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BioVerde

4℃ preserving medium for dermal and nerve tissues

DMSO / Serum / Protein / Xeno - free

ThelioKeep

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DMSO-free | Serum-free | Protein-free | Xeno-free

ThelioKeep is a preserving medium for dermal and nerve tissues in 4℃. This media is free from DMSO, Serum, Protein and Xeno-components. ThelioKeep maintains structural strength and viability of these tissues.

Features

- Tissues in ThelioKeep can be preserved for 1 - 2 weeks at 4℃.
- Maintain the morphology and proliferative ability of epithelium, endothelium and nerve tissues. For peripheral nerves, electrophysiological function can also be maintained.
- Thin and fragile tissues are protected by Green Tea polyphenol (EGCG ; Epigallocatechin gallate).
- Compatible with broad range of mammalian samples.
- Tissues kept in ThelioKeep can be used for various applications.
- Serum-free, DMSO-free and Protein-free formulation.
- High cell viability, and no risk of either DMSO cytotoxicity or contamination by serum-derived proteins.
- Free of bacteria, fungi and mycoplasma contamination.
- The product is stable for 1 year at 4 ℃ after the date of manufacture.
- Composition : Inorganic ions, D-Glucose, Amino Acid, pH adjuster, Epigallocatechin gallate and Phenol Red

* Data in freezing condition is not available.

Trial Sample available!

Small size trial sample (20 mL) is available. Please contact your local distributors.

Preserving Protocol

1. Preparation of ThelioKeep-EGCG : By using a micropipette under the hood, take 0.5 ~ 1.0 mL of ThelioKeep from bottle, aseptically pour it into the microtube containing EGCG Tablet and completely dissolve the tablet in the tube.
   Pipette the entire solution back into the bottle of ThelioKeep and mix well (=ThelioKeep-EGCG).
2. Place a few mL of prepared ThelioKeep-EGCG into a clean disposable tube and cool it at 4 ~ 10 ℃.
3. Immerse epithelial or endothelial tissues freshly isolated from experimental animals into the cooled ThelioKeep-EGCG prepared in *2.* Close the cap and preserve it at 4 ℃ for 1 ~ 2 weeks.

Restoring Protocol

1. Gently wash the preserved tissues, indicated above, a few times in cold PBS. Transfer the tissues to an experimental medium.

2-1. When the live tissues are used for experiments or cultured, place them under physiological conditions as soon as possible (e.g. 37 ℃).

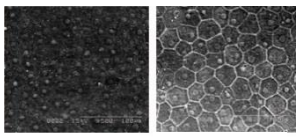
2-2. When slide specimens are prepared, transfer the tissues in fixatives immediately after removing from ThelioKeep-EGCG.

2-3. When cytoplasmic materials are extracted from the preserved cells, wash the cells well with cold PBS.

Experimental results are on next page.

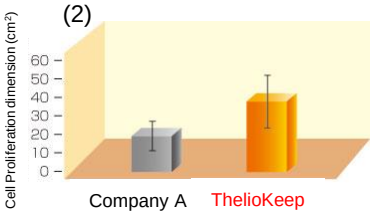
Experimental Results

(1)



Company A ThelioKeep

(2)



Tissue after preservation for 2 weeks at 4C.

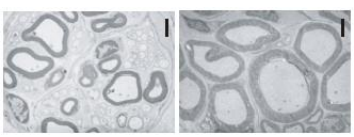
Human corneal endothelium tissue were preserved for 2 weeks at 4℃.

(1) Left : When using another supplier's tissue culture medium, cell morphology was completely disappeared.

(1) Right: When using ThelioKeep, hexagonal shape of the cytoplasmic membrane was well maintained.

(2) When ThelioKeep was used, the cell proliferation speed was about twice compared to when another supplier's tissue culture medium was used.

(3)



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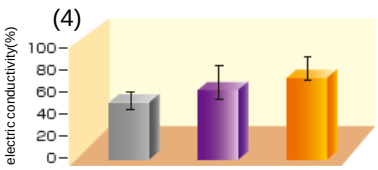
(4)



Structure of nerve tissues and electric conductivity

Rat peripheral nerve tissue preserved for 2 weeks at 4℃ were transplanted to another rat and isolated after 24 hours.

(3) Left : When using another supplier's tissue culture medium, structure was completely disrupted.

(3) Right: When using ThelioKeep, structure was well maintained.

(4) When ThelioKeep was used, electric conductivity was also maintained as well as fresh tissue.

Reference:
Ikeguchi, R., *et al*., *Experimental Neurology*, **184**:688 - 696 (2003).
Ikeguchi, R., *et al*., *Transplantation*, **79**:688 - 695 (2005).

User's Voice

Re-cultivation of human periosteal cell sheets preserved in ThelioKeep.

(Provided by : Dr. Tomoyuki Kawase, Division of Oral Bioengineering, Niigata University)

【Method】

Effects of cold preservation using ThelioKeep on the viability and proliferative activity of human periosteal cell sheets were investigated. The periosteal cell sheet was prepared from a small piece of alveolar periosteum tissue by explant culture for 21 days. Prior to cold preservation, the outer edge of the periosteal sheet was marked.

【Result】

Just after re-cultivation

Outgrowth

After preservation in ThelioKeep for 2 days at 4℃, the periosteal sheet was again cultured at 37℃.

24 hours after re-cultivation

Judging from the increased number of cells outgrown across the line, we suggest that periosteal cells can retain the ability to resume proliferation during the cold preservation.

Professor Tomoyuki Kawase (Right) and lab members.

Product Information

[Manufacturer : BVD]

Product Name	Size	Catalog #	Storage
ThelioKeep	100 mL	TPO-A1	4℃

NOTE

※ All products here are research use only, not for diagnostic use.
※ Specs might be changed for improvement without notice.
※ Company name and product name are trademark or registered mark.
※ Please contact your local distributors for orders, quote request and inquiry.

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