to cells.
- Invert the bottle to transfer the liquid by gravity.
- Available with regular tubing or wide-mouth tubing.

Erlenmeyer Flask Closed System Solution

To customize a Erlenmeyer Flask Closed System Solution that meets your needs, follow these steps:

Step 1

- Choose the bottle capacity
- Choose the bottle material

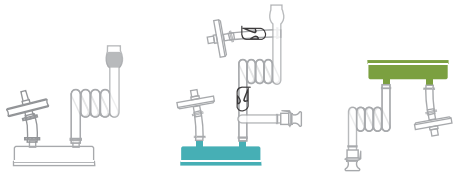


Bottle Materia (☐PETG ☐PET ☐PC)

Notes: you may order the transfer cap only

Step 2

- Choose the cap type

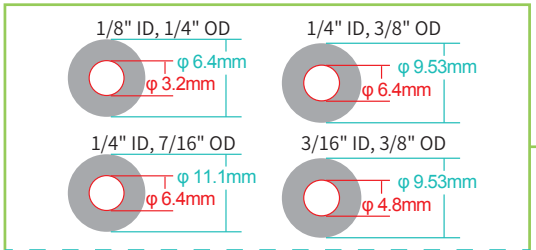


Bi-directional Liquid Transfer Cap System | Multifunction Liquid Transfer Cap | Inverted Liquid Transfer Caps

Notes: Compatible with diverse connectors

Step 3

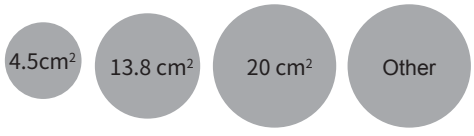
- Choose the tube size/length
- Choose the tube material



Inlet and outlet liquid tubing
(☐ Vulcanized silicone tube ☐ Welded tube)

Step 4

- Choose the membrane area Air filter (PVDF membrane)

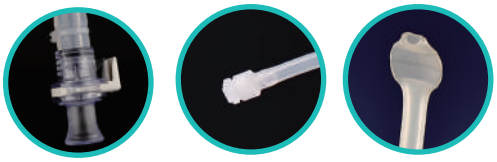


Membrane (☐4.5cm² ☐13.8cm² ☐20cm² ☐Other)

Step 5

- Choose the connector type

①Luer connector (male and female)
②MPC connector (male and female)
③Heat sealing (no connector)



MPC Connector (male/female) | Luer Connector (male/female) | Heat Seal (no connector)

Generate custom graphics by submitting your request on www.cell-nest.com

= Results

Inform our sales or product engineer of your choice if you have completed your selection.

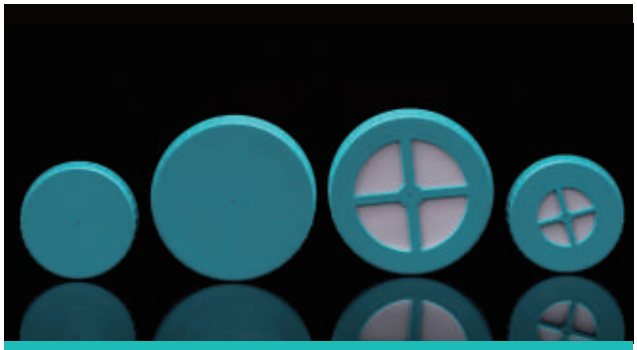
High Efficient Erlenmeyer Flask Closed System

Volume (mL)	Transfer Caps for High Efficient Erlenmeyer Flasks							Closed System	
	Cap Style	Tube Material			Connector	0.2μm Filter Membrane area	Cat.No.	Cat.No.	
		External Liquid Transfer Tube						Flat-bottom	With Baffles
		Material	Length (cm)	Dia.					
125 mL	Bi-directional Liquid Transfer	Silicon Tube	50	1/8" ID, 1/4" OD	MPC Male Connector	Φ42mm	C30821-EAC050B		
					Male Luer Connector		C30821-EFC050B		
250 mL					MPC Male Connector		C30921-EAC050B		
					Male Luer Connector		C30921-EFC050B		
500 mL					MPC Male Connector		C31021-EAC050B		
					Male Luer Connector		C31021-EFC050B		
1000 mL					MPC Male Connector		C31121-EAC050B		
					Male Luer Connector		C31121-EFC050B		
2L High Efficiency	Multifunction Liquid Transfer	TPE Tube	52	1/8" ID, 1/4" OD	Heat Seal (Supports sampling)	Φ50mm	C10111-AJE052B		
		TPE Tube	50	1/4" ID, 7/16" OD	Heat Seal	Φ24mm	C10111-DZB050B		
		Silicon Tube	100	3/16" ID, 3/8" OD	MPC Male Connector	Φ24mm	C10111-GBB100B		
	Bi-directional Liquid Transfer	TPE Tube	50	1/8" ID, 1/4"OD	Heat Seal	Φ24mm	C10122-AZB050B	C10122-AZB050A	C20122-AZB050A
		TPE Tube	50	1/4" ID, 3/8" OD	Heat Seal	Φ42mm	C10123-BZC050B	C10123-BZC050A	
		Silicon Tube	50	1/4" ID, 3/8" OD	MPC Male Connector	Φ42mm	C10123-FBC050B		
		Silicon Tube	50	1/4" ID, 3/8" OD	MPC Female Connector	Φ42mm	C10123-FDC050B		
	Inverted Liquid Transfer	TPE Tube	50	1/8" ID, 1/4" OD	Heat Seal	Φ42mm	C10131-AZC050B		
		TPE Tube	50	1/4" ID, 7/16" OD	Heat Seal	Φ42mm	C10133-DZC050B		
3L High Efficiency	Multifunction Liquid Transfer	TPE Tube	52	1/8" ID, 1/4" OD	Heat Seal (Supports sampling)	Φ50mm	C10211-AJE052B		
		TPE Tube	50	1/4" ID, 7/16" OD	Heat Seal	Φ24mm	C10211-DZB050B		
		Silicon Tube	100	3/16" ID, 3/8" OD	MPC Male Connector	Φ24mm	C10211-GBB100B		
	Bi-directional Liquid Transfer	TPE Tube	50	1/8" ID, 1/4"OD	Heat Seal	Φ24mm	C10222-AZB050B	C10222-AZB050A	C20222-AZB050A
		TPE Tube	50	1/4" ID, 3/8" OD	Heat Seal	Φ42mm	C10223-BZC050B	C10223-BZC050A	
		Silicon Tube	50	1/4" ID, 3/8" OD	MPC Male Connector	Φ42mm	C10223-FBC050B		
		Silicon Tube	50	1/4" ID, 3/8" OD	MPC Female Connector	Φ42mm	C10223-FDC050B		
	Inverted Liquid Transfer	TPE Tube	50	1/8" ID, 1/4" OD	Heat Seal	Φ42mm	C10231-AZC050B		
		TPE Tube	50	1/4" ID, 7/16" OD	Heat Seal	Φ42mm	C10233-DZC050B		
3L Wide-mouth High Efficiency	Multifunction Liquid Transfer	TPE Tube	52	1/8" ID, 1/4" OD	Heat Seal (Supports sampling)	Φ50mm	C10311-AJE052B		
		TPE Tube	50	1/4" ID, 7/16" OD	Heat Seal	Φ24mm	C10311-DZB050B		
		Silicon Tube	100	3/16" ID, 3/8" OD	MPC Male Connector	Φ24mm	C10311-GBB100B		
	Bi-directional Liquid Transfer	TPE Tube	50	1/8" ID, 1/4"OD	Heat Seal	Φ24mm	C10322-AZB050B	C10322-AZB050A	C20322-AZB050A
		TPE Tube	50	1/4" ID, 3/8" OD	Heat Seal	Φ42mm	C10323-BZC050B	C10323-BZC050A	
		Silicon Tube	50	1/4" ID, 3/8" OD	MPC Male Connector	Φ42mm	C10323-FBC050B		
		Silicon Tube	50	1/4" ID, 3/8" OD	MPC Female Connector	Φ42mm	C10323-FDC050B		
	Inverted Liquid Transfer	TPE Tube	50	1/8" ID, 1/4" OD	Heat Seal	Φ42mm	C10331-AZC050B		
		TPE Tube	50	1/4" ID, 7/16" OD	Heat Seal	Φ42mm	C10333-DZC050B		
5L High Efficient	Multifunction Liquid Transfer	TPE Tube	30	1/8" ID, 1/4" OD	Heat Seal	No Filter	/	C10442-AKA060A	
		TPE Tube	92	1/8" ID, 1/4" OD	Heat Seal (Supports sampling)	Φ50mm	C10411-AJE092B		
		TPE Tube	90	1/4" ID, 7/16" OD	Heat Seal	Φ24mm	C10411-DZB090B		
		Silicon Tube	100	3/16" ID, 3/8" OD	MPC Male Connector	Φ24mm	C10411-GBB100B		
	Bi-directional Liquid Transfer	TPE Tube	90	1/8" ID, 1/4"OD	Heat Seal	Φ24mm	C10422-AZB090B	C10422-AZB090A	
		TPE Tube	90	1/4" ID, 3/8" OD	Heat Seal	Φ42mm	C10423-BZC090B	C10423-BZC090A	
		Silicon Tube	90	1/4" ID, 3/8" OD	MPC Male Connector	Φ42mm	C10423-FBC090B		
		Silicon Tube	90	1/4" ID, 3/8" OD	MPC Female Connector	Φ42mm	C10423-FDC090B		
	Inverted Liquid Transfer	TPE Tube	90	1/8" ID, 1/4" OD	Heat Seal	Φ42mm	C10431-AZC090B		
		TPE Tube	90	1/4" ID, 7/16" OD	Heat Seal	Φ42mm	C10433-DZC090B		

Erlenmeyer Flasks Accessories

781935 782935 782925 781925

783935 785963 785903 783925



786903 787903 787913 786913

Compatibility	Diameter (mm)	/Pack	/Case	Cat.No.
Seal Cap for 125 mL PC Erlenmeyer Flasks	38.00	1	25	781905
Vent Cap for 125 mL PC Erlenmeyer Flasks	38.00	1	25	781915
Seal Cap for 250 mL PC Erlenmeyer Flasks	42.80	1	25	781925
Vent Cap for 250 mL PC Erlenmeyer Flasks	42.80	1	25	781935
Seal Cap for 500&1000 mL PC Erlenmeyer Flasks	48.00	1	25	782925
Vent Cap for 500&1000 mL PC Erlenmeyer Flasks	48.00	1	25	782935
Seal Cap for 2L Erlenmeyer Flasks	54.00	1	25	783905
Vent Cap for 2L Erlenmeyer Flasks	54.00	1	25	783915
Seal Cap for 3L Conical Erlenmeyer Flasks/2&3L High Efficient Erlenmeyer Flasks	75.50	1	25	783925
Vent Cap for 3L Conical Erlenmeyer Flasks/2&3L High Efficient Erlenmeyer Flasks	75.50	1	25	783935
Seal Cap for 3L Wide-mouth/5L Erlenmeyer Flasks	106	1	20	785903
Vent Cap for 3L Wide-mouth/5L Erlenmeyer Flasks	106	1	20	785913

BioFactory

Strict product quality supervision

Production environment--Class 10,000 clean production workshop

NEST Factory is produced in a dedicated 10,000-class clean room, and other products are produced in a 100,000-class clean room.

Production material--Strictly selected polystyrene conforming to USP Class VI standard

Production Process--Strictly follow SOP for production and quality control

Exquisite product design, high precision forming, ultrasonic welding, no chemical addition.

Surface treatment--Tissue culture treated

The surface of the cell culture container is treated with hydrophilic treatment to ensure that the cells adhere to the surface more evenly and stable with better adsorption capacity.

Product expiration date verification

The cell growth surface can still meet the cell growth requirements after three years of aging, and there is no positive result of the sterility test.

Biosafety testing

Refer to <<State Food and Drug Administration National Standards for Packaging Materials and Containers in Direct Contact with Drugs (Series 6)>>, The product is tested for cytotoxicity, sensitization, intradermal irritation, acute systemic toxicity and hemolysis.

Physical and chemical safety testing

Refer to <<State Food and Drug Administration National Standards for Packaging Materials and Containers in Direct Contact with Drugs (Series 6)>>, The products are tested for insoluble particles, ignition residues, metal elements, and dissolved substances (clarity, color, pH, UV absorbance, non-volatile matter, easy oxides, heavy metals).

Process testing

In order to ensure the structure and strength of the product, it is necessary to verify the performance of relevant equipment, such as injection molding machines, molds, plasma equipment, welding machines, leakage meter and so on before production. After production, the product should be verified for sealing, strength, dropping and transportation.

Cell growth test

Cell growth homogeneity experiment.

Cell factory validation test--Sterility and particle guarantee

Product initial bioburden test, irradiation dose setting, dose review, aseptic packaging verification, irradiation process verification, product sterility and particle testing.

Applicable cells

VERO、MRC-5、2BS、293T、L-929 ……

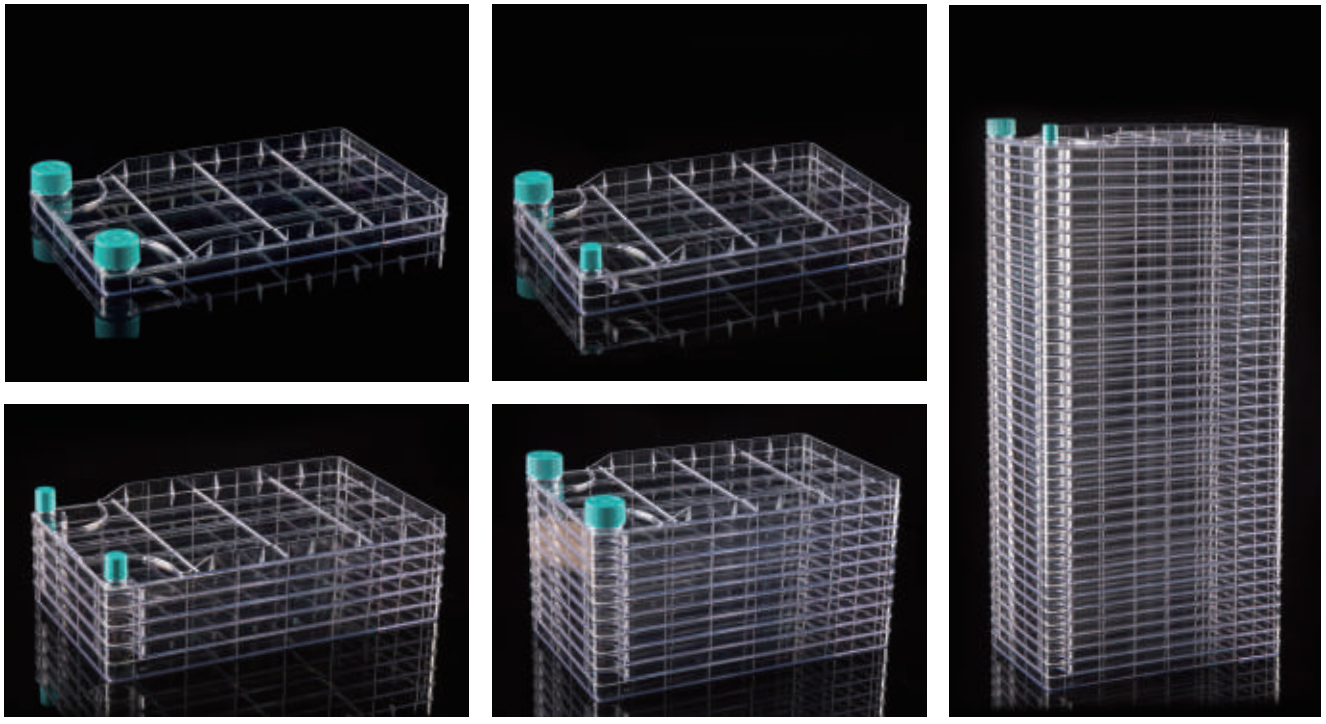
Packaging strength verification

The breakage rate is less than 3% after repeated long distance delivery challenges.

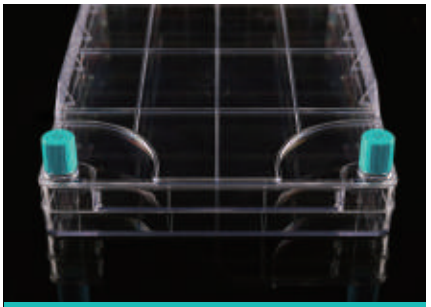
Sterility Guarantee--Imported Rhodotron® TT200 electron accelerator from Belgian IBA company, Self-built irradiation center.

The irradiation sterilization process has passed ISO 13485 and ISO 11137 quality system certification.

- Made of high clarity, 100% virgin polystyrene.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.
- Excellent welding line design can avoid producing particles during welding and make the biofactory stronger (Under Features 7th line).
- Vent caps with 0.22 μm hydrophobic filters for gas exchange without contamination.
- Wide mouth is applicable to pour culture medium directly. Narrow mouth is applicable to operate with the aseptic pipeline.
- Standardize operations to reduce batch differences.
- Individually packaged in double-layer sterile bags.
- TC treated, good for cell attachment and growth.
- Clear lot number for batch traceability.
- Ultrasonic welding without extrinsic ingredients.
- Standardize operations to reduce batch differences.
- Growth kinetics are the same as cells grow in the cell culture flasks. Applicable to large-scale culture adherent cells.
- Large growing area. Just a single operate, you can cultivate a large number of cells and reduce contamination risk.
- Applicable to automatic machine.



2 Wide Plug Seal Caps



2 Narrow Plug Seal Caps

1 Wide + 1 Narrow Plug Seal Cap

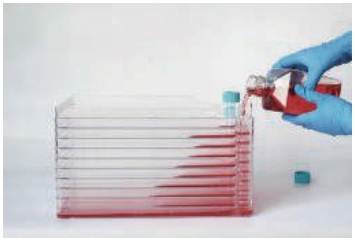
BioFactory

Layer	Cultivation Area (cm²)	Dimension (mm)			/Case	Seal Caps	Vent Filter Caps	Cat.No.		
		Length	Width	Height				2 Wide Plug	2 Narrow Plug	1 Wide + 1 Narrow Plug
1	632	335	205	44	8	16	16	771001	772001	773001
2	1264	335	205	61	8	16	16	771101	772101	773101
5	3160	335	205	112	4	8	8	771204	772204	773204
10	6320	335	205	197	6	12	12	771302	772302	773302
15	9480	335	205	286	2	4	4	771503	/	/
40	25280	335	205	712	2	4	4	771403	772403	773403

Large mouth design for easy pouring of the medium directly;
Small mouth design for easy connection with the feeding systems;
Vent Cap : 0.22 μm hydrophobic gas permeable membrane, hindering bacteria and water, can also avoid liquid swelling.

Guidelines for use

Cell culture



Pour the prepared suspension into the BioFactory (recommended volume of 150-200 mL per layer).

Turn the BioFactory Chamber 90° make sure the liquid at the same horizontal.

Turn the BioFactory™ Chamber 90° so that the filling and venting ports are up (as shown). It is normal for the medium level in the bottom chamber section to be slightly higher.

Gently lower the BioFactory Chamber to its normal horizontal incubation position and gently tilt the chamber back and forth until the surface of each chamber is completely covered with medium.

Put the BioFactory into the incubator.

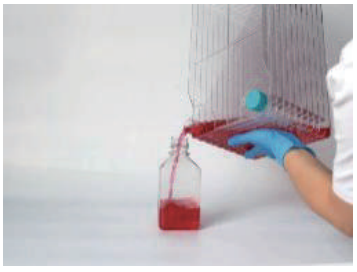
Watch operation video

Precautions

1. Please pre-heat the cell factory and culture medium to the culture temperature: since it takes a long time for a large incubator to reach the set culture temperature, pre-heating the cell factory and culture medium to the culture temperature before starting the experiment may speed up cell attachment and significantly increase cell recovery.
2. Slow operating is required to avoid occurrence of air bubbles caused by sharp shaking: air bubbles may lead to flowing the medium from an upper layer to a lower layer.
3. Avoid spraying alcohol onto the breathable cover, since alcohol may wet the hydrophobic membrane filter and make it impermeable and consequently affect the gas exchange or cause pressure imbalance during operations.

Cell Harvest

1. After the culture is completed, pour the culture medium out.
2. Wash the factory with the calcium-free and magnesium-free phosphate buffer solution (CMF-PBS) (40-50 mL / layer) and if necessary, repeat the washing process.
3. Digestion: pre-heat the digestion solution (10-40 mL / layer) in advance.
4. Collection: centrifuge for 5 mins at 1000 rpm, remove the digestion solution and collect cells.
5. Washing: wash the incubator with CMF-PBS or culture medium after digestion.

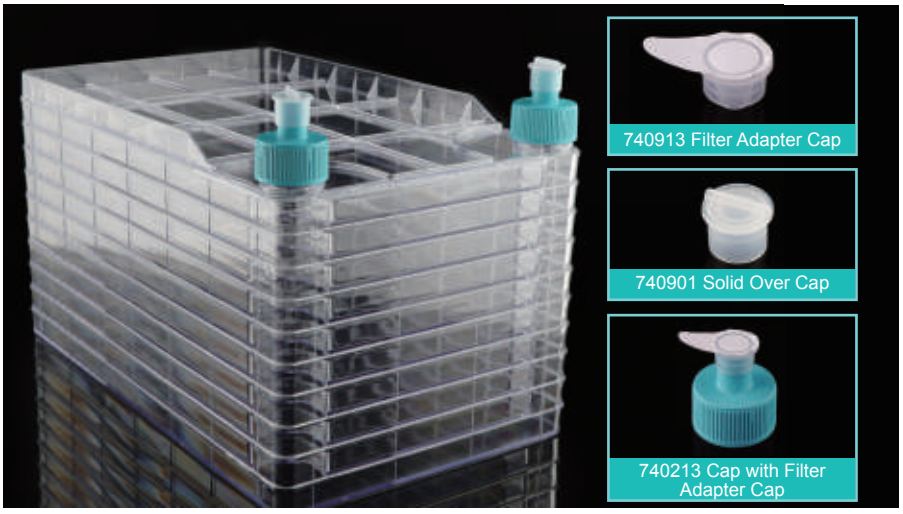


Precautions

1. Ensure that the culture surface of each layer is completely immersed in the CMF-PBS, and gently shake the cell factory forward and backward to wash off the residual culture medium.
2. Distribute the digestion solution evenly to each layer; gently tilt the incubator forward and backward, left and right to ensure that the digestion solution has completely covered the culture surface; gently tap the incubator to help the cells detach from the surface.
3. Since it is unable to clearly observe the digestion status of the cells in the middle layers of a cell factory, it is recommended to refer to the digestion status of a culture flask or a single-layer cell factory under exactly the same culture conditions. Or, use a dedicated observation platform for multiple-layer cell incubators to observe the growth status of cells in each layer.
4. If there are numerous cells present in the washing solution or the culture layers of the cell factory, it is necessary to wash multiple times or adjust the procedure of cell digestion.
5. Even a slight deviation of the culture temperature may affect the cell harvest rate, so it is required to pay close attention as to whether or not the culture temperature is exactly the set temperature.

Biofactory Closed System Solution

BioFactory (Cap with Over cap)



Vented Overcap and Solid Overact can be used directly on the adaptor caps to block dust and bacteria. Vented Overcap is equipped with a 0.22 μm hydrophobic breathable membrane to achieve aseptic ventilation during liquid transfer.

Accessory information can be found on page 35.

Layer	Description	Comes with Vented Overcap	/Case	Cat.No.
10	2 Sterile Vented over caps	12	6	771322
40	2 Sterile Vented over caps	4	6	771422

BioFactory (-20℃ Frost Resistance)

The NEST freeze-resistant BioFactory adopts a dispensing technique to glue different layers, thus its freeze resistance is upgraded. It can withstand freezing at - 18 ~ - 20 ℃, and can be repeatedly frozen and thawed three times, with better firmness.

Reminder: Due to the principle of thermal expansion and cold contraction, after the BioFactory uses a sealed cap to fill the culture media and freezes, the bottom or top layer may be slightly deformed. This is an inevitable and normal phenomenon, and there will be no leakage and will not affect normal use.

Layer	Cultivation Area (cm^2)	Dimension (mm)			Description	Package	Cat.No.
		Length	Width	Height			
10	6320	335	205	201	Double Large mouth, TC , sterile	Double bag package, 1 pc / bag, 6 pcs / case	771392

Biofactory Closed System Solution

To customize a NEST Biofactory Closed System Solution that meets your needs, follow these steps:

Step 1
• Choose the Layer

☐ Other Layers

1Layer 2Layers 5Layers 10Layers 40Layers

Notes: you may order the transfer cap only

Step 2
• Choose the cap type

Wide Mouth to Narrow Mouth | Wide Mouth to 3/8 Inches (9.5 mm) Hose | Wide Mouth to 1/4 Inches (6.4 mm) Hose

Notes: Compatible with diverse connectors

Step 3
• Choose the tube size/length
• Choose the tube material

1/8" ID, 1/4" OD: φ 6.4mm, φ 3.2mm
1/4" ID, 3/8" OD: φ 9.53mm, φ 6.4mm

Length (☐ 50 ☐60 ☐80 ☐90 ☐Other)

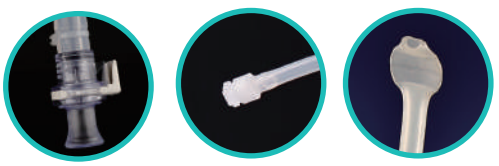
Inlet and outlet liquid tubing
(☐ Vulcanized silicone tube ☐P welded tube)

Step 4
• Choose the membrane area Air filter (PVDF membrane)

4.5cm² 13.8 cm² 20 cm² Other

Membrane (☐4.5cm² ☐13.8cm² ☐20cm² ☐Other)

Step 5
• Choose the connector type
①Luer connector (male and female)
②MPC connector (male and female)
③Heat sealing (no connector)


MPC Connector (male/female) | Luer Connector (male/female) | Heat Seal (no connector)

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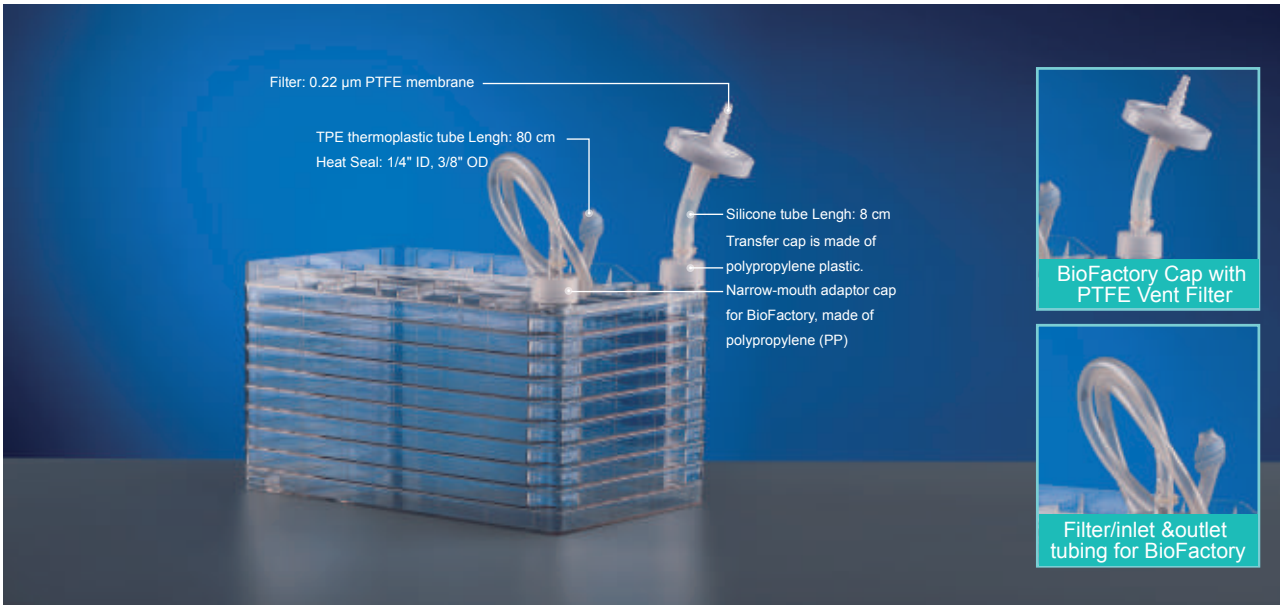
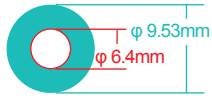
Inform our sales or product engineer of your choice if you have completed your selection.

Biofactory Closed System Solution



- Closed liquid transfer, avoiding open operation and reducing the risk of pollution in the process of liquid transfer.
- The liquid inlet tube can be aseptically welded under a normal environment.
- High-quality materials and smooth inner wall of the tube, ensuring an excellent transmission performance.
- Electron beam sterilization, SAL = 10^{-6}.
- No endotoxin and no components of animal origin.

Accessory information can be found on page 35.

Layer	Cultivation Area (cm²)	External Liquid Transfer Tube			0.2μm Filter Membrane area	/Case	Cat.No.
		Dia.	Length	Connector			
5	3160	TPE Tube: 1/4" ID, 3/8" OD 	80 cm	Heat Seal	20 cm²	2	C71754-BZD080A
10	6320						C71554-BZD080A

BioFactory Accessories

BioFactory Accessories

Description	/Pack	/Case	Cat.No.
Wide Mouth Seal cap for BioFactory	1	10	740001
Wide Mouth Vent cap for BioFactory	1	10	740011
Narrow Mouth Seal cap for BioFactory	1	10	740101
Narrow Mouth Vent cap for BioFactory	1	10	740111

740201 740302 740402

Description	Size(mm)		/Pack	/Case	Function	Cat.No.
	ID	OD				
Adaptor Cap	11.8	14.3	1	10	Wide Mouth to Narrow Mouth	740201
Adaptor Cap	7.3	14.3	1	10	Wide Mouth to 3/8 Inches(9.5 mm) Hose	740302
Adaptor Cap	5.9	8.8	1	10	Wide Mouth to 1/4 Inches(6.4 mm) Hose	740402

740913 740901 740213

Description	/Pack	/Case	Cat.No.
Filter Adapter Cap	1	20	740913
Solid Over Cap	1	20	740901
Cap with Filter Adapter Cap	1	10	740213

C71254-ZMC000B

Filter/inlet &outlet tubing for BioFactory

BioFactory Cap with PTFE Vent Filter (0.22 μm Φ42mm), without BioFactory , Sterile

1 /Pack, 4 /Case

C71255-ZMD000B

Filter/inlet &outlet tubing for BioFactory

BioFactory Cap with PTFE Vent Filter (0.22 μm Φ50mm), without BioFactory

1 /Pack, 4 /Case

C71254-FBA080B

Filter/inlet &outlet tubing for BioFactory

BioFactory Cap with Silicon Tube (80cm 1/4 " ID3/8" OD), Male CPC Connector with Female Sealing Cap, without BioFactory, Sterile

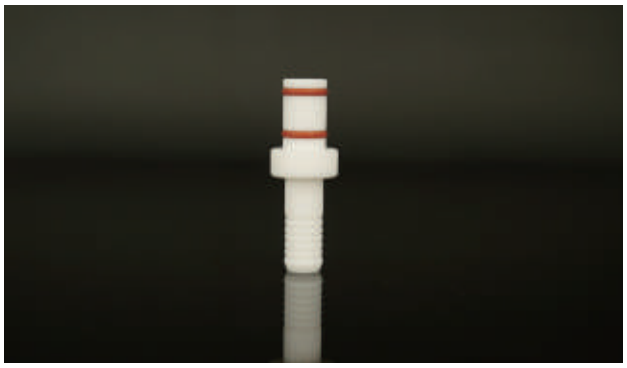
1 /Pack, 4 /Case

C71255-HCA080B

Filter/inlet &outlet tubing for BioFactory

BioFactory Cap with Silicon Tube (80cm 3/8 " ID5/8" OD), Male CPC Connector with Female Sealing Cap, without BioFactory, Sterile

1 /Pack, 4 /Case



741001 Adaptor Connector

Adaptor Connector to 3/8 Inches (9.5 mm)Hose

1 pcs / pack

Compatible with transfer cap and narrow mouth

One end is designed to fit the narrow mouth of BioFactory and the other end connects to a hose with a 3/8'' ID

C71200-ZME000B

Hose Clamp*1 (743001) Intended for hoses with an OD ranging from 12mm to 18mm.

Vent Filter *1 (742001) Hydrophobic membrane: PTFE, Pore size: 0.2 μm Membrane area: 20 cm^2.

Silicone Ring*2

SPT-50 Hose*1 (15cm) (744001) ID: 3/8'' (9.5mm) , OD: 5/8'' (15.9mm)

C71275-ZME000B

Hose Clamp*1 (743001) Intended for hoses with an OD ranging from 12mm to 18mm.

Vent Filter *1 (742001) Hydrophobic membrane: PTFE, Pore size: 0.2 μm Membrane area: 20 cm^2.

2 different Adaptor Caps*1 (741001) PTFE Material , ID:7.3mm Serrated OD: 10 mm

Silicone Ring*2

SPT-50 Hose*1 (15cm) (744001) ID: 3/8'' (9.5mm) , OD: 5/8'' (15.9mm)

745001 BioFactory AccessoryLite Package

Adaptor Cap*1 (740201) Wide mouth to narrow mouth

Adaptor Cap*1 (740302) ID 3/8''

2 different Adaptor Caps*1 (741001)

Vent Filter *1 (742001) Hydrophobic membrane: PTFE, Pore size: 0.2 μm Membrane area: 20 cm^2.

Hose Clamp*1 (743001) Intended for hoses with an OD ranging from 12mm to 18mm.

SPT-50 Hose*1 (15cm) (744001) ID: 3/8'' (9.5mm) , OD: 5/8'' (15.9mm)

1 pcs / pack

751101 BioFactory Holder, Individually Wrapped

Material: aluminum alloy and silicone

1 pcs / pack, 5 pcs / case

Function: to tilt for easy transfer

Features:

The double "N" latch makes the width adjustable; the anti-slip silicone mat attached avoids abrasion and secures the stability.

Multiple adjustable positions for desired height

Notes:

①Position 2 or 3 is recommended(Recommended working volume for each layer of BioFactory:150ml to 200ml)

②It is necessary to tilt the BioFactory forward manually to ensure all the liquid flows out when there is a small amount of liquid.

Square Bottle & Closed System Solution

Square Storage Bottle is a reagent storage container commonly utilized in laboratories.NEST offers Square Storage Bottles in PET, PETG, and PC materials. Additionally, a fresh range of PET bottles featuring a classic square shoulder design is recently launched, offering a wider variety of specifications and liquid storage solutions.

The bottle body has high transparency, high mechanical strength, and strong impact resistance, making is convenient for observation and transportation.

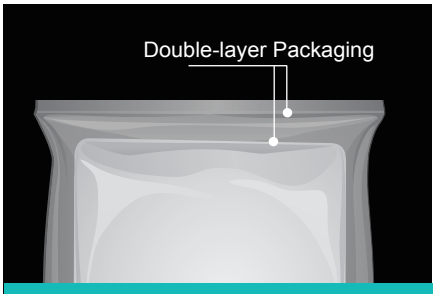
- The material has strong tolerance, low temperature resistance, UV resistance, and is not easy to crack.
- The smooth inner surface minimizes the residue on the inner wall.
- Non-cytotoxic, non-pyrogenic, and free of animal-derived components

Square Bottle

5000 mL | 2000 mL | 1000 mL | 500 mL (Square shoulder design) | 500 mL | 250 mL | 125 mL | 60 mL | 30 mL

Structural Features

- Cap: the mold for cap is specifically designed. The cap is formed through one-shot moulding without inner gasket, enabling it closer attached to the body for better sealing performance.
- Bottleneck: smooth buckle design reduces residue inside.
- Body: it has high transparency, high mechanical strength, strong impact resistance, and is convenient for observation and transportation. The smooth inner surface minimizes the residue on the inner wall. And thet hickness of the bottle wall is uniform for better anti-crack and anti-puncture capacity.
- Bottom: the bottom has curved inner corners that are easy to celan, and the bottom is injection molded with raw material infomr ation



Double-layer Packaging

Large double-layer packaging

Tray package

Double-layer Packaging

- Enhanced protection: double-layer packaging offers additional protection for safety in case the bottles were damaged by extenral forces such as extrusion, vibration, and collision during rtansportation.
- Improved durability: double-layer packaging ensures durability and a longer service life.
- Compliance: in line with material entry requirements of the GMP purification workshop of the biological laboratoryr ation.

Double-layer Large Packaging

- Economical and cost-effective: reducing costs of packaging and labor
- Improve efficiency: reducing the redundant loading and unloading operations for industrial customers when filling liquid, spurrnig the efficiency and reducing the labor intensity.

Tray-packed

- The tray-packed bottles features an one-piece plastic sealing coating by packaging equipment, which ensures better protection and less collision between and prevents contamination and loss.
- High space utilization by stacking.

Volume (mL)	Double-layer Packaging					Double-layer Large Packaging			Tray package			
	/Pack	/Case	PET	PETG	PC	/Pack	/Case	PET	/Pack	/Case	PETG	PC
30	5	40	/	354111	354314	/	/	/	40	280	354113	354313
60	6	48	354611	354511	354714	/	/	/	40	200	354513	354713
125	6	48	353611	353511	353314	/	/	/	24	96	353513	353313
250	6	48	352611	352511	352314	/	/	/	30	60	352513	352313
500	8	24	333001	333511	333314	20	80	333004	20	40	333513	333313
500 (Square shoulder design)	8	24	333621	/	/	20	80	333624	/	/	/	/
1000	4	12	334001	334511	334314	12	48	334004	12	24	334513	334313
2000	6	12	/	355114	355314	/	/	/	/	/	/	/
5000	1	6	/	/	355714	/	/	/	/	/	/	/

Square Storage Bottle Closed System Solution

To customize a NEST Square Storage Bottle Closed System Solution that meets your needs, follow these steps:

Step 1

- Choose the bottle capacity
- Choose the bottle material

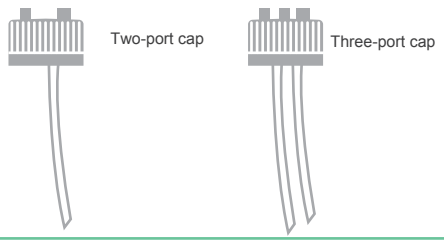
250mL 500mL 1000mL 2000mL 5000mL

Bottle Materia (☐PETG ☐PET ☐PC)

Notes: you may order the transfer cap only

Step 2

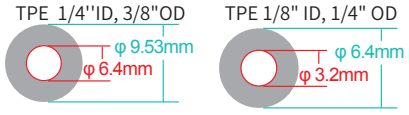
- Choose the cap type



Notes: Compatible with diverse connectors

Step 3

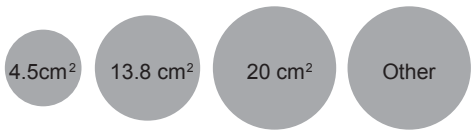
- Choose the tube size/length
- Choose the tube material



Inlet and outlet liquid tubing
(☐ Vulcanized silicone tube ☐P welded tube)

Step 4

- Choose the membrane area Air filter (PVDF membrane)

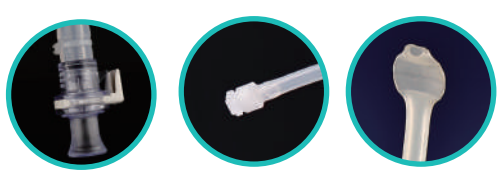


Membrane (☐4.5cm² ☐13.8cm² ☐20cm² ☐Other)

Step 5

- Choose the connector type

①Luer connector (male and female)
②MPC connector (male and female)
③Heat sealing (no connector)



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Square Storage Bottle Closed System Solution

Closed System Solution
(Bi-Directional Transfer Cap)

Bi-Directional Transfer Cap

Closed System Solution
(3-Port Transfer Cap)

3-Port Transfer Cap

Product Description

The newly launched NEST Closed System collection provides an aseptic liquid infusion solution for pharmaceuticals, biotechnology industry and laboratories. A standard Luer head is used in the joint of the system, enabling the operation more convenient. Also, the TPE material of tubes is in line with the requirements for industrial pharmaceutical enterprises, and is validated by a certified third party in accordance with BPOG Guide for Evaluating Extractables and Leachables.

Application

- Various tubing specifications
- The injection-molded transfer cap is highly compatible with other major brands.
- The bottle body is made of PETG, which has high transparency, mechanical strength, low-temperature resistance, and UV resistance, making it suitable for observation and transportation.
- The unique external thick collar design of the bottle neck secures a sealed environment for experiments.
- Non-cytotoxic, non-pyrogenic, no animal-derived components.

Compatibility	Transfer Cap type	Tubing			Connector	0.2μm Filter Membrane area	/Case	Cat. No.	
		Material	Length	Dia.				Closed System	Transfer Cap
250 mL	Bi-Directional Transfer Cap	TPE hose	60cm	TPE 1/4"ID, 3/8"OD	Female Luer	4.5 cm^2	10	C50921-BHB060A	C50921-BHB060B
				TPE 1/4"ID, 3/8"OD	MPC Male	4.5 cm^2	10	C50921-BBB060A	C50921-BBB060B
				TPE 1/8" ID, 1/4" OD	Female Luer	4.5 cm^2	10	C50922-AGB060A	C50922-AGB060B
				TPE 1/8" ID, 1/4" OD	MPC Male	4.5 cm^2	10	C50922-AAB060A	C50922-AAB060B
500 mL	Bi-Directional Transfer Cap			TPE 1/4"ID, 3/8"OD	Female Luer	4.5 cm^2	10	C51021-BHB060A	C51021-BHB060B
				TPE 1/4"ID, 3/8"OD	MPC Male	4.5 cm^2	10	C51021-BBB060A	C51021-BBB060B
				TPE 1/8" ID, 1/4" OD	Female Luer	4.5 cm^2	10	C51022-AGB060A	C51022-AGB060B
				TPE 1/8" ID, 1/4" OD	MPC Male	4.5 cm^2	10	C51022-AAB060A	C51022-AAB060B
1000 mL	Bi-Directional Transfer Cap			TPE 1/4"ID, 3/8"OD	Female Luer	4.5 cm^2	10	C51121-BHB060A	C51121-BHB060B
				TPE 1/4"ID, 3/8"OD	MPC Male	4.5 cm^2	10	C51121-BBB060A	C51121-BBB060B
				TPE 1/8" ID, 1/4" OD	Female Luer	4.5 cm^2	10	C51122-AGB060A	C51122-AGB060B
				TPE 1/8" ID, 1/4" OD	MPC Male	4.5 cm^2	10	C51122-AAB060A	C51122-AAB060B
	3-Port Transfer Cap			TPE 1/8" ID, 1/4" OD	Female luer lock connector with luer plug	4.5 cm^2	10	C511AB-AGB060A	C511AB-AGB060B
2000 mL	Bi-Directional Transfer Cap			TPE 1/4"ID, 3/8"OD	Female Luer	13.8 cm^2	4	C50123-BHC060A	C50123-BHC060B
				TPE 1/4"ID, 3/8"OD	MPC Male	13.8 cm^2	4	C50123-BBC060A	C50123-BBC060B
	3-Port Transfer Cap			TPE 1/4"ID, 3/8"OD	Female Luer	13.8 cm^2	4 Double-layer	C501AA-BHC060A	C501AA-BHC060B
5000 mL	Bi-Directional Transfer Cap	Welding hose		TPE 1/4"ID, 3/8"OD	Heat-seal	13.8 cm^2	2	C50423-BZC060A	C50423-BZC060B
	3-Port Transfer Cap			TPE 1/4"ID, 3/8"OD	Heat-seal	13.8 cm^2	2 Double-layer	C504AA-BZC060A	C504AA-BZC060B

Carboy

Product Description

The barrel, the tap and the screw cap of the carboy are made from polypropylene (PP) and the gasket is made from thermoplastic elastomer(TPE), all of which are autoclavable for sterilization before use to prevent the growth of bacteria and other microorganisms. It is mainly used for storing and dispensing solutions, culture medium, also ideal for sterile water. The barrel is moulded with a 1-gallon or 5 liter scale markings for easy identification of liquid levels during operation. The sealing performance is secured by the TPE gasket and the thread on the finish, which is well matched to the cap.

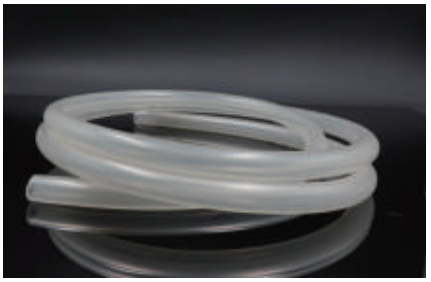
Application

- Storage container for raw pharmaceutical materials or culture media that require autoclaving sterilization.
- Storage container for bulk raw pharmaceutical materials or other substances.
- Storage container for sterile water.

Volume (mL)	With Handle	Sterilization	/Case	With Tap	Without Tap
10	YES	NO	4	789001	789011
20	YES	NO	3	789101	789111

Generic Accessories

744001 SPT-50 Hose
Inner Dia # 3/8 Inches (9.5 mm)
Outer Dia # 5/8 Inches (15.9 mm)
50 Inches/ 15 meters
1 pcs / pack
Application: linking tubings for filling and draining operations



746001 C-Flex Welding Hose
Inner Dia# 3/8 Inches (9.5 mm)
Outer Dia# 5/8 Inches (15.9 mm)
50 Inches/ 15 meters
1 pcs / pack
Application: linking tubings for filling and draining operations, heat weldable.

747001 CPC Connector
CPC & PC Material
Packaging: individual sterile packaging, 5 prs/cs
(Inner Dia #3/8) for Hose to Hose Connecting
1 pcs / pack, 5 pcs / case
747011 CPC Sealing Plug
10 pcs / case

743001 Hose Clamp
Hose clamp for 12-18 mm diameter hose
10 pcs / pack

751001 Y Shape Connector
PP Material
Y Shape CPC Connector for Inner Dia #3/8 Hose
1 pcs / pack, 5 pcs / case

749001 T Shape Connector
PP Material
T Shape CPC Connector for Inner Dia #3/8 Hose
1 pcs / pack, 5 pcs / case

742011 0.22μm Vent Filter
Pore size:0.22 μm Membrane area: 13.8 cm^2
1 pcs / pack, 5 pcs / case
742001 0.22μm Vent Filter
Hydrophobic membrane : PTFE
Pore size:0.2 μm Membrane area: 20 cm^2
Packaging: individual sterile packaging, 1 pcs / pack, 5 pcs / case
Application: Hose fitting

Biobank System

Cryogenic Tubes

Cryogenic tubes, also known as freezing tubes, are commonly used for low-temperature preservation. They are a crucial laboratory consumable in the biological, pharmaceutical, food, and other industries. Made of medical-grade polypropylene (PP), cryogenic tubes can withstand low temperatures down to minus 196°C in a liquid nitrogen gas phase environment. They are available in three types: cryogenic tubes (without 2D barcode), 2D barcode cryogenic tubes and 3-code cryogenic tubes.

✓High-quality raw materials:
Top-quality and food grade resin, which complies with UPS class 6, pharmaceutical and laboratory standards, is adopted. It contains much lower concentrations of trace element extractables than glass.

✓High-Precision Technology: Equipped with high-precision injection-stretch-blow molding equipment and automated equipment for manufacturing.

✓Multiple Specifications: Multiple materials and specifications are available, including PET, PETG, HDPE that are resistant to chemical corrosion, as well as PP and PC products that are autoclavable . The packaging mode of square reagent bottles can be customized to meet any needs.SBS Format Cryogenic Tubes fits automated equipment.

✓High Quality Standards: Certified by ISO13485 and ISO 9001, with batch stability.

✓Economical and Environmentally Friendly: Some products are reusable and extremely durable, reducing the waste of disposable containers and preventing the leakage of harmful substances, making them environmentally friendly.

Complete stability and safety verification reports

Manufacturing enterprise certification		Production process, quality standards, storage, transportation and use verification		Testing by third-party authoritative professional inspection and testing organizations		
Qualification certificate	ISO 9001, ISO13485	Process test	Injection molding machine, mold performance verification	Biological testing GB/T16886.5-2017 GB/T16886.4-2003 GB/T16886.10-2017 GB/T16886.11-2021	In vitro cytotoxicity test	
	FDA, CE	Performance test	Sealing test		Skin sensitivity test	
	Irradiation ISO 13485, ISO 11137		Cryogenic test		Skin irritation test	
Sterility testing laboratory Environmental testing	ISO 7 requirements		High-temperature sterilization test		Acute systemic toxicity test	
	GB 50591-2010		DNase/RNase		Hemolysis test	
	GB/T 16294-2010		Endotoxin	Physical and chemical testing GB/T14233.1-2008	Heavy metal content of materials	Pb, Sn, Cd, Cr
Level 100000 clean workshop environmental testing	ISO 8 requirements		Bottom 2D barcode integrity test		Leachable testing	Reducing substances
	GB 50073-2013	Sterility and particle assurance	Irradiation process verification			pH
	YY0033-2000		Sterile packaging verification			Evaporation residue
Purified Water System Validation	GMP requirements		Product sterility test			UV absorbance
Raw material verification	Physical and chemical testing		Insoluble particle detection			
	Extractable testing		Drop and transportation verification			

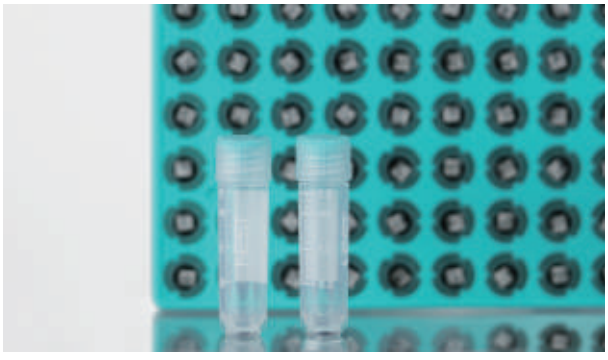
Cryogenic Tubes

• Volume optimization

Volume selection based on quantity and type of sample.

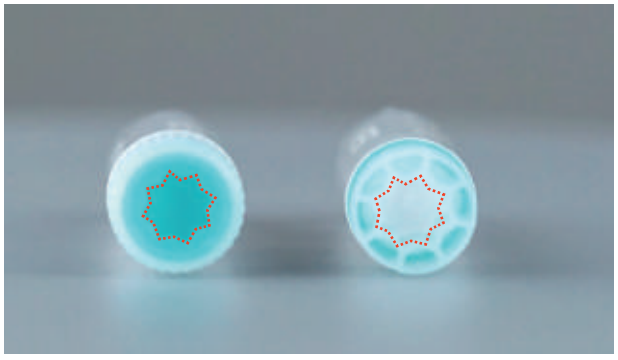
• Improved sealing effect

Soft rubber sealing surface design, passing vacuum test, ensuring sample safety.



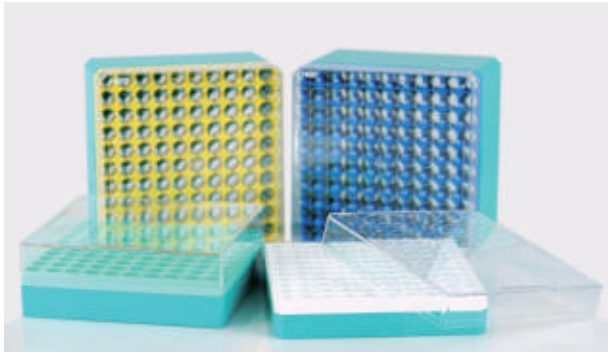
• Material upgrade

New polymer material, improved cryogenic and anti-aging performance, high-temperature and high-pressure sterilization.



• Suitable for automation

"Eight-petal plum" design, reduces manual process, contamination risk, and labor cost.



• More specifications

Filling gap for 4 mL, 5 mL, and 10x10 box series, meeting various research needs.

• Multi-color cap inserts

Color-coded cap inserts for easy sample identification.

Cryogenic Tubes

Cap Type	External thread cap				Internal thread cap			
Volume (mL)	1.5	2.0	4.0	5.0	1.5	1.8	4.0	5.0
Overall height (mm)	40.7	45.5	76.3	93.3	40.7	45.5	76.3	93.3
Size parameters (mm)	10				8.3			
Outer diameter Φ (mm)	12.85				12.10			
Temperature Range	-196 to 121°C				-196 to 121°C			

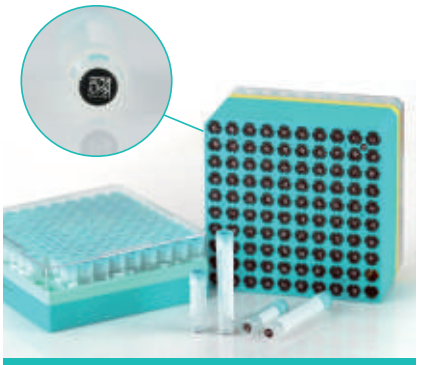
Note:

1. The thread of the external thread cap is not directly exposed to the outside, which minimizes the possibility of cross-contamination;
2. The internal thread cap has the same diameter as the cryogenic tube, which has an advantage in intensive storage applications;
3. The maximum volume of the external thread cap is closer to the nominal volume than the internal thread cap. Since the content volume usually increases during liquid freezing, the recommended usage volume of both external and internal thread cap cryogenic tubes is 80% of the maximum volume;
4. Both storage methods are aimed at ensuring the safety of cryogenic storage and can be freely selected according to the actual user needs.

Cryogenic Tubes

Bag Package

Rack Package



2D Barcode Cryogenic Tubes

Cryogenic Tubes (without 2D barcode) – Bag Package

Cat. No.	Volume (mL)	Cap Type	/Pack	/Box	/Case
618901	1.0	External thread	96	/	1960
606901	1.5	External thread	50	500	2000
607401	2.0	External thread	50	500	2000
608401	4.0	External thread	50	250	1000
609401	5.0	External thread	50	250	1000
606801	1.5	Internal thread	50	500	2000
607301	1.8	Internal thread	50	500	2000
608301	4.0	Internal thread	50	250	1000
609301	5.0	Internal thread	50	250	1000

Cryogenic Tubes - Rack Package

	Cryogenic Tubes Cat. No.	2D Barcode Cryogenic Tubes	Volume (mL)	Cap Type	Packaging	/Rack	Racks/Case
	606902	606952	1.5	External thread	10*10	100	14
	607402	607452	2.0	External thread	10*10	100	12
	608402	608452	4.0	External thread	10*10	100	8
	609402	609452	5.0	External thread	10*10	100	6
	606802	606852	1.5	Internal thread	10*10	100	14
	607302	607352	1.8	Internal thread	10*10	100	12
	608302	608352	4.0	Internal thread	10*10	100	8
	609302	609352	5.0	Internal thread	10*10	100	6
SBS	618906	/	1.0	External thread	8*12	96	10
SBS	/	612891	2.0	External thread	6*8	48	10
SBS	/	614591	4.0	External thread	6*8	48	10

SBS Format Cryogenic Tubes

Sealing design

- New sealing structure design, optimized sealing performance, better liquid nitrogen sealing, smoother feel.

High-quality raw materials

- Made of medical-grade high-purity polypropylene, ultra-high rigidity toughening material, excellent weather resistance, compliant with ISO10993 standards.
- No DNase, no RNase, no endotoxin.

Encoding rules

- Three-code-in-1 composed of DATAMATRIX code, barcode and readable code, laser-etched on the bottom and side of the tube.
- Codes are high contrast for easy reading, ratch-resistant, not easy to fall off, resistant to DMSO and other organic solvents.
- Hgh uniqueness of laser-etched international standard DATAMATRIX codes.

At the same time, NEST can customize exclusive encodings for you. If you have any requirements, please contact us. For more information, please visit our official website at www.cell-nest.com.

Quality assurance

- Produced in GMP 100,000-level clean room certified according to ISO 9001, ISO 13485 quality system certification.
- Strict production process, well-developed management system to ensure batch quality stability.

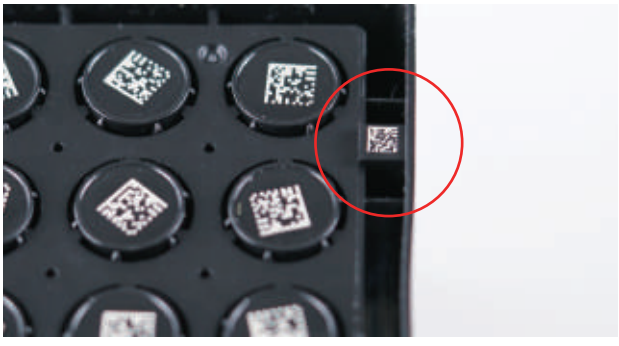
Sterility assurance

- E-beam sterilization, SAL=10^{-6}.

External thread cap Internal thread cap

Box features

- Cryogenic box identifier code: We have a unique QR code at the bottom of the rack and a one-dimensional barcode laser engraved on the side of the rack. When reading the cryogenic tube information, the box information is also read to automatically locate the rack and achieve a safer sample traceability.
- Box lid buckle: The cryogenic box is designed with a buckle that can tightly fit with the box to prevent scattering when dropped. The buckle switch is also convenient and does not fail even after being frozen in liquid nitrogen, ensuring sample safety.



SBS Format Cryogenic Tubes

Cap Type	External thread cap							Internal thread cap		External thread cap	
Volume (mL)	0.5	0.75	1.0	2.0	4.0	6.0	8.0	0.5	1.0	4.0	1.9
Overall height (mm)	27.6	37.3	45.6	45.5	76.3	57.5	71.7	33.5	51.4	76.76	42.96
Size parameters (mm)	5.3			10		10.3		6.55			
Outer diameter Φ (mm)	8.85			12.85		17.8		8.7		12.8	
Temperature Range	-196 to 121°C							-196 to 121°C			

Note:

1. The thread of the external thread cap is not directly exposed to the outside, which minimizes the possibility of cross-contamination;
2. The internal thread cap has the same diameter as the cryogenic tube, which has an advantage in intensive storage applications;
3. The maximum volume of the external thread cap is closer to the nominal volume than the internal thread cap. Since the content volume usually increases during liquid freezing, the recommended usage volume of both external and internal thread cap cryogenic tubes is 80% of the maximum volume;
4. Both storage methods are aimed at ensuring the safety of cryogenic storage and can be freely selected according to the actual user needs.

Bag Package

Rack Package

Yellow Cap

SBS 3-Code Cryogenic Tubes - Bag Package

Cat. No.	Volume (mL)	Cap Type	/Rack	Racks /Case
612541	0.5	External thread	96	100
612641	0.75	External thread	96	100
612741	1	External thread	96	100
612841	2	External thread	48	100
614541	4	External thread	48	100
614641	6	External thread	24	100
614741	8	External thread	24	100
612521	0.5	Internal thread	96	100
612721	1	Internal thread	96	100

SBS 3-Code Cryogenic Tube - Rack Package

Cat. No.	Volume (mL)	Cap Type	/Rack	Racks /Case
612551	0.5	External thread	96	100
612651	0.75	External thread	96	100
612751	1	External thread	96	100
612851	2	External thread	48	100
614551	4	External thread	48	100
614651	6	External thread	24	100
614751	8	External thread	24	100
612531	0.5	Internal thread	96	100
612731	1	Internal thread	96	100

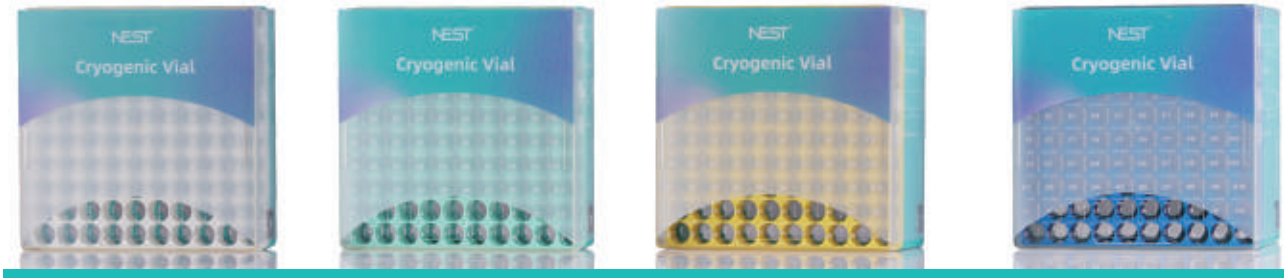
Cap Inserts / Cryogenic Box

Cap Inserts

Cat. No. (NEW)	Color	Sterilization	Quantity/Bag	Bags/Case
611201	White	No	100	10
611202	Red	No	100	10
611203	Yellow	No	100	10
611204	Blue	No	100	10
611205	Green	No	100	10
611206	Purple	No	100	10

*The new Cryogenic Vial Labels are exclusively designed to work with NEST's latest collection of Cryogenic Vials.

Cryogenic Box



1.5 mL | 2.0 external thread/1.8 internal thread | 4.0 mL | 5.0 mL

3-Code-in-1 Cryogenic Vial

- PC transparent cover, PC-ABS high-strength composite material base.
- Temperature range from -196°C to 70°C.
- Alphanumeric grid for easy sample labeling and identification.
- Each box contains drainage holes and vents, which accelerate the discharge of cold air and reduce condensation.
- Packaging with independent product and batch identification for quality traceability.

Cryogenic Box

Cat. No.	Compatible Cryogenic Tube Capacity (mL)	Format (Holes)	Size (L x W x H)	Color	Sterilization	Quantity/Box
616651	1.5	10*10	133.6×133.6×44	White	No	14
616051	2.0 external thread/1.8 internal thread	10*10	133.6×133.6×48.8	Green	No	12
616151	4.0	10*10	133.6×133.6×79.5	Yellow	No	8
616551	5.0	10*10	133.6×133.6×96.5	Blue	No	6

3-Code-in-1 Cryogenic Vial

Cat. No.	Compatible Cryogenic Tube Capacity (mL)	Format (Holes)	Size (L x W x H)	Sterilization	Quantity/Box
616041	2.0	8*6	127×85.3×48.3	No	10
616841	6.0	4*6	127×85.3×60.4	No	10

*The new Cryogenic Box are exclusively designed to work with NEST's latest collection of Cryogenic Vials.

Defrosting Device

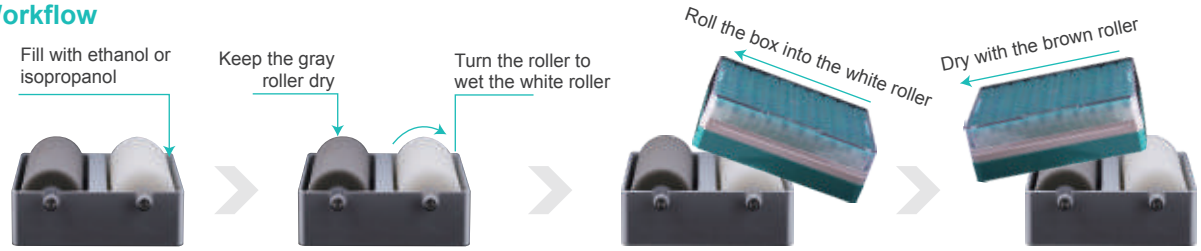
Product introduction

The NEST defrosting device is a tool used to quickly remove frost from the bottom of boxed cryogenic vials. When cryogenic vials are stored in liquid nitrogen vapor phase or -80 ° C freezer, ice can form at the bottom of the vials. However, to ensure the rapid reading of cryogenic vial decoding systems, it is necessary to clearly identify the 2D code at the bottom of the vial. Therefore, rapid defrosting has become a necessary step.

Features

- Wide compatibility: can be used for 24, 48, 96, and 384 formats of different brands of cryogenic boxes.
- Sample integrity: achieves bottom defrosting without heating, and the sample can still maintain a frozen state.
- Practicality: sponge roller is easy to assemble. The first roll requires the addition of a special reagent, and the second roll dries it, making it easy to use.

Workflow



Add ethanol or isopropanol to infiltrate the white sponge.

Repeat the process multiple times until the frost is completely removed.

Product name	Defrosting device
Cat. No.	106001
Base material	Aluminum alloy
Defrosting part	High-quality sponge
Supporting reagent	Ethanol

Consumables for the defrosting device	Sponge
Product number	106003/106004
Material	High-quality sponge
Color	White/Brown
Packaging method	1 piece/pack

Vertical Freezer Racks

Cat. No.	Size (mm)	Maximum number of boxes	Size of boxes (mm)	Pcs/Case
200301	454H x 143D x 140W	8	133x133x51	6
200302	677H x 143D x 140W	12	133x133x51	6
200303	724H x 143D x 140W	13	133x133x51	6
200304	789H x 143D x 140W	14	133x133x51	6
200305	845H x 143D x 140W	15	133x133x51	6

Cat. No.	Size (mm)	Maximum number of boxes	Size of boxes (mm)	Pcs/Case
200321	492H x 143D x 140W	6	133x133x75	6
200322	653H x 143D x 140W	8	133x133x75	6
200323	724H x 143D x 140W	9	133x133x75	6
200324	814H x 143D x 140W	10	133x133x75	6

Cat. No.	Size (mm)	Maximum number of boxes	Size of boxes (mm)	Pcs/Case
200341	413H x 143D x 140W	4	133x133x98	6
200342	616H x 143D x 140W	6	133x133x98	6
200343	717H x 143D x 140W	7	133x133x98	6

Sample Freezing Recommendations

Safety Risks and Recommendations:

NEST cryogenic vials are made of polypropylene (PP), which has good chemical resistance and low-temperature performance. The temperature range for using cryogenic vials is -196°C to 121°C. They can be sterilized at high temperature and high pressure or placed in liquid nitrogen vapor.

However, it is not recommended to store them in liquid nitrogen due to the risk of cross-contamination. Liquid nitrogen has very low surface tension, which can cause it to flow into tightly capped cryogenic vials. After removing a cryogenic vial, residual liquid nitrogen may vaporize, creating explosion and injury risks.

If the sample has already been stored in the liquid phase of liquid nitrogen, the following measures are recommended to reduce the risks:

- Place the cryogenic box and cryogenic vial in liquid nitrogen vapor phase for 24 hours before removing from the liquid nitrogen tank to allow the liquid nitrogen to evaporate.
- When handling, be sure to wear protective goggles and gloves to prevent cryogenic vial rupture.
- Add a cryogenic vial sleeve before freezing the sample.

Please note that correct use and storage of cryogenic vials are critical steps to ensure the quality and safety of biological samples. Therefore, please follow the correct operating procedures and safety measures when using and storing cryogenic vials to ensure the reliability of biological sample quality and research results.

Preserving Sample Activity

- When handling low-temperature samples, it plays the role of a portable refrigerator, quickly cooling and temporarily stabilizing the temperature, maximizing the preservation of cell, nucleic acid, protein, and other sample activities.
- Suitable for tissue culture incubators, biosafety cabinets, and other limited space situations.

Ice Free Cool Box

Product number	Size (mm)	Weight (g)	Application
200103	152x170x123	1300	Includes 200902 ice core and 2mL module 200904
200901	152x170x123	140	Without ice core and module, multiple cooling sources and modules can be selected.

Ice Core

Product number	Product name	Temperature range	Freezer temperature	Freezing time	Size (mm)
200902	Cold core	0.5°C~4°C	-20°C	4h+	105 x 100 x 26
		0.5°C~4°C	-80°C	2h+	105 x 100 x 26
200903	Freezing core	-18°C~-4°C	-20°C	6h+	105 x 100 x 26
		-18°C~-4°C	-80°C	3h+	105 x 100 x 26

200101

200102

- Used for freezing various cell types, including stem cells, primary cells, cell lines, and yeast, etc.
- "Slow freezing" to protect cell activity; just place in a -80°C freezer to make the sample cool down 1°C per minute.
- Zero addition and zero emissions, permanent use, and responds to the call of environmental protection.

Module

Product number	Product name	Size (mm)	Application
200904	2 mL module	119*101*38	30 holes for 2 mL cryogenic vials
200905	1.5 mL module	119*101*38	48 holes for 1.5 mL cryogenic vials
200906	5 mL module	119*101*38	30 holes for 5 mL cryogenic vials
200907	PCR module	119*101*38	96 PCR holes

Cell Freezing Box

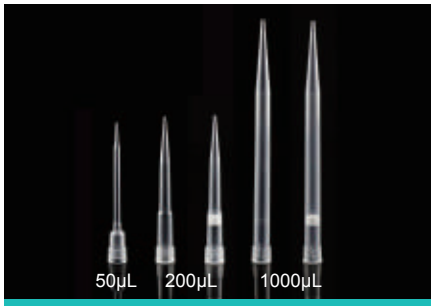
Product number	Shap	Sepcifications (mm)	Application
200101	Hexagonal	S108X100 (S: Side Length)	Holds 1 mL/2 mL cryogenic tubes or microcentrifuge tubes(12-φ13)
200102	Square	117X117X100	

Liquid Transfer

Automation Tips

Brand T Automation Tips

Automation Conductive Tips for Brand T



Compatible with Brand T Systems

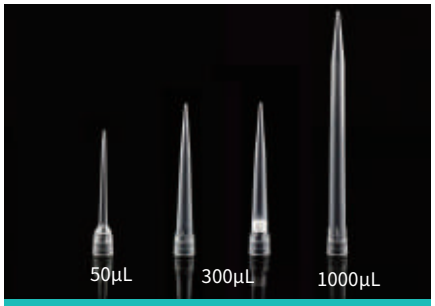
Brand T Automation Tips:
50 / 200 / 1000 μL
(Available in various packagings with or without filters)

Brand H Automation Tips:
50 / 300 / 1000 μL
(Available in various packagings with or without filters)

Compatible with Brand B Systems: 190 / 250 μL
(Available in various packagings with or without filters)

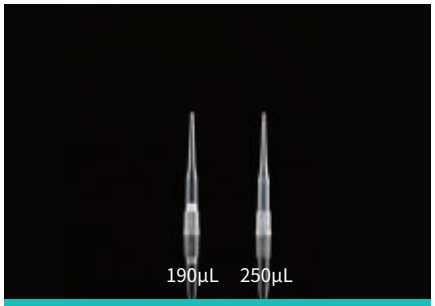
Brand H Automation Tips

Automation Conductive Tips for Brand H



Compatible with Brand H Systems

Compatible with Brand B Systems



Compatible with Brand B Systems

Advantages

- Medical-grade black conductive polypropylene (PP) materials.
- Electron beam sterilization: Safe and fast, without chemical residue.
- Uniform conductivity: Tips of the same box sharing the same cavity number ensures the product traceability and the conductivity uniformity and improves the accuracy of experimental results, greatly reducing the difference among each tip.
- The smooth inner surfaces of tips supported by the unique processing technology greatly reduces the amount of residual liquid.
- The porous filtration of filter tip ensures optimum performance. And the super hydrophobicity of the tip forms a strong barrier against aerosols thus eliminates the risk of cross-contamination among samples.
- **Strong package:** The package of thickened high-strength blister card is resistant to impact and dropping, which ensures the integrity and safety of the product under harsh transport conditions.
- **Good air tightness and adaptability:** The structure mapping is conducted as per the original adapter and the proven injection-molding ensures that the products have good air tightness and adaptability, improving the mechanical precision of the products during work.
- **Strict quality management and control test:** Class 100,000 clean workshop, effective quality inspections are conducted under strict quality management including tests for DNA, RNA, proteases, and pyrogens, satisfying clients' needs.
- Air tightness test: Precise equipment is used to test the air tightness between the tip and the adapter, to ensure good air tightness for each batch of products.
- Tests for resistance and CV values: A certain number of products are sampled for each batch for inspection, which is conducted by precise and unique measuring tools for accuracy and reliability of the test results to ensure the uniform conductivity of products.

Adaptation model

- Brand T automation conductive tips may be used with the TECAN Freedom EVOlyzers and fully automatic sampling systems.
- Brand H automation conductive tips are used in conjunction with Hamilton series workstations.
- Brand B robotic tips are used in Beckman FX/NX,Biomek i5/ i7 and Biomek 3000.

Brand T Automation Tips


Blister Packed, 96 tips *2 Blisters/Pk


Robotic Tips, Boxed


Robotic Tips, Clear, Blister Packed


Robotic Tips , Clear, Boxed

Volume (μL)	Packing			Automation Conductive Tips		Robotic Tip	
	Specification	/Pack	/Case	No Filter	Filter	No Filter	Filter
50	Blister Packed (96 Tips*2)	96	2304	332002	332012	332003	332013
	Boxed	96	4800	/	332016	332007	332017
200	Blister Packed (96 Tips*2)	96	2304	332102	332112	332103	332113
	Boxed	96	4800	/	332116	332107	332117
1000	Blister Packed (96 Tips*2)	96	2304	332202	332212	332203	332213
	Boxed	96	4800	/	332216	332207	332217

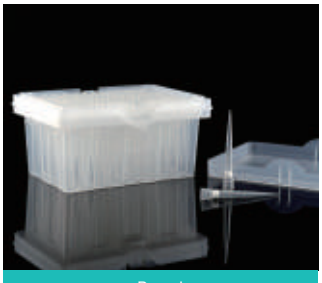
Brand H Automation Tips


Blister Packed


Boxed

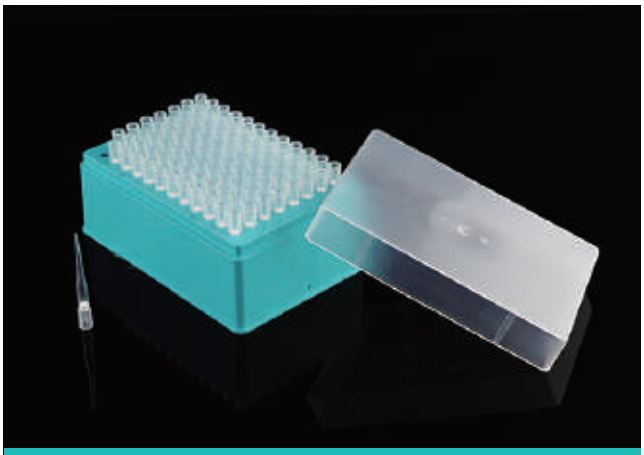

Blister Packed, 96 Tips*5 Blisters/Pk


Blister Packed

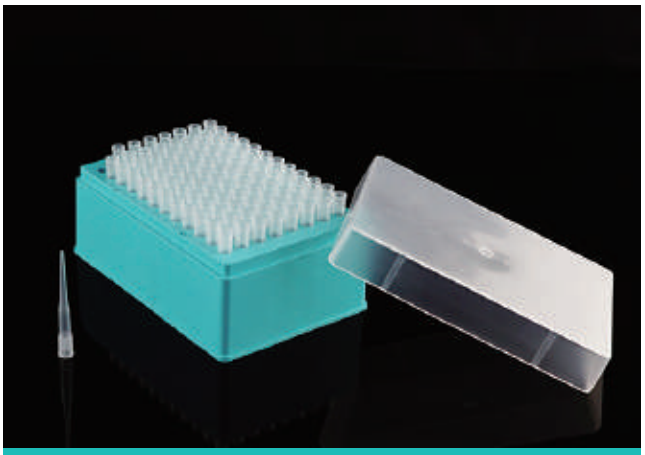

Boxed

Volume (μL)	Specification	Packaging	Automation Conductive Tips		Robotic Tip	
			No Filter	Filter	No Filter	Filter
50	Blister Packed	96 pcs/rk 24 rks/pk	345002	345012	/	/
	With Barcode, 96 Tips*5 Blisters/Pk	96 pcs/rk 60 rks/pk	345005	345015	/	/
	With Barcode, 96 Tips/Pk	96 pcs/rk 24 rks/pk	/	345013	345503	345513
	Boxed, With Barcode	96 pcs/box, 10 boxes/pk, 5 pks/cs	/	345069	345509	345519
300	Blister Packed	96 pcs/rk 24 rks/pk	345102	345112	/	/
	With Barcode, 96 Tips*5 Blisters/Pk	96 pcs/rk 60 rks/pk	345105	345115	/	/
	With Barcode, 96 Tips/Pk	96 pcs/rk 24 rks/pk	/	345113	345603	345613
	Boxed, With Barcode	96 pcs/box, 10 boxes/pk, 5 pks/cs	/	345169	345609	345619
1000	Blister Packed	96 pcs/rk 24 rks/pk	345202	345212	/	/
	With Barcode, 96 Tips*5 Blisters/Pk	96 pcs/rk 60 rks/pk	345205	345215	/	/
	With Barcode, 96 Tips/Pk	96 pcs/rk 24 rks/pk	/	345213	345703	345713
	Boxed, With Barcode	96 pcs/box, 10 boxes/pk, 5 pks/cs	/	345269	345709	345719

Brand B Automation Tips

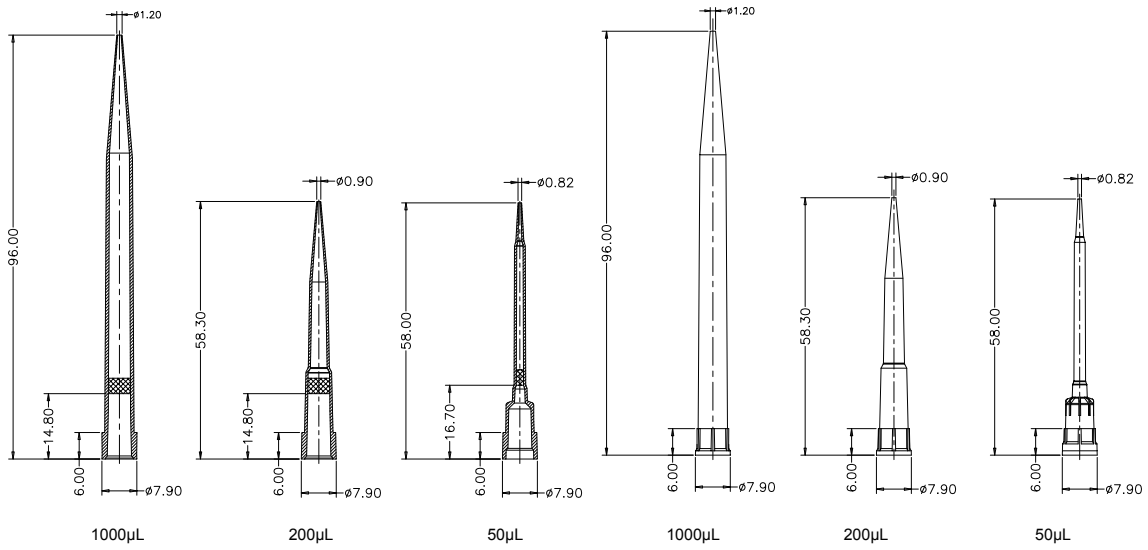


317501

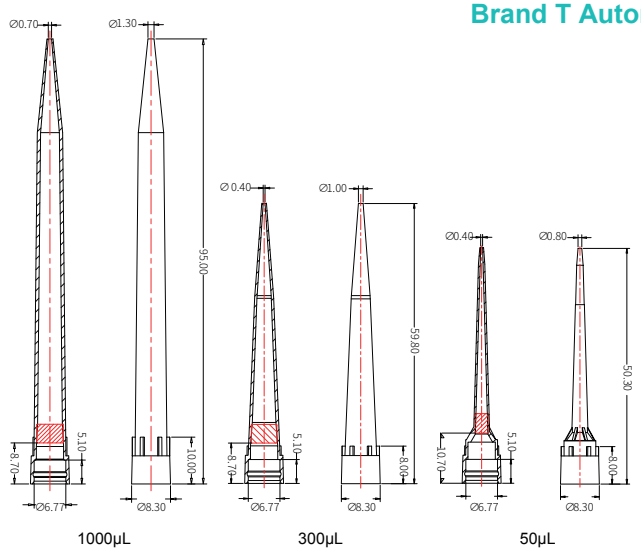


317511

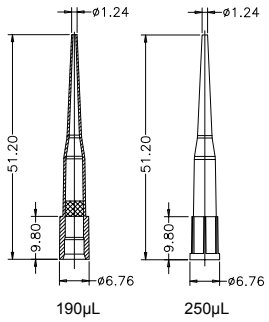
Volume (μL)	Filter	Sterilization	/Box	/Inner box	/Case	Cat.No.
250	NO	YES	96	960	4800	317511
190	YES	YES	96	960	4800	317501



Brand T Automation Tips



Brand H Automation Tips



Brand B Automation Tips

Stackable Tip Refill

Features

- NEST Refill Pipette Tips, Bulk are more convenient for customers to use, saving work and shortening work time, and improving work efficiency.
- NEST Refill Pipette Tips, Bulk are used for quantitative transfer of liquid consumables. They are used in experimental fields with liquid transfer operations, such as in biology and chemistry, and for liquid transfer in cell culture laboratories, liquid addition, liquid suction, or other liquid transfer uses.

Product Introduction

The stacked tips are assembled by stacking 5-10 different-sized tips into the tip box holder. They are convenient for customers to use, reduce costs, and have a high utilization rate. Only one box bottom is needed, and when one box is used up, another one can be loaded into the box holder.

Product Usage and Application Direction

- Product usage: more convenient than bagged pipette tips and more economical than single-box packaging, improving work efficiency and saving work time.
- Application direction: genomics, proteomics, cytology, immunodetection, metabolomics, biopharmaceutical research and development, and other commonly used high-throughput liquid transfer uses.

Product features

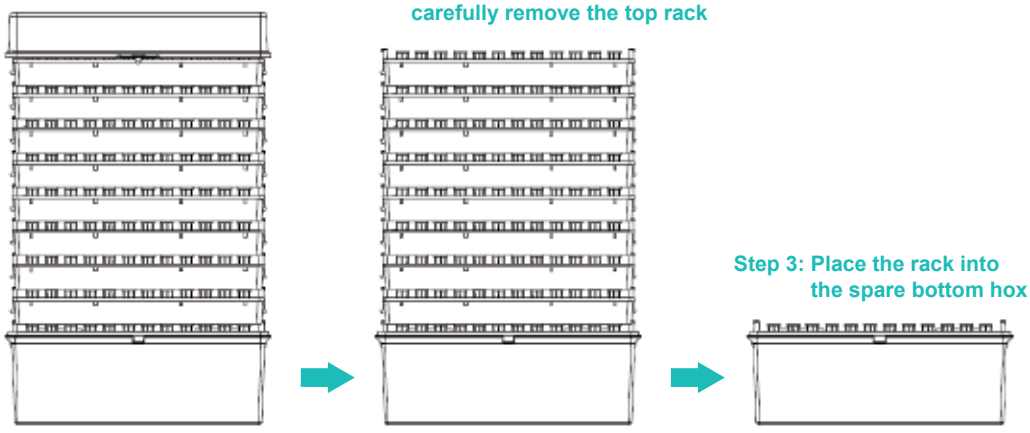
- Experimental-grade polypropylene (PP) is used for all injection-molded parts of the product.
- The whole set of products is assembled by stacking 5-10 pieces, which is convenient for customers to use.

Instructions for Use

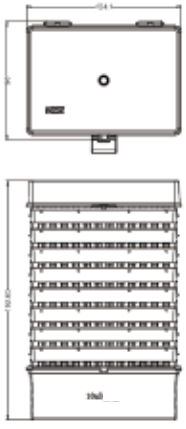
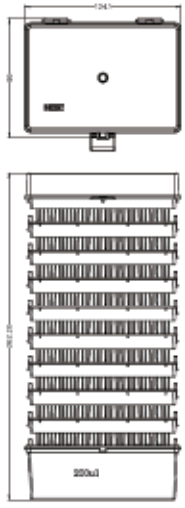
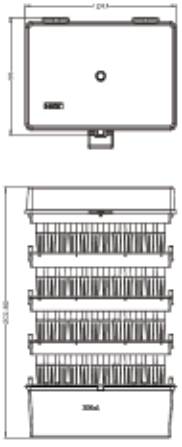
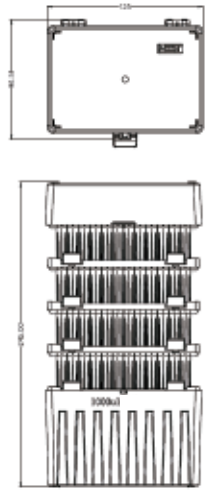
Step1:Remove the package

Step 2: Take off the top cover and carefully remove the top rack

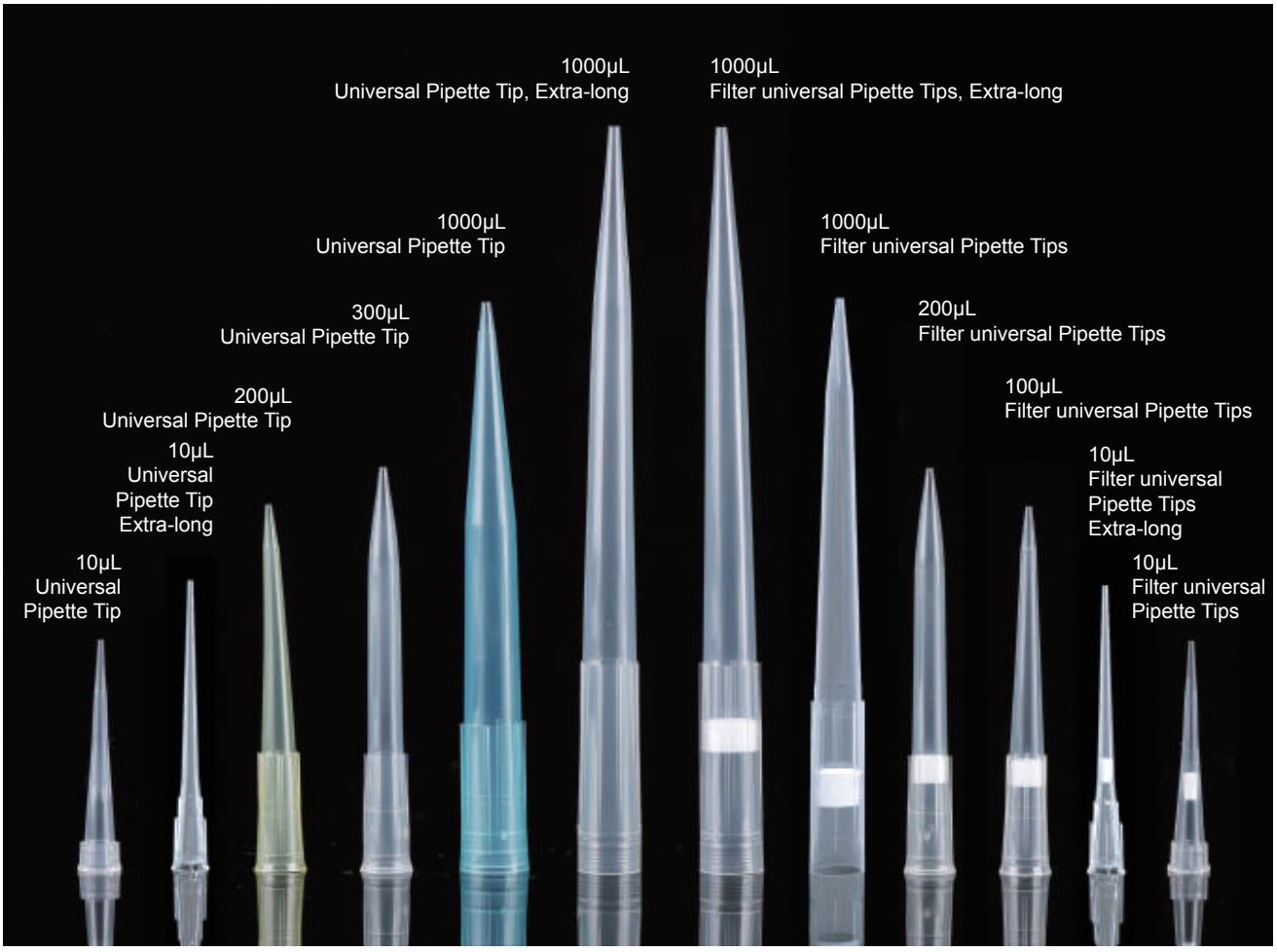
Step 3: Place the rack into the spare bottom hox

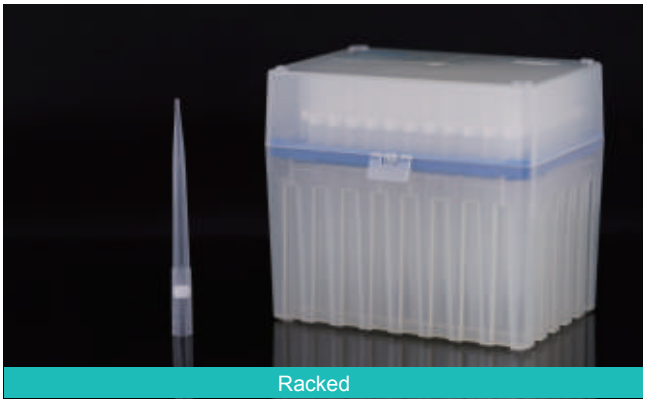


Product specifications

Technical Drawings				
Cat.No.	301081	302081	305081	303081
Volume (μL)	10 μL	200 μL	300 μL	1000 μL
Packing	96/Pack 10 Pack/Box 10 Box/Case		96/Pack 5 Pack/Box 10 Box/Case	
Filter	NO	NO	NO	NO
Sterilization	NO	NO	NO	NO

Pipette Tips





Racked

Bulk

Feature

- Standard size: suitable for major pipettes on the market.
- Smooth interior: minimizes residue and ensures accurate pipetting.
- High-quality materials: the imported PP materials is in line with USP Class VI.
- High-quality filter: pure UHMW polyethylene through unique processing technology.
- Super hydrophobicity: hydrophobic filter forms a solid barrier to aerosols, eliminating the risk of cross-contamination between sample and pipette.
- Optimal pore size: ensures smooth aspiration
- Advanced technology: ultra-fine grinding and moulding technique without mould release agent ensures better product quality.
- Innovative design: ensures good flexibility, sealing and compatibility.
- Standard workshop: Class 100,000 cleanroom to ensure the products are free of pyrogen and DNase/RNase.
- Transparency: good transparency make it easy to observe the liquid level during use.
- Resistant to organic solvents: used to pipette various organic solvents.
- Individual labelling: each package has a Cat. NO for quality tracking and traceability.
- Highly efficient sterilization- Larger effective membrane filtration area of 4.9 cm².
- High flow rate and throughput.

Pipette Tip Bulk, Non-Sterile

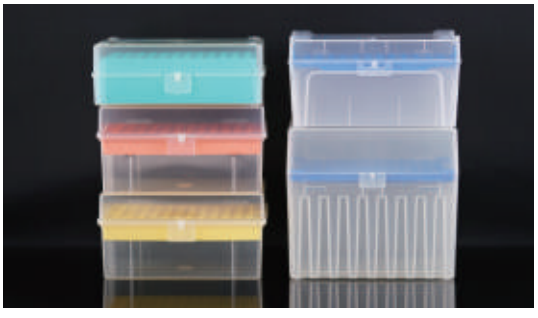
Volume (μL)	Universal Pipette Tips				Filter Universal Pipette Tips			
	Colour	/Pack	/Case	Cat.No.	Colour	/Pack	/Case	Cat.No.
10	Clear	1000	20000	301006	Clear	1000	10000	311001
10 (Extra-long)	Clear	1000	10000	314001	Clear	/	/	/
100	/	/	/	/	Clear	1000	10000	316001
200	Yellow	1000	20000	302106	Clear	1000	10000	312001
300	Clear	1000	10000	305006	Clear	/	/	/
1000	Blue	1000	5000	303206	Clear	1000	5000	313006
1000 (Extra-long)	Clear	500	5000	304006	Clear	500	5000	313001

Pipette Tip Racked, Sterile

Volume (μL)	Universal Pipette Tips					Filter Universal Pipette Tips				
	Colour	/Box	/Pack	/Case	Cat.No.	Colour	/Box	/Pack	/Case	Cat.No.
10	Clear	96	960	4800	301016	Clear	96	960	4800	311012
10 (Extra-long)	/	/	/	/	/	Clear	96	960	4800	314016
20	/	/	/	/	/	Clear	96	960	4800	310012
100	/	/	/	/	/	Clear	96	960	4800	316012
200	Yellow	96	960	4800	302116	Clear	96	960	4800	312012
300	Clear	96	960	4800	305016	/	/	/	/	/
1000	Blue	100	1000	5000	303216	Clear	96	960	4800	313016
1000 (Extra-long)	Clear	96	960	4800	304016	Clear	96	960	4800	313012

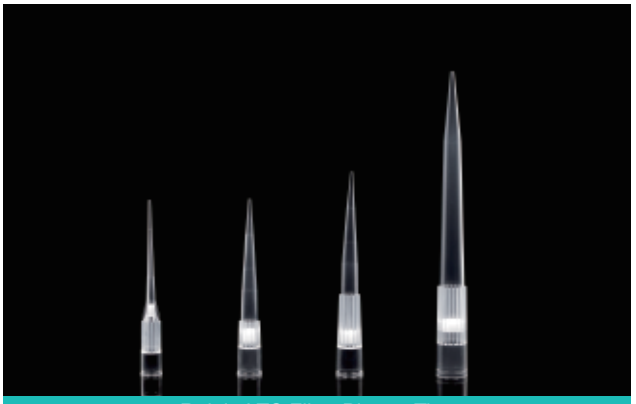
Tip Box, Box without tips

Volume (μL)		Middle panel holes	Packing	Cat.No.
Universal Tip Box	Filter Tip Box			
10	/	96	50 pcs/cs (Box only)	351001
200	20/100	96	50 pcs/cs (Box only)	351101
300	200	96	50 pcs/cs (Box only)	351401
1000	1000	100	50 pcs/cs (Box only)	351201
1250	1250	96	50 pcs/cs (Box only)	351301



Rainin LTS Pipette Tips

Rainin LTS Pipette Tips



Rainin LTS Filter Pipette Tips

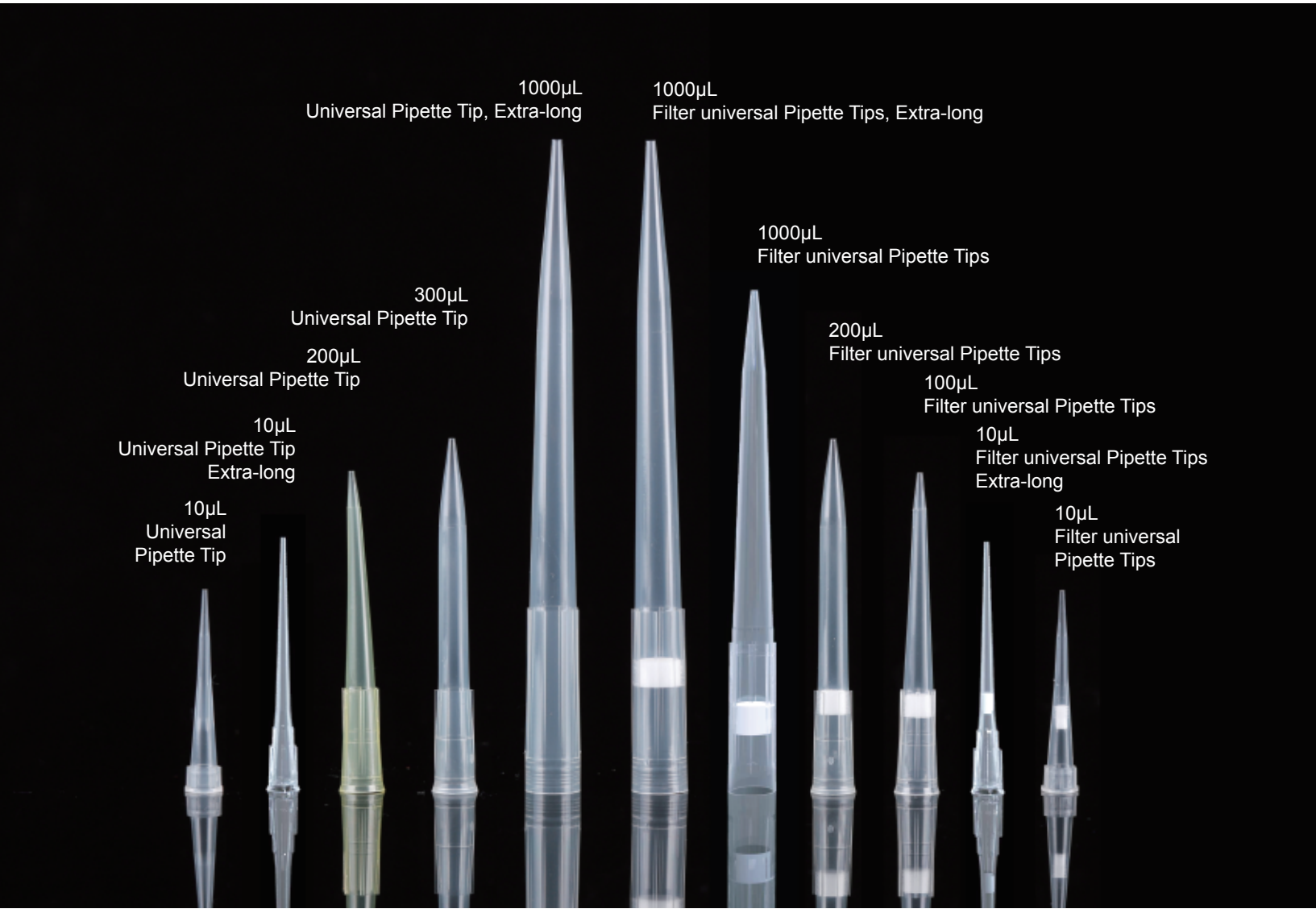
With the constant efforts and many tests of our engineers, we are glad to announce that the alternative RAININ LTS tips are also available for purchase. This kind of tip is different from the universal tips. With a similar design to RAININ LTS Pipette Tips, it could be compatible well with RAININ LTS pipettes.

Meanwhile, like all other pipette tips, it is made from virgin polypropylene and manufactured in a Class 100,000 cleanroom. Also, our smart production line ensures minimal human contact during production. Thus, these tips are free of DNase, RNase, human DNA, and endotoxins.

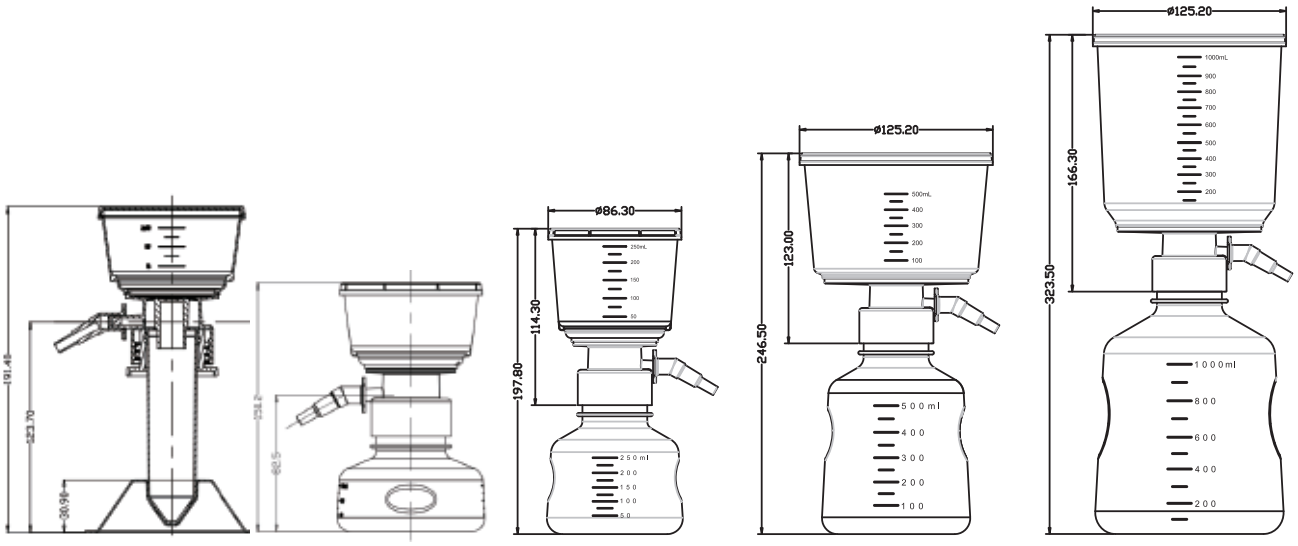
Features

- Made from virgin polypropylene.
- Compatible well with RAININ LTS pipettes.
- RNase, DNase, Human DNA, Pyrogen-Free.
- Sterilized by E-beam SAL=10^{-6}.

Low-Retention Pipette Tips



Vacuum Filtration System

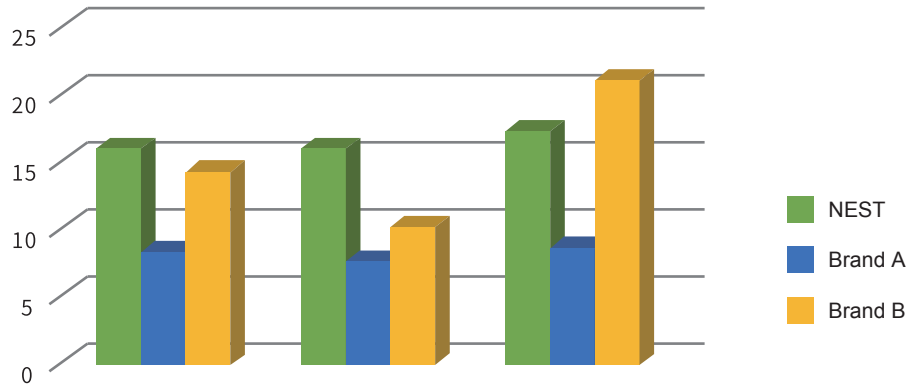


Features

- High flow rates and flux.
- Low protein binding and low chemical extractability.
- Pore size: 0.22 μm.
- Non-Pyrogenic, DNase/Rnase free.
- Sterilized by E-beam, SAL=10^{-6}.
- Individually packaged in sterile bag.
- No endotoxin, no pyrogen.
- For laboratory use only.
- If the package is damaged, please do not use.

Membrane Type	Hydrophilicity	Features	Application Directions	Cautions
PES	Hydrophilic	Low protein adsorption, high flow rate, wide PH range, high chemical compatibility, good heat resistance.	For general culture media and aqueous solutions, polar or middle-polar solvents, neutral aqueous solutions.	Not applicable for chloroform, esters, amides and strong acids or strong bases.
PVDF	Hydrophilic	Wide practicability, good oxidation resistance and heat resistance.	May be used for aqueous solutions and most solvents, including strong non-polar solvents. Ideal for preparations of HPLC and GC.	Not applicable for strong acids and bases.
MCE	Hydrophilic	Strong chemical compatibility and low protein adsorption, the optimum pH range is 3-6.	Used for particle analysis of general culture media and aqueous solutions. HPLC sample preparation.	The set should not be used for filtration of ethanol and alkaline solutions. The working temperature should not be over 40°C.
CA	Hydrophilic	High flow rate and heat stability as well as very low adsorption, stable within the range of pH 4-8.	It may resist most alcohols and oils, and is suitable for sterling filtration of aqueous solutions, buffers, serum and culture media, as well as filtration of the moving phase of HPLCD.	The CA membrane may accommodate a smaller volume of buffer since it has low hydrophilia.

Comparison of the flow rate of different brands of vacuum filters



	DMEM+10%FBs	RPMI1640+10%FBs	TSB
NEST	16	16	17.39
Brand A	8.33	7.69	8.7
Brand B	14.29	10.26	21.1

Product Parameters

Volume (mL)	Membrane Dia(mm)	Capacity(mL)	Max.Temp (°C)	Neck Dia(mm)	Height (mm)	Material of Neck
250	50	250	45	45	198	ABS
500	90	500	45	45	247	ABS
1000	90	1000	45	45	280	ABS

Vacuum Filtration System

Volume (μL)	Pore Density (μm)	Vacuum Filtration Systems (Sterile)1/Pack, 12/Case		Bottle Top Vacuum Filter (Sterile) 1/Pack, 24/Case	
		PES Membrane	PVDF Membrane	PES Membrane	PVDF Membrane
50	0.10	347002	347102	347012	347112
	0.22	347001	347101	347011	347111
	0.45	347003	347103	347013	347113
150	0.10	346002	346102	346012	346112
	0.22	346001	346101	346011	346111
	0.45	346003	346103	346013	346113
250	0.10	342002	342102	342012	342112
	0.22	342001	342101	342011	342111
	0.45	342003	342103	342013	342113
500	0.10	343002	343102	343012	343112
	0.22	343001	343101	343011	343111
	0.45	343003	343103	343013	343113
1000	0.10	344002	344102	344012	344112
	0.22	344001	344101	344011	344111
	0.45	344003	344103	344013	344113

Polystyrene Storage Bottles (Sterile)

Volume (μL)	Size (mm)			Packing		Cat.No.
	Height	Bottleneck Diameter	Bottom Diameter	/Pack	/Case	
150	80	42	89.15	1	24	346021
250	105		88	1	24	342021
500	145		96	1	24	343021
1000	178.5		122	1	12	344021

Warning

- Do not use plastic bottles, glass bottles, flasks or containers that are not designed for filtration and cannot withstand negative pressure to connect to the upper cup .
- Not suitable for culture flasks larger than 2L.
- Working temperature: 4-37°C.
- Working pressure: 0.03-0.06Mpa, if there is foam, please reduce pressure appropriately.
- Tighten the upper cup and bottle mouth by hand, but do not over tighten.
- Personal protective equipment must be used at all times, and goggles must be worn when using vacuum equipment.
- Work on the aseptic operating table.
- It is not recommended to recycle any hazardous substances, hazardous substances, wastes or biochemically hazardous materials.

Adaptor for Vaccum Filtration System

Introduction

NEST Adaptor for Vaccum Filtration System is designed to seamlessly connect the upper cup and the lower container with a 38mm mouth. This meets the filtration needs of customers who use containers of this size.

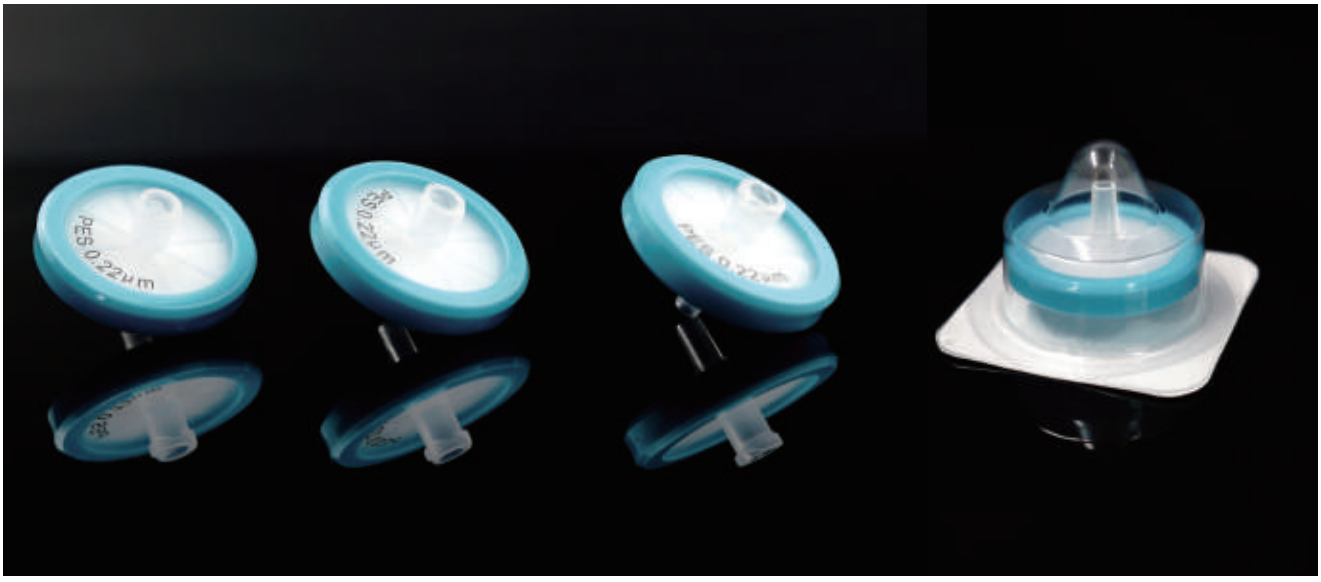
Features

- It makes a 38mm lower container a viable alternative to the regular one with 45mm mouth for filtration, thus minimizing the risk of contamination during liquid transfer.
- Validated by the Sealing Performance Test, ensuring no leakage even with the additional adaptor.

Descirptions	Packaging	Cat.No.
Adaptor for Vaccum Filtration System	1 pc/pk, 10 pks/cs	334591

Precautions: It is important to use a lower container that is rigid and has thick walls, because thin-walled containers run a certain risk of depression during negative pressure filtration.

Syringe Filter



Syringe filters are used in fields like life sciences, pharmaceuticals, environment, biotechnology, food and beverages, agricultural testing laboratories, etc. In particular, they are widely used in life science laboratories to sterilize samples of small volume, such as proteins, additives, buffers, reagents and drugs. The one-piece injection molded package of syringe filters is made of medical polypropylene, which is resistant to high pressure and product leakage.

Features

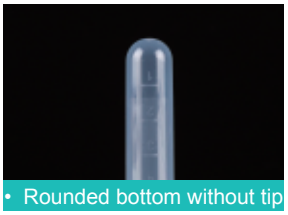
- Highly efficient sterilization
- Larger effective membrane filtration area of 4.9 cm^2.
- High flow rate and throughput.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.

Size (mm)	Pore Size (μm)	Membrane	/Pack	/Case	Cat. No.
30	0.22	PES	1	100	331011
30	0.22	PVDF	1	100	331001
25	0.22	PES	1	100	331111
13	0.22	PES	1	100	331211

Precautions

- When handling chromatography samples, avoid introducing other impurities during the filtration process.
- Do not use a syringe with a volume less than 10 cc, which may cause excessive pressure in the injection tube thus resulting in membrane damage or personal injury.
- Single use only.
- Discard the initial few filtrates, of which the volume is about the volume of the filter.

Microcentrifuge Tube


• Rounded bottom without tip


Special safe-lock cap

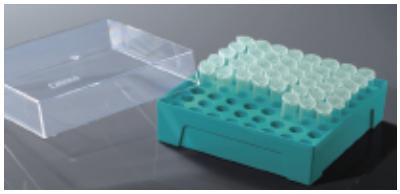

Clear graduations


Frosted marking area

- USP VI grade polypropylene material, free from heavy metal.
- Sterilized by E-beam, SAL=10^{-6}.
- RNase free, endotoxin level less than 0.1EU.
- Each package is individually labelled with a Cat.NO for easy quality tracking and traceability.
- Brown colour provides protection from light, especially for light-sensitive substances.
- RCF: 30,000 xg.
- Autoclavable at 121°C/15psi

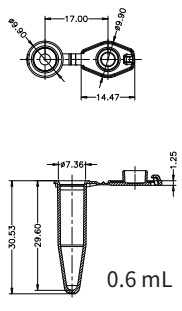
Volume (mL)	Bottom	Color	Sterile	/Pack	/Bag	/Case	Cat.No.
0.6	Conical	Clear	Non-sterile	1000	/	10000	605001
		Clear	Sterile	50	750	7500	605601
		Amber	Sterile	50	750	7500	605401
		Amber	Non-sterile	50	750	7500	605501
1.5	Conical	Clear	Non-sterile	500	/	5000	615001
		Clear	Sterile	50	400	4000	615601
		Amber	Sterile	50	400	4000	615401
2.0	Round	Clear	Non-sterile	500	/	5000	620011
		Clear	Sterile	50	400	4000	620611
5.0	Round	Clear	Non-sterile	200	200	2000	603011
		Clear	Sterile	200	200	2000	603111

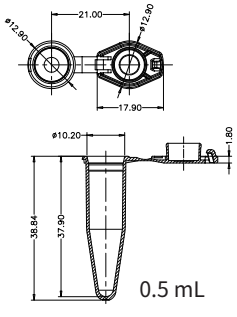
Micro Tube Box

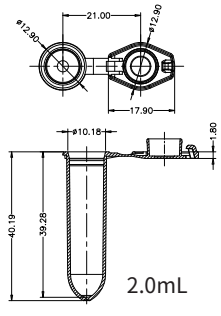


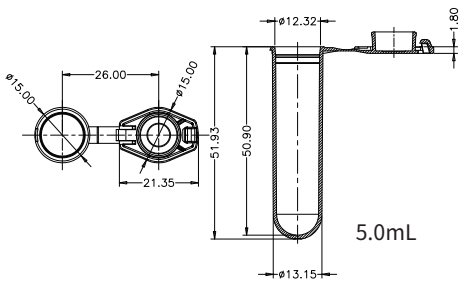
- Withstand temperature ranging from -80℃ to 121°C.
- Solid polypropylene base and polycarbonate cover.
- Non-sterile.

Application (mL)	Spec (well)	/Pack	/Case	Cat.No.
0.6	10*10	5	8	613001
1.5/2	8*8	5	8	613111

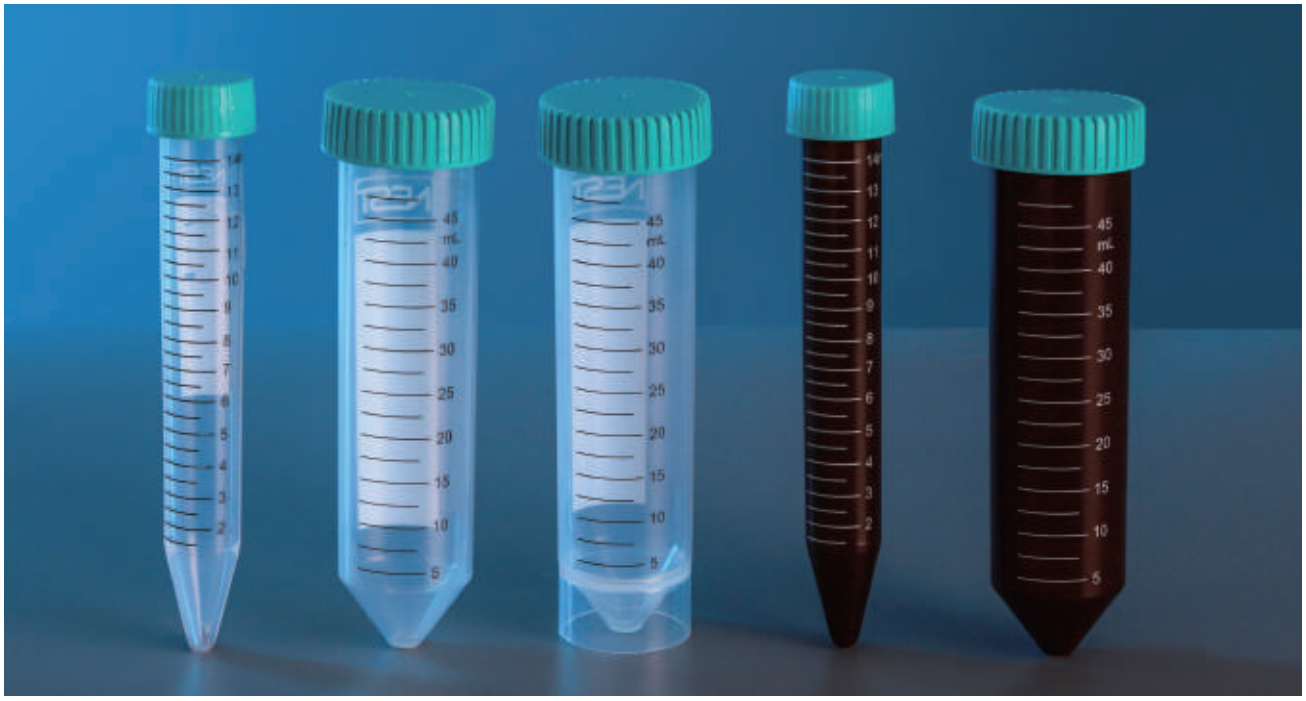








15/50 mL Centrifuge Tube



PS Rack

Bulk

Centrifuge Tube Rack

Features

- Printed Graduations (with marking area).
- Polypropylene tube and high-density polyethylene cap.
- High centrifugal strength up to 12,000xg.
- Flat markable cap with leakproof seal.
- One-hand operation design for the caps is easy to handle.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.

Premium Level

- Up to the standards of biological analysis.
- High strength non-toxic materials.
- Raw material comply with USP VI complies.

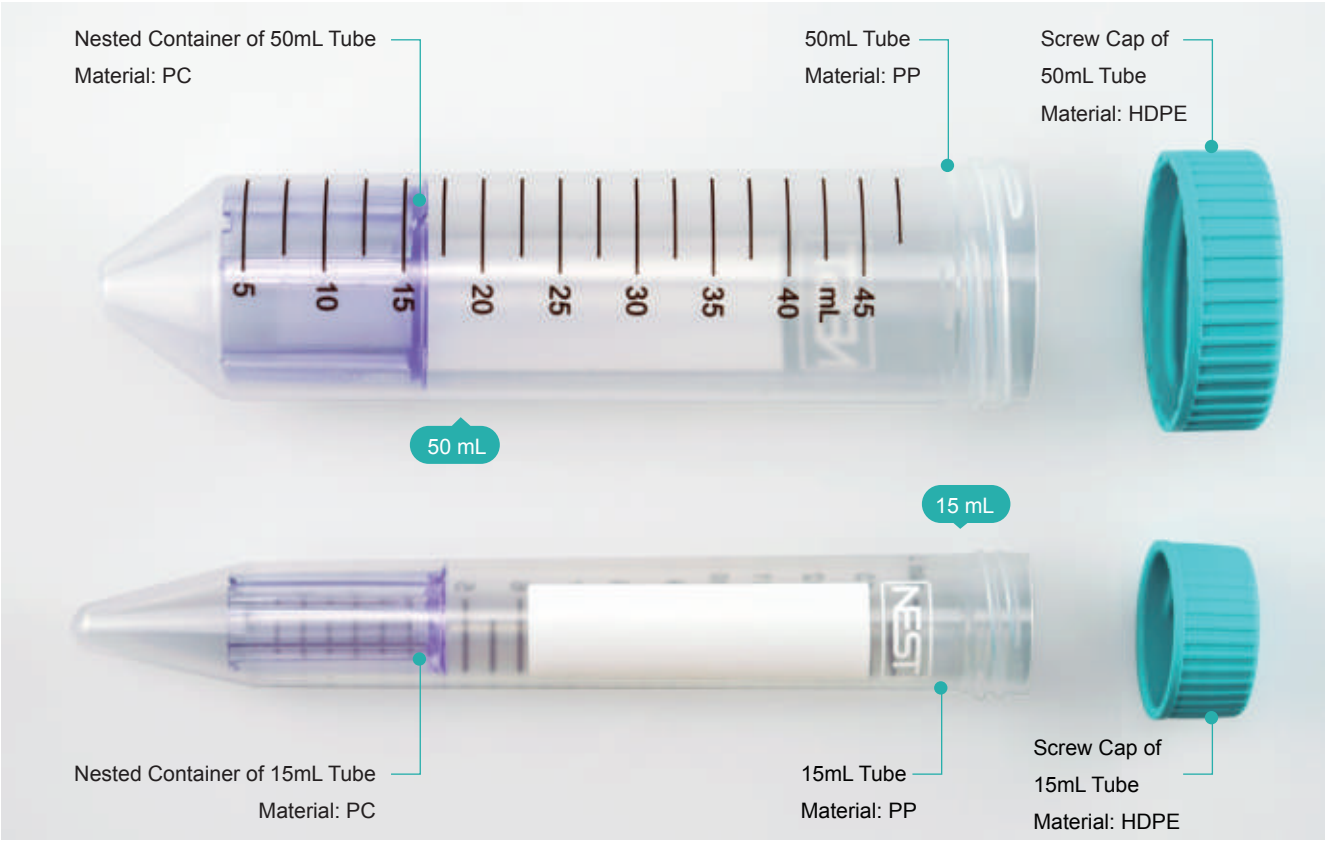
Centrifuge Tube Rack

- Made of virgin polypropylene.
- Reusable and economic.
- Non-sterilized.

Application	/Case	Cat.No.
For 15 mL Tubes	50	610001
For 50 mL Tubes	50	610101

Volume (mL)	Color	Packaging	Max.RCF(xg)	Sterile	Packing		Cat.No.	
					/Pack	/Case	Premium Level	Standard Level
15	Clear	PS Rack	12000	Yes	50	500	601001	601051
	Clear	Bulk	12000		50	500	601002	601052
	Amber	PS Rack	12000		50	500	601201	/
50	Clear	PS Rack	12000		25	500	602001	602051
	Clear	Bulk	12000		25	500	602002	602052
	Amber	PS Rack	12000		25	500	602201	/
50 (Self-Standing)	Clear	Bulk	5000		25	500	/	602072

Peripheral Blood Lymphocyte Separation Tube



This product separates and purifies cells with separation solution by means of density gradient centrifugation according to the difference in cell density. With the density gradients generated inside, the target cells can be retained on top of the nested container in the tub, which is designed specifically to separate the target sample from the density gradient medium to the utmost extent; while erythrocytes and granulocytes will sink at the bottom after centrifugation, and the PBMC (Peripheral Blood Mononuclear Cell, including lymphocytes and monocytes, etc.) will float on the surface. Only the simple operation of decanting is involved in the final stage, and no other professionally technical operations required.

Features

- Rapid separation and purification for PBMC within only 15 min.
- Simple operation procedures: no need to slowly and laboriously add samples into the solution; when collecting samples, simply decant the centrifuge tube. No other professionally technical operations are required.
- Good reproducibility for reduced errors and less operation variation among users.
- E-beam sterilized with SAL=10^{6}.
- No heat source; no nucleases.

Usages and Application Directions

Peripheral Blood Lymphocyte Separation Tube is mainly applied to separate Peripheral Blood Mononuclear Cell (lymphocytes and monocytes) from whole blood or bone marrow through density gradient centrifugation. For research use only.

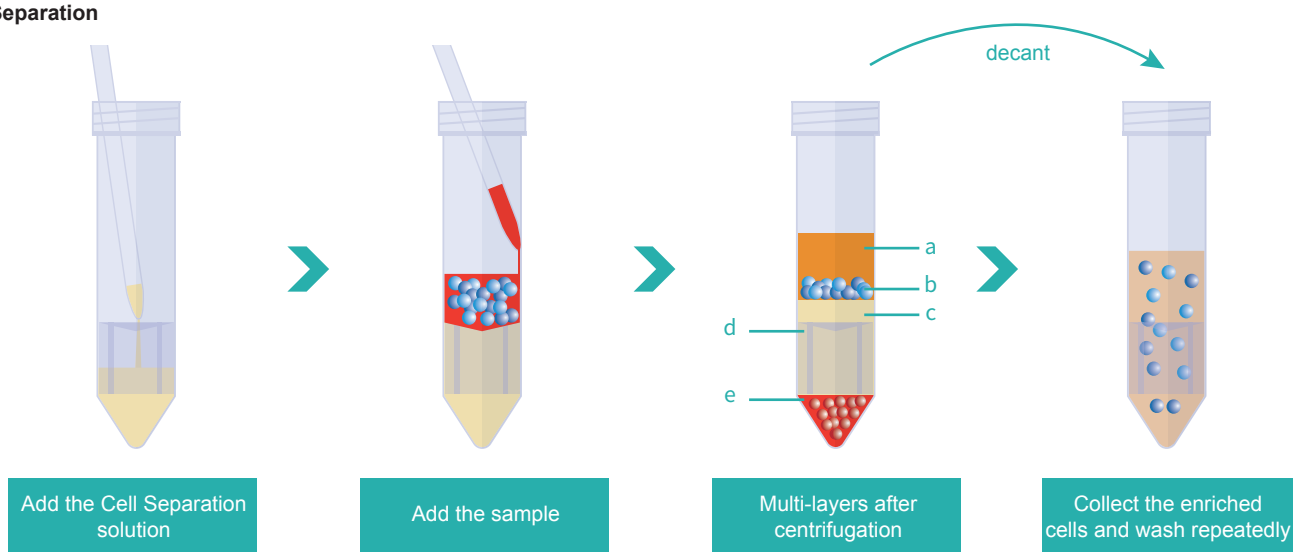
Volume (mL)	Capacity(mL)	Sterile	/Pack	/Case	Cat.No.
15	4-9	Yes	50	500	601852
			50	150	601851
50	13-30		25	500	602852
			25	100	602851

Instructions

Preliminary Preparation

- Cool off the separation solution away from light to the room temperature (RT) .
- Add the separation solution by a serological pipette through the central hole of the nested container: for a 15 mL tube, add approximately 4 mL separation solution; for a 50 mL tube, add approximately 13 mL separation solution; Please ensure the separation solution on top of the nested container throughout the procedure.
- Add the drawn anticoagulated blood and bone marrow into the separation tube cooled off to the room temperature. Besides, adding saline to dilute the specimen is not requisite but can help improve the separation result.

Separation



- Slowly pour or pipette the anticoagulated sample (blood or bone marrow, diluted with saline if needed) along the tube wall into the tube slowly: for a 15 mL separation tube, 4-9 mL of the sample is recommended; for a 50 mL separation tube, 13-30 mL of the sample is recommended.
- Centrifuge at room temperature with a centrifugal force of 1200 x g for 10 minutes, then turn off the centrifuge. For samples left for more than 24h, longer centrifugation time is recommended.
- Liquid separation condition after centrifugation (from top to bottom): A. plasma; B. enriched cell fractions (intermediate phase contains lymphocytes/PBMCs cells); C. separation solution; D. nested container; E. precipitation (erythrocytes and granulocytes). Collect or directly discard the plasma layer of 5-10 mm above the enriched cells to prevent the enriched cells from re-contamination by platelets.
- Collect the enriched cells (lymphocytes/PBMCs cells) and pour the supernatant from the separation tube into another clean centrifuge tube, during which the nested container works to prevent the enriched cells from re-contamination by erythrocytes and granulocytes. Don't invert the separation tube for more than 2s.
- Wash the enriched cells (lymphocytes/PBMCs cells) with Phosphate Buffer Solution(PBS) then centrifuge them at 250 xg for 10 min.
- Repeat the washing 2 times as in step 5 and finally re-suspend cells with 5 mL PBS.

Precautions

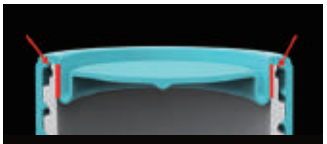
- This product should be operated by professionally trained personnel under the guidance of good laboratory practices.
- Do not re-use the separation tube.
- Specific separation effects may vary due to the difference in centrifuges' performance from different brands and the difference in regional temperature and environment. Users may adjust the speed and time of centrifugation to find out the best separation conditions (up to respective laboratory).
- The product is applicable to the sample of human peripheral blood, bone marrow and umbilical cord blood, but not to leukocyte isolation samples, samples with brownish yellow layer of erythrocyte sedimentation nor samples over 48 hours.
- After centrifugation, cells may aggregate on the tube wall above the enriched layer, which is a normal phenomenon influenced by the quality, sample placement time and anticoagulant type of sample, but independent of the use of the separation tube. Cells can be removed by scraping the interior wall with a pipette tip.
- When specimens of any biological origin are involved, operate the blood taking needles, blood collection tubes and related instruments, etc. cautiously in accordance with strict protocols. Do treat specimens as hidden dangerous sources of infectious diseases such as HIV, HBV, HCV, etc, in which case disposable gloves are necessary in order to avoid the risk of infection during operation.

250/500 mL Centrifuge Tube

The 250 mL & 500 mL centrifuge tubes can process a large number of samples at one time and are suitable for the separation and harvest of large amounts of cells, supernatants, bacteria, yeast and tissue samples. Therefore, they are widely used in the field of life sciences and clinical.

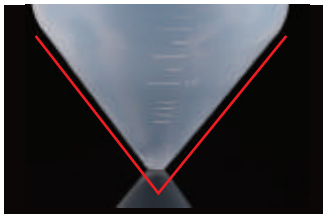
Application

- Separation of sediments after chemical reactions for harvest and application.
- Harvest of biomacromolecules, inorganics and organics.
- In biochemistry and other biological fields, usually used to centrifuge and collect a large volume of cells, biomacromolecules and supernatants.



Unique structure design of the cap provides double security

Newly added o-ring



Increased the thickness of conical bottom

Features

- Unique structure design of the cap provides double security, further improving the tight seal ability.
- Increased the thickness of conical bottom in order to improve the maximum centrifugal limit.
- Polypropylene tube and high density polyethylene cap.
- Max. centrifugal limit 7000xg.
- Temperature range: -80 °C~120 °C.
- Clear scale.
- DNase, RNase and pyrogen free.
- Electron beam sterilization, SAL=10^{-6}.
- Separation of sediments after chemical reactions for harvest and application.
- Harvest of biomacromolecules, inorganics and organics.
- In biochemistry and other biological fields, usually used to centrifuge and collect a large volume of cells, biomacromolecules and supernatants.

Packaging	Sterile	Volume (mL)	/Pack	/Case	Cat.No.
Bulk	Yes	250	6	102	622001
Bulk	Yes	500	6	36	623001
Racked	Yes	250	6	24	622002
Racked	Yes	500	4	24	623002

Centrifuge Tube Closed System Solution

Product Description

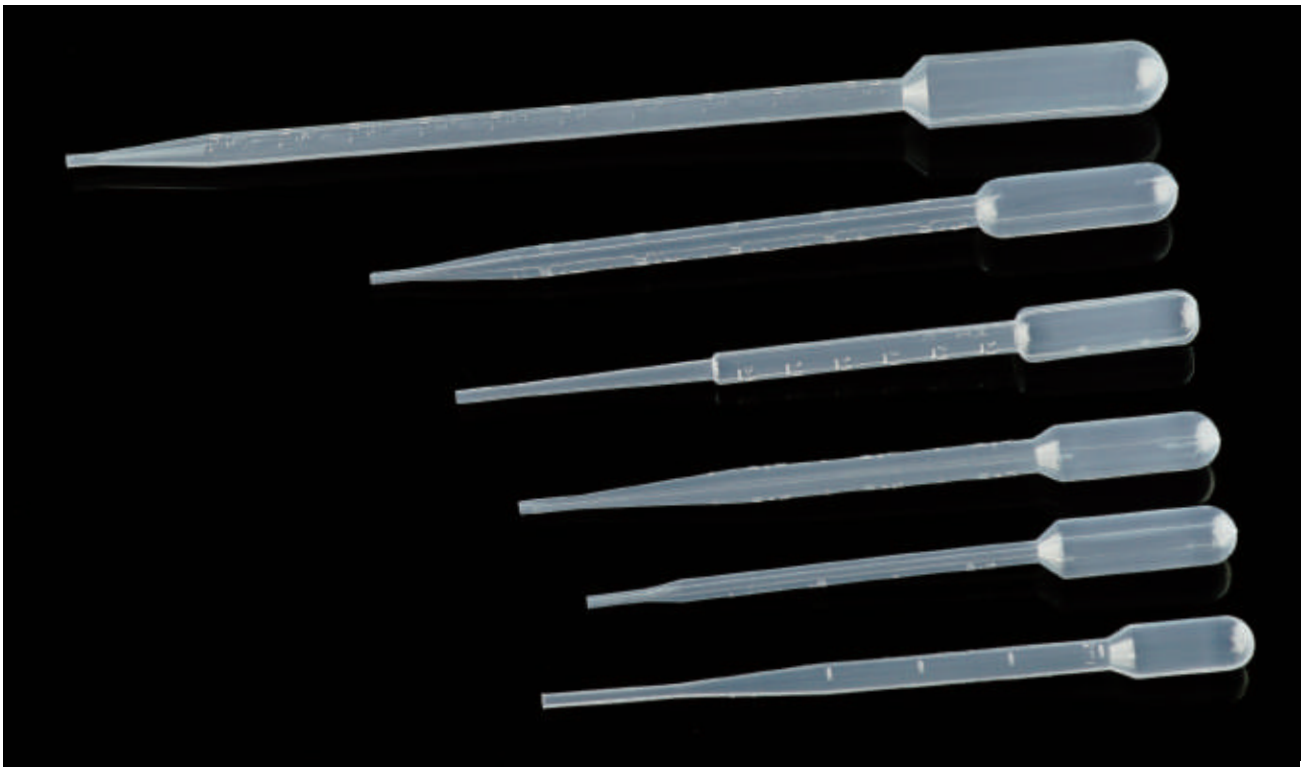
The pre-assembled Closed System of Centrifuge Tube is convenient for aseptic sampling and transfer during biological production procedures. Each is double-packed and equipped with a seal cap which can be used to substitute the pipes in case of subsequent centrifugation and analysis.
The pre-assembled Closed System of Centrifuge Tube is convenient for customers in biomedical/biopharmaceutical/vaccine production industries to aseptically sample and transfer the tissue and cell culture/ vaccine solutions, which can effectively save the assembling and sampling time and lower the cost.

Features

- The pre-assembled Closed System is ready to use at hand. The closed liquid transfer avoids the contamination risk of open transfer and eliminates the necessity of subsequent cleaning validation.
- The pipeline material meets the requirements of industrial pharmaceutical enterprises, and is connected to male taper at the connector, which prevents accidental disconnection and offers convenience.
- The double aseptic packaging suits GMP production.
- Pipelines can be customized according to demand.

Volume (mL)	Tube Material			0.2μm Filter Membrane area	/Case	Cat.No.
	Dia.	Length	Connector			
50	1/8" ID, 1/4" OD φ 6.4mm φ 3.2mm	50 cm	Male Luer Connector	4.5cm²	4	C60622-EFB050A
250					4	C60922-EFB050A
500					4	C61022-EFB050A

Pasteur Pipette



Features

- Good chemical stability.
- Transparent with clear graduations for easy observation.
- Pipette can be twisted for use with micro vessels and special-shaped containers.
- Good resilience for rapid liquid transfer
- High precision and good repeatability.
- Each package is individually labelled with the batch number for easy quality tracking and traceability.
- DNase/RNase, endotoxin and pyrogenic free.
- Individually wrapped, sterilized by EO, SAL=10^{-6}.

Volume (mL)	Length (mm)	Packaging	Sterile	/Pack	/Case	Cat.No.
1	144	Individually Packed	Sterile	500	2000	318012
		Bulk	Non-sterile	500	5000	318031
2	150	Individually Packed	Sterile	500	2000	318112
		Bulk	Non-sterile	500	5000	318131
3	162	Individually Packed	Sterile	500	2000	318212
		Bulk	Non-sterile	500	5000	318231
	182 (Extra Long)	Individually Packed	Sterile	200	2000	318314
5	200	Individually Packed	Sterile	250	1000	318516
10	285	Individually Packed	Sterile	125	500	318417

Serological Pipette

Individually Plastic-plastic Wrapped

Individually Paper-plastic Wrapped

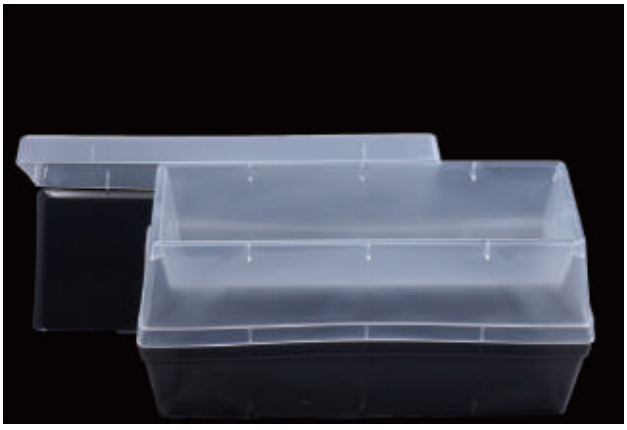
NEST serological pipettes can be used in biological research such as tissue culture and bacterial culture. They are made of highly transparent polystyrene and are individually packaged in paper-plastic bags. Pipettes of different specifications are distinguished by different colors.

Features

- Edged color-coded band for identification.
- Made of high clarity, 100% virgin polystyrene.
- Negative graduations for extra volume.
- Polyolefin fiber filter to reduce contamination.
- Each package is individually labelled with the batch number for easy quality tracking and traceability.
- Non-Pyrogenic, DNase/Rnase free.
- Sterilized by E-beam, SAL=10^{-6}.

Volume (mL)	Sterile	/Box	/Case	Individually Plastic-plastic Wrapped	Individually Paper-plastic Wrapped
1	Yes	500	3000	324003	324001
2	Yes	400	2400	325003	325001
5	Yes	200	800	326003	326001
10	Yes	200	800	327003	327001
10 (Ink-free laser printed)	Yes	50	500	327303	/
25	Yes	200	800	328003	328001
50	Yes	100	600	329003	329001
100	Yes	50	300	/	329501

Reagent Reservoir

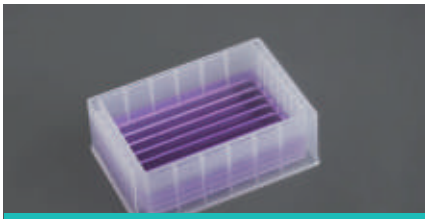


Features

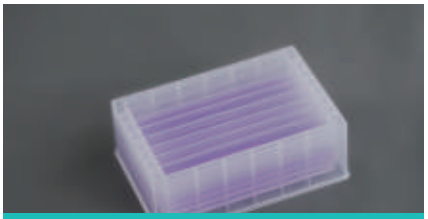
- Made of USP Class VI compliant polypropylene.
- The V shape bottom is compatible with single or multi-channel pipettes during cell culture, immunoassays, etc.
- A large capacity of 60 ml; injection-moulded with scale lines
- Individually labelled with the Cat.NO for easy quality tracking and traceability.
- Non-Pyrogenic, DNase/Rnase free.

Volume (mL)	Sterile	Cap	/Pack	/Case	Cat.No.
60	No	Yes	5	125	360002
60	Yes	Yes	5	125	360012

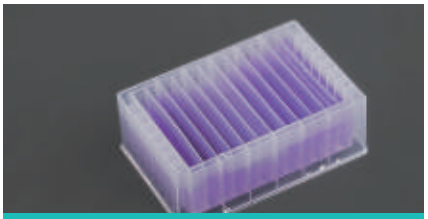
Reservoir



8 Channel

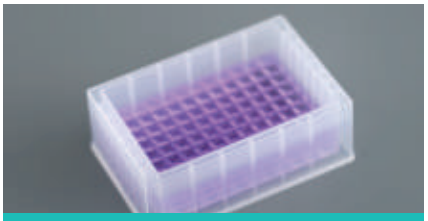


8 Channel

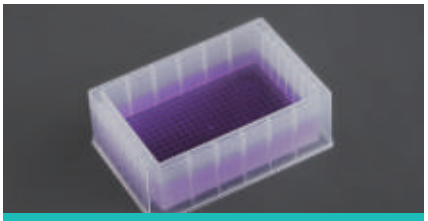


12 Channel

12 Channel



96 Channel



384 Channel

Features

- Perfectly overcomes the surface tension of liquids during automated pipetting and minimizes liquid residues.
- Made of USP Class VI compliant polypropylene, and is chemically stable and resistant to chemical corrosion.
- Freezable down to -80° C
- Less residue and wall hangings
- Conforms to ANSI (American National Standards Institute) SBS standards.
- Each package is individually labelled with the batch number for easy quality tracking and traceability.
- Non-Pyrogenic, DNase/Rnase free. Low heavy metal content.
- Sterilized by E-beam, SAL=10^{-6}.

Channel Troughs	Channel	Skirt	Volume (mL)	/Pack	/Case	Cat.No.	
						Non-sterile	Sterile
8	Multi Well	Medium Profile	22	5	500	360101	360111
	Multi Well	High Profile	32	5	500	360201	360261
	Single Well	High Profile	290	5	500	360205	360265
12	Multi Well	Medium Profile	15	5	500	360102	360112
	Multi Well	High Profile	22	5	500	360202	360262
	Single Well	High Profile	290	5	500	360206	360266
96	Single Well	Medium Profile	195	5	500	360103	360113
	Single Well	High Profile	290	5	500	360203	360263
384	Single Well	Medium Profile	195	5	500	360104	360114
	Single Well	High Profile	290	5	500	360204	360264

Round Storage Bottle

Round Storage Bottle is sterile and made from enzyme-free plastic in line with product packaging and storage requirements in molecular biology and cell biology, laboratory medicine, genomics and proteomics, etc. Improvement in the quality of product packaging helps to improve the company image and brand value, make our products' packaging comply with international standards and enter the international market.

Features

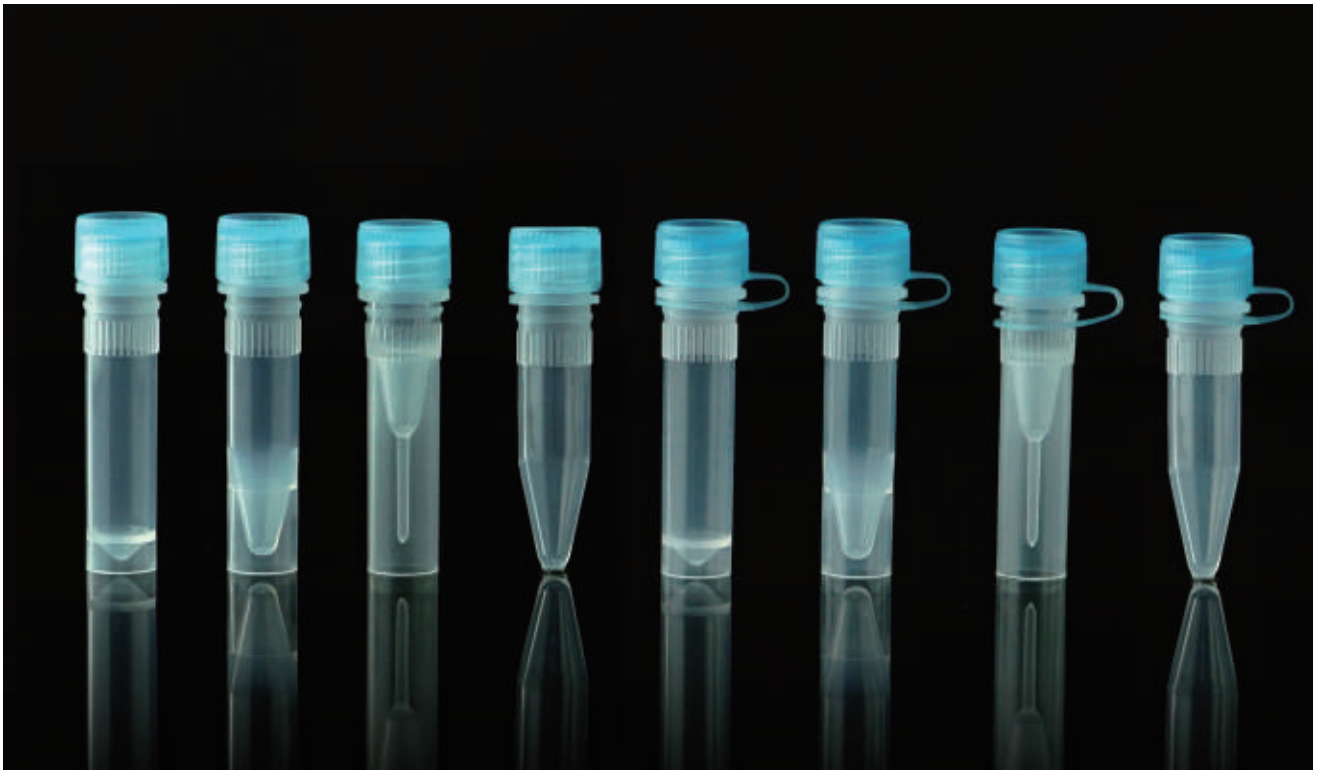
- The raw materials, premium polypropylene (PP)/polyethylene (HDPE), are excellent in physical and chemical index and resistant to pressure, impact and acid-base. PP materials can undergo autoclave sterilization at 121℃; HDPE can be stored at -80℃.
- A full range of choices to meet different packaging and storage requirements.
- The properties of wash-free and ready to use mean no need for tedious pro-cleaning processing work. The internal packaging is thickened to ensure transportation and storage safety.
- The professional leak-proof design of bottle mouth guarantees excellent seal ability and exempts the need for inner cover or inner gasket for protection.
- 100% leaking-proof guarantee ensures safety even during air transportation; wide-mouthed design makes it easy to access liquid
- inside.
- No biotoxicity, pyrogen-free, DNAse/RNAse-free, manufactured in Class 100,000 clean workshop. The plastic bottles are sterilized using by GAMMA-ray.
- Introduction of imported digital-controlled production equipment with high precision. The products are fine in details and comfortable to hold, with high uniformity among batches. The walls have high gloss but no color difference.
- High-class molding technologies and surface processing technologies produce smooth interior and exterior surfaces of the plastic bottles without wicking effect of reagents during the process, subsequently significantly reducing sample wastage. With paralleled quality, our products can perfectly replace the imported competitors.

Application

• NEST Round Storage Bottle is designed for liquid storage in molecular and cellular biology, laboratory medicine, genomics and proteomics research.

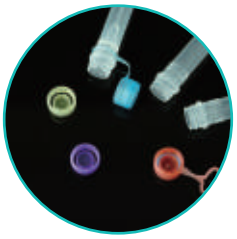
Volume (mL)	Size(mm)			Packing		Natural White		Amber	
	Bottleneck Diameter	Bottom Diameter	Height	/Pack	/Case	Material	Cat.No.	Material	Cat.No.
8	13.8	24.8	42.3	20	400	HDPE	335101	PP	335201
15	13.8	24.8	56.1	20	400	HDPE	336101	PP	336201
30	21	33.9	59.05	10	200	HDPE	337101	PP	337201
60	21	38.6	81.5	10	200	HDPE	338101	PP	338201
125	28	50.8	95.5	10	100	HDPE	339101	PP	339201
250	33	60.5	127.6	10	100	HDPE	340101	PP	340201
500	43.8	73	161.6	5	50	HDPE	341101	PP	341201

Sample Vial



Application

- Caps have 6 color Caps (blue, red, yellow, purple and natural) personalize the identification of different reagents in a fast and convenient way.
- Cap color is encoded in the product code.
- Products are made of transparent polypropylene (PP) which meets USP Class VI standards and is free of heavy metal ions. Products can be used in proteomics, drug development, genomics and other fields.
- Special knurling design on the vial body enables the vial to be stuck in the special base and to be tightened with a single hand.
- Silicone O-ring inside the screw caps ensures secure sealing. ADR & IATA compliant, no liquid leakage in negative pressure test under a pressure of -0.95 bar.
- Withstands a maximum centrifugal force up to 20,000 xg.



Available in 6 colors

Sample Vial

Volume (mL)	Packing		Bottom	Cat.No.
	/Pack	/Case		
0.5	500	2000	Self Standing	633901
1.5	500	2000	Self Standing	634901
1.5	500	2000	Self Standing	634911
2.0	500	2000	Conical	635901

Sample Vial Cap

Color	Packing		External Thread Cap	External Thread Cap Hinged Cap
	/Pack	/Case		
Blue	500	2000	633951B	633961B
Red	500	2000	633951R	633961R
Yellow	500	2000	633951Y	633961Y
Purple	500	2000	633951P	633961P
Natural	500	2000	633951N	633961N
Green	500	2000	633951G	633961G

Cluster tube

NEST 1.1mL 96-well Cluster Tube Box conforms to the ANSI-SBS standard and is compatible with multi-channel pipettes and automated liquid workstations. The raw material of tube body is imported PP, which meets the USP-CLASS 6 standard. It has high transparency and good chemical stability, and is suitable for low-temperature storage of cells, drugs, tissues, sera, and other reagents.

Complete Specifications

- NEST 1.1mL Cluster Tubes are available in single tube, 8-strip, and 12-strip, and the tube caps are available in 8-strip and 12-strip for customers to choose from.
- They are compatible with multi-channel pipettes and automated liquid workstations with SBS standard size carriers.

Exquisite Design

- The one-way cap design, with letter and number grids, ensures positive identification of samples.
- The bottom and side walls of the box holder are hollowed out for good thermal conductivity, and the box supports direct immersion in a water bath.water bath.

High Quality Raw Materials

- The raw material is imported PP, which conforms to USP class 6 standards. The 8-strip and 12-strip caps are made of TPE, which has better sealing performance.
- Resistant to low temperature storage at -80℃, and autoclavable.

Cluster tube

Boxed Cluster Tube

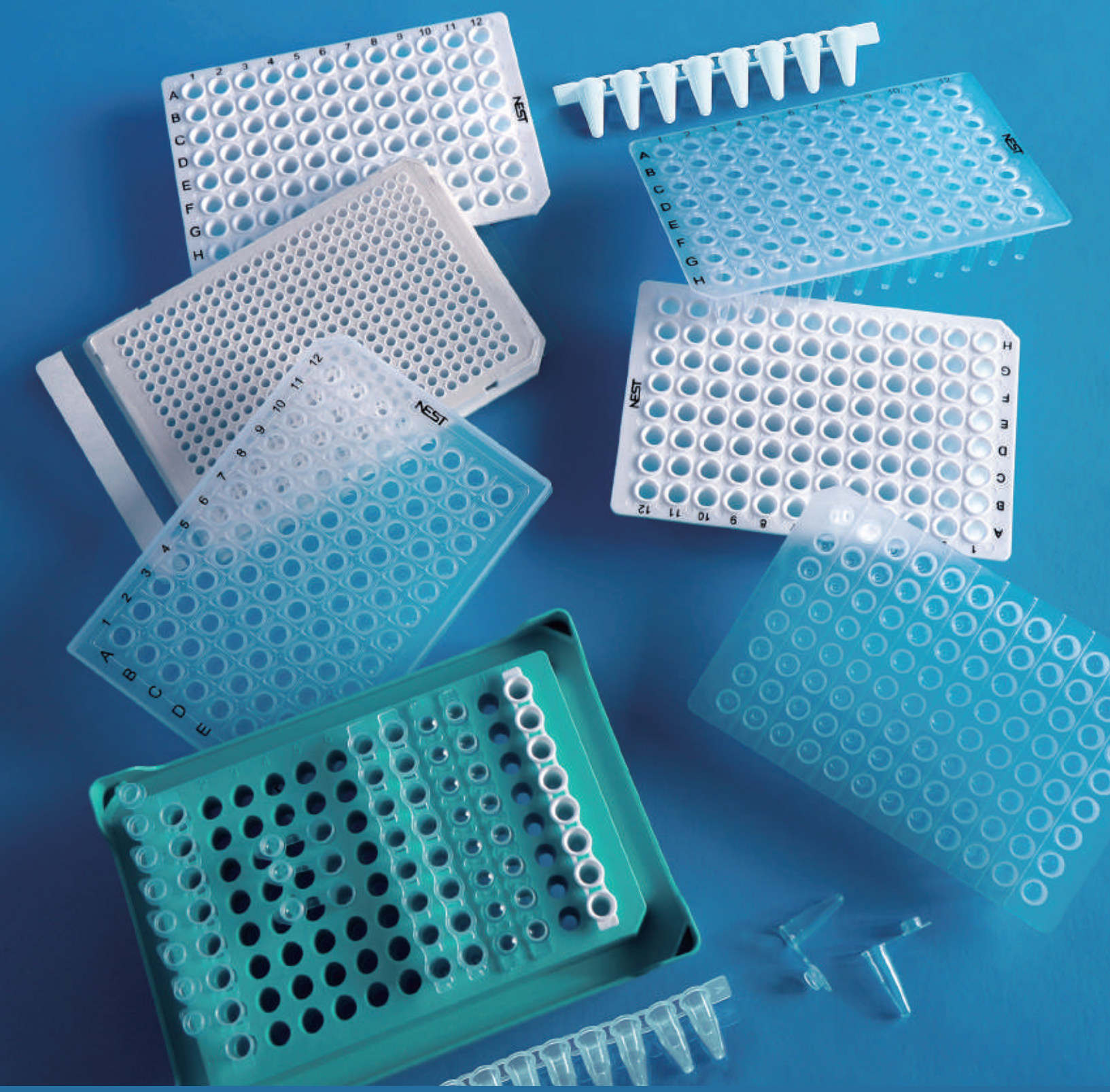
Bagged Cluster Tube Cap

Cluster Tube

Schematic Diagram	Name	Packaging			Material	Sterile Cat.No.	Non-sterile Cat.No.
	1.1mL Single Cluster Tube	Bagged	960 pcs/bag	5 bags/case	PP	/	628111
		Boxed	96 pcs/box 10 boxes/pack	5 bags/case	PP	628114	628112
	1.1mL 8-strip Cluster Tube	Bagged	120 pcs/bag	5 bags/case	PP	/	628121
		Boxed	12 pcs/box 10 boxes/pack	5 bags/case	PP	628124	628122
	1.1mL 12-strip Cluster Tube	Bagged	80 pcs/bag	5 bags/case	PP	/	628131
		Boxed	8 pcs/box 10 boxes/pack	5 bags/case	PP	628134	628132

Cluster Tube Cap

Schematic Diagram	Name	Packaging			Material	Sterile Cat.No.	Non-sterile Cat.No.
	8-strip Cluster Tube Cap	Bagged	120/bag	600/case	TPE	628923	628921
	12-strip Cluster Tube Cap	Bagged	80/bag	600/case	TPE	628933	628931



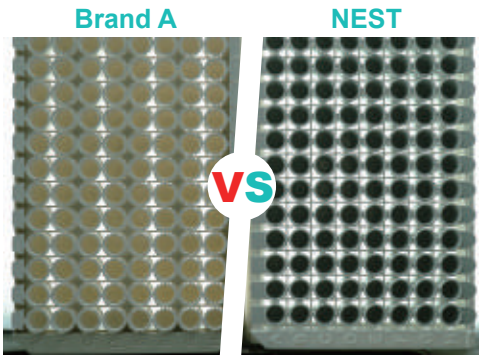
Molecular Biology

ELISA Plate

NEST ELISA plate, made of polystyrene, is a safe, reliable and effective supporter in enzyme-linked immuno-absorbent assay (ELISA). The features of the plates are crucial for the adsorption of antigens, antibodies and antigen-antibody complexes.
ELISA plates from NEST adopts a unique surface treatment process, allowing to obtain ideal results in ELISA tests which are extensively employed in vitro diagnostics in medical and clinical laboratories.

Features

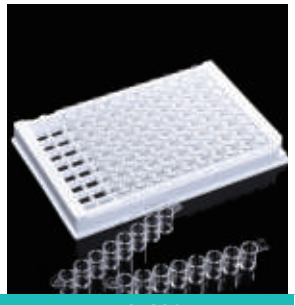
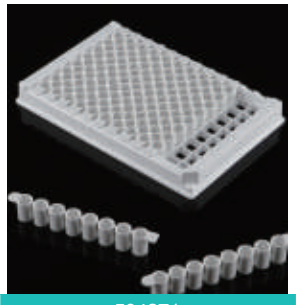
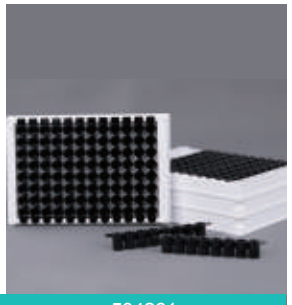
- The plates are made of polystyrene and are designed specifically for ELISAs. They present good adsorption performance and low baseline value.
- Uniform thickness and size.
- High batch-to-batch stability and low coefficient of variation (CV) value.
- Both detachable and non-detachable flat-bottom plates are offered for customers to choose from based on their applications.
- The letters and numbers on the frame of the plates are convenient for detection and identification in experiments.
- High transparency of clear plate bottom.
- White plates are best suited for luminescence measurements as they reflect the signal instead of absorbing it and hence enhance the luminescence signals. Raw materials show good light-proof properties, which greatly reduce well-to-well signal interference.



White Elisa Plates is light-proof, and can lower the cross-talk between wells

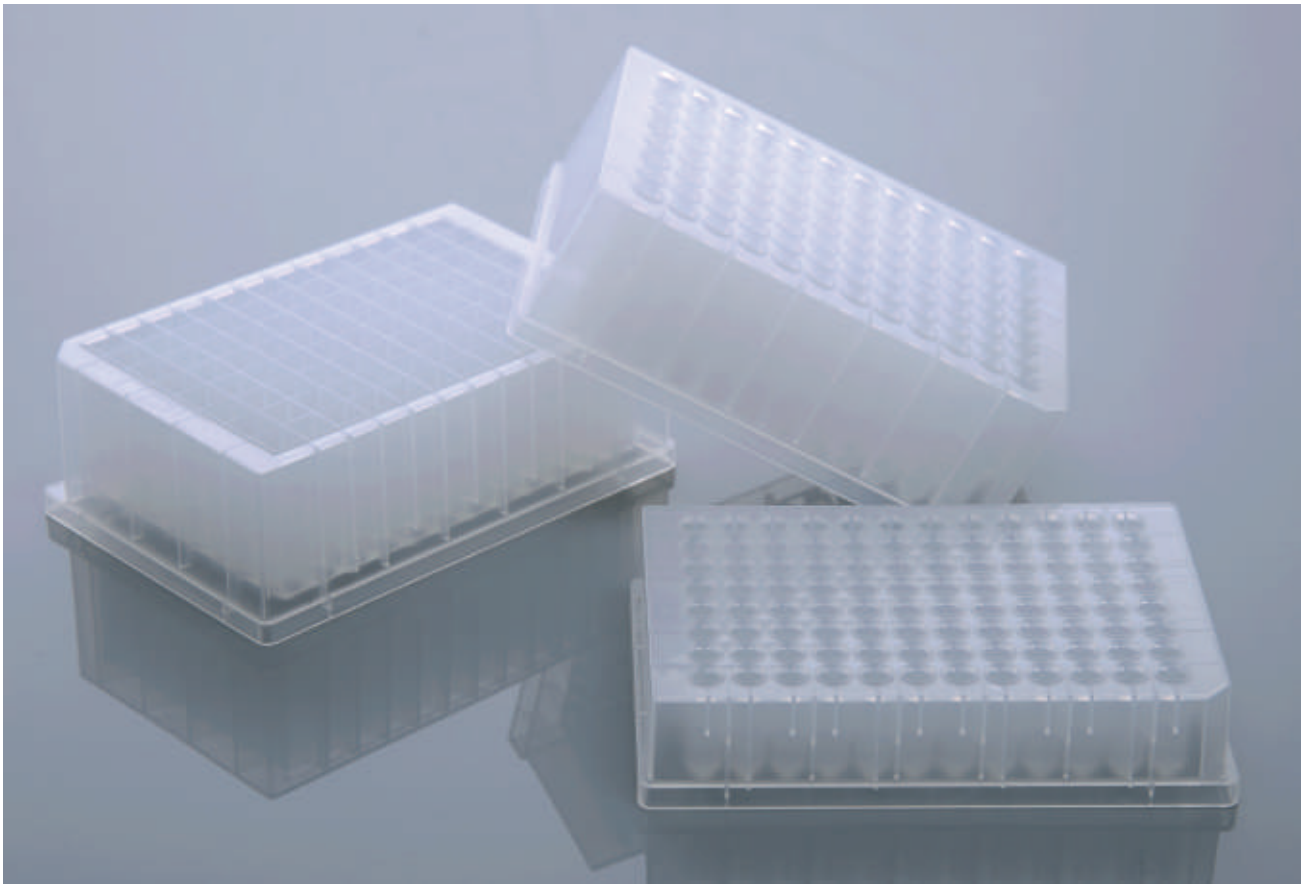
Features of detachable 96-well ELISA plate

- Greatly improves the flexibility in diagnostic testing.
- Each well is locked in the frame, all at the same horizontal.
- The design of 8-well strip allows for uniform reading and washing.

Cat.No.	514201	504201	504271	504261
Specification	F96	12 x F8	12 x F8	12 x F8
Color	Transparent	White Frame & Clear Well	White Frame & White Well	White Frame & Black Well
Description	Undetachable	Detachable	Detachable	Detachable
Packing	5/Pack 50/Case	5/Pack 50/Case	5/Pack 50/Case	5/Pack 50/Case
Features	High transparency		White Elisa Plates is light-proof, and can lower the cross-talk between wells	Made of non-autofluorescent materials with good protein adsorption and low background fluorescence.
Application	Quantitative and qualitative solid phase immunoassay and binding assay		Autofluorescence, chemiluminescence	Fluorescence immunoassay and binding assay

Deep Well Plate



The length and width of the deep well plate comply with the SBS international standards. The deep well plates of NEST have a variety of specifications, conforming to the needs of fully automatic workstations and experiments.

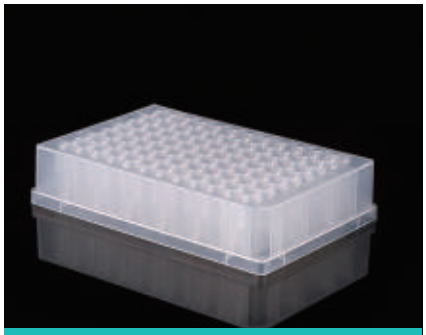
Features

- High quality imported PP material employed for high stability and no chemical reactions with test reagents.
- Compatible with DMSO and inert to water.
- Can be stored under subzero temperature from -40 to -80℃.
- Maximum sustainable centrifuge force 4000g.
- Autoclavable at 20Psi, 121℃ for 20 minutes, great heating uniformity.
- Minimum residual liquid, low heavy metal content.
- Certified DNase/RNase and Pyrogen Free.
- Conformed to international SBS Standards.
- Good flat and can be transported for long distance if sealed by heat sealable film.
- Produced and packed in Class 100,000 clean workshop.
- Alphabetical sorting and corner cut marking for convenient tracking of samples.
- Each package has a separate article number/batch number identification, facilitating the quality tracking.

Application

Genomic DNA extraction, plasmid DNA extraction, and purification of various samples. High-throughput automatic liquid operation to achieve high-throughput operations, such as protein precipitation, liquid extraction, and processing of animal tissues, bacteria, plants, soil, clinical samples, yeasts, etc.


504102


501101、501601


502162


503102、503162


507001、507101

Round Well

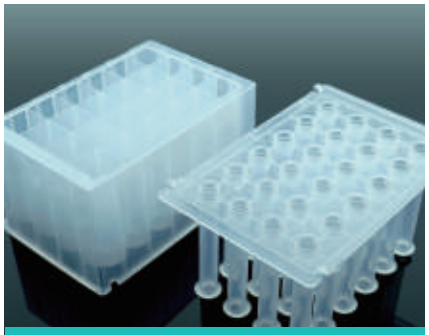
Specification	Volume (mL)	Bottom	/Pack	/Case	Non-sterile Cat.No.	Sterile Cat.No.
48-Round well	3.5	U-Bottom	10	50	504102	504162
96-Round well	0.36	V-Bottom	10	50	500101	500161
	0.4	U-Bottom	10	50	501102	501162
	0.5	V-Bottom	10	50	501101	501601
	1	U-Bottom	5	50	/	502162
	2	U-Bottom	5	50	503102	503162
	1.3	U-Bottom	5	50	507001	507101

Plastic Tip Comb

Specification	Bottom	/Bag	/Pack	/Case	Non-sterile Cat.No.	Sterile Cat.No.
8 Tip Combs	U-Bottom	2	25	50	509211	509261
8 Tip Combs	V-Bottom	1	/	25		509001
MagPure 96 Tip Combs	V-Bottom	5	/	50	503311	503361

503361、503311 Compatible with KingFisher Flex&Presto


509211、509261


509001、510011、510001


503361、503311

501002、501062

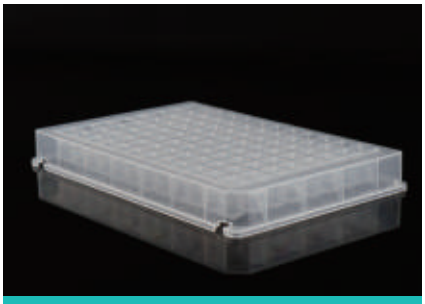
503001、503501

503002、503062

503021、503621

504002、504062

503711、503761



500021、500621

Silicone Sealing Mat

Square Well

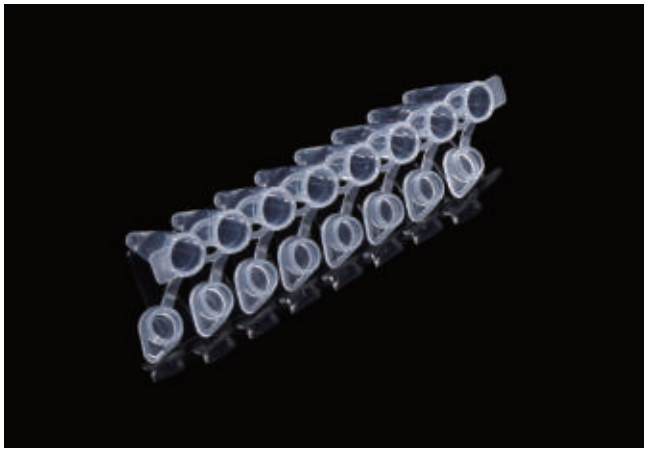
Specification	Volume (mL)	Bottom	/Pack	/Case	Non-sterile Cat.No.	Sterile Cat.No.
24 Square Well	16	V-Bottom	1	25	/	510001
24 Square Well with 24 Well Plastic Comb	16	V-Bottom	1	25	510071	510011
48 Square Well	4.6	U-Bottom	5	50	504062	504002
96 Square Well	0.5	V-Bottom	5	50	500021	500621
	1	U-Bottom	10	50	501002	501062
	1.6	U-Bottom	5	50	502002	502062
	2	V-Bottom	5	50	503001	503501
	2.2	U-Bottom	5	50	503002	503062
	2.2	V-Bottom	5	50	503021	503621
96 I Shape Square Wells	2.2	U-Bottom	5	50	503711	503761

500021、500621、503021、503621 Compatible with King Fisher Flex&Presto

Silicone Sealing Mat

Compatibility	Volume	Piercibility	/Pack	/Case	Cat.No.
96 Well Round well	≤ 1.0 mL	Can been punctured	10	50	506005
	2.0 mL	Can been punctured	10	50	506006
96 Well Square well	0.5-2.2mL		10	50	506003
		Can been punctured	10	50	506004

8-Strip PCR Tube & Tube & Cap



PCR Tube

Volume (mL)	Cap Type	Color	/Pack	/Case	Cat.No.
0.2	Flat	Transparent	1000	10000	401001

Features

- Made of polypropylene.
- Compatible with all major PCR and real-time PCR instruments on the market. Thin-wall design produces high thermal conductivity, allowing the reaction solution inside to reach the target temperature as quickly as possible.
- The cap has excellent sealing performance and is easy to open; the loss of reaction volume can be controlled within 5% when a pcr heated lid is applied.
- A maximum capacity of 250 μL.
- No human DNA, no DNase/RNase, no PCR inhibitors.
- Zip-lock bag.

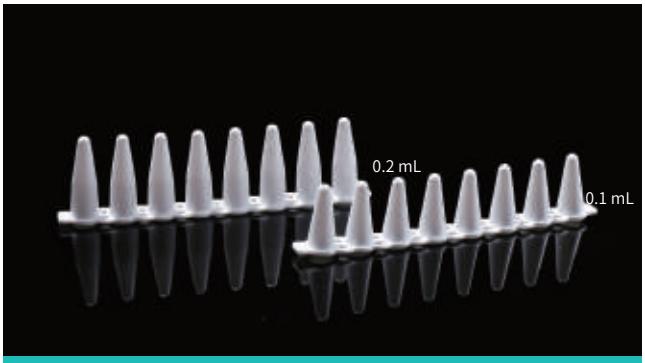
PCR 8-strip Tube with Individual Cap Attached

Volume (mL)	Cap Type	Color	/Pack	/Case	Cat.No.
0.2	Flat	Transparent	120	1200	404001

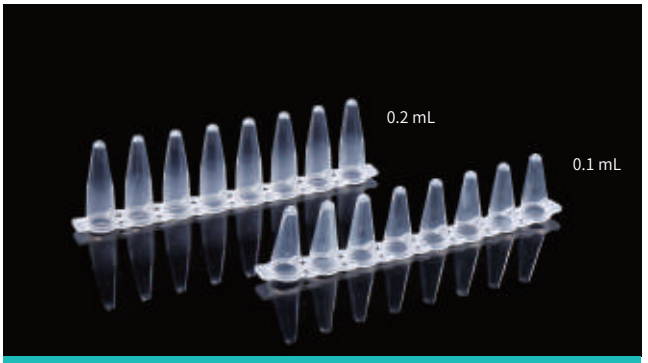
Features

- No human DNA, no DNase/RNase, no PCR inhibitors.
- Zip-lock bag.
- White PCR 8-strip tubes can effectively prevent signal interference, increase signal strength, and improve experimental efficiency.

PCR 8-strip Tube



White



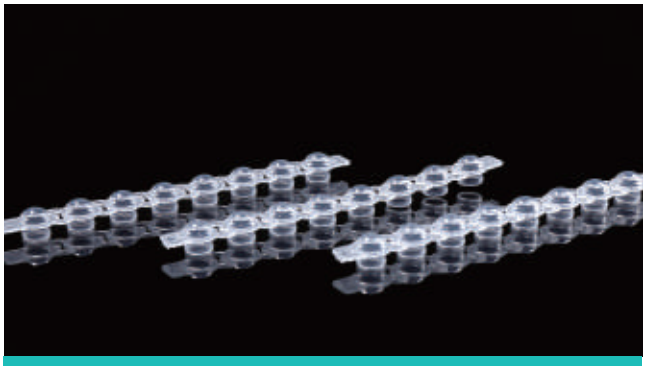
Transparent

Volume (mL)	Color	/Pack	/Case	Non-sterile Cat.No.	Sterile Cat.No.
0.1	Transparent	125	1250	403102	403122
	White	125	1250	403112	403132
0.2	Transparent	125	1250	403002	403022
	White	125	1250	403012	403032

The transparent version is suitable for ordinary PCR reactions, and the white version is suitable for qPCR reactions.
The 0.1 mL tube is intended for overnight incubation experiments. It is specifically designed to be shorter than standard tubes to reduce contamination caused by condensation and the evaporation of the reaction solution. The design also increases the penetration intensity of fluorescent signals in qPCR.
The maximum capacity of the 0.1ml tube is 150 µL, and that of a 0.2 mL tube is 250 µL.

PCR 8-strip Tube Cap

Flat



Domed

Cap Type	Color	/Pack	/Case	Non-sterile Cat.No.	Sterile Cat.No.
Flat	Transparent	125	1250	406012	406022
Domed	Transparent	125	1250	406112	406122

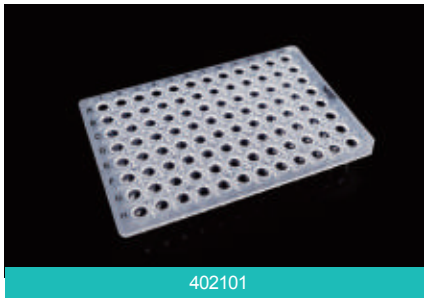
- Compatible with NEST 8-strip PCR Tubes or 96-well PCR plates.
- The cap design allows for easy opening and closing, securing better sealing performance.
- The flat caps are better for qPCR experiments.
- The domed cap can better prevent liquid evaporation.

PCR 96 Well Plate

When using a thermal cycler with the fluorescence detector above the samples, NEST white PCR plates effectively mutual interference between wells. The Nest white PCR plate also allows for high accuracy of detection when signal intensity is low, while Nest clear PCR plates are designed for PCR machines where the fluorescence detector is located below the sample plate.

Features

- Made of high-quality polypropylene to ensure minimal loss of reaction solution.
- Flat surface, thick and solid, not easy to deform.
- The black ink-printing marks on the surface are easy to read and identify.
- Elevated edge of the hole can better prevent cross contamination.
- Compatible with NEST pressure sensitive film, self-adhesive film and hot sealing film.
- Autoclavable.
- The tube wall of transparent 96-well PCR Plate is thin, allowing for good light transmission.
- White PCR 96-well plate is better for qPCR experiments.
- The maximum capacity of the 0.1ml tube is 150 µL, and that of a 0.2 mL tube is 250 µL.
- Certified DNase/RNase and Pyrogen Free.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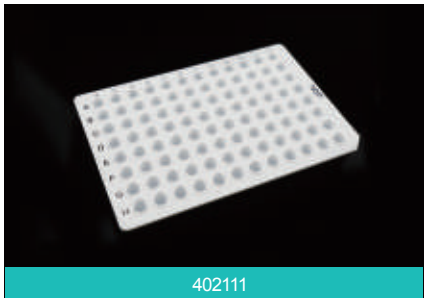
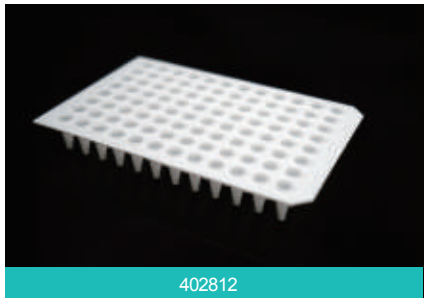
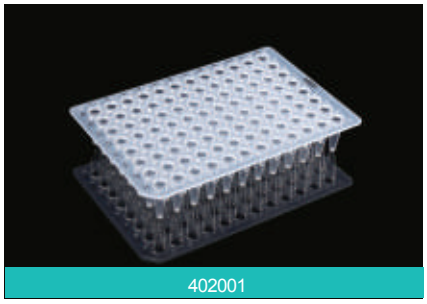

402111


402812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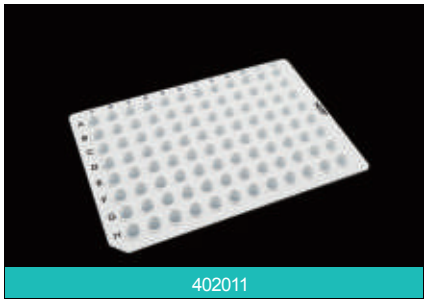
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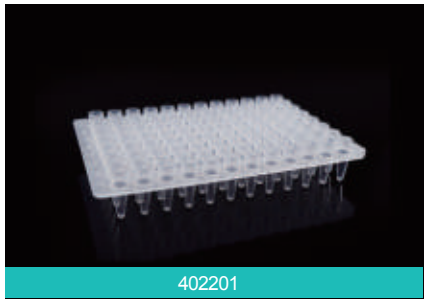
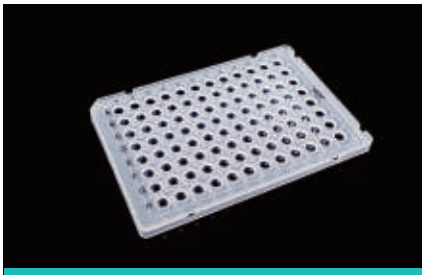

402201

PCR Plate, No Skirt

Volume (mL)	Cut Position	Color	Tube	Notes	/Pack	/Case	Cat.No.
96-well 0.1	H12	Transparent	Low profile	/	25	100	402101
	H12	White	Low profile	/	25	100	402111
	A12 / H12	White	Low profile	Compatible with Roche	10	500	402812
96-well 0.2	H1	Transparent	High profile	/	25	100	402001
	H1	White	High profile	/	25	100	402011
	H12	Transparent	Elevated Wells	/	25	100	402201

- The low-profile design minimizes the condensate contamination and evaporation of reaction solution.
- 0.1ml tube and 0.2ml tube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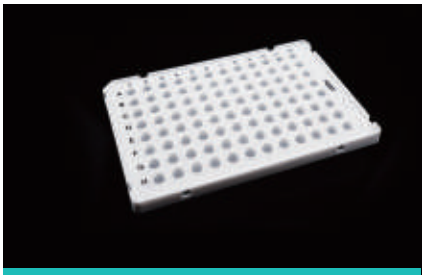
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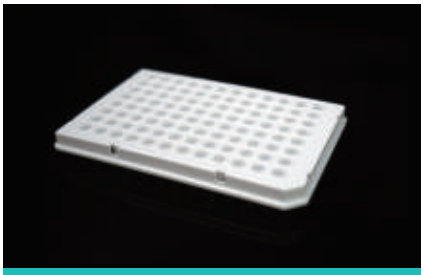
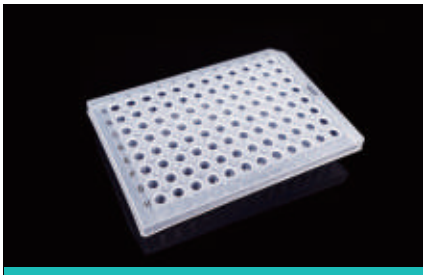
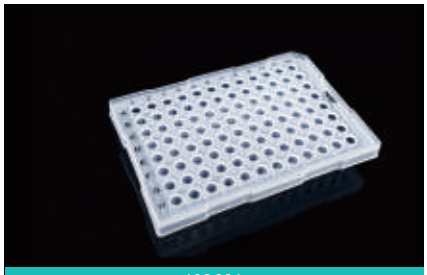
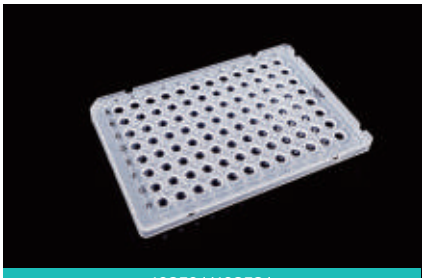

402712

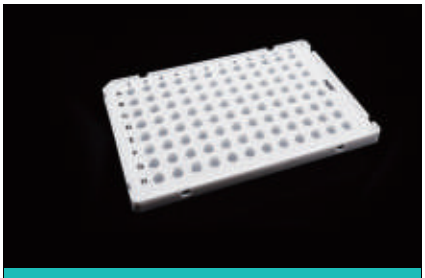

402301


402601

PCR Plate, Semi Skirt

Volume (mL)	Skirt Type	Notes	Cut Position	Color	Tube	/Pack	/Case	Cat.No.
96-well 0.1	Semi Skirt	Compatible with ABI models	A1	Transparent	Low profile	25	4	402401
	Elevated Semi Skirt	/	A1	White	Low profile	25	4	402411
	Semi Skirt	Compatible with Roche	H12	White	Low profile	10	5	402712
96-well 0.2	Semi Skirt	/	A12	Transparent	High profile	25	4	402301
	Semi Skirt	Compatible with ABI models	A12	Transparent	High profile	25	4	402601


402501/402521


402511


409013/409033

PCR Plate, Full Skirt

Volume (mL)	Skirt Type	Notes	Cut Position	Color	Tube	/Pack	/Case	Cat.No.
96-well 0.1 mL	Full Skirt	/	H1	Transparent	Low profile	25	100	402501
	Full Skirt	/	H1	White	Low profile	25	100	402511
	Full Skirt	Sterile	H1	Transparent	Low profile	25	100	402521
384-well 40 µL	Full Skirt	Compatible with Roche	A24+P24	White	Low profile	10	500	409013
	Full Skirt	Compatible with Roche, Sterile	A24+P24	White	Low profile	10	500	409033

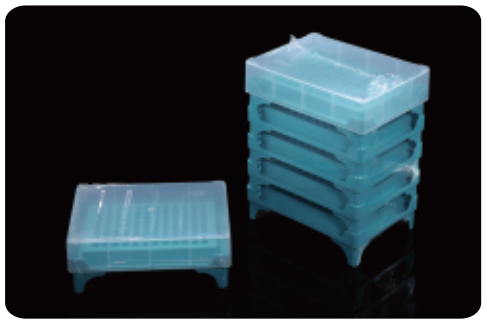
Compatibility

402712 Compatible with lightcycler 480、lightcycler 480 Ⅱ、lightcycler 96
402812 Compatible with lightcycler 96
409013、409033 Compatible with lightcycler 480 Ⅱ

Precautions

- Select the appropriate plate according to the equipment
- During the experiment, the PCR film must be tightly attached to the plate to prevent evaporation

PCR Rack

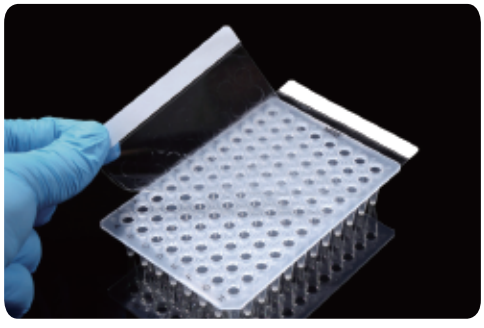


- Fits all NEST PCR products.
- Stackable.
- Autoclavable.

Specification	Cap Type	Color	/Pack	/Case	Cat.No.
(1 Rack+1 Cap)/ Set, 8*12 Format	Flat	Blue rack+Transparent lid	1 rack +1 lid	25	407001
(5 Rack+1 Cap)/ Set, 8*12 Format	Flat	Blue rack+Transparent lid	5 rack +1 lid	5	407101

PCR Sealing Film

NEST PCR sealing film is compatible with NEST 96-well ELISA Plates and 96-well PCR Plates in various applications such as the ELISA/PCR amplification reaction and PCR fluorescence quantification, etc. Both the regular PCR sealing film and high-transparency film are available.



High Transparency PCR Sealing Film:

- NEST High Transparency PCR Sealing Film is made of a layer of transparent polypropylene film and a layer of transparent silicon-based pressure-sensitive adhesive.
- Applicable temperature is -70°C to 100°C.
- Pressure-sensitive film is non-adhesive to skin and gloves, which is convenient for experimental operation and does not affect optical analysis.
- Does not react with the experimental sample, the experimental results are more reliable.
- No autofluorescence.

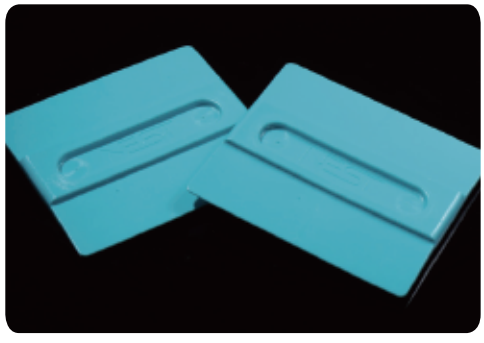
Sealing Film:

- Material: non-permeable soft film; the adhesive is medical grade strong adhesive.
- Thickness: 100 μm.
- Economical and easy to use; compatible with a majority of PCR plates on the market.
- Good sealing performance.

Specification	Size (mm)	Usable Film Dimension	Color	/Pack	/Case	Cat.No.
Standard Sealing Film	146 × 81	124×81	Transparent	100	500	410001
New Advanced Sealing Film	141 × 78	116×78	Transparent	100	500	410011
PCR Sealing Film	141 × 83	118×80	Transparent	100	500	410021

Note: for life science laboratory research only, not for clinical drug treatment.
Recommended storage conditions: temperature range of 10-27 ° C; humidity range of 40%-60%.

PCR Scraper



- NEST PCR Scraper is compatible with NEST High-transparency Sealing film and Standard Sealing Film, enabling the filming attached to the plates closer and ensuring better sealing performance.

Size (mm)	/Pack	Cat.No.
70*78	1	411001

Brand	Model \ Number	401001	403002/404001	403102/403122	403112/403132	403012/403032	404001/403022	402001	402301	402501	402401	402101	402812	402601	402201
		PCR Tube						PCR Plates							
Applied Biosystems®	2720	401001	403002/404001				404001/403022	402001	402301					402601	
	9600	401001	403002/404001				404001/403022	402001	402301					402601	
	9700	401001	403002/404001				404001/403022	402001	402301					402601	
	9800Fast			403102/403122							402401	402101			
	Veriti/Fast			403102/403122				402001	402301		402401	402101		402601	
	7000	401001	403002/404001			403012/403032	404001/403022	402001	402301					402601	
	7300	401001	403002/404001			403012/403032	404001/403022	402001	402301					402601	
	7500/Fast	401001	403002/404001	403102/403122		403012/403032	404001/403022	402001	402301		402401	402101		402601	
	7700	401001	403002/404001				404001/403022	402001	402301					402601	
	7900HT/Fast	401001	403002/404001	403102/403122			404001/403022	402001	402301		402401	402101		402601	
	StepOne			403102/403122	403112/403132						402401	402101	402812		
	StepOnePlus			403102/403122	403112/403132						402401	402101	402812		
	ProflexPCRSystem	401001	403002/404001				404001/403022	402001	402301					402601	
	QuantStudio 12K	401001	403002/404001				404001/403022	402001	402301					402601	
	ViiA7/Fast	401001	403002/404001	403102/403122		403012/403032	404001/403022	402001	402301		402401	402101		402601	
	3100							402001	402301					402601	
	3130							402001	402301					402601	
	3700							402001	402301					402601	
	3730/3730x							402001	402301					402601	
Eppendorf®	Mastercycler®	401001	403002/404001				404001/403022	402001	402301	402501					
	Mastercycler® ep realplex	401001	403002/404001				404001/403022	402001	402301	402501					
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	Mastercycler nexus	401001	403002/404001				404001/403022	402001	402301	402501					
	Mastercycler nexus eco	401001	403002/404001				404001/403022	402001	402301	402501					
	Mastercycler nexus flat	401001					404001/403022								
	Mastercycler nexus flat eco	401001	403002/404001				404001/403022								

Eppendorf®	Mastercycler nexus gradient	401001	403002/404001				404001/403022	402001	402301	402501					
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	Mastercycler nexus GSX1e	401001	403002/404001				404001/403022	402001	402301	402501					
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	3PrimeG	401001	403002/404001				404001/403022								
	3PrimeX	401001	403002/404001				404001/403022								
	Cyclogene™	401001	403002/404001				404001/403022	402001	402301	402501					
	Flexigene™	401001	403002/404001				404001/403022	402001	402301	402501					
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	Genius Quad	401001	403002/404001				404001/403022	402001	402301	402501					
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	Tpersonal	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
	TProfessional/Basic	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			

Analytik Jena/ Biometra	TProfessional/Standard	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
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	q TOWER	401001	403002/404001					402001	402301	402501					
	SpeedCycler^2	401001	403002/404001					402001	402301	402501					
	TOptical	401001	403002/404001					402001	402301	402501					
Biorad®/ MJ Researsh®	C1000^{TM} Touch^{TM}	401001	403002/404001				404001/403022	402001	402301	402501					
	DNA Engine Dyad®/Dyad Disciple	401001	403002/404001				404001/403022	402001	402301	402501					
	Engine Tetrad®2	401001	403002/404001				404001/403022	402001	402301	402501					
	MyCycler^{TM}	401001	403002/404001				404001/403022	402001	402301	402501					
	PTC-100®	401001	403002/404001				404001/403022	402001	402301	402501					
	PTC-200	401001	403002/404001				404001/403022	402001	402301	402501					
	PTC-225 Tetrad	401001	403002/404001				404001/403022	402001	402301	402501					
	S1000^{TM}	401001	403002/404001				404001/403022	402001	402301	402501					
	T100^{TM}	401001	403002/404001				404001/403022	402001	402301	402501					
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	CFX96^{TM} Touch/CFX96	401001		403102/403122	403112/403132		404001/403022			402501		402101	402812		
	Chromo4^{TM}	401001	403002/404001				404001/403022	402001	402301	402501					
	DNA Engine Opticon®2	401001	403002/404001				404001/403022	402001	402301	402501					
	iCycler	401001	403002/404001				404001/403022	402001	402301	402501					
	iQ^{TM}5	401001	403002/404001				404001/403022	402001	402301	402501					
	MiniOpticon^{TM}	401001	403002/404001				404001/403022	402001	402301	402501					
	MyiQ^{TM}	401001	403002/404001				404001/403022	402001	402301	402501					
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	miniOpticon				403112/403132								402812		
	BaseStation^{TM}								402301	402501					
	MJ research option												402812		
	Opticon2			403102/403122						402501		402101	402812		

Thermo Hybaid	Multiblock System	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
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	Omnigene	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
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	Px2	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
	PxE	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
	Touchdown	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
Ericom	Deltacycler I	401001	403002/404001	403102/403122			404001/403022	402001	402301			402101			
	Single Block	401001	403002/404001	403102/403122			404001/403022	402001	402301			402101			
	Twin Block	401001	403002/404001	403102/403122			404001/403022	402001	402301			402101			
Stratagene	Mx3000®	401001	403002/404001					402001	402301						
	Mx3000P®	401001	403002/404001					402001	402301						
	Mx3005®	401001	403002/404001					402001	402301						
	Mx4000®	401001	403002/404001					402001	402301						
Agilent	SureCycler®8800	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501	402401				
	ARIA MX G8830A				403112/403132								402812		
Qiagen®	Flexigene®	401001	403002/404001				404001/403022	402001	402301	402501					
	Rotor-Gene® Q	401001					404001/403022								
MWG®	Primus 96	401001	403002/404001	403102/403122				402001	402301	402501		402101			
PeqLab®	peqSTAR 96	401001	403002/404001				404001/403022	402001	402301	402501					
SensoQuest	Thermocycle 96	401001	403002/404001					402001	402301	402501					
Stratagene	Robocycler	401001	403002/404001				404001/403022	402001	402301	402501					
TaKaRa®	TP240	401001	403002/404001					402001	402301	402501					
	天隆TL988-IV				403112/403132										
	TP3000	401001	403002/404001	403102/403122			404001/403022	402001	402301	402501		402101			
Amersham®GE®	MegaBACE®500								402301	402501					
	MegaBACE1000								402301	402501					402201
Beckman Coulter®	CEQ™								402301						
Transgenomic	WAVE®System								402301	402501					

Bacteria

Cuvette

Cuvettes are containers used in laboratory spectroscopic analysis to hold reference solutions and sample solutions. They are commonly used with spectroscopic analysis instruments like spectrophotometers to analyze samples quantitatively and qualitatively. Cuvettes find wide application in industries such as chemical, pharmaceutical, food, and environmental protection.

Features

- Made of high-quality PS material, this product has a smooth appearance without any bubbles or stripes. It provides good transparency, allowing for easy observation of the liquid inside.
- Transmittance range of 340-750nm, with a transmittance ratio of ≥70%.
- The transmittance difference between cuvettes with the same optical path length is ≤0.5%.
- Products are packaged in foam boxes to prevent scratches and friction caused by collision during transportation.
- Compatibility: fit a wide majority of instruments on the market.
- Precision processing allows for good light transmission.
- Strong corrosion resistance and superior leak-proof performance.

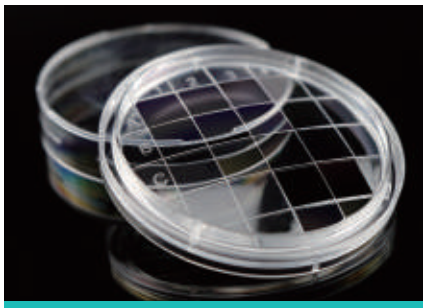
Description	/Pack	/Case	Cat.No.
4.5ml Standard Cuvette, 10 mm, Ps, Range 340-750 nm	100	1000	371101
1.5ml Semi-Micro Cuvette, 10 mm, Ps, Range 340-750 nm	100	1000	371201

Function & Application

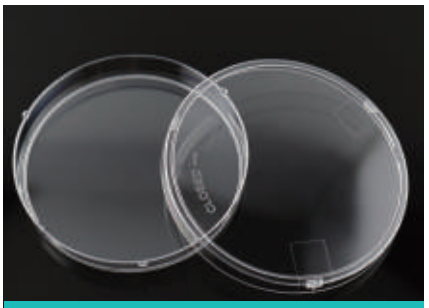
- Function: Come with spectroscopic analysis instruments for holding reference solutions and sample solutions for quantitative and qualitative analysis
- Application: Industries such as chemical, pharmaceutical, food, and environmental protection.

Petri Dishes

Petri Dish



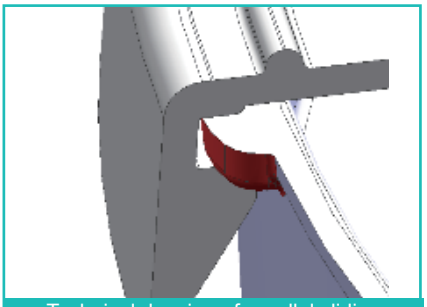
RODAC Dish



Petri Dish with Safe-lock Design

These non-treated polystyrene plates are transparent and DNase/RNase-Free. The bottom has a ridge allowing for easy handling and stacking. The plate has three vents for gas exchange.

- Made of high clarity, 100% virgin polystyrene.
- Numeric marks at 3/6/9/12 o'clock at the bottom, making it convenient for users to determine the position of bacteria.
- Flat, transparent surface.
- PA/PE composite film packaging.
- Stackable for easy storage and handling.
- Each package has an independent item number and batch number identification, which is convenient for quality tracking and traceability.
- Sterilized by E-beam, SAL=10^{-6}.
- Non-Pyrogenic, DNase/Rnase free.



Technical drawing of parallel sliding clasps design.

Square Petri Dish

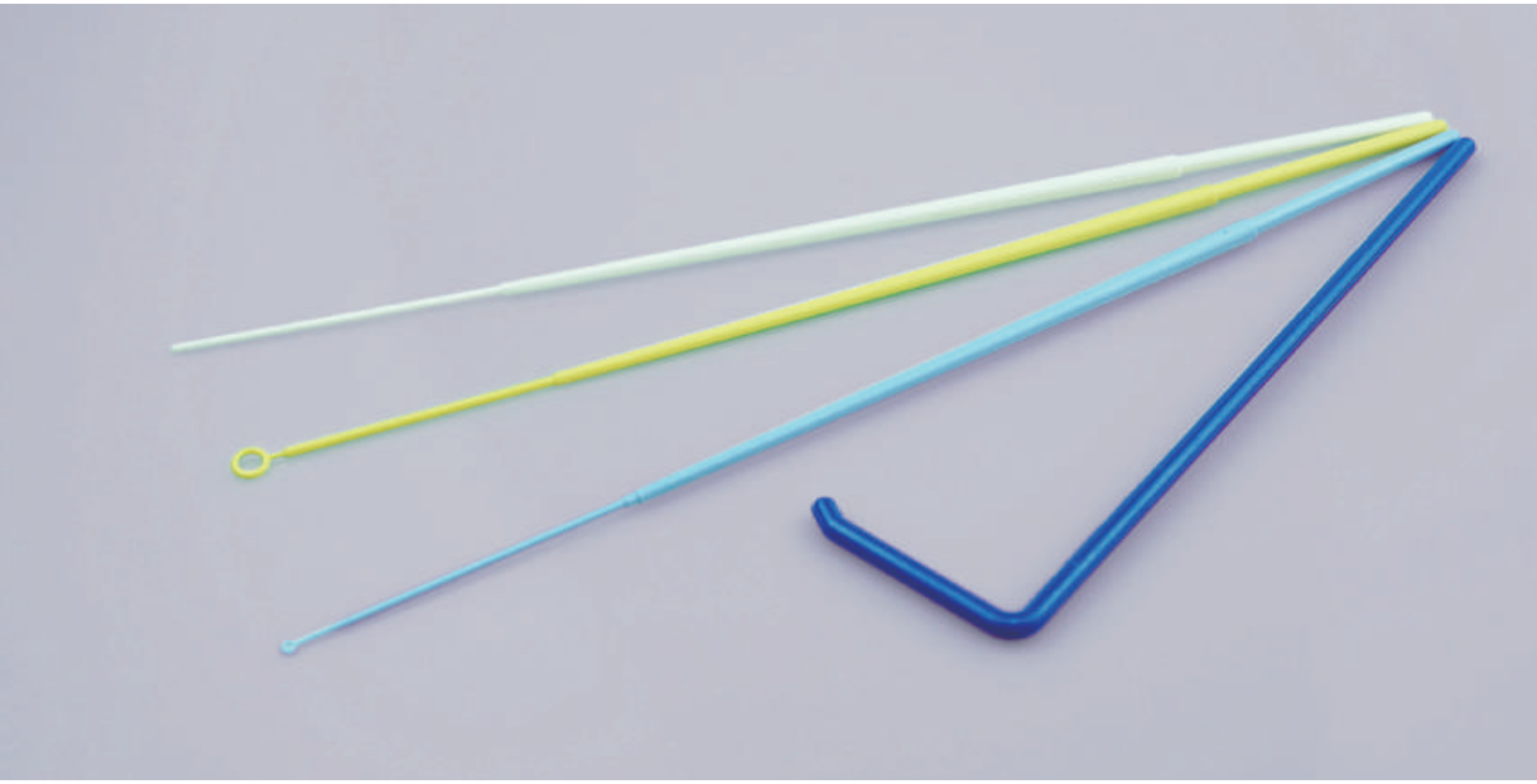
Square Petri Dish

NEST Square Petri Dish is a labware used for bacterial cultivation and observation. It consists of multiple grids that can be used to separate different bacterial cultures for various experiments and observations.

Petri Dishes

Spec (mm)	Height (mm)	Volume (mL)	TC	Sterile	/Pack	/Case	Cat.No.	
35	12	5	NO	Sterile	20	500	706011	
60	15	15	NO	Sterile	20	500	754001	
90	15	40	NO	Sterile	20	500	752001(US: 753001)	
	15	40	NO	Sterile	20	500	752002(US: 753002)	Double Bagged
	15	40	NO	Sterile	10	500	752004	
	15	40	NO	Sterile	5	500	752003	
	15	20 x 2 Compartments	NO	Sterile	20	500	752011(US: 753011)	
	15	13 x 3 Compartments	NO	Sterile	20	500	752021(US: 753021)	
	15	10 x 4 Compartments	NO	Sterile	20	500	752031(US: 753031)	
	15	40 Safe-lock Design	NO	Sterile	20	500	752101	
	20	40	NO	Sterile	20	300	753401(US: 752401)	
	25	40	NO	Sterile	13	325	752501(US: 753501)	
150	15	60	NO	Sterile	10	100	715011	
	25	/	NO	Sterile	5	100	755001	
65	15	13-15	NO	Sterile	20	500	722011(RODAC)	
	15	15 Safe-lock Design	NO	Sterile	20	500	722311(RODAC)	
100×100×15	17.25	45	NO	Sterile	20	500	753901	

Innoculating Needles / Loops
L-Spreader



Inoculating Needle / Loop

PP material, hydrophilic.

- Flexible handles for easier collection and inoculation.
- Applied in microbiology experiments.
- Different colors for identification.
- Easy-tear sterile individual packaging.
- Each package has an independent item number and batch number identification, which is convenient for quality tracking and traceability.
- Sterilized by Ethylene Oxide.
- Sterilized by E-beam, SAL=10^{-6}.

L-Spreader

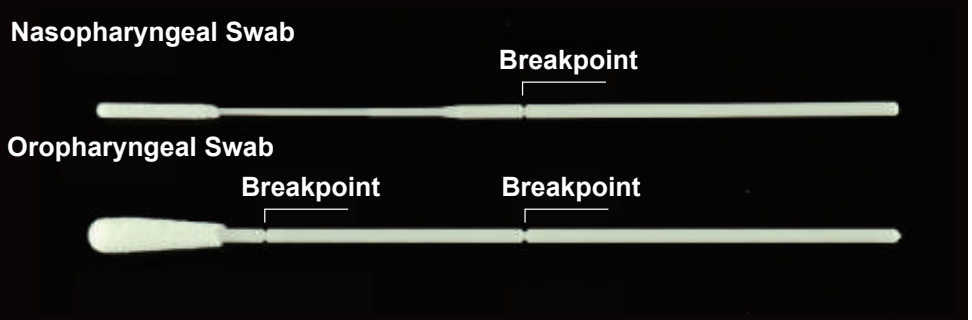
- Sterile L-Spreader, made of using medical PS.
- Sterilized by E-beam, SAL=10^{-6}.
- Smooth and flat surface that avoids problems such as contamination or uneven application of spread plate in bio-labs.
- Length of handle: 144mm, diagram of spreading: 33mm, suitable for 3.5cm, 6cm, 9cm, 10cm petri dishes and etc. Ideal for spreading cells or bacteria evenly in the culture dish.

Volume (μL)	Name	Color	/Pack	/Case	Cat.No.
/	Inoculating Needle	White	400	4000	716001
1	Inoculating Loop	Blue	400	4000	717101
10	Inoculating Loop	Yellow	400	4000	718201
/	L-Spreader	Blue	200	2000	711001

Medical Consumables

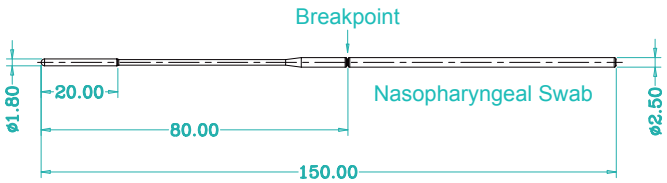
Disposable Swab

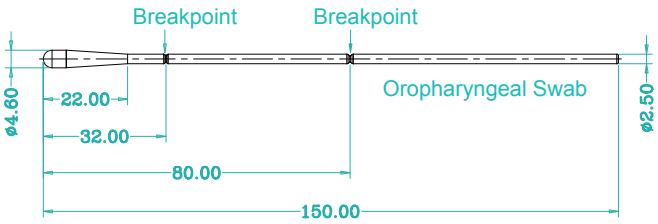
Registration Certification of Class II Medical Devices Registration No. : 20212221578.



ADVANTAGE:

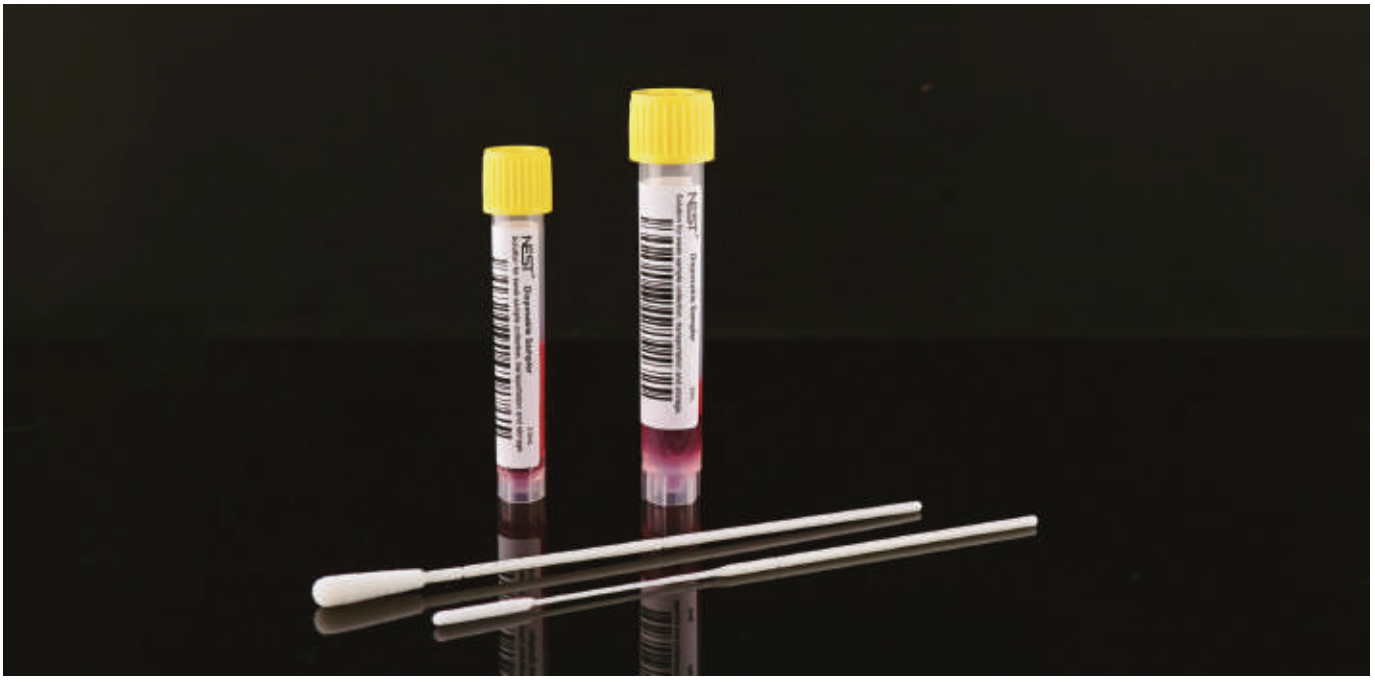
- Swab head is flocked nylon, and swab shaft is made of ABS (Acrylonitrile butadiene styrene).
- Non-toxic.
- Individually wrapped and sterile.
- CE, FDA, ISO certified.





Cat.No.	Descriptions	/Pack	/Case
202003	Oropharyngeal Specimen Collection Swab, Individually Wrapped, Sterile	100	5000
202004	Nasopharyngeal Specimen Collection Swab, Individually Wrapped, Sterile	100	5000

Viral Transport Medium / Inactivation Transport Medium



Features

- Used for collection, storage and transportation of human nasopharyngeal virus samples.
- Unused VTM medium can be transported at room temperature.
- Sample transport temperature requirement & storage time: 2 to 4 C°, 48 h.
- ITM medium serves to both inactivate viruses and prevent nucleic acid degradation.
- Room temperature transport.
- Samples can be stored at room temperature for 20 days.
- Used for collection, storage and transportation of viruses, chlamydia, mycoplasma and urea plasma.

Viral Transport Medium

Cat.No.	Description	/Pack	/Case
202016	Disposable Sampler, 10 mL Vial with 3 mL VTM, with Individually Wrapped and Sterile Oropharyngeal Swabs, 1 Vial + 1 Oral Swab/pk, 100 pk/cs	1	100
202017	Disposable Sampler, 10 mL Vial with 3 mL VTM, with Individually Wrapped and Sterile Nasopharyngeal Swabs, 1 Vial + 1 NP Swab/pk, 100 pk/cs	1	100
202115	Disposable Sampler, 5 mL Vial with 2.5 mL VTM, 10 Vials/pk, 100 Vials/cs	10	100
202117	Disposable Sampler,10 mL Vial with 3 mL VTM, 10 Vials/pk, 100 Vials/cs	10	100

Inactivation Transport Medium

Cat.No.	Description	/Pack	/Case
202001	Disposable Sampler, 5 mL Vial with 2 mL ITM, with Individually Wrapped and Sterile Oropharyngeal Swab, 10 Vials/pk, 50 Vials + 50 Swabs/cs	10	50
202005	Disposable Sampler, 5 mL Vial with 2 mL ITM, with Individually Wrapped and Sterile Nasopharyngeal Swabs, 10 Vials/pk, 50 Vials + 50 Swabs/cs	10	50
202006	Disposable Sampler, 10 mL Vial with 3 mL ITM, with Individually Wrapped and Sterile Oropharyngeal Swabs, 1 Vial + 1 Oral Swab/pk, 100 pk/cs	1	100
202007	Disposable Sampler, 10 mL Vial with 3 mL ITM, with Individually Wrapped and Sterile Nasopharyngeal Swabs, 1 Vial + 1 NP Swab/pk, 100 pk/cs	1	100

Other preservation solutions such as UTM, AMIES, and STM are available, and the packaging specifications are customizable.

Disposable Intranasal Atomization Device

Product Presentation

- The device provides a painless and rapid absorption medication delivery option for non-invasive intranasal medication delivery. It improves safety for both caregivers and patients by avoiding needle-sticking injuries.
- It is an atomizing device for drug administration intended to convert liquid preparations into atomized particles and spray on the surface of human body tissues (or organs) for full contact to maximize the administration effect. Meanwhile, the reasonable and effective self-destructive structure ensures that the product can only be used once to provide users with safe and hygienic products.

Micro-level atomized

Fine particles for easy absorption

The Spray Nozzle can atomize liquid medication into fine mist particles ranging from 10-70μm in diameter.

Patent Number: CN116077816B

Components and Key Features

Syringe

It comes with clear surface scale. The plunger self-destructs after use due to the built-in self-destruct design, ensuring one-time use and preventing reuse.

Spray Nozzle

The Spray Nozzle micronizes the medication to facilitate rapid absorption. Additionally, the spray is generated in an umbrella shape, minimizing any potential harm or irritation to the human body.

Dose Limiter

The Dose Limiter, in a swallowtail clip shape, is easy to install and disassemble.

Advantages of nasal mucosal administration

After the influenza virus invades the human body, it is commonly found in the nasal cavity, respiratory tract mucosa, body fluids, and cells. The intranasally delivered nasal spray influenza attenuated live vaccine can rapidly stimulate the human body's triple immune response and offer protection against viruses in different regions.

Success Story - Influenza Vaccine, Live Nasal, Freeze-dried

Triple immune response = **mucosal immunity + humoral immunity + cellular immunity**

Order Information

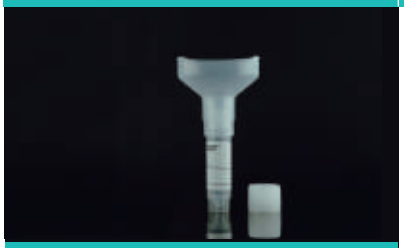
Color	Pcs/cs	Cat.No.
White	1000	201002
Yellow	1000	201112

- Nasal mucosal administration stimulates the production of mucosal immunity, specifically IgA antibodies, which provide the initial defense against pathogens in the nasal cavity.
- Additionally, it induces the production of humoral immunity, specifically IgG antibodies, which help eliminate influenza viruses in body fluids.
- Furthermore, it triggers the production of cellular immunity, specifically T cells, which are responsible for eliminating influenza viruses within cells.

Dry Saliva Collection Kits

Features

- USP VI Polypropylene Tubes.
- Collection process is painless and safe.
- The humanized design of funnel conforms to the mouth shape of human, making the collection process simple and easy.
- Good sealing performance effectively prevents leakage and specimens contamination safely and reliably, making it easy to preserve and transport specimen.
- The bottom of the collecting vial is conical, making it easy to process concentrated sample.
- Bar codes makes digital management easier, and labels with writing areas are convenient for users to record information.
- RNase/DNase free, non-pyrogenic.

Cat.No.	Volume (mL)	Upper Cup	Sterile	Contents	/Pack	/Case
 203101	5 mL	Screw Funnel	Sterile	Screw Funnel 5 mL Vial Specimen Bag Cap	1	100
 203102	10 mL	Screw Funnel	Sterile	Screw Funnel 10 mL Vial Specimen Bag Cap	1	100
 203111	5 mL	Wedged Funnel	Sterile	Wedged Funnel 5 mL Vial Specimen Bag Cap	1	100
 203112	10 mL	Wedged Funnel	Sterile	Wedged Funnel 10 mL Vial Specimen Bag Cap	1	100
 203901	Wedged in Funnels		Sterile	Compatible with different tube diameters ranging from 9.5-20.0 mm	1	100

Dry Saliva Collection Kits

Features

- Applied at room temperature.
- The 5 mL preservation solution vial is filled with 2 mL ITM solution.
- Samples can be stored and transported at room temperature.
- DNA samples can be stored stably for 12 months.
- RNA samples can be stored steadily for 1 month.
- With good antibacterial performance and strong storage stability, the preservation solution can guarantee the integrity of viral nucleic acids in the sample if it is used to store inactivated viral samples.

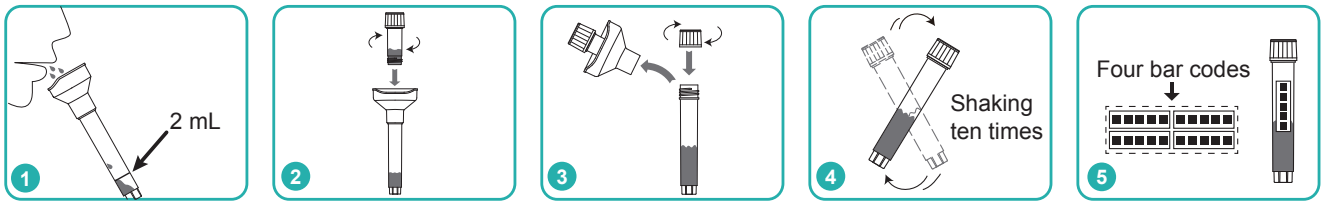
Introduction

- The product is used to collect high-quality DNA/RNA samples in the saliva.
- The collection process is painless and won't cause any injury or discomfort to the human body.
- The collected samples can be used for various biological experiments such as enzymatic hydrolysis, PCR and next-generation sequencing and are widely used in the collection and preservation of specimens in hospitals, scientific research institutions and households.

Introduction

- The cap of the Preservation Solution Tube should always be securely fastened to prevent accidental ingestion.
- The delicate design allows the preservation solution automatically to flow into the storage vial, eliminating direct contact with the preservation solution at all stages.
- The ITM Inactivation Preservation Solution, which deactivates viruses while preventing nucleic acid degradation, effectively prevents accidental contact or infection during transportation and testing.
- The device can be conveniently stored or transported at room temperature.
- It ensures a comfortable collection process without causing pain or damage to the human body. It is particularly suitable for children and patients who cannot provide a blood sample.

Instructions



Take a barcode out and stick it on the saliva collection tube. Then place the tube with the attached barcode and two additional barcodes into the sample bag for later storage, transportation or testing. The user should retain the remaining barcode for future reference or feedback.

Description	/Pack	/Case	Cat.No.
Disposable Sampler, Saliva Collection Kit with ITM, each kit Includes a 10 mL Vial with a funnel, a separate 5 mL Vial filled with 2.0 mL ITM, Sterile Pack, 100 kits/case	1	100	203011

Saliva/gargle Collection Kit


Blister Package


PE Bag Package


Paper Box Package

Introduction

The disposable sampler saliva/gargle collection kit is intended for the collection and transport of clinical samples from the collection site to the testing laboratory. As it will not cause any discomfort to the collection object, it is easy to be accepted.
Both saliva and gargling method will be presented in this IFU either method is at your choice. This product is easy to carry and operate.

Features

- Applied at normal ambient temperature.
- The kit process is simple, convenient and easy to operate.
- Flexible to use, can be easily collected in the laboratory, clinic, or even at home.
- It is suitable for a wide range of target group, especially for children and patients who do not meet the blood sample collection conditions.
- The non-invasive collection of samples will not cause any discomfort to the collection objects, reducing the chance of infection and improving safety.

Description	Packing	/Pack	/Case	Cat.No.
Disposable Sampler, Saliva/Gargle Collection Kit, each kit Includes a funnel, an empty 5mL vial, a 5 mL Vial Filled with 4.0 mL saline, Sterile	Paper Box Package	1	100	203051
	PE Bag Package	1	100	203061
	Blister Package	1	100	203071

Pharmaceutical Packaging

AccureVial® **COP Bottle**

Introduction

The main raw material for NEST AccureVial™ COP Bottle is cyclic olefincopolymer (COP). As a substitute for borosilicate glass, COP has the characteristics of high transparency, high rigidity, high heat resistance, low refractive index, low protein adsorption, and drug compatibility test producing no flake. The bottle body can withstand temperatures ranging from 121℃ to -196℃.
NEST AccureVial™ COP Bottle is featured with good steam tightness and resistance against acid, alkali and abrasion. This product is sterilized by electron beam and can be directly used for prefilling of injection solution, freeze-dried powder and other kinds of drugs and easy to be stored and transported.

Features

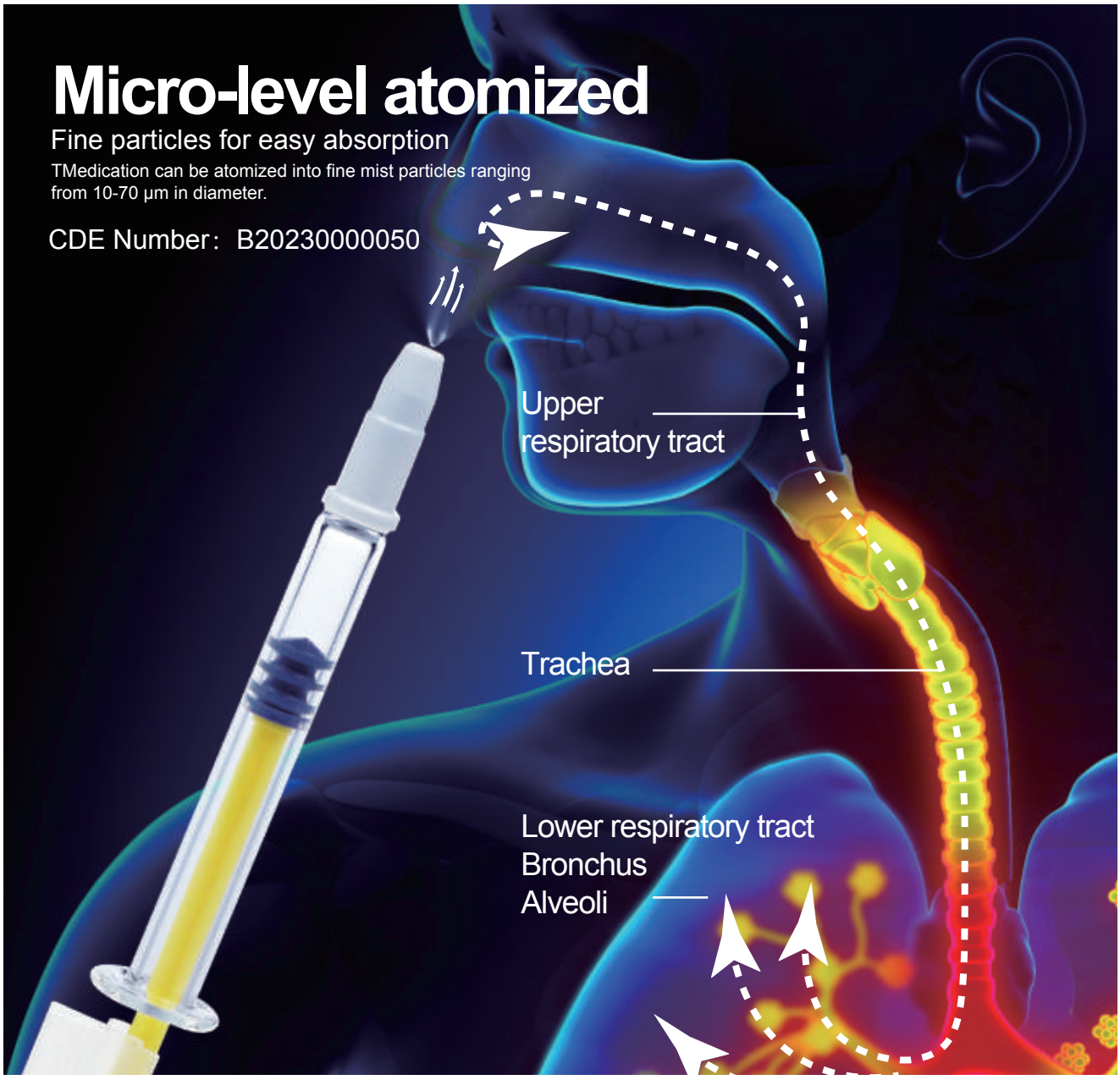
- Excellent drug stability, resistance to high and low pH values (without delamination), low protein adsorption
- Good barrier properties against water vapor and oxygen permeation
- High crack resistance reduces transportation costs
- Does not release heavy metal ions or produce delamination
- Excellent temperature resistance: from 121 to -80°C
- COP material enables various specifications, providing more flexible customization services.
- Reports on extractables and biocompatibility testing are available
- Complies with ISO 9001, ISO 15378, YBB standards

6x8 Nested configuration

- The specification for pre-sterilized wash-free and sterilization-free NEST AccureVial®COP bottles is now available. These bottles are produced in a cleanroom that adheres to GMP management standards, from injection molding to final packaging.
- Compatible with various sterilization methods, including ethylene oxide and steam sterilization.

Description	/Pack	/Case	Cat.No.
5 mL AccureVial™ COP Bottle	1	10	207001

Disposable Pre-filled Glass Intranasal Atomization Device



NEST Disposable Pre-filled Glass Intranasal Atomization Device is a pharmaceutical packaging designed to effectively store drugs for extended periods of time while maintaining stability and compatibility. A Spray Nozzle is included to convert liquid medication into uniformly sized mist particles, which are then sprayed onto the patient's mucous membranes (such as nasal or oral mucosa) for efficient drug administration.

The liquid medication can be pre-filled into the syringe and sealed for storage and transportation. This eliminates the need to transfer the liquid medicine to a syringe before use, reducing workload. It also addresses the issues of dosage loss and waste caused by residue. Additionally, pre-filling enhances safety and hygiene by minimizing the risk of contamination during the transfer process.

Features

- **Stable Material**

Made of high quality medium borosilicate glass, which is extensively applied in pharmaceutical packaging including biological agents and vaccines, the product possesses strong chemical durability and shock resistance.

- **Hermetically Sealed**

The spray is equipped with a protection cap, which is embedded with sealing ring to ensure its leak-proofness and virus-resistance during transfer and transportation.

- **Perfect Atomization Effect**

Atomization cavity with precision turbine design ensures uniformly atomized particles evenly distributed on human mucous membrane for ideal liquid atomization effect.

- **Precise Dose**

The precise Dose Limiter ensures the uniformity of each dose .

- **Single Use Design**

The device is set with self-distruct design. After administration, the stopper will stick in the syringe and can't be taken out for a second use.

Application

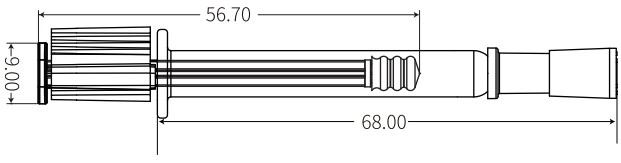
Intranasal medication, administered through absorption in the mucous membrane, is an efficient treatment method. The nasal mucosa is moist and smooth with rich blood vessels, making it an ideal route for intranasal medication. This device is designed for intranasal delivery of medication to achieve the effects of reducing inflammation, stopping bleeding, fighting bacteria, and relieving nasal congestion. The medication will then be absorbed into the blood vessels and distributed throughout the body. For example, if antipyretic analgesics like Analginum are delivered nasally in droplets, they can help reduce fever.

Compared to intravenous drug delivery and other modes of administration, intranasal medication offers several advantages. Firstly, the activity of nasal mucosal hydrolase is lower than in the gastrointestinal tract, reducing the degradation of polymer compounds like polypeptides, hormones, vaccines, etc., thus ensuring the effectiveness of the drugs. Secondly, it bypasses the "first-pass effect" in the liver and reduces the potential liver damage caused by oral drugs. Thirdly, it has high bioavailability, allowing for targeted drug delivery to the brain. Finally, it is easy to administer and convenient for infants and children, with minimal adverse reactions and good compliance.

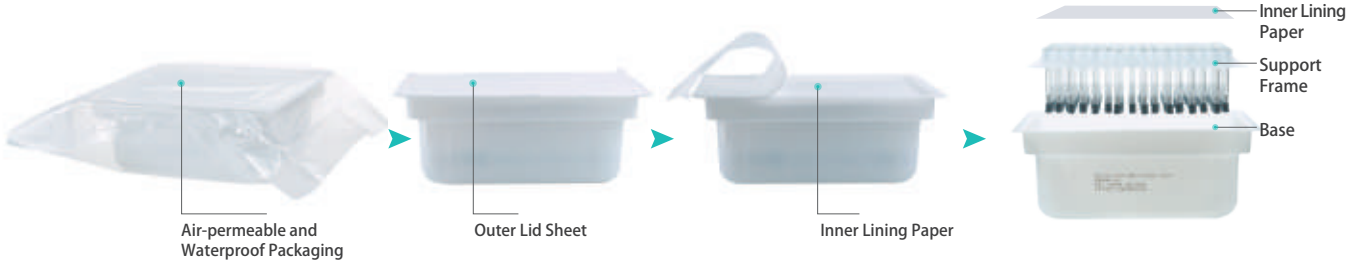
In recent years, nasal spray vaccines have gained attention as a new area of research and application, thanks to the specific advantages of intranasal administration. Research has shown that nasal mucosal immunity can induce both local and systemic immune responses. Its effects is comparable to intravenous injection and can even be more effective and intense than oral administration. Therefore, nasal spray vaccines broaden the possibilities of intranasal administration.

Order information

Specifications	Description	Packaging		Cat.No.
0.5 mL	①Assembling Unit	160pcs/rk	2400 pcs/cs	205001
	② Plunger	10000pcs/pk	10000 pcs/cs	205091
	③Dose Limiter	5000pcs/pk	10000 pcs/cs	205092



10x10 Nested Configuration



- The specification for pre-sterilized wash-free and sterilization-free NEST Disposable Pre-filled Glass Intranasal Atomization Device is now available. From injection molding to final packaging, they are produced in a cleanroom that adheres to GMP management standards.
- Suitable for various sterilization methods, including ethylene oxide and steam sterilization.

COP Pre-filled Syringe

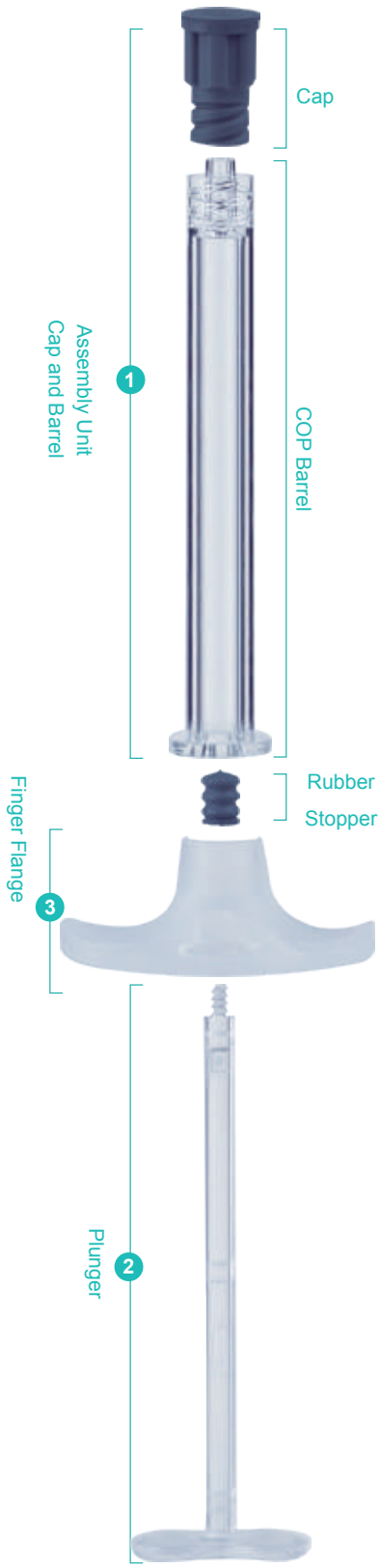
NEST COP Pre-filled Syringes are in high demand in the pharmaceutical market due to their small size, portability, accurate drug dosage provision, and low risk of contamination. They are widely used as a container of high-value products such as biologics, biochemical products, anti-thrombotic drugs, and beauty products

Serving as alternatives to borosilicate glass, cyclic olefin polymers (COP) offers a high degree of flexibility in design. Its high crack-resistance also reduces logistics and transportation costs. In terms of other physical and chemical properties, COP exhibits high transparency, rigidity, heat resistance, low refractive index, low protein adsorption, and is free from heavy metals and tungsten. Compatibility tests with pharmaceuticals indicate no delamination. And it can be manufactured with low or no silicone content, addressing the limitations of glass pre-filled syringes.

Application

- Container for biological agents (such as GLP-1, hormones, monoclonal antibodies)
- Ophthalmic applications
- Emergency drugs
- Vaccines
- Medical aesthetic drugs
- Compatible with automatic injectors

NEST COP Pre-filled Syringe is designed to meet your ever-changing needs. We offer comprehensive process services, which include design, production, and pre-sterilization, to provide you with the perfect solution.



Key Features

- Excellent drug stability, low protein adsorption, and barrier properties against water vapor and oxygen permeation.
- Eliminates the need for drug reconstitution before injection, reducing the risk of drug contamination.
- Accurate drug composition, avoiding changes in drug proportions during on-site drug preparation.
- Luer Connector, in line with the International Standard, is included to ensure secure connections and achieve excellent sealing performance. This reduces drug leakage and prevents the risk of needle rotation and popping during injection.
- COP offers a high degree of design flexibility and allows for greater customization.
- Compatible with various sterilization methods, such as ethylene oxide sterilization and steam sterilization.
- Complies with ISO 9001, ISO 15378, YBB, and USP Class VI standards.

Advantages of COP material compared to other materials.

Features	COP	Glass	PP
Gas permeability (O2, N2, CO2)	M	G	M
Water vapor permeability	G	G	M
Transparency after steam sterilization	G	G	P
Transparency after EP sterilization	G	G	P
Transparency after gamma ray sterilization	G	G	P
Drug pH change	G	P	G
Brittleness	G	P	G
Precision Molding/processing type	G	P	G
Waste characteristics/combustion characteristics	G	P	G
High purity	G	G	M

Remark: G-Good, M-Moderate, P-Poor

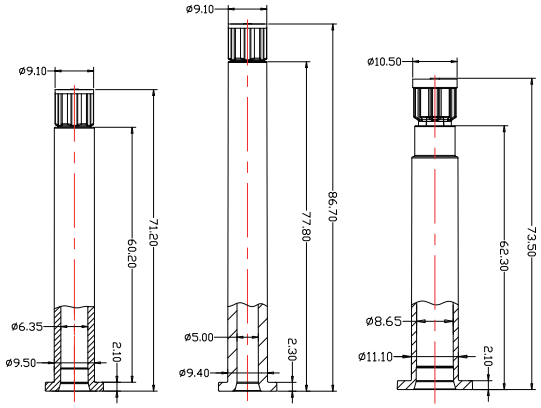
Rubber Stopper and Luer Cap

Made of butyl rubber bromide and compliant with European Pharmacopoeia, United States Pharmacopoeia, and Japanese Pharmacopoeia.

Product	Material	Rubber Stopper Formulation	Color
Rubber Stopper	Butyl Bromide	HS264	Black
Luer Cap	Butyl Bromide	HM174	Gray

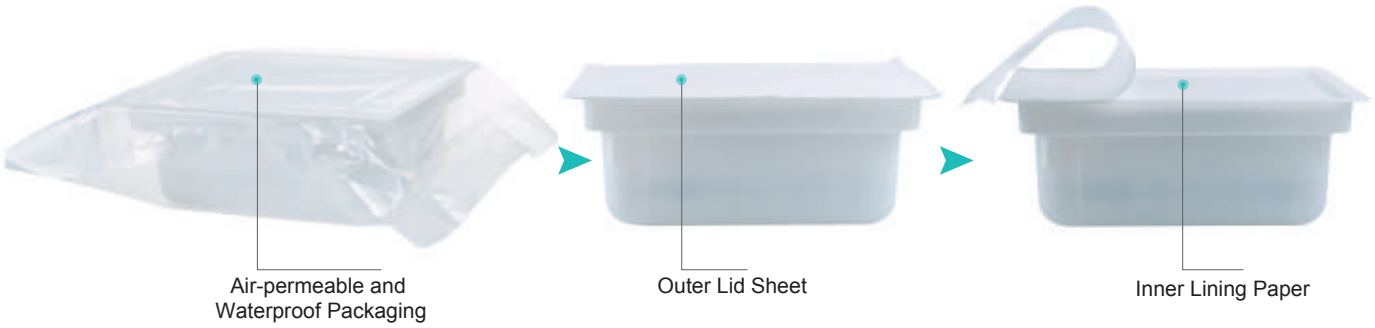
Order Information for Assembly Unit

Specifications	/Pack	/Case	Cat.No.	Matching Accessories
1.0 mL	100	1500	205512	Plunger205591/Finger Flang205592
1.0mL Slender	100	1500	205502	Plunger205571/Finger Flang205572
2.25 mL	100	1500	205522	Plunger205581/Finger Flang205582



1.0 mL　　1.0mL Slender　　2.25 mL

10x10 Nested Configuration



- The specification for pre-sterilized wash-free and sterilization-free NEST Pre-filled Disposable Glass Intranasal Atomization Device is now available. They are produced in a cleanroom that adheres to GMP management standards, from injection molding to final packaging.
- State-of-the-art automated production process is adopted to ensure minimal tolerance and stable quality of the barrel.
- Suitable for various sterilization methods, including ethylene oxide and steam sterilization.

Plunger

- Design Compatibility
- Compliant with ISO 11040 standard
- Material: Polycarbonate (PC)
- Fit high-speed sealing production line
- Compatible with plunger chamber
- Customizable shape, available in standard or custom colors
- Manufactured in a class 10,000 cleanroom
- Sterilized by electron beam

Order information for Finger Flanger (Double-bagged, non-sterile)

Specifications	/Pack	/Case	Cat.No.	Matching Accessories
1.0 mL	5000	5000	205591	Plunger205512/Finger Flang205592
1.0mL Slender	5000	5000	205571	Plunger205502/Finger Flang205572
2.25 mL	5000	5000	205581	Plunger205522/Finger Flang205582

205591 205581 205571

Finger Flange

- Polypropylene (PP)
- Compatible with ISO 11040 compliant check valves with injection flange or beveled flange
- Manufactured in a Class 10,000 cleanroom
- Customizable design
- Sterilized by electron beam

Order information for Finger Flanger (Double-bagged, non-sterile)

Specifications	/Pack	/Case	Cat.No.	Matching Accessories
1.0 mL	10000	10000	205592	Plunger205512/Finger Flang205591
1.0mL Slender	10000	10000	205572	Plunger205502/Finger Flang205571
2.25 mL	10000	10000	205582	Plunger205522/Finger Flang205581

205572 205582 205592

Reusable Pen Injector

Pen Injector is a type of reusable liquid medicine injection device that contain liquid medicine solution with a syringe. The Liquid medicine medication is placed in the pen in a cartridge, eliminating the need to extract liquid medicine each time.To administer the medication, simply remove the pen cap, adjust the dial to the desired dose, and then perform the liquid medicine injection.

In addition to the common insulin injection, NEST Pen Injector can also be used for growth hormone, antibiotics, interferon, beauty drugs, anti-biochemical first aid, hemostasis and pain, heart disease first aid, detoxification, antipyretic analgesia, anesthesia and sedation.

Product feature

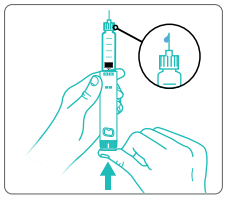
Scan the QR code
Watch use video

Small Window

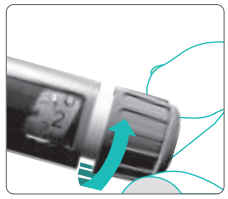
Large Window

Simple operation

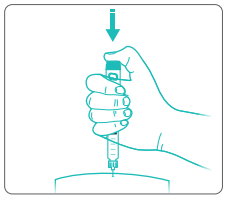
It is easy for beginners to use, eliminating the need for professional guidance.



1、Preparation



2、Dose regulation



3、Injection

Enlarged view window

The clear scale provides a convenient observation of the dosage.

Flexible adjustment

The dosage adjustment knob can be adjusted in both directions, allowing for easy correction in case of excessive dosage.

Portable and convenient

The small and delicate package makes it highly portable.

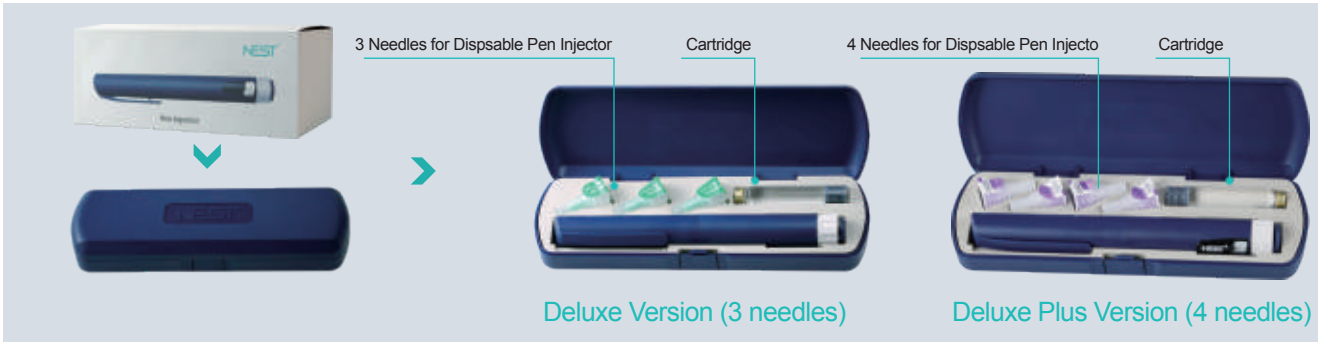
Smooth injection

The transmission mechanism is completely made of special materials with high lubrication, ensuring a smooth injection process with a required pressure of less than 30N.

Portable and convenient

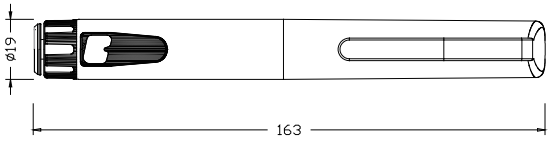
The injection-moulded screw thread ensures high precision and low margin of error, resulting in a stable injection process. The injection increment is 1IU, and the reusable pen injector range 1IU-60IU, the disposable pen injector range 1IU-60IU/1IU-80IU.

Product packaging

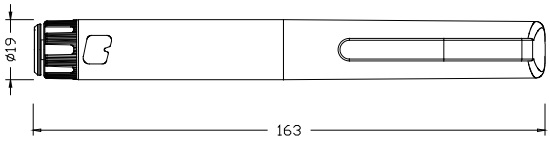


Product specification

Description	Plastic pen body with large window	Plastic pen body with small window
Model No.	NIVR-01	NIVR-02
Material	Pen body: ABS	
Injection range	0~60 IU（0.6mL）	
Single Minimum Dose	1 IU（0.01mL）	
Application	Compatible with disposable injection needles in line with ISO 11608-2, including BD, Jierui injection needles, etc; Compatible with standard 3 mL cartridge that complies with ISO 11608-3.	



Large window



Small window

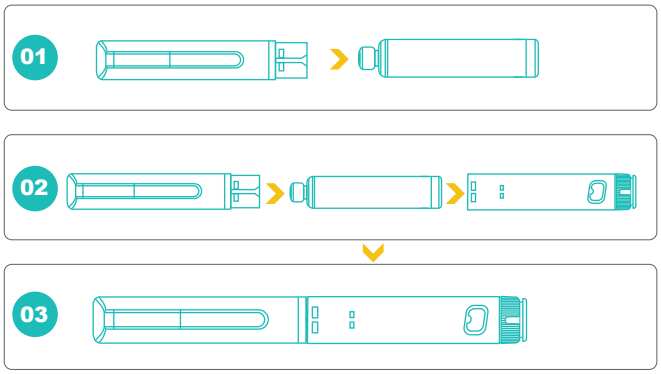
Satisfy customer's needs

NEST® → Pharmaceutical company partner

Ftont

Back

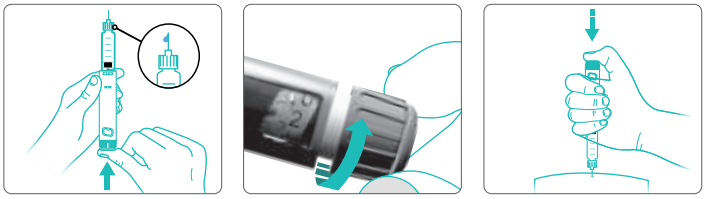
Pharmaceutical company partner → Final assembly



Product Feature

Simple operation

It is easy for beginners to use, eliminating the need for professional guidance.



1、Preparation　2、Dose regulation　3、Injection

Convenient

Liquid medicine solution can be pre-filled into, eliminating the need for multiple refilling.

Hygienicand safe

It provides a hygienic and safe solution as it appears as a new pen for each use, eliminating the need for cleaning and disinfection and reducing the risk of cross-contamination.

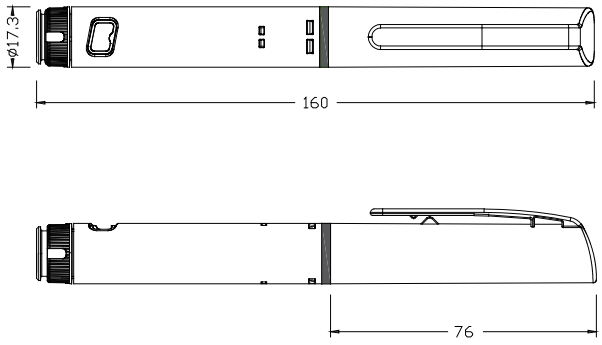
Accurate dosage

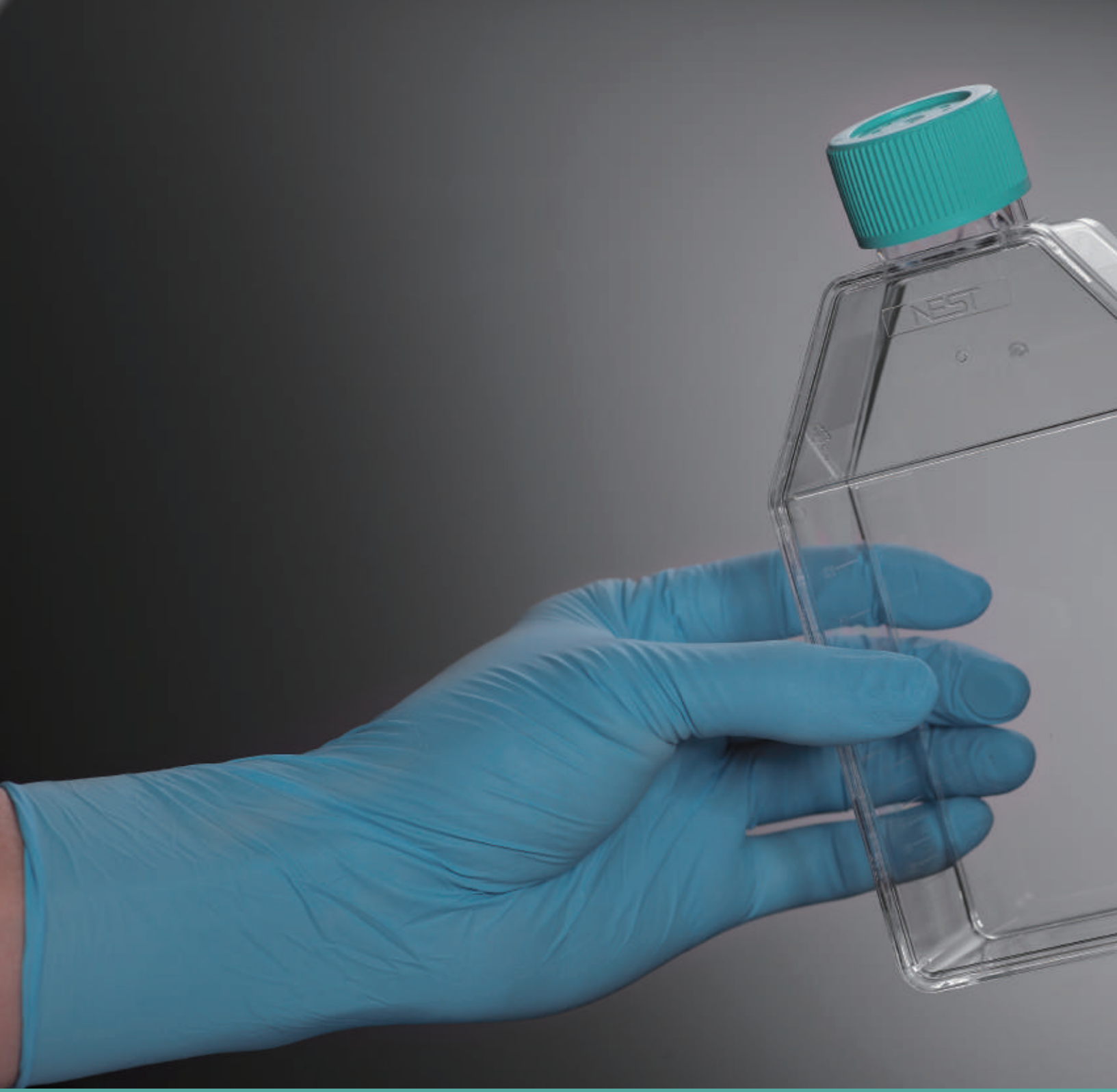
Dosage can be pre-set according to individual needs, granting patients the flexibility for their liquid medicine administration.

Supports customization in multiple colors.

Product specification

Injection range	36/50/60/74/75/80 unit, Appearance, colors, dosage and scale (mg/IU) are customizable.
Packaging	1 pc/pk, 200 pcs/cs
Material	Pen body: ABS
Single Minimum Dose	1 unit (0.01 mL)
Application	Suitable for a variety of disposable injection needles: such as BD, Jierui injection needles, etc. The needles must comply with ISO 11608-2. Applicable to the injection of standard 3 mL cartridge solution: 3 mL cartridge refills must comply with ISO 11608-3.

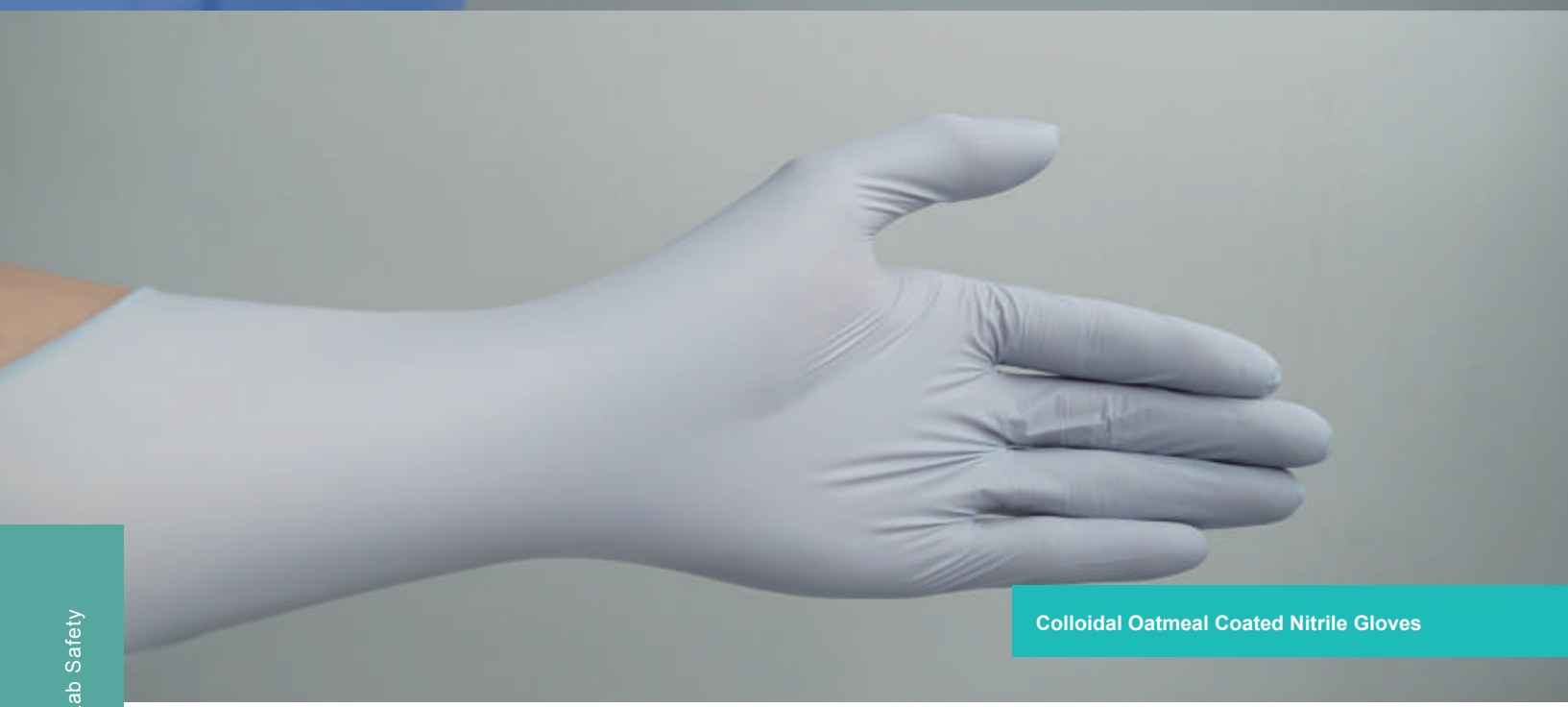




Lab Safety

Nitrile Examination Glove

Nitrile Powder Free Examination Gloves



Colloidal Oatmeal Coated Nitrile Gloves

Feature

- Made of nitrile, an alternative solution for people allergic to natural latex.
- Suitable for both left and right hand.
- Tensile Strength: Minimum 18.0 MPa (Before Aging).
- Rolled cuff design makes it easy to wear and prevents rollback.
- Textured fingertips increase friction for better gripping.
- Powder-free.
- Non-Sterile.Single use only, powder free.
- Boxed pull-out packaging.
- Made in Malaysia.
- Powder-free nitrile gloves weigh 3.5 grams.

Colloidal Oatmeal Coated Nitrile Glove

Oats Extractions

Oats extractions is a patented coating recognized by the FDA as a skin protectant, which have been proven by clinical studies could reduce and control rash and dry skin symptoms. Clinical studies have shown that colloidal oatmeal could reduce and control rash, dry skin.

Moisturizing
Keep skin moist through its moisture-locking capacity

Anti-Oxidation
Protects skin from oxidative damage

Protect
Forms an adhesive, closed barrier to protect skin from external stimuli

Restoring pH
Maintains skin's protective barrier function by restoring pH balance

Soothing
Relieves inflammation, irritation and itchiness and boosts skin's restoration process

Clean
Acts as a natural cleanser to remove dead skin cells

Cat.No.	Size	Palm Width (mm)±4 mm	Length (mm)	/Pack	/Case
903001	XS	76	≥230	100	1000
903011	S	84		100	1000
903021	M	94		100	1000
903031	L	105		100	1000

Nitrile Powder Free Examination Glove

Cat.No.	Size	Palm Width (mm)±4 mm	Length (mm)	/Pack	/Case
902001	XS	76	≥230	100	1000
902011	S	86		100	1000
902021	M	98		100	1000
902031	L	107		100	1000
902041	XL	115		90	900

Individually Packaged Nitrile Examination Gloves

Thickened
Thick and durable nitrile gloves provide a higher level of protection.

Anti-slip
Fingertip embossed design provides enhanced anti-slip performance.

Comfortable
Comfortable feel similar to natural latex.

Safe
Better tensile strength and toughness for higher safety protection during operations.

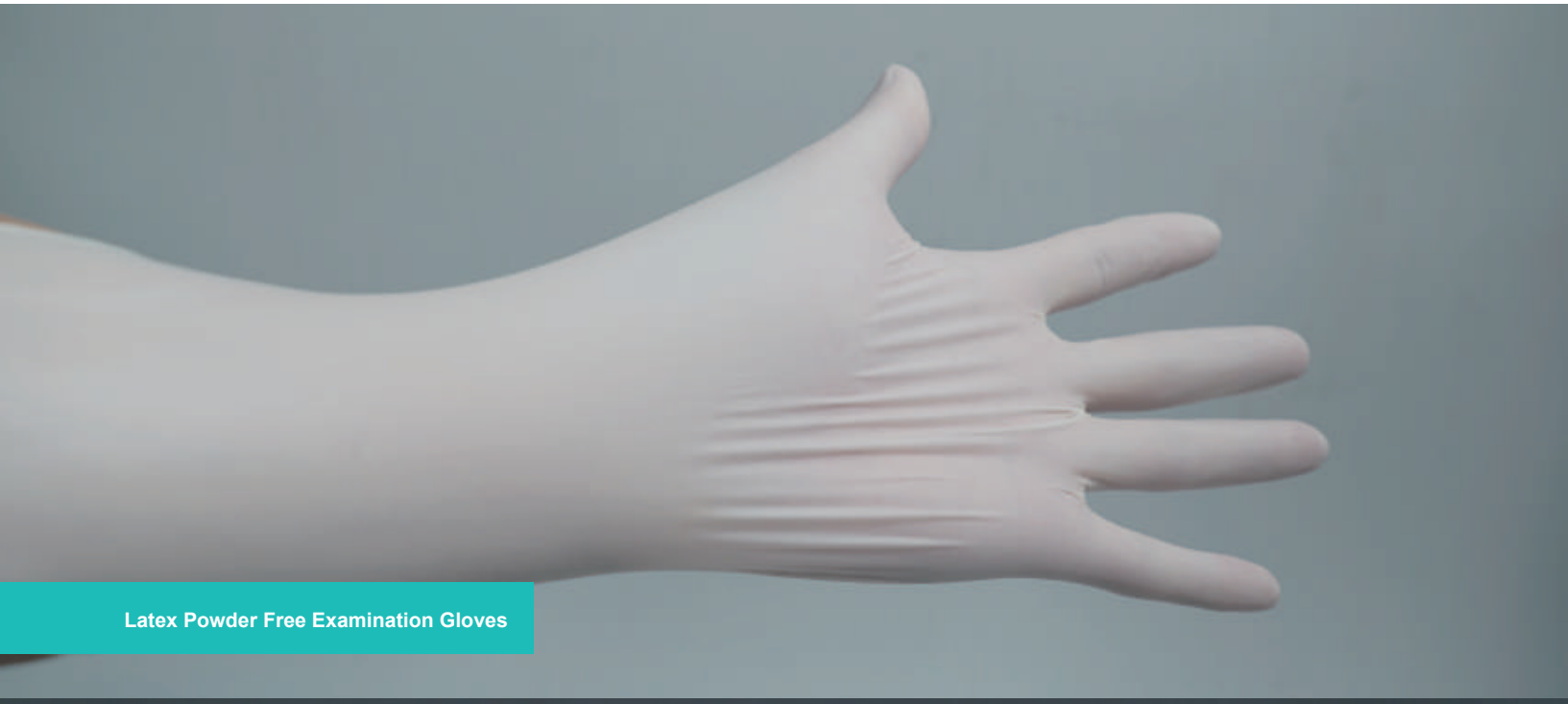
Protective
Latex-free, minimizing allergy risks.

Clean
Sterile product, convenient to use and can be used immediately in a clean room environment.

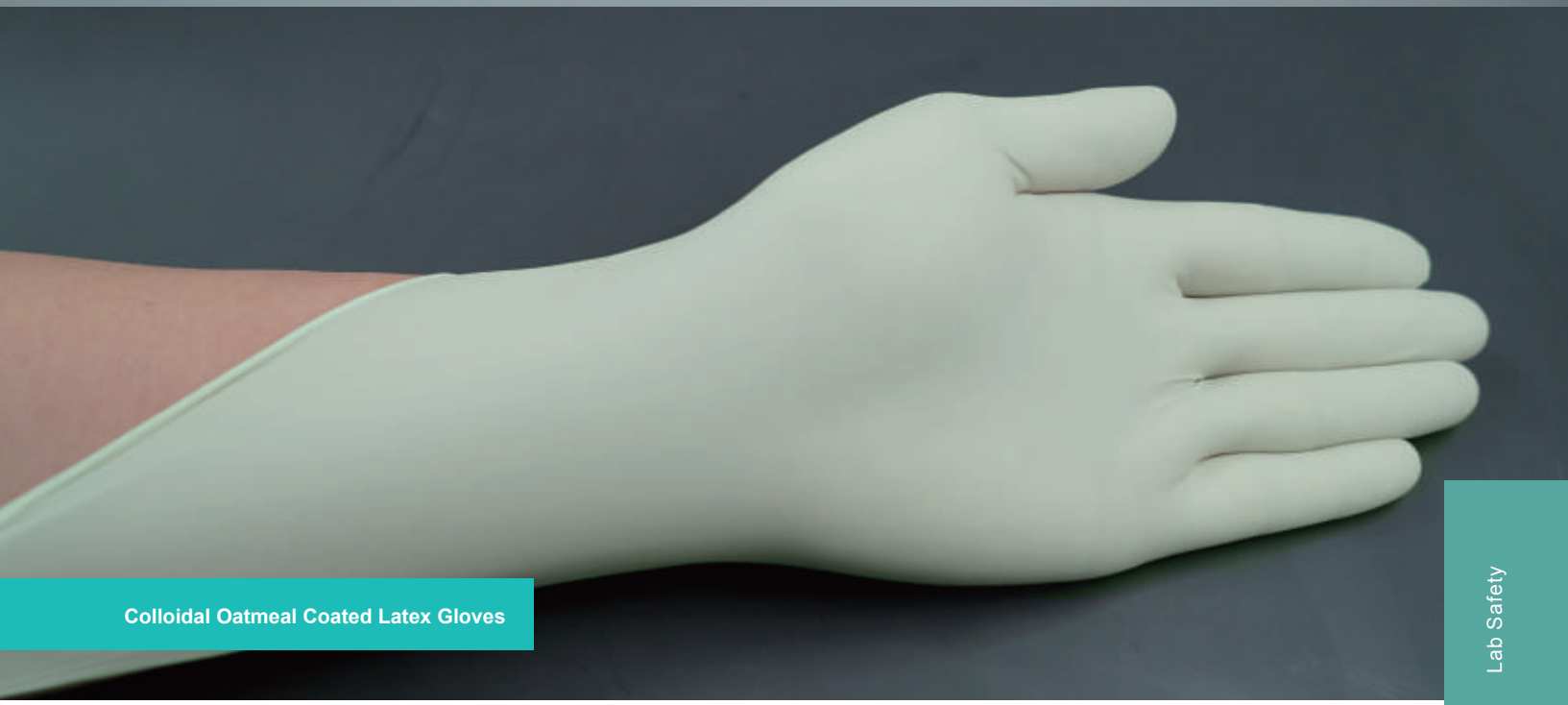
Individually Packaged Nitrile Examination Gloves

Cat.No.	Size	Palm Width (mm)±4 mm	Length (mm)	/Pack	/Case
902502	XS	76	≥230	2	1200
902512	S	84		2	1200
902522	M	94		2	1200
902532	L	105		2	1200
902542	XL	≥110		2	1200

Latex Examination Glove



Latex Powder Free Examination Gloves



Colloidal Oatmeal Coated Latex Gloves

Feature

- Made of synthetic latex.
- Suitable for both left and right hand.
- Tensile Strength: Minimum 18.0 MPa (Before Aging).
- Rolled cuff design makes it easy to wear and prevents rollback.
- Textured fingertips increase friction for better gripping.
- Powder-free.
- Non-Sterile. Single use only, powder free.
- Boxed pull-out packaging.
- Made in Malaysia.
- Powder-free latex gloves weigh 5.5 grams.

Colloidal Oatmeal Coated Latex Glove

Oats extractions is a patented coating recognized by the FDA as a skin protectant. Clinical studies have shown that colloidal oatmeal could reduce and control rash, dry skin symptoms.

Moisturizing
Keep skin moist through its moisture-locking capacity

Anti-Oxidation
Protects skin from oxidative damage

Protect
Forms an adhesive, closed barrier to protect skin from external stimuli

Restoring pH
Maintains skin's protective barrier function by restoring pH balance

Soothing
Relieves inflammation, irritation and itchiness and boosts skin's restoration process

Clean
Acts as a natural cleanser to remove dead skin cells

Cat.No.	Size	Palm Width (mm)±4 mm	Length (mm)	/Pack	/Case
904001	XS	76	≥230	100	1000
904011	S	84		100	1000
904021	M	94		100	1000
904031	L	105		100	1000

Tip: Please store in a cool, dry place, and avoid direct sunlight.

Latex Powder Free Examination Glove

Cat.No.	Size	Palm Width (mm)±4 mm	Length (mm)	/Pack	/Case
901001	XS	76	≥230	100	1000
901011	S	86		100	1000
901021	M	98		100	1000
901031	L	107		100	1000
901041	XL	115		100	1000

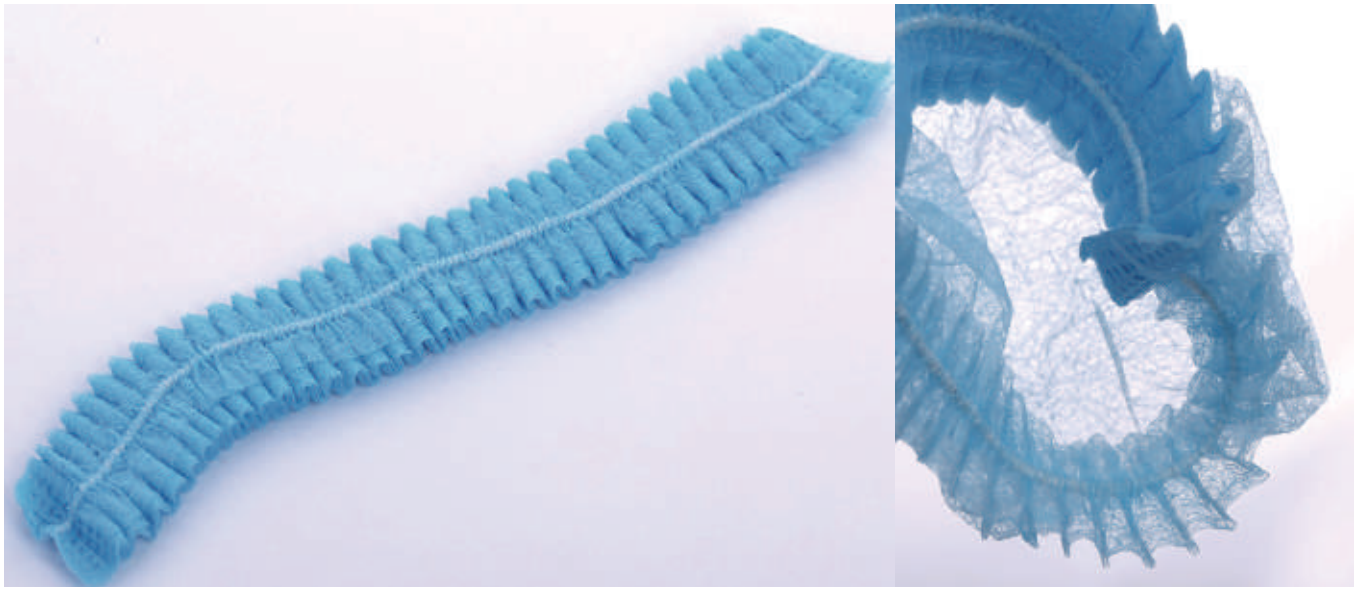
Nonwoven Mask

Features

- Can filter some toxic and harmful substances, odor gases, dust, etc. in the air.
- Bendable nose clip to ensure a better fit between the mask and the face.
- Foldable, easy to store, light weight, easy to carry.
- The four-layer activated carbon protection mask is made of activated carbon fiber of high adsorption, which is more effective in filtering than the ones protection mask without activated carbon fiber.

Cat.No.	Name	Size (±0.5cm)	Color	/Pack	/Case
922001	Three-layer PP Non-woven Lab Protection Mask	17.5 x 9	Blue	50	500
922101	Four-layer PP Activated Carbon Non-woven Lab Protection Mask	17.8 x 9.3	Dark Gray	50	500

Mushroom Cap& Non-woven Shoe Cover



Features

• Breathable, dustproof, able to block dust and microorganisms.
• Not feeling tight for long-time wearing, no allergic reaction.

Cat. No.	Name	/Pack	/Case
921001	Blue Mushroom Cap	100	1,000

Features

• Breathable, non-slip, with rubber bands, comfortable to wear.

Cat. No.	Size(cm)	/Pack	/Case
923001	42 * 17	100	1,000

Lab Instrument

7° Digital Nutating Mixer

Features

- The adjustable and gentle motion is ideal for many staining applications;
- Includes a large platform and non-slip mat;
- Low voltage power supply provides safe cold room operation and low energy consumption;
- Continuous or timed operation with automatic switch-off;
- Continue to run by last set speed and the remaining time when the power recovers;
- Audible and visual alarm: In timed mode, alarm will sound 5 times and then the time window shows "End" and flicker 5 times when the time reaches zero.

Cat. No.	105005
Speed	2~80rpm
Speed Accuracy	1rpm
Tilt Angle	7°
Timer	0~99h59min
Platform Dimensions	307x297mm
Max. Load	0.8kg
Display	LED
Included Accessory Standard in Packaging	6 Rubber Strips
Ambient Temperature	5~40℃
Relative Humidity	≤80%
Power Supply	AC100~240V, 50 / 60Hz
Max. Power	6.5W
Dimensions	440(L)x296(W)x189(H)mm
Net Weight	7.3kgs
Protection Level	IP21

Rubber Strip

Mini Vortex Mixer

Features

- Extremely compact and easy operate;
- Powerful vortex for tubes up to 30mm;
- Head is made of durable material to ensure long life;
- Refined steel base is designed to ensure product stability.

Cat. No.	105003
Oscillation Mode	Circumference Oscillation
Orbital Diameter	Φ4.5mm
Max. Capacity	80mL
Max. Tube Diameter	Φ30mm
Speed	3000rpm
IP rating (DIN EN 60529)	IP40
Ambient Temp.	5~40℃
Outside Dimensions	Φ96xH85mm
Power	5W
Power Supply	AC100~240V,50/60Hz
Weight	0.55kg

Variable Speed Tube Revolver with Digital Display

Rotisserie Paddles
For 10mL / 15mL Tubes

Rotisserie Paddles
For 1.5mL / 2mL Tubes

Rotisserie Paddles
For 5mL / 7mL Tubes

Rotisserie Paddles
For 0.5mL / 0.8mL Tubes

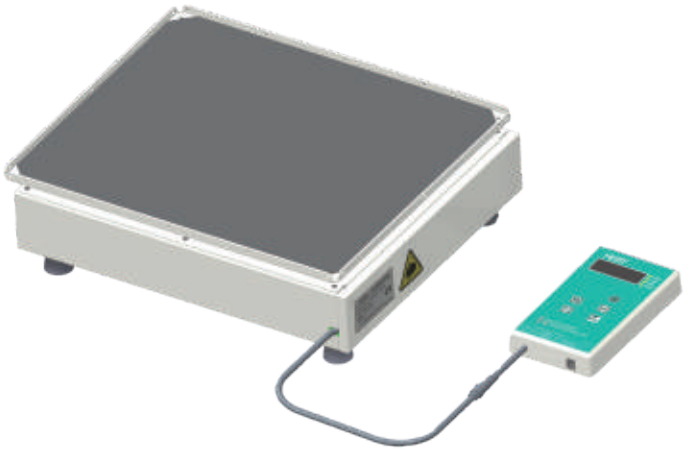
Features

- Small footprint, “Plug and Play” operation;
- Includes five different interchangeable rotisseries;
- Rotation direction can be changed by slightly touching the rotisseries;
- Paddle angle is adjustable for different purposes;
- High quality, maintenance-free motor with little noise.

Rotisserie Paddles
For 50mL Tubes

Cat. No.	105004
Rotation Speed	10~40rpm
Capacity	84x0.5mL tubes, 60x1.5mL / 2.0mL tubes, 28x5mL / 7mL tubes, 24x10mL tubes, 6x50mL tubes
Holder for Tubes Standard Configuration	Rotisserie Paddles for 10mL / 15mL Tubes 2pcs Rotisserie Paddles for 5mL / 7mL Tubes 2pcs Rotisserie Paddles for 1.5mL / 2mL Tubes 2pcs Rotisserie Paddles for 0.5mL / 0.8mL Tubes 2pcs Rotisserie Paddles for 50mL Tubes 1pcs
Ambient	4~60 C
Outside Dimensions	260(W)x148(D)x195mm(H)
Power	10W
Power Supply	AC100V~240V 50Hz/60Hz
Weight	1kg

CO_2 Orbital Shaker



Features

- Orbital shaking through magnetic power eliminates the need to replace belts;
- Small footprint ideal for use in a CO_2 incubator;
- Specially treated mechanical components protect up to 20% CO_2 and 95% humidity conditions;
- Convenient external control box with LED display allows for easy adjustments without opening the chamber door;
- Minimal heat dissipation assures conditions within the CO_2 chamber are not effected;
- CO_2 resistant shaker can be used outside of CO_2 incubator for maximum value.

Cat. No.	105008 (No Accessories) / 105009 (Contains Accessories)
Speed Range	30rpm~300rpm
Timer	0~99h59min (0, continuous)
Orbit Diameter	Φ19mm
Platform Dimensions	355mmx300mm
Max.Capacity	50mL x30 / 100mL x15 / 150mL x15 / 200mL x15 / 250mL x15 500mL x9 / 1000mL x6 / 2000mL x4 / 3000mL x2 / 5000mL x1
Display	LED
Max.Load	6kgs
Ambient	Temp.: 5 ~ 60 Humidity: <99%RH
Outside Dimensions (WxDxH)	Machine Body: 360 x 300 x 96mm Control Box: 360 x 105 x 75mm The Unit: 360 x 405 x 96mm
Power	30W
Power Supply	AC100~240V, 50Hz/60Hz
Weight	Machine Body :17.5kgs Control box: 1kg

Flask Clamp

Aluminum Platform

Flask clamp feature

Made of polished stainless stainless-steel. They can be fixed on any platform of all models of incubator shakers.

Cat.No.	Name
105901▲	100mL Flask Clamp * 2 250mL Flask Clamp * 4 500mL Flask Clamp * 4 1000mL Flask Clamp * 2 2000mL Flask Clamp * 2 Aluminum Platform * 1
105902▲	100mL Flask Clamp
105903▲	250mL Flask Clamp
105904▲	500mL Flask Clamp
105905▲	1000mL Flask Clamp
105906▲	2000mL Flask Clamp
105907▲	Aluminum Platform 300mm*360mm

▲ Make to Order

Standard Mini Roller

Standard Mini Roller (6 Rollers)

Control Box

Standard Mini Roller (11 Rollers)

Features

- Variable speed to accommodate numerous applications.
- Anti-corrosive and wear-resistant construction for use in humid and CO_2 environments.
- Remote control box makes it easy to operate the unit while it is in an incubator.

Product Name	Standard Mini Roller (11 Rollers)	Standard Mini Roller (6 Rollers)
Cat. No.	105007	105006
Included Accessory Standard in Packaging	Rollers: 11 O Ring (23.5x3.6mm): 20 O Ring (13.2x2.7mm): 20	Rollers: 6 O Ring (23.5x3.6mm): 20 O Ring (13.2x2.7mm): 20
Roller Speed	0.5~80rpm	0.5~80rpm
Operating Mode	Way forward	Way forward
Roller Dimensions (DXL)	Φ28mmx259mm	φ28mmx259mm
Available Tubes or Bottles	Max. Ø120mm bottles; tubes	Max. Ø120mm bottles; tubes
Positions	Centrifuge tubes can be placed randomly or three 1500ml standard bottles	Centrifuge tubes can be placed randomly or three 1500ml standard bottles
Max.Load	6.5kgs	6.5kgs
Ambient	5℃~60℃	5℃~60℃
Relative Humidity	≤95%	≤95%
Display	LED	LED
Timer (Control Box)	999min or continuous	/
Outside Dimensions (WxDxH)	378mmx360mmx72mm	378mmx360mmx72mm
Power	10w	10W
Power Supply	AC100~240V,50/60Hz	AC100~240V,50/60Hz
Weight	6.5kgs	6.5kgs

Automatic Decapper Instruction manual

Product Introduction

The device is equipped with the functions of automatic capping g/uncapping and automatic counting, which is small and light, out of ergonomic inclination design. It is of ergonomic inclination design, small and light. With a single hand holding the tube, automatic capping/uncapping can be realized, effectively reducing the working intensity of testers and greatly improving the working efficiency.

Features

Flexible & Easy-to-use Multiple working modes available (Continuous uncapping; continuous capping; and capping after uncapping), The device can customize the parameters such as torque, clamping force and number of turns to avoid sealing failure and prevent sample contamination.

Intelligent & Efficient The device is fitted with a high-safety automatic trigger starting mechanism, without need for manual trigger of key, The processing speed less than 4s/sample.

Compatible The device is suitable for the sampling tubes with screw caps(the cap diameter is 8-22mm) and can be customized for other sizes.

Safe & Portable The software interface is simple and easy to understand, with counting display, counting re-set and module re-set functions. With a small size, it is flexible to move and can be used in the working scenarios such as biosafety cabinet and super clean bench, and disinfectant like alcohol can be used to directly spray for disinfection.

Product Model	European / German standard plug	British standard plug	South Africa / India standard plug	American standard plug
Cat.No.	107001	107002	107003	107004
Clamping force	40-150N			
Capping/torque	1N*m			
Starting mode	Push up the tube to automatically trigger the startup			
Working mode	Continuous uncapping; continuous capping; and capping after uncapping			
Settable functions	Torque, clamping force, number of turns, uncapping mode			
Applicable specifications	The sampling tubes with screw caps (the cap diameter is 8-22mm)			
Weight	10 kgs			
Dimensions	250mm×245mm×420mm			

Application sites

Hospital Laboratory


Center of Disease Control


Third-party Medical Testing Institutions

Entry-exit Inspection and Quarantine


PRC Testing Shelter

Application scenarios

1 Sample collection link (Sample collection for COVID-2019 testing)

2 Sampling and testing link (Sampling for COVID-2019 testing)

3 Packaging (Reagent packaging)

Centrifuge

Feature

- Electronic locks. Centrifugation only when the lid is locked.
- The lid opens automatically after centrifugation.
- Fast Lifting Speed, the electronic brake.
- Low Noise.
- Capacitive touchpad, responsive.
- LCD display. Real-time display of speed, time and operating status.
- Centrifugal time and speed adjustable. Adjustable speed during centrifugation.
- Size: 260*220*150mm.
- Voltage: 110-220V, 50-60HZ.

Type	Name	Centrifuge Range (RPM)	Max RCF (g)	Rotor
102001	Universal Centrifuge	500-6,000	2,400	General Rotor (1.2/05/1.5/5.0ml)
102002	5 mL Centrifuge	500-6,000	2,400	For 5 mL Centrifuge Tubes
102101	High - Speed Centrifuge	500-12,000	8,800	For 1.5 mL & 2.0 mL Centrifuge Tubes

General Rotor | 5 mL Centrifuge | High - Speed Centrifuge

Mini Dry Bath

Feature

- Manual mode & automatic mode.
- Fast heating, with overheat protection switch to prevent overheating.
- Display setting parameters and real-time parameters simultaneously, easy to observe and use.

Range of Application	0.2/0.5/1.5/2.0ml Centrifuge tube
Temperature Range	Indoor temperature-100℃
Time set	1-999min or 1-999sec
Temperature control accuracy	±0.1℃
Temperature uniformity	±0.3℃
Heating up time	About 5min
Touch screen	Capacitive touch screen
Display	LCD
Voltage	100-220V，50-60HZ
Size	157*115*100mm（L*W*H）
Weight	About 0.5kg

Label Printer

BradyPrinter i5100 Label Printer

Brady i5100 label printer supports batch printing and integrates intelligent printing technology, making various complex printing tasks within your enterprise easier to accomplish.

Product Performance Advantages:

- Simple settings changes: The touch screen is easy to use for adjusting printer settings quickly.
- Comprehensive feature set: The printer has all the features needed for high-performance printing.
- Intelligent Printing (IP) technology: Software and con sumables that communicate with the printer eliminate debugging after consumable replacement and allow you to get back to work quickly.
- Intelligent loading design: Specially designed ribbon rewind spools and automatic centering label roll holders make consumables easy to replace without additional steps.
- Multiple hardware options: You can use a variety of connection ports to connect to the devices you need and use replaceable rubber rollers to optimize printing effects for different labels.

Model	I5100
Handheld/Desktop	Desktop
Power Supply	100 - 240V AC, 50/60 Hz, PFC
Printing Method	Thermal transfer (300 or 600dpi) / direct thermal (300dpi - depending on material and printhead)
Printing Resolution	300 dpi / 600 dpi
Maximum Printing Width	4.16 inches (106mm)
Maximum Label Width	0.20 inches (5mm) to 4.33 inches (110mm)
Maximum Printing Speed	Maximum 11.8 inches (300mm)/second (300 dpi) Maximum 5.9 inches (150mm)/ second (600 dpi)
Printing Color	Single color

Memory	256MB
Connectable to Computer	Yes
Interfaces	USB 2.0, RS232-C, Ethernet 10/100 BASE-T, SD slot
Keyboard	External
Display Screen	Color LCD touch screen
Dimensions	12.5 inches (318mm) x 9.5 inches (241mm) x 17.1 inches (434mm)
Weigh	14.6 pounds (6.6kg)
Maximum Power Consumption	Standby <10W / Normal 150W / Maximum 300W
Software	Brady Workstation (v4.1 or higher) and Workstation applications, Brady LabelMark software (v6.6.1 or higher)

Consumables Number	106091	106092
Consumables Name	Cryogenic Labels	Thermo Ribbon
Consumables Model	THT-163-499-3127mm*37.4mm	IP-R4302
Packaging	3000 pcs/roll	1 roll/box

Sample Management Software

NEST Sample Management System (SMS) is a comprehensive sample information management system for laboratories, medical units, and scientific research institutions. It streamlines multiple steps in the sample information process, including pre-processing, storage, queries. NEST SMS supports custom configurations according to on-site needs, without the need for special customization development. It links functional modules efficiently, ensuring simple and smooth inbound and outbound steps, complete information, and reducing the workload and human error risks associated with sample library management.

Software highlights

Adaptability
Compatible with NEST cryogenic boxes and other ANSI-SBS standard specifications, making sample storage quick and easy.

Efficient and flexible
Pre-set with information about storage equipment, cryogenic boxes, and data interfaces, allowing for quick and easy customization.

Interconnection
Data interface makes it easy to connect sample information with other related information systems, saving you valuable storage space.

User-friendly
Designed for easy use, with a virtual model that allows for simple and intuitive sample operations.

Secure and reliable
Permission system and operation log ensure the security and integrity of your data, giving you peace of mind.

Basic Functional Modules

- Regional equipment: visual equipment structure overview
- Sample management: custom, pre-entry, sample storage and retrieval
- Query and statistics: query and statistics of samples by location, custom fields, association information, and scanning
- Data management: data backup, batch editing of samples
- Associated information: can be docked with HIS, LIS, PACS, and other information systems to quickly improve sample information and save local space
- Label printing: human-readable barcodes and custom adhesive labels can be added
- Settings: custom storage equipment (refrigerator, liquid nitrogen tank, freezer rack, cryogenic box), custom sample information, user role settings, etc.

Advanced Functions

- Pre-set SQL Server, Oracle, MySQL data interface
- Quick association pre-entry
- Custom sample number, encoding rule settings
- User permission management, log information inquiry
- Label printing scene settings.

Product Number	Product Specification
106131	NEST Sample Management Software-20 terminal devices
106132	NEST Sample Management Software-15 terminal devices
106133	NEST Sample Management Software-10 terminal devices
106134	NEST Sample Management Software-5 terminal devices
106135	NEST Sample Management Software-3 terminal devices

Single-Rack Reader

The NEST Single-rack reader is a device that rapidly decodes entire boxes of biological samples in biobanks and high-throughput laboratories. It is lightweight, compact, and can quickly decode various types of cryogenic boxes on-site. The device can simultaneously decode the entire box and read the cryogenic box code. When used with the NEST sample management software, it can directly decode and store entire boxes of samples. The device was granted a

Cryogenic box plate rack

Decoding entire boxes of cryogenic tubes

- Decoding rules can be customized according to the cryo genic box specification (8*12, 6*8, 5*5, 9*9, 10*10, etc.)
- Non-standard decoding area can be specified for each position.

Cryogenic box code

- Can be a one-dimensional or two-dimensional barcode on any side of the cryogenic box or a two-dimensional code at a certain position on the bottom of the cryogenic box.
- Cryogenic box code decoding does not require an external device.
- Cryogenic box code location can be automatically set by software.

Data interface

- Enabling data integration with systems such as HIS, LIS, PACS, EMR, etc.
- Open database interface can be implemented through the pre-configured Oracle, SQL Server, MySQL of the system without the need for customized development.

Matching software and interface services

- Operating system: Windows XP or higher version.
- One-click cryogenic box numbering and entire box cryogenic tube decoding.
- Cryogenic box template can be customized.
- Decoding results can be displayed through graphics, lists, and images.
- Decoding results can be exported to Excel files.
- HTTP service interface can be started with one-click to automatically generate URL addresses.
- HTTP service call return results consistent with the direct software interface operation results.

Mainframe framework

- Small and portable size: 220*175*220mm (length * width * height).
- Light weight: about 1.5 kg.
- Operating environment -20℃ ~ 35℃.

Camera

- Dust-proof and waterproof tempered glass protection above the camera
- Plug and play, no need to install drivers.

USB data cable/power switch

- Standard USB2.0 interface, no external power supply required, low power consumption (1W-4W).
- Standby power consumption less than 1W, and photo decoding power consumption is less than 4W.

Product number	106211
Product model	Single-rack reader NSSnap, English

Multi-Rack Reader

Multi-Rack Reader

- Partial scanning according to the number of cryogenic boxes.
- Scanning results in various ways such as graphics, lists, and images.
- Full-frame decoding less than 10 seconds, single-box scanning within 3-5 seconds.
- Excel export of a single box or merged multiple boxes.
- Decoding application for scanning bottom QR codes for integration (single-rack/multi-rack) based on the Windows system.
- Fast scanning of inbound and outbound barcodes, greatly improving work efficiency.
- Number and type of cryogenic boxes customization.
- Compatible with major brands of cryogenic tubes on the market.
- Compatible with various scanning racks to meet different quantity requirements.

Product number	106212
Product model	Multi-rack reader NSScanner, English
Product type	Flatbed
Maximum scanning range	216×297mm
Scanning component	CCD
Optical resolution	4800×9600dpi
Scanning speed	Full-frame scanning ≤ 6 seconds

Scanning light source	LED light source
Rack types	SBS box + traditional square box, 2 traditional square boxes, 3 SBS boxes
Product size and weight	443.5×278.6×54mm 2.14kg
Power/power consumption	220V/18W
Data interface	Provides HTTP access service to return a JSON string containing the position and cryogenic tube code
Support system	Windows2000/XP/Vista/7/10
Machine brand	EPSON

Barcode Scanner

The barcode and DATAMATRIX code on the cryogenic tube can be scanned using a barcode scanner to quickly obtain information related to the sample.

The scanning result can be directly input into the sample library management system, facilitating the subsequent sample tracking and management.

The barcode scanner has the following features: high efficiency, high accuracy, easy to operate, and strong durability.

- Quick recognition of electronic screen codes: can scan one-dimensional and two-dimensional codes and traditional paper barcodes, and has strong decoding ability for electronic screen QR codes.
- High-speed rebound button: 5 million fatigue tests, still maintaining good button effects.
- Adaptus6.0 imaging technology: upgraded barcode image acquisition technology combined with custom sensors to achieve extended depth of field and fast reading.
- Sturdy and durable shell: using a new generation of high-strength ABS materials, it can withstand a 1.5m free fall impact.
- Classic commercial appearance: loved by international brands, simple and versatile design, naturally formed.

Handheld Decapper for Cryogenic Vials

Product introduction

NEST decapper is available in 1, 8, 24, 48, and 96 channel models, suitable for use in biobanks, genetic sequencing, disease control centers, blood centers, laboratory automation, pharmaceuticals, and other industries.

Features

- Improved efficiency: significantly improves efficiency compared to manual operations
- Safety requirements: prevents laboratory personnel from contacting samples or reagents when opening or closing caps, reducing the risk of biological and chemical hazards.
- Sealing guarantee: the uniform torque design of the automated decapper prevents caps from being closed improperly or damaging the cryogenic vial due to uneven hand force.
- Wide compatibility: easily opens and closes all NEST 2D barcode cryogenic vials, and is also suitable for other brands with the same cap clasping mechanism.

Product parameters

Product name	Handheld Decapper for Cryogenic Vials
Product number	106002
Empty load speed	170rpm
Manual torque	2N.m
Electric torque	0.25-0.35N.m
Battery type	Lithium battery
Battery voltage	3.7V
Battery capacity	260mAh
Charging time	45 minutes

Cell Thawing Device

Product Introduction

To better meet the needs of applications with small sample quantities and reduce user procurement costs, NEST has launched the NEST cell thawing device, which integrates real-time temperature data display. NEST cell thawing device uses "resistive heating", "programmed temperature control", "low temperature sensing" and other technologies to achieve cell thawing and resuscitation. The built-in temperature monitoring system identifies the surface temperature of cryogenic tubes and each stage temperature during the solid-to-liquid thawing and resuscitation process. Even if there are frozen storage labels and marker pens on the surface, the thawing effect will not be affected. Customizable thawing and recovery solutions for all types of frozen cell storage tubes, whether they are stored in liquid nitrogen or at -80°C.
The thawing time of the NEST cell thawing device is basically the same as that of a water bath. It takes 1 minute to preheat, about 1 minute and 10 seconds for the melting stage, and about 1 minute and 20 seconds for the thawing and resuscitation stage. The cell survival rate of thawing and resuscitation is similar to that of a water bath.

Product Name	NEST Cell Thawing Device
SKU	106007
Model	LA-G002
Throughput	2 holes, each hole can be used independently
Application	2.0ml standard cryogenic tubes
Filling volume	0.8-1.5ml
Thawing time	3 minutes
Alarm	Low temperature alarm, error operation alarm
Prompt sound	Preheating end prompt, thawing countdown prompt, thawing end prompt
Thawing and resuscitation end	Cryogenic tube pops out directly
Size (L * W * H)	23 * 14 * 16cm
Weight	3.5kg
Voltage	220V, 50Hz
Warranty	One-year warranty for the whole device

Product Features

- Small size, less space on the workbench.
- Especially suitable for scenarios with few samples to be thawed and resuscitated.
- The LCD screen can display the real-time temperature of the sample.
- Has account management and data export functions
- Comes with a transfer container for transferring cryogenic tubes.

Operating procedures

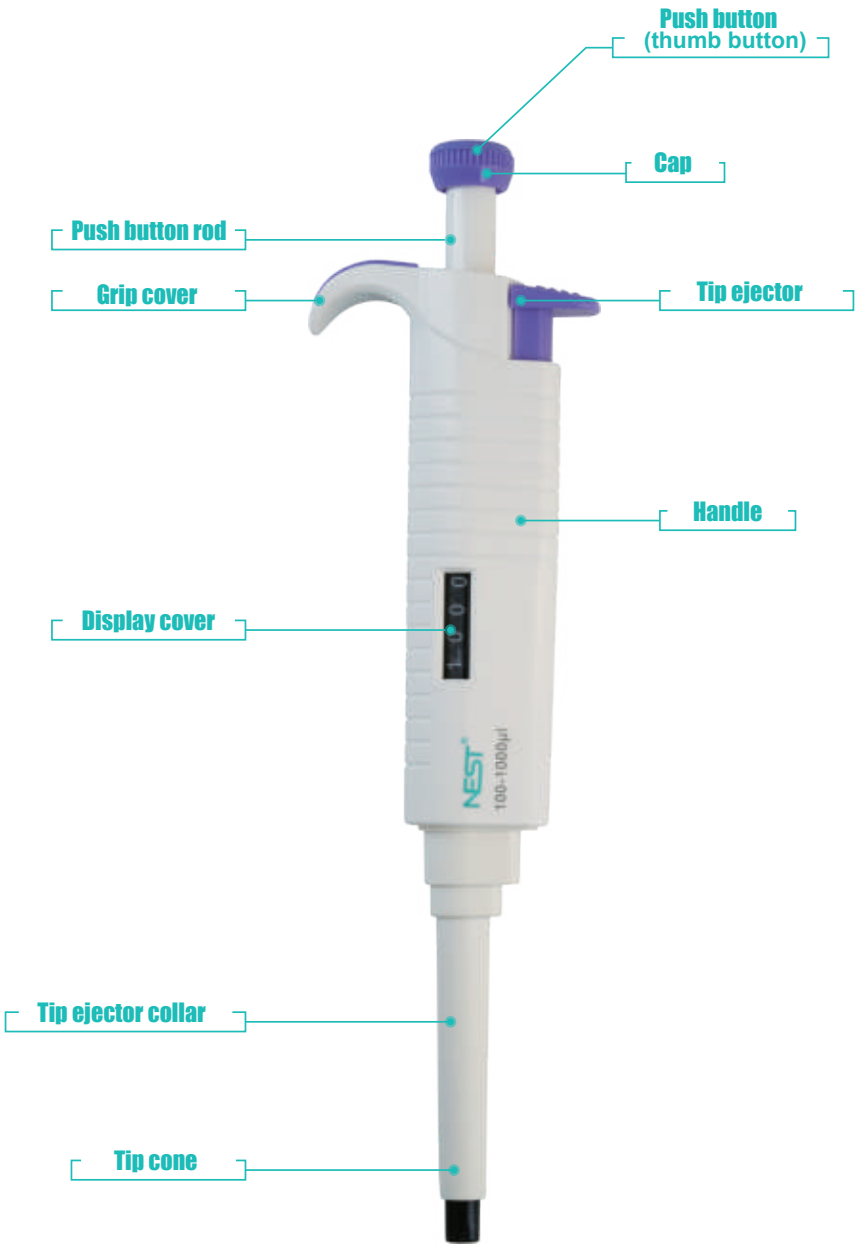
01 Power on

02 Insert the cryogenic tube into the hole

03 The thawing instrument automatically thaws

03 After thawing is complete, the cryogenic tube pops out

Pipette



121°C
FULLY
Autoclavable

Features

- Available as Fixed Volume and Adjustable Volume formats.
- Streamlined shape design.
- Comprehensive volume range from 0.1 μL to 10mL.
- Easy calibration and maintenance.
- 8 and 12 channel pipette options.
- Dispensing head rotates for effortless pipetting convenience.
- Individual piston and tip cone assembly.
- Spring loaded tip cones for easy cleaning and maintenance.
- Compound material-made tip cone secures high sealing performance.

Mechanical Pipette Volume Selection

Specifications

This volume list is for MicroPette and MicroPette plus (Adjustable volume) and (Fixed volume)

Single-channel Adjustable Volume Pipettes							
Cat.No.	Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
				Systematic Error		Random Error	
	µL	µL	µL	µL	%	µL	%
104011	0.1-2.5	0.05	2.5	±0.0625	±2.50	±0.05	±2.00
			1.25	±0.0375	±3.00	±0.0375	±3.00
			0.25	±0.03	±12.00	±0.015	±6.00
104012	0.5-10	0.1	10	±0.1	±1.00	±0.08	±0.80
			5	±0.075	±1.50	±0.075	±1.50
			1	±0.025	±2.50	±0.015	±1.50
104013	2-20	0.5	20	±0.18	±0.09	±0.08	±0.04
			10	±0.12	±1.20	±0.1	±1.00
			2	±0.06	±3.00	±0.04	±2.00
104014	5-50	0.5	50	±0.3	±0.60	±0.15	±0.30
			25	±0.225	±0.90	±0.15	±0.60
			5	±0.1	±2.00	±0.1	±2.00
104015	10-100	1	100	±0.8	±0.80	±0.15	±0.15
			50	±0.5	±1.00	±0.2	±0.40
			10	±0.3	±3.00	±0.15	±1.50
104016	20-200	1	200	±1.2	±0.60	±0.3	±0.15
			100	±0.8	±0.80	±0.3	±0.30
			20	±0.6	±3.00	±0.2	±1.00
104017	100-1000	5	1000	±6	±0.60	±2	±0.20
			500	±3.5	±0.70	±1.25	±0.25
			100	±2	±2.00	±0.7	±0.70

User calibration should refer to the industrial standard ISO8655-2.

Bulk, Non-sterile	Racked, Sterile	Product Desciription	0.1~2.5µL 104011	0.5~10µL 104012	2~20µL 104013	5~50µL 104014	10~100µL 104015	20~200µL 104016	100~1000µL 104017
—	314016	10µL filter universal pipette tips, extra long, clear	√	√					
314001	—	10µL universal pipette tips, extra long, clear	√	√					
—	311012	10µL filter universal pipette tips, clear	√	√					
311001	—	10µL filter universal pipette tips, clear	√	■					
301006	301016	10µL universal pipette tips, clear	√	√					
—	310012	20µL filter universal pipette tips, clear			√				
316001	316012	100µL filter universal pipette tips, clear				√	√		
312001	312012	200µL filter universal pipette tips, clear					√	√	
302106	302116	200µL universal pipette tips, yellow			√	√	√	√	
305006	305016	300µL universal pipette tips, clear			√	√	√	√	
313001	313012	1000µL filter universal pipette tips, extra long, clear							√
303206	303216	1000µL universal pipette tips, blue							√
304006	304016	1250µL universal pipette tips, clear							√

■Note: Due to the easy loosening of the filter of the bag-packaged tips, there may be a situation of not fitting in this combination. Not recommended.

Cell Culture Product

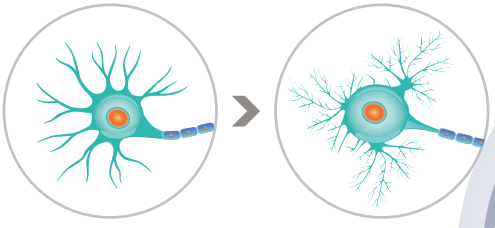
GelNest™ Matrix

GelNest™ Matrix is derived from mouse tumor tissue and contains extracellular matrix components such as laminin, type IV collagen, heparan sulfate proteoglycans, and more. These components support cell adhesion, differentiation, and proliferation, providing signals for these processes. Additionally, they simulate the characteristics of the basement membrane in the physiological environment, enhancing the success rate and effectiveness of cell culture.

In addition to the matrix components, GelNest™ Matrix is rich in various growth factors. These growth factors promote cell differentiation, proliferation, and migration, mimicking cellular signaling pathways and interactions in the physiological environment. GelNest™ Matrix has a wide range of applications, particularly in tissue engineering, cell culture, and research. It can be used for organoid culture, stem cell differetiation, angiogenesis, migration or invasion assays, and in vivo tumor studies.

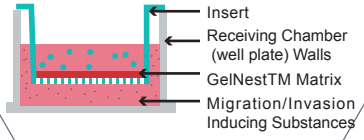
1 2D Culture Coating

Promotes cell growth and provides a favorable environment for attachment and proliferation.



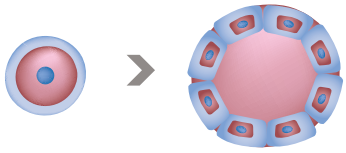
2 Cell Migration and Tumor Invasion Experiments

Used in combination with NEST Cell Culture Insert to provide a more realistic cellular growth environment.



3 Organoid Culture

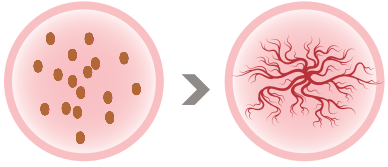
Provides a 3D cell growth environment that is physiologically relevant for studying organ development and function.



GelNest™

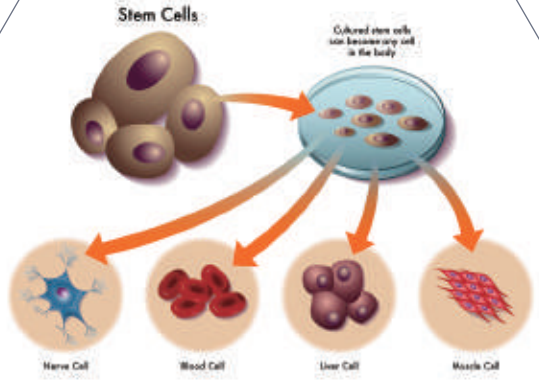
4 In Vitro/In Vivo Blood Vessel Formation

Provides a 3D cell growth environment that is physiologically/pathologically relevant for studying neovascularization and maturation.



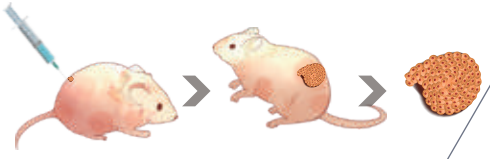
5 Stem Cell Differentiation

Used for studying stem cell differentiation and tissue regeneration.



6 In Vivo Tumor Formation Experiment

Used for in vivo tumor formation experiments in mice to study tumor growth and treatment.



GelNest™ Matrix

Organoid Culture Test

1. Re-suspend the single-cell suspension for organoid culture in pre-cooled basal medium at 4°C and perform cell counting.
2. Mix the cells with the gel solution and add the mixture to pre-warmed 24-well plates. Each well should contain approximately 5x104 cells and 60μL of matrix gel.
3. Immediately place the plates in the incubator, and the gel will solidify in approximately 10 minutes.
4. Add 500μL of organoid culture medium for cultivation.
5. Wait for 3-5 days for the organoids to form. Finally, image the live cells using high-content microscopy to determine the sensitivity of the organoids to various drugs.

This method provides an efficient and convenient solution for organoid culture and can be used in areas such as drug screening and tumor research.

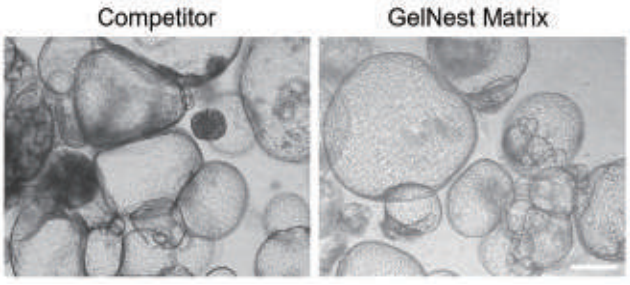


Figure 1. Growth of Human Bile Duct-like Organoids in competitor' s matrix gel and GelNest™ Matrix after 5 Days. Scale bar: 300μm.

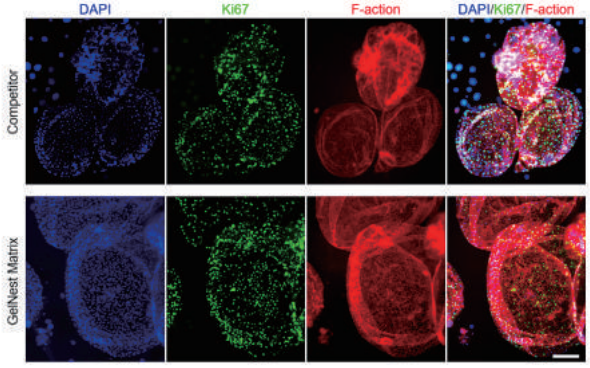


Figure 2. Growth of Human Bile Duct Cancer-like Organoids in competitor' s matrix gel and GelNest™ Matrix after 6 Days. Scale bar: 200μm.

Stem Cell Differentiation Test

For human embryonic stem cells (hESCs) and induced pluripotent stem cells (iPSCs) without feeder layer culture:

1. Thaw GelNest™ Matrix stored in freezing conditions and let it thaw overnight in a 4°C ice bath. Gently blow and mix the gel three times with a pre-cooled pipette tip for thorough mixing. Transfer the thawed matrix gel using the pre-cooled pipette tip. If bubbles form, briefly centrifuge with a handheld centrifuge to remove them.
2. Preheat the cell culture plates in the incubator.
3. Dilute the gel solution in pre-cooled serum-free medium at a 1:100 ratio. Make sure to cover the entire culture plate with the diluted gel solution. The recommended amount is 300μL/cm^2 in the culture dish.
4. Leave the culture plates with the modification solution at room temperature for 1 hour.
5. Remove the modification solution and immediately seed the stem cells mixed with mTeSR in the culture plate. Be cautious to prevent the surface of the modified culture plate from drying out.

This method provides an efficient and convenient solution for stem cell culture and is expected to play an important role in tissue engineering, regenerative medicine, and other fields.

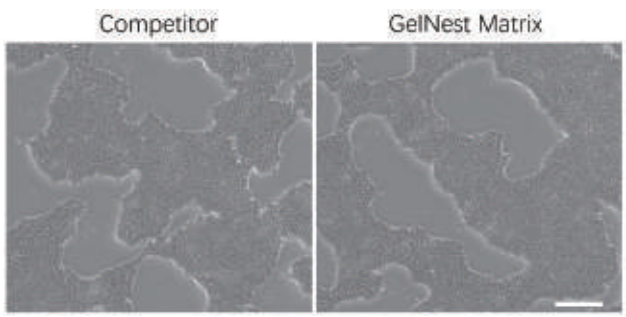


Figure 3. Results of human embryonic stem cells grown on competitor' s matrix gel-modified surfaces and GelNest™ Matrix-modified surfaces for 3 days. Scale bar: 300μm.

GelNest™ Matrix

In Vitro Blood Vessel Formation Test

1. Replace the complete growth medium with starvation medium for cells: DMEM medium containing 0.2% FBS, 2mM L-glutamine, 1mM sodium pyruvate, 100U/mL penicillin, and 100μg/mL streptomycin. Starve the cells for 24 hours.
2. Spread 50μL of GelNest™ Matrix evenly on the bottom of a 96-well plate. To prevent the gel from adhering to the pipette tip, aspirate and blow FBS once in the pipette tip to wash the inner wall of the pipette tip with FBS.
3. Place the 96-well plate in a 37°C cell culture incubator and incubate for 30 minutes to solidify the gel.
4. Digest the endothelial cells and perform cell counting.
5. Add 5x10^4 HUVEC cells to the 96-well plate containing the gel, totaling 200μL of cell suspension. Place the 96-well plate in the incubator for cultivation.
6. Vascular-like network structures will form within 3 to 12 hours. This is the optimal observation time.
7. At the optimal observation time, carefully remove the culture medium and stain with culture medium containing a 1/1000 concentration of Calcein AM (green). Image the cells using a microscope and record the morphology and characteristics of the vascular network.

This experiment can be used in the fields of angiogenesis and cardiovascular disease research.

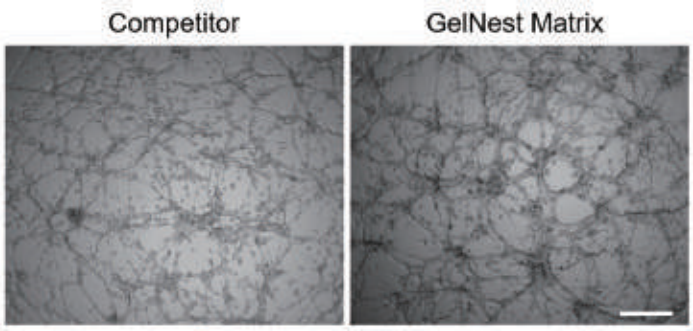


Figure 4. Results of endothelial cells forming a vascular network after 9 hours of cultivation on competitor' s matrix gel and GelNest™ Matrix. Scale bar: 300μm.

Cell Invasion Test in Cell Culture Insert

1. HT-1080 cells cultured in MEM medium supplemented with 10% fetal bovine serum (FBS) are used in this experiment. When the cell density reaches 80% to 90%, take 20μL of GelNest™ Matrix Gel and dilute it 50 times with serum-free MEM to a final volume of 1000 μL. Gently blow and mix the matrix gel with a pipette for thorough mixing. Add 100μL of the diluted gel mixture to the center of the insert, evenly covering the surface of the insert with the gel mixture. Incubate the culture dish at 37°C for 1 hour to allow gel formation.
2. After trypsinization of the cells (generally, for a 6-well plate, digest with 200μL of trypsin at 37°C for 3 minutes, then terminate the digestion with 10% serum and centrifuge at 300g for 3 minutes), resuspend the cells in serum-free MEM and perform cell counting. Take 750μL of cell suspension at a starting concentration of 1 x 106/mL (estimated to be 10 wells, with 7.5x104 cells per well, totaling 750,000 cells), and dilute with serum-free MEM to a final volume of 1.5mL. Then, add 150μL of cell suspension to the upper chamber of each insert, resulting in 7.5x104 cells/well. For the experimental group, 800μL of medium containing 10% fetal bovine serum (FBS) as a chemoattractant will be added to the lower chamber. In contrast, the control group will receive 800μL of medium without FBS in the lower chamber. Culture the cells in a humidified incubator at 37°C and 5% CO2 overnight.
3. Discard the culture medium in the inserts and wash twice with PBS. Then, stain the cells on the lower surface of the membrane with crystal violet for 10 minutes. Subsequently, wash the inserts twice with PBS to remove unbound crystal violet. Gently remove the cells inside the inserts with a wet cotton swab and allow them to air-dry. Observe and image the invaded cells under a microscope.
   To elute the bound crystal violet, dilute acetic acid to 33% (v/v) with ddH2O. Add 400μL of 33% acetic acid to each insert and shake on a shaker for 10 minutes. Next, transfer the eluent from the lower chamber to a 96-well transparent microplate. Measure the absorbance at 590nm using an ELISA reader.

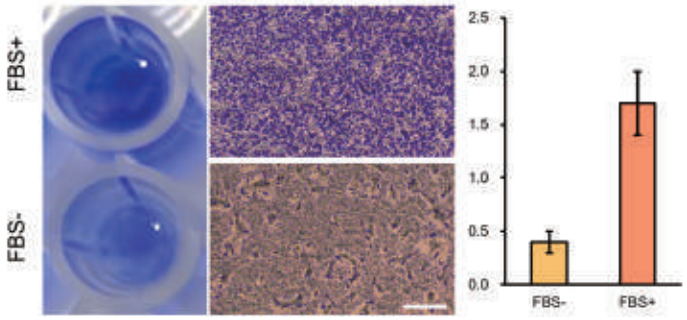


Figure 5. Results of HT-1080 cells cultured on competitor' s matrix gel-modified surface and GelNest™ Matrix Gel-modified surfaces forming a vascular network after 9 hours. Scale bar: 200μm. The results indicate that FBS can significantly induce cells to penetrate the semi-permeable membrane of the extra-cellular matrix and enter the lower surface of the insert.

GelNest™ Matrix

GelNest™ Matrix Quality Assurance

Protein Concentration

The protein concentration is guaranteed to be between 8~20mg/mL.

Stable Performance

The gel formation performance remains stable.

High Safety Performance

There are no LDEV (Lactate Dehydrogenase Elevated Virus), bacteria, or mycoplasma present.

Endotoxin Level

The endotoxin level is <10EU/mL

Cell Culture

Tests for organ-like structures and stem cell culture have been successfully performed.

Experimental Testing

Tests for angiogenesis, tumor invasion, and tumor formation have been successfully conducted.

GelNest™ Matrix Selection Guide

Product	Growth Factor	Phenol Red	Recommended Applications	/Pack	/Bag	Normal	Low Endotoxin
GelNest™ Matrix	Normal	Yes	General 2D, 3D cell culture	5 mL	1	211212	211312
GelNest™ Matrix, without Phenol Red	Normal	No	Requires colorimetric identification (such as fluorescence) or sensitivity to steroids	5 mL	1	211222	211322
GelNest™ Matrix, low growth factor	Low	Yes	2D, 3D cell culture with higher accuracy requirements for matrix components and requires	5 mL	1	211232	211332
GelNest™ Matrix, low growth factor, without Phenol Red	Low	No	2D, 3D cell culture with higher accuracy requirements for matrix components and requires colorimetric identification or sensitivity to steroids	5 mL	1	211242	211342
GelNest™ Matrix, high concentration	Normal	Yes	In vivo tumor formation, thrombosis test, angiogenesis experiment, general cell culture, etc.	5 mL	1	211252	211352
GelNest™ Matrix, high concentration, without Phenol Red	Normal	No		5 mL	1	211262	211362
GelNest™ Matrix, for stem cells	Low	Yes	hESC stem cell culture	5 mL	1	211272	211372
GelNest™ Matrix, for organ-like structures, without Phenol Red	Low	No	Organoid culture and differentiation	5 mL	1	211282	211382
GelNest™Matrix (for Angiogenesis Experiments)	Normal	Yes	Angiogenesis Experiments	5 mL	1	/	211492

Storage and Operation Instructions

To store GelNest™ Matrix, it is recommended to keep it in a -20 ° Cfreezer until ready for use. Prior to initial use, thaw the gel and divide it into single-use portions. Store these portions in a -80°C freezer for a maximum of 2 years. Please note that GelNest™ Matrix Gel should not be stored in a frost-free freezer.

GelNest™ Matrix is in a liquid state at 4 ° C and transitions into a gel state at 37 ° C. It starts to solidify into a gel when the temperature exceeds 10°C. For optimal performance, it is advised to pre-chill the pipette tips and conduct the procedures on ice.

Quick-KO Gene Knockout Kit

Intended Use

NEST Quick KO® Gene Knockout Kit is an all-in-one ready-to-use CRISPR Knockout Kit tailored for scientific researchers. It contains the vital materials required for CRISPR knockout, from sgRNA design to cell lines knockout. It can successfully completes gene editing experiments while sharply improving the scientific research efficiency.

Features

- All-in-one design for one-stop experiments.
- Easy and convenient operation throughout the experiment.
- No need to construct plasmids, saving time and simplifying the procedures.
- Validated sgRNA to improve the success rate of the experiment.
- Rapid genotype verification of cellular target genes without the need to extract and purify DNA.
- The risk of failure reduced and experiment cost saved.

Ready-to-use Reagents with Simplified Operation

NEST Quick KO® Gene Knockout Kit contains constructed plasmids (or lentiviruses) and genes type identification primers that express sgRNA and Cas9. The kit is simple and convenient for customers to use directly.

	Categories	Storage Temperature	Specification
Quick-KO® Plasmid	Valid sgRNAs	-20°C	20μg
	NC gRNA	-20°C	20μg
	Optimized SpCas9	-20°C	80μg
DNA Lysis	Buffer A	-20°C	1.0 mL
	Buffer B	-20°C	50μL
Validity Test	2X High Fidelity Pfu Mix（+Dye）	-20°C	1.0mL*2
	gDNA Ctrl	-20°C	50 μL
	Genotyping Primer F	-20°C	1OD
	Genotyping Primer R	-20°C	1OD

Optimized Design for Efficient Knock-out

As Quick-KO ® can obtain multiple alleles to completely knock off cell lines, its efficiency is 3-5 times of that of traditional single sgRNA gene knockout strategy. Deploying an optimized multi-wizard strategy, it guides Cas9 by sgRNA to cut specific gene locus, which results in DNA double-strand Break (DSB) and induces fragment deletion and finally knocks out the gene function. Meanwhile, the sgRNA contained in Quick KO has been tested on 293T cells and verified of improving research success rate.

Two Marks for Free Choice

SgRNA attached to NEST Quick-KO® Gene Knockout Kit has double marks, fluorescence (mCherry) and drug sieve (puro) for customers' choice according to their demand.

Time saved and cycle shortened to the minimal 4 weeks

Quick-KO: Trial Test (0-4Weeks) › Carrier Construction (0Weeks) › Targeted Cell Tranfection and Monoclonal Screening (4-6Weeks)

Only 4-10 weeks required

Regular: Trial Test (0-4Weeks) › Carrier Construction (0Weeks) › Targeted Cell Tranfection and Monoclonal Screening (4-6Weeks)

10-15 weeks in total

Chemical Resistance Chart

Reagent	ABS	Acetal	HDPE	LDPE	PC	PP	Santo-prene	Sili cone
Acetaldehyde	D	A	C	C	C[1]	A[1]	–	A
Acetamide	–	A	A	A	D	A[1]	–	B
Acetate Solvent	–	–	A	A	–	B[1]	–	C
Acetic Acid	D	D	A	A[2]	B[1]	B	A	C
Acetic Acid 20%	C	C	A	A	A[1]	A	A	B
Acetic Acid 80%	D	D	A	D	B[1]	A	C	B
Acetic Acid, GlacialD	D	A	D	B[1]	A[1]	D	B	
Acetic Acid, Vapors	–	–	–	–	–	–	–	A
Acetic Anhydride	C1	D	C	D	D	B[1]	D	C
Acetone, 50% water	D	–	–	–	–	A	–	A[2]
Acetone	D	A	D	B[1]	D	A	A	D
Acetonitrile	D	–	A	A	D	A[1]	D	D
Acetophenone	–	–	C	D	D	C	–	–
Acetyl Bromide	–	–	–	D	–	–	–	–
Acetyl Chloride (dry)	D	D	–	D	D	D	A	C
Acetylene	–	A	–	D	D	A[1]	–	B
Acrylonitrile	D	–	A	A	D	A[1]	D	D
Adipic Acid	–	–	A	A	–	B[2]	–	–
Alanine	–	–	A	A	A	A	–	–
- Benzyl	A[1]	A	A	B[2]	B[1]	B[1]	A	D
- Butyl	D	A	B	D	–	A	D	–
- Diacetone	A[1]	A	–	A	A[2]	A	B	B
- Ethyl	–	A	A	B[1]	–	B[2]	–	D
- Hexyl	B[1]	A[1]	A	B	B[2]	A	A	B
- Isobutyl	–	A	–	A	–	–	–	B
- Isopropyl	B	A	A	A[2]	–	A[1]	–	A
- Methyl	–	A	A	A[2]	A[2]	A[2]	–	A
- Octyl	D	A	A	A[1]	B[1]	A[2]	A	A
- Propyl	A[1]	A	–	–	–	–	–	B
Allyl Chloride	B[1]	A	–	A[2]	–	A	A	A
Aluminium Acetate (satured)	D	–	A	–	–	A	–	A
Aluminium Chloride	–	–	–	–	–	A	–	D
Aluminium Chloride 20%	A	–	A	B[2]	A[1]	A	–	B
Aluminium Fluoride	–	C	A	B[2]	A[1]	A	–	B
Aluminium Hydroxide	A	C	A	A[2]	–	A	–	B
Aluminium Nitrate	B	A	A	A[2]	B[1]	A	–	–
Aluminium Phosphate	–	B[1]	–	A[2]	A[1]	A[2]	–	B
Aluminium Potassium Sulfate 10%	–	–	–	–	–	–	–	A
Aluminium Potassium Sulfate 100%	–	C	A	A[2]	A[1]	A	–	A
Aluminium Sulfate	–	C	A	A[2]	A[2]	A	–	A
Alums	A[2]	B[1]	A	A[2]	A	A	A	A
Amines	–	–	–	A	–	A	–	A[1]
Ammonia 10%	–	D	B	C[1]	–	B[2]	–	B
Ammonia Nitrate	–	D	A	C[1]	D	A[2]	–	–
Ammonia, anhydrous	–	C	–	A	–	A	–	–
Ammonia, liquid	D	D	A	B[2]	D	A	–	C
Ammonium Acetate	–	D	A	C[1]	D	A[2]	–	–
Ammonium Bifluoride	–	–	A	A	–	A	–	–
Ammonium Carbonate	A[2]	D	–	A[2]	–	A	–	–
Ammonium Caseinate	A[2]	D	B	B[2]	–	A	–	C
Ammonium Chloride	–	D	–	–	–	–	–	–
Ammonium Fluoride 25%	A[2]	B	A	A[2]	A[2]	A	–	C
Ammonium Hydroxide	D	–	A	–	–	A[4]	–	–
Ammonium Glycolate	B	C	A	A[1]	D	A	–	A
Ammonium Nitrate	–	–	A	A	B	A	–	–
Ammonium Oxalate	–	A[2]	A	A[1]	–	A	–	
Ammonium Persulfate	–	B	A	–	A[1]	A	–	–
Ammonium Phosphate, Dibasic	A[2]	D	A	A[2]	–	A	–	D
Ammonium Phosphate, Monobasic	A[2]	B[2]	–	A[2]	A[2]	A	–	A
Ammonium Phosphate, Tribasic	–	B	–	A	–	A	–	A
Ammonium Sulfate	–	B	–	C	–	A	–	A
Ammonium Sulfite	A[2]	B[1]	A	A[1]	A[2]	A	–	A
Ammonium Thiosulfate	–	D	B	B[2]	–	A	–	–
Amyl Acetate	–	B	–	A	–	–	–	–
Amyl Alcohol	D	B[1]	–	C[1]	D	B[1]	D	D
Amyl Chloride	A[1]	A	A	B[2]	B[1]	B[1]	A	D
Aniline	D	A	B	D	–	D	–	D
Chloralhydrate	D	A[1]	B	C	D	A[1]	D	B
Aniline Hydrochloride	–	–	–	–	–	–	–	–
Antifreeze	D	–	–	–	D	D	–	D
Antimony Trichloride	B	D	–	–	–	D	–	C
AquaRegia(80%HCl,20%HNO_3)	–	–	B	B[2]	A[2]	A	A	–
Arochlor 1248	D	D	D	R[1]	D	R[1]	D	D
Aromatic Hydrocarbons	–	–	–	C[1]	–	D	–	B
Arsenic Acid	–	A	–	C	–	D	–	D
Arsenic Salts	A[2]	D	B	B[2]	A[1]	A	B	A
Asphalt	–	–	–	B	–	–	–	–
Barium Carbonate	–	B[2]	–	A[1]	D	B[1]	–	D
Barium Chloride	A[2]	A	–	B[2]	A[2]	A	–	–
Barium Cyanide	A[2]	A	B	A[1]	A	A	–	A
Barium Hydroxide	–	B	–	B	–	D	–	–
Barium Nitrate	A[2]	D	–	B[2]	D	B	–	A
Barium Sulfate	–	B[2]	–	B[2]	D	A	–	B
Barium Sulfide	A[2]	B[2]	B	B[2]	D	B[1]	–	A
Beer	A[2]	A	A	B[2]	–	B	–	A
Beet Sugar Liquids	A[2]	A[1]	A	A[2]	A[2]	A[1]	–	A
Benzaldehyde	B	B	–	A[1]	–	A[1]	–	A
Benz enamine	B	A	B	A[1]	D	D	D	D
Benzene	–	–	B	A	D	A	–	–
Benzene Sulfonic Acid	D	A[1]	D	D	D	D	D	D
Benzoic Acid	–	–	A	A[1]	D	D	–	D
Benzol	–	B	A	A[1]	B[1]	D	–	B
Benzonitrile	D	A	–	C[1]	D	B	D	D
Benzyl Chloride	–	–	–	–	A[1]	–	–	A[1]
Bleach	D	A	–	–	–	C[1]	–	D
Bleaching Liquors	B	D	–	–	–	D	–	–
Borax (Sodium Borate)	–	–	–	A[1]	–	A[1]	–	B
Boric Acid	–	B	A	A[2]	–	B	–	B
Brewery Slop	–	A	A	A[2]	–	A	A	A
Bromine	–	B	–	–	–	–	–	–
Bromoform	D	D	D	D	C[1]	D	–	D
Butadiene	–	–	D	D	D	D	–	–
Butane	–	A	D	D	D	C	–	D
Butanol (Butyl Alcohol)	B	A	–	C[1]	D	A[1]	–	D
Butter	–	A	–	B[2]	B[1]	A[1]	B	B
Buttermilk	–	A	–	–	–	–	D	B
Butyl Amine	B	A	–	A[1]	A[1]	A[1]	–	A
Butyl Ether	–	C[1]	–	C[1]	D	B[1]	–	B[1]
Butyl Phthalate	–	D	–	–	–	D	–	D
Butyl acetate	–	–	A	C[1]	D	B[2]	–	A[1]
Butylene	–	A	B	C[1]	D	B[1]	–	D
Butyric Acid	–	A	–	B[1]	D	–	–	D
Calcium Bisulfate	D	A	D	D	D	–	–	D
Calcium Bisulfide	–	A	D	D	D	B[1]	A	D
Calcium Bisulfite	–	–	–	–	–	–	–	C
Calcium Bromide 38%	–	D	–	B[1]	–	A	–	C
Calcium Carbonate	–	D	A	A[1]	D	A	–	A
Calcium Chlorate	–	–	A	–	–	–	–	A
Calcium Chloride (30% in water)	–	A	–	B[1]	C[2]	A	–	–
Calcium Chloride (saturated)	–	A	–	–	–	–	–	–
Calcium Fluoride	B	D	A	B[2]	–	A[2]	–	A
Calcium Hydroxide 10%	A	D	A	–	–	A	–	A
Calcium Hydroxide (saturated)	–	A	–	–	–	–	–	–
Calcium Hydroxide	–	A	–	–	–	A	–	A
Calcium Hypochlorite 30%	A	–	A	–	–	A	–	A
Calcium Hypochlorite (saturated)	–	–	A	–	–	A	–	–
Calcium Hypochlorite	–	D	A	A[1]	D	A[1]	–	B
Calcium Nitrate	A	D	B	A[1]	A[2]	A[2]	–	B[1]
Calcium Oxide	D	A	–	B[1]	–	A	–	A
Calcium Sulfate	C	D	–	B[1]	A[2]	A	–	–
Calcium Sulfide	–	–	–	–	–	A	–	–
Calgon	–	A	–	–	–	A	–	A
Cane Juice	–	A	–	–	–	C[1]	–	A
Carbolic Acid (Phenol)	D	D	–	D	D	B	–	D
Carbon Bisulfide	–	A	–	–	–	D	–	–
Carbon Dioxide (dry)	B	A	–	A[1]	–	A[2]	–	B
Carbon Dioxide (wet)	B	A	–	A[1]	–	A[2]	–	B
Carbon Disulfide	–	–	D	D	D	D		
Carbon Monoxide	–	A	–	A[2]	–	A	–	A[2]
Carbon Tetrachloride	D	B[1]	C	D	D	D	–	D
Carbon Tetrachloride (dry)	D	–	C	D	–	D	–	D
Carbon Tetrachloride (wet)	D	A[1]	C	–	–	D	–	D
Carbonated Water	–	A	–	A	–	B	–	–
Carbonic Acid	–	B[1]	B	R[2]	A[1]	A	–	A
Catsup	B	B	–	–	–	A	–	–
Cellulose Acetate	–	–	–	–	–	A	–	–
Chloral Hydrate	A	–	D	–	–	D	–	–
Chloric Acid	–	D	–	–	–	–	–	–
Chlorinated Glue	–	D	–	–	–	–	–	–
Chlorine Water	–	D	C	B[1]	–	D	–	D
Chlorine Anhydrous Liquid	–	A[1]	C	D	C	D	–	D
Chlorine (dry)	–	D	B	D	–	D	–	D
Chloroacetic Acid	–	D	A	D	D	C[1]	D	D
Chlorobenzene (Mono)	D	D	D	C[1]	D	C[1]	D	D
Chlorobromomethane	–	–	–	A	–	A	–	D
Chloroform	D	A	D	C[1]	D	C[1]	D	D
Chlorosulfonic Acid	–	D	D	D	C[1]	D	–	D
Chocolate Syrup	–	A	–	–	A	A[2]	–	–
Chromic Acid 5%	B	D	A	A	B	D	D	C
Chromic Acid 10%	B	D	A	A	B	D	D	C
Chromic Acid 30%	B	D	A	A	C	D	D	C
Chromic Acid 50%	D	D	A	A	D	D	D	C
Chromium Salts	–	–	–	B	–	–	–	–
Cider	–	A	–	B	A	A	–	B[1]
Citric Acid	D	B[1]	A	D	A[1]	A	A	A
Citric Oils	–	B	B	–	–	A	–	–
Coffee	–	A	–	–	–	A	–	A
Copper Chloride	A	A	–	–	–	A	–	A[1]
Copper Cyanide	–	A	–	B[2]	D	A	–	A
Copper Fluoborate	–	B	–	–	–	–	–	–
Copper Nitrate	–	A	–	B[2]	D	A	–	–
Copper Sulfate 5%	–	D	A	A[2]	A[1]	A	–	A
Copper Sulfate >5%	–	D	A	A[2]	A[1]	A	–	A
Cream	–	A	–	–	–	A	–	–
Creosote	A	D	A	–	–	–	–	D
Cresols	D	D	D	C[1]	D	D	D	D

A- No effect
B- Minor effect
C- Moderate effect
D- Severe effect; not recommended
– No data available

Explanation of footnotes:
1- Satisfactory to 72 °F (22 °C)
2- Satisfactory to 120 °F (48 °C)
3- Satisfactory to 90 °F (32 °C)
4- Satisfactory to 200 °F (93 °C)

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