



Corneal Epithelial Cell Growth Kit

PCS-700-040™

Description

Corneal Epithelial Cell Growth Kit (ATCC PCS-700-040) contains components that when added to Corneal Epithelial Cell Basal Medium (ATCC PCS-700-030) create a complete ATCC Primary Cell Solutions culture environment for corneal epithelial cells derived from a normal human cornea (e.g., Primary Corneal Epithelial Cells, Normal, Human, ATCC PCS-700-010). The serum-free medium formulation is designed to support normal corneal cell morphology, and promote rapid growth, and proliferation. No feeder layers, extracellular matrix proteins, or other substrates are required.

Shipping information: 1 kit

Storage Conditions

Product format: Frozen

Storage conditions: -20°C or colder, -70°C for long-term storage

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as

guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Handling Procedures

Unpacking and Storage Instructions

1. Check all containers for leakage or breakage.
2. Store the growth kit(s) at either -20°C in a freezer that is not self-defrosting or at -70°C for long-term storage. If thawed upon arrival, the Growth Kit can be stored at 2°C to 8°C and added to the basal medium within 72 hours of receipt.

Preparation of Complete Growth Media

1. Obtain one growth kit from the freezer; make sure that the caps of all components are tight.
2. Thaw the components of the growth kit just prior to adding them to the basal medium. It is necessary to warm the L-glutamine component in a 37°C water bath and shake to dissolve any precipitates prior to adding to the basal medium.
3. Obtain one bottle of Corneal Epithelial Cell Basal Medium (485 mL) from cold storage.
4. Decontaminate the external surfaces of all growth kit component vials and the basal medium bottle by spraying with 70% ethanol.
5. Using aseptic technique and working in a laminar flow hood or biosafety

cabinet, transfer the indicated volume of each growth kit component to the bottle of basal medium using a separate sterile pipette for each.

Table 1. Corneal Epithelial Cell Growth Kit Components

Component	Volume	Final Concentration
Apo-transferrin	0.5 mL	5 µg/mL
Epinephrine	0.5 mL	1.0 µM
Extract P	2 mL	0.4%
Hydrocortisone Hemisuccinate	0.5 mL	100 ng/mL
L-Glutamine	15 mL	6 mM
rh Insulin	0.5 mL	5 µg/mL
CE Growth Factor	1 mL	Proprietary formulation

Antimicrobials and phenol red are not required for proliferation, but may be added if desired. The recommended volume of each **optional** component to be added to the complete growth media is summarized in Table 2.

Table 2. Addition of Antimicrobials/Antimycotics and Phenol Red (Optional)

Component	Volume	Final Concentration
Gentamicin-	0.5 mL	Gentamicin: 10

Amphotericin B Solution		$\mu\text{g/mL}$ Amphotericin B: 0.25 $\mu\text{g/mL}$
Penicillin-Streptomycin-Amphotericin B Solution	0.5 mL	Penicillin: 10 Units/mL Streptomycin: 10 $\mu\text{g/mL}$ Amphotericin B: 25 ng/mL
Phenol Red	0.5 mL	33 μM

6. Tightly cap the bottle of complete growth medium and swirl the contents gently to assure a homogeneous solution. Do not shake forcefully to avoid foaming. Label and date the bottle.
7. Complete media should be stored in the dark at 2°C to 8°C (do not freeze). When stored under these conditions, complete media is stable for 30 days.

Quality Control Specifications

Bacterial and fungal testing: Not detected

Mycoplasma contamination: Not detected

Functional tests: Rate of proliferation and morphology.

A Certificate of analysis (CoA) is available upon request for each lot of Corneal Epithelial Cell Growth Kit.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Corneal Epithelial Cell Growth Kit (ATCC PCS-700-040)

References

References and other information relating to this material are available at www.atcc.org.

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