

iP-TEC® UNIQUE LIVE CELL TRANSPORT PACKAGING SOLUTIONS

Live transport; delivering cells in an unfrozen and “ready to use” condition. total solutions so that various cells and biological tissues including iPS cells can be transported alive without freezing.

iP-TEC® Solutions

Transporting samples in a frozen state has been the norm and a stable method of transportation, but comes with problems such as a risk of harming the cells when freezing and thawing them, losing vast amounts of cells in the process. Also, the lab-time, specialized equipment and personnel add considerable costs to shipping cells in a frozen state. However, these problems can be solved with live transport; delivering cells in an unfrozen and in a “ready to use” condition. There has been an increasing demand for live transport as regenerative medicine continues to develop, but there are unique challenges to overcome in transporting live cells without freezing them. iP-TEC® offers a complete solution that ranges from T-flasks to culture plate covers, providing solutions in accomplishing live cell transport.

Risks associated with frozen transport



Damage to cells



Time wasted for freezing and thawing



High costs for chemicals and labor, etc.



Transport of various cell types and 3D tissues

Challenges to overcome in live transport



Temperature retention time



Costs for culture media



Unneeded Vibration



Leakage

Your innovative partner in **LIVE SAMPLE TRANSPORT** solutions

With the iP-TEC® series, we have added a complete range of cell transportation solutions to the PHCbi product line. Ranging from primary/secondary containers for cell transportation to accessories, and high-performance temperature-controlled transport boxes (tertiary containers, heat and cold storage materials). Various combinations are available depending on the type of samples and purpose to be transported, the transport time, and the temperature.

REDUCE YOUR COST

Reduce the cost of culture media needed to fill a flask by 55%-65%



NO TRAPPED BUBBLES

Cells will not be affected by vibration as the flasks can be capped without trapping any bubbles inside.



NO LEAKAGE

Dishes and well plates that were difficult to transport can now be shipped without leakage.



STABLE TRANSPORT

Transport cells stably using a cell culture insert.



Flask-25

When transporting cells in live condition, there is a risk that culture medium in a flask gets shaken and cells scale. By filling a flask with culture medium it can be transported in safety without this risk. Yet, this will make the amount of culture medium increase and costs more in conventional flasks. To solve this, we created a revolutionary form which minimizes the amount of culture medium used for transport without changing its incubation area.

- **User friendly for pipette and scraper.**
- **Safely stackable.**
- **Culture medium always stable.**
- **Incubation surface does not get dried.**
- **Prevents shaking and foaming of the culture media.**

Code	Name	Quantity
IPT-28445	iP-TEC Flask-25	100 (10 pcs/bag x 10)
IPT-28544	iP-TEC Flask-25	10 (10pcs/bag x 1)

- Culture area 25 cm² • Hydrophillic treatment of culture surface and sterilized • Material top: PE, body: Polystyrene • Plug-seal type
- 10pcs in one set with zipper seal • Capacity 30 ml • Patented in Japan, No. 6572240

Mini Scraper

The superb pliant shape and ingenious nose geometry make it possible to scrape out cells in every corner. This shape of the iP-TEC® mini scraper provides ease of grabbing enables nuanced movements.

- **Product are packaged separately for ease of opening and sterility.**

Code	Name	Quantity
IPT-28448	iP-TEC Mini Scraper	100 (10 bags x 10)

- Length: 150 mm, Width of blade: 13 mm • Sterilized, Scrapers are packed separately covered by film • Material: Polycarbonate



The scrapers are packaged separately for **ease of opening** and sterility.



The design is **user friendly for pipette and scraper.**



Flask-25 with vent cap

Our containers allow cells to be transported in containers filled with culture solution in the absence of bubbles. Also it minimizes the risk of damage by vibration during transportation. The flasks also reduces the use of expensive culture medium by 55% - 65%.

- **With zero bubbles, transporting cells is worry-free!**
- **Ultra-thin membrane made of medical-grade silicon rubber. CO₂ permeable.**
- **Ideal for rotation culture and microgravity culture, the results of which are affected by bubbles**

Code	Name	Quantity
IPT-28642	Flask-25 with vent cap	50 (5 pcs/bag × 10)
IPT-28643	Vent Cap for Flask-25	10 (10 pcs/bag × 1)

- Culture area 25 cm² • Hydrophilic treatment of culture surface and sterilized
- Material top: PE, medical-grade silicon rubber, body: Polystyrene
- Vent type • 10 pcs in one set with zipper seal
- Capacity 30 ml



Secondary Container for Flask 25

During transport the iP-TEC® T-25 flasks must be kept as safe as possible. A dedicated transport container provides a safe environment with specially designed holders for the flasks. Up to 6 iP-TEC® T-25 flasks can be shipped at once.

- **Secondary container dedicated for transporting iP-TEC® flask -25.**
- **All parts of the secondary container can be autoclaved.**

Code	Name	Quantity
IPT-28451	A - 1 Set (includes 1 x A, 1 pair B, 6 pcs C)	1 Set
IPT-28452	B - Insert for 3 x iP-TEC® T-25 flask	6 pairs
IPT-28453	C - Liquid Absorbing sheet	36 pcs

- Secondary container size(mm) : W210×D147×H70
- Secondary container capacity : Max. 6 x iP-TEC® T-25 flask
- Secondary container body, top and inserts: Polypropylene,
- Gasket: silicone rubber,
- Liquid Absorbing sheet: Cellulose



Cell Transport Container #RPE12

A closed-type primary container developed through joint research with the RIKEN Center for Biosystems Dynamics Research. It allows for high efficiency in cell processing and packaging, etc. to stabilize and maintain the cell's characteristics and structure.

- Ideal for the culture and transport of cell sheets using 12-well inserts.
- Simple structure with only 3 parts, easy to set up.
- Silicon rubber inner container stabilizes and retains the insert to achieve a complete seal between the main container and the cap.
- Uses medical-grade silicon rubber. (Compatible with USP class IV, ISO10993-5)
- Minimizes the required amount of culture media. (Approx. 6.6 mL when filled)
- CO₂ gas permeable silicone maintains optimum pH (vent type only).

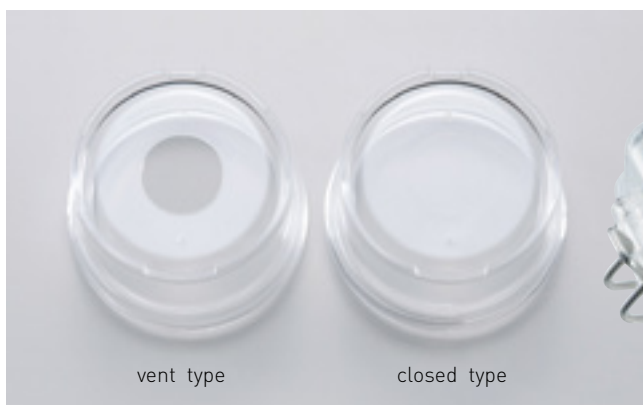
Code	Name	Quantity
IPT-28635	Closed type	12 pcs (2 pcs/bag x 6)
IPT-28636	Vent type	12 pcs (2 pcs/bag x 6)

- Measurements: Outer diameter-Main unit: Ø 33mm; Cap: Ø 41 mm
- Total height with cap: 30 mm • Sterilized • Material main unit: PS, cap: PE • Inner container: Medical-grade silicon rubber
- Compatible with Flacon®, Foster®, Millipore® and Greiner® inserts.
- Patented in Japan, No 6910031 • European patent pending

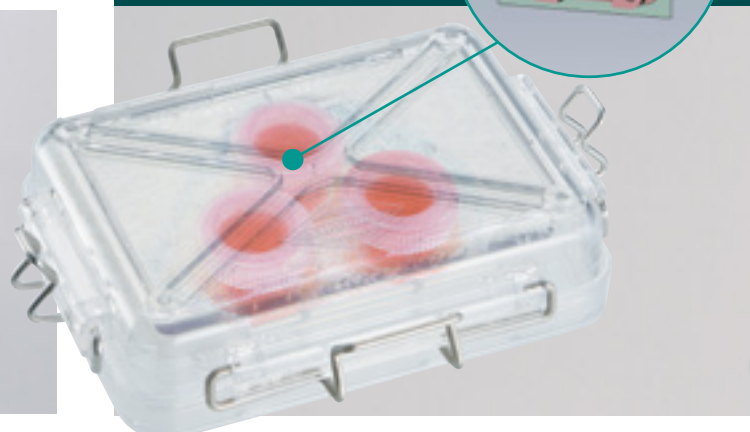
Code	Name	Quantity
IPT-28516	Secondary Container	1 pcs
IPT-28530	Mesh Cushion 20 mm	1 pcs

- Mesh cushion is used to stabilize contents of secondary container.

Gas-exchangeable vent type (left) and closed airtight type (right) are both available depending on the intended use.



Transport up to 6 cell transport containers in the iP-TEC® secondary container.



Cell Transport Quadruple Container #24

iP-TEC® Cell Transport Container #24

- For transport of 24 well inserts
- CO₂ permeable
- Highly efficient quadruple cap

Code	Name	Quantity
IPT-28637	Silicon cap, row of 4	60 pcs (6 pcs / bag x 10)
IPT-28638	Containers	240 pcs (24 pcs / bag x 10)

Caps and the main unit are sold separately

- Measurements: Outer diameter - Main unit: Ø 22mm; Cap: Ø 23 mm • Total height with cap: 30 mm • Total length: 100mm
- Sterilized • Material Cap: Medical-grade silicon rubber • Dedicated 8-hole rack: PVC • Compatible with Flacon® and Foster® inserts
- This product does not come with culture inserts.



- Easy-to-operate dedicated rack that stabilizes containers

Code	Name	Quantity
IPT-28639	Dedicated 8-hole rack	1 pcs

iP-TEC® Secondary Container

- Polycarbonate secondary container
- Stackable
- Dedicated design to hold all iP-TEC® primary containers and iP-TEC® covered culture plates and dishes.
- Autoclavable
- Size (mm): 192 x 150 x 40H

Code	Name	Quantity
IPT-28516	iP-TEC Secondary Container	1 pcs



When being transported, the container is firmly stabilized by the lid of iP-TEC® secondary container. The secondary container is capable of containing up to 24 containers.



Live Transport solution for well plates and dishes

Using Medical Silicone Rubber without cytotoxic effect

No need for the use of adhesive with the iP-TEC® covers. Simply put the cover over the cell culture plate, put the plank on top and clip to seal. This much easier process minimizes the risk of touching and contaminating the culture medium.

Liquid seal, optimal CO₂ gas penetration

The silicone covers consist of two parts:

- A thin layer which falls into the wells or dish to allow CO₂ exchange.
- A thicker layer to smoothly cover the full plate or dish and provide the liquid seal.






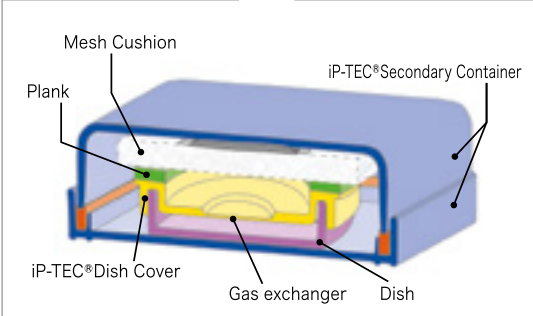
Easy Live Cell Transportation

The cover falls into each individual well for optimum seal and minimizing the need for culture medium at the same time. This results in less costs and less stress for the cells during transportation.

- CO₂ gas-exchangeable ultra-thin layer



- After placing the cover, it is possible to adjust the level of culture medium in the wells or dish with a syringe.

<p>1.*</p> <p>Primary container (dish, well plate) to be covered by silicone rubber cover.</p> 	<p>2.*</p> <p>Put on presser plate and push to set bot tom of iP-TEC® condary container.</p> 
<p>3.*</p> <p>Cover with mesh cushion for stability.</p> 	<p>4.*</p> <p>Place lid and lock 4 sides of the secondary container.</p> 
<p>5.</p> <p>Add temperature stabilizers to transport bag or box and fit the secondary container.</p> 	

* falls under Japan design patent No. 6816894



iP-TEC® Dish cover

Code	Name	Quantity
IPT-28505	suitable for Ø35	10 pcs
IPT-28507	suitable for Ø60	10 pcs
IPT-28509	suitable for Ø90	10 pcs

- Material: medical grade silicone. • Sterilized and individually packed. • Can be cleaned with alcohol and is autoclavable.



iP-TEC® Plank for Dish cover

Code	Name	Quantity
IPT-28510	suitable for Ø35	1 pcs
IPT-28512	suitable for Ø60	1 pcs
IPT-28514	suitable for Ø90	1 pcs

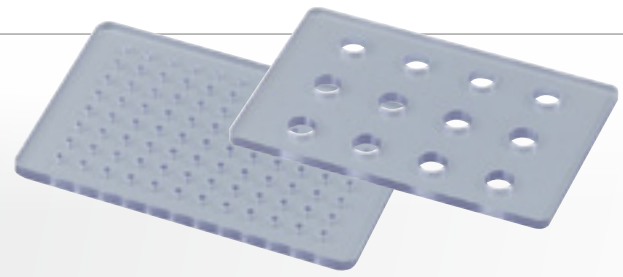
- Material: PVC. • Non-sterile. • Packed individually. • Can be cleaned with alcohol.



iP-TEC® Well Plate Cover
6 - 12 - 24 - 96 wells

Code	Name	Quantity
IPT-28489	suitable for 6 wells	10 pcs
IPT-28491	suitable for 12 wells	10 pcs
IPT-28493	suitable for 24 wells	10 pcs
IPT-28495	suitable for 96 wells	10 pcs

- Material: medical grade silicone. • Sterilized and individually packed. • Can be cleaned with alcohol and is autoclavable.



iP-TEC® Plank for Well Plate
6 - 12 - 24 - 96 wells

Code	Name	Quantity
IPT-28496	suitable for 6 wells	1 pcs
IPT-28498	suitable for 12 wells	1 pcs
IPT-28500	suitable for 24 wells	1 pcs
IPT-28502	suitable for 96 wells	1 pcs

- Material: PVC. • Non-sterile. • Packed individually. • Can be cleaned with alcohol.



iP-TEC® Secondary container

Code	Name	Quantity
IPT-28516	iP-TEC Secondary Container	1 pcs

- Polycarbonate secondary vessel • Stackable • Dedicated design to hold all iP-TEC® primary containers and iP-TEC® covered culture plates and dishes



iP-TEC® Secondary container private mesh cushion

Code	Name	Quantity
IPT-28530	Thickness 20mm	1 pcs
IPT-28531	Thickness 30mm	1 pcs

- Used to stabilize contents of secondary container
- Material/elastomer • Can be re-used after washing and autoclaving • 6, 12 & 24 well plates: 20mm cushion, 96 well plate: 30mm cushion • for dishes: 30mm cushion

Cell Sheet Transport Container Ø38, Ø50

Stable and safe transportation of cell sheets, living tissues, etc. Containers can be filled with culture medium and capped without trapping any bubbles inside. The container is specifically designed to prevent foaming of medium or wobbling of the contents.

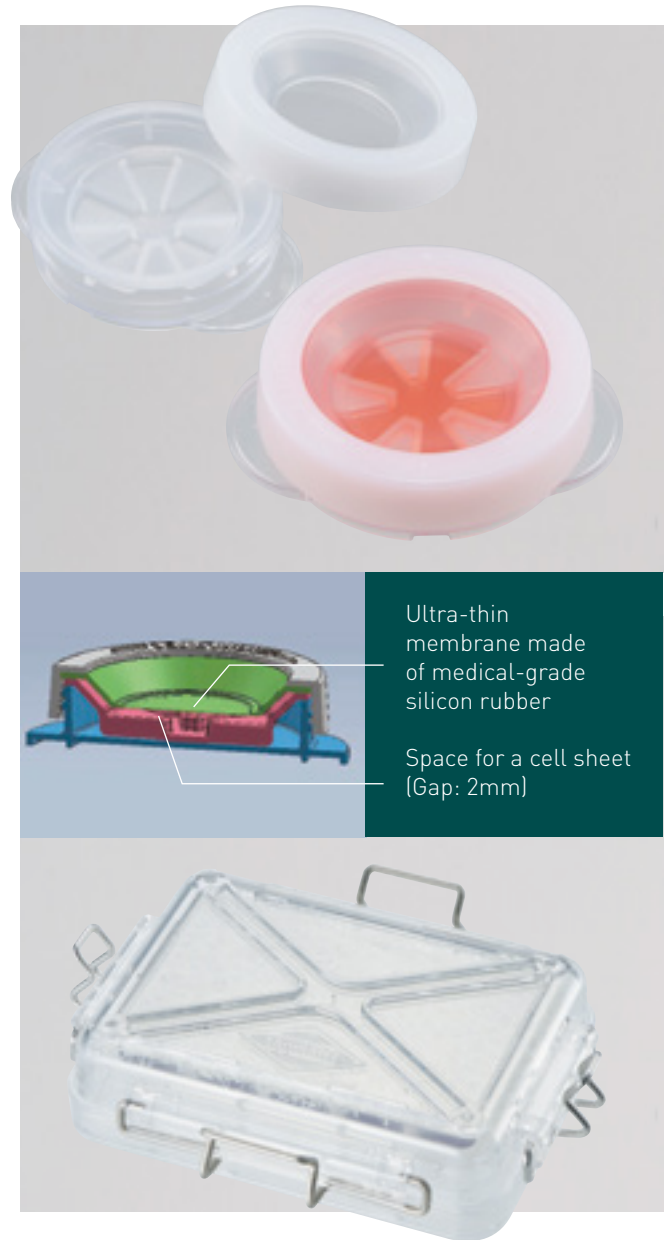
- The soft silicon rubber catches encased samples gently and delicately.
- Zero bubbles, transport cells worry free!
- CO₂ gas permeable.

Code	Name	Quantity
IPT-28640	Ø38	6 pcs (1 pcs/bag)
IPT-28641	Ø50	6 pcs (1 pcs/bag)



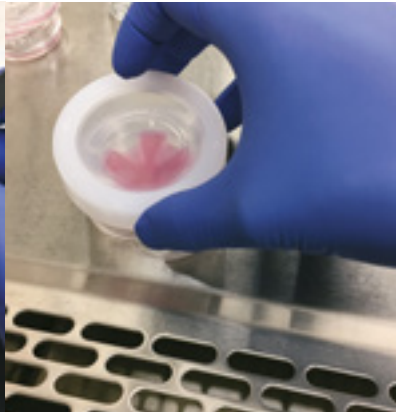
• Electron-beam sterilized • Material main unit: Polystyrene; Cap: PE, medical-grade silicon rubber • Vent type • Individually-packaged (bag)

Code	Name	Quantity
IPT-28516	Secondary Container	1 pcs
IPT-28531	Mesh Cushion 30 mm	1 pcs

• Mesh cushion is used to stabilize contents of secondary container.



Placing a cell sheet

1. Pick up a cell sheet attached to a supporting film

2. Transfer the sheet to the cell transport container

3. Fasten the cap, sealing in the liquid without leaving any bubbles inside!

Standard Box-X13

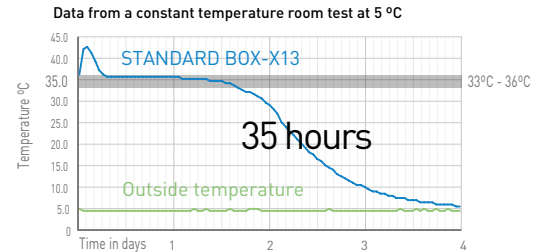
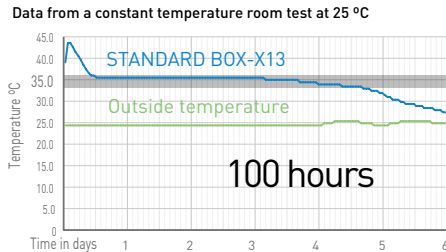
The standard box is designed to transport all iP-TEC® secondary containers safely and with confidence. All inner isolation is fitted to prevent unwanted heat loss and gaps and prevent the samples from being damaged. With holding times of 36 °C for up to 100 hours it is ideally suited for medium and long distance shipments.

- **When Using Temperature Stabilizer 36,**
100 hours (at ambient temperature 25 °C)
35 hours (at ambient temperature 5 °C)



Code	Name	Quantity
IPT-28463	Box & insert	1 pcs

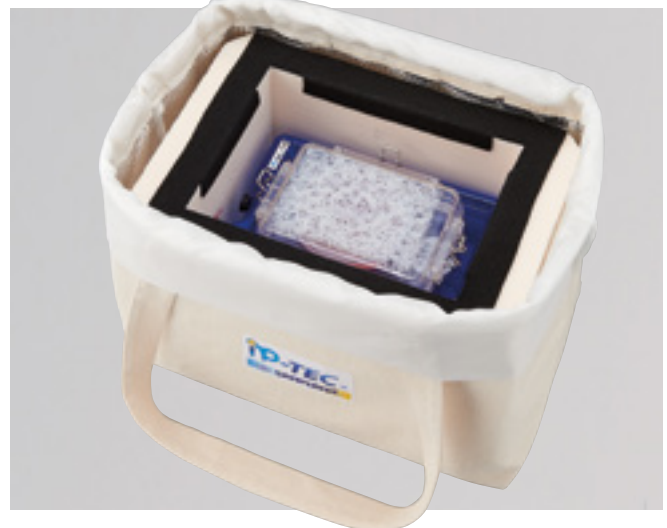
- Outer dimension (mm) 366×356×394H
- Inner dimension (mm) 236×226×244H
- Capacity of inside: 13L
- Source material (inner) aluminum evaporation foamed polyethylene
- Source material coater: EPDM
- Combine with:
 - 28451 secondary container and 8 pcs temperature stabilizer.
 - 28516 secondary container and 9 pcs temperature stabilizer.



iP-TEC® tote BOX-6.6

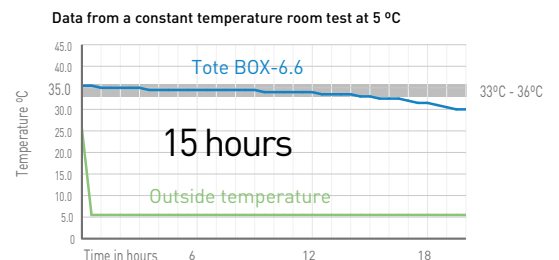
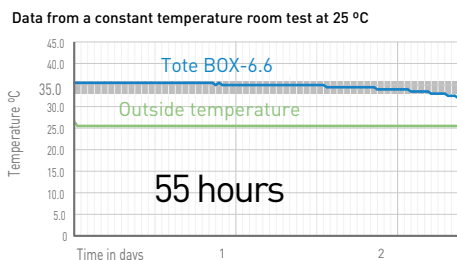
This tertiary custom-made bag for hand-carry is ideally suited for short distance travel. Easy to use and light weight transportation of live cells.

- **Container for transporting the cells by hand.**
- **The weight including the Temperature Stabilizer (Phase Change Material) is approx. 3 kg!**



Code	Name	Quantity
IPT-28543	Bag & Box insert	1 pcs

- Dimensions (mm)/BOX
 external dimensions: 340×230×247H
 internal dimensions: 240×170×130H
- Materials/ bag: polyester
- Capacity/6.6l
- Weight/BOX only: approx. 830g
- Combine with:
 - 28451 secondary container and 2 pcs temperature stabilizer.
 - 28516 secondary container and 3 pcs temperature stabilizer.

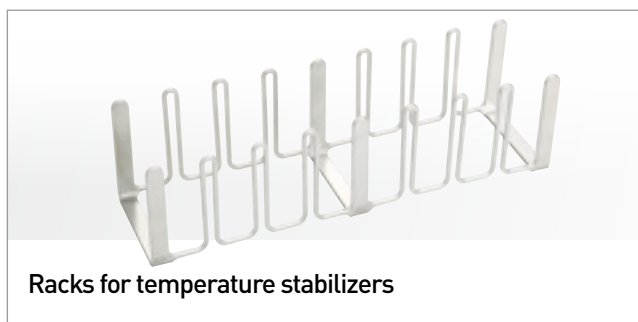




Temperature stabilizers

Code	Name	Quantity
IPT-28457	Temperature Stabilizer 36 °C	1 pcs
IPT-28483	Temperature Stabilizer 24 °C	1 pcs

- Cannot be autoclaved or used in a microwave oven.
- For optimal results, the recommended temperature protocol must be followed.



Racks for temperature stabilizers

Code	Name	Quantity
IPT-28522	Rack for 8 Temperature Stabilizers	1 pcs
IPT-28523	Rack for 6 Temperature Stabilizers	1 pcs

- Material: stainless steel



Barrier pouch and liquid absorbent sheet.

Code	Name	Quantity
IPT-28628	Barrier Pouch (B4 Type)	20 pcs
IPT-28630	Liquid Absorbent Sheets	20 pcs

- Pressure-resistant and hermetically-sealed pouch (secondary container) enabling the safe transport of clinical specimen and test specimen.
- Even in temperature range of 40 °C ~ +55 °C with inner pressure of 95kPa, the contents will not leak (tested and proven in a third-party institution in Japan).
- With the newly-developed check-valve method, a high level of pressure resistance performance has been achieved (patent obtained). With this method which is not dependent on costly adhesives, low cost and price reduction can be attained simultaneously.
- Barrier pouch B4 can fit 1 iP-TEC container.

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