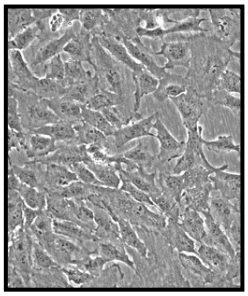
REF: P10836

OCULAR CELL SYSTEM INNOPROFILE™

RAT LENS EPITHELIAL CELLS



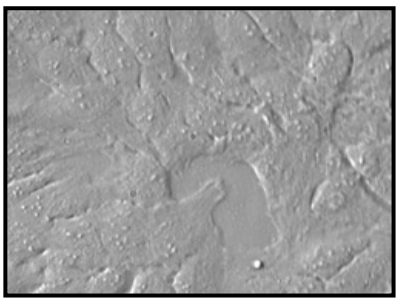
Product Type:	Cryo-preserved Lens Epithelial Cells
Catalog Number:	P10832
Source:	Rat Lens
Number of Cells:	5 x 10^5 Cells / vial (1ml)
Storage:	Liquid Nitrogen

Rat Lens Epithelial Cells (RLEpiC) provided by Innoprot are isolated from the rat lens. RLEpiC are cryopreserved at primary culture and delivered frozen. RLEpiC are guaranteed to further culture in the conditions provided in the technical sheet, however, RLEpiC are not recommended for long-term cultures due to limited expansion capacity and senescence after subculturing.

The normal development of the lens of the eye involves the progressive differentiation and maturation of the lens epithelial cells. As these cells migrate from the equatorial region of the lens into the interior of the lens, they produce the transparent crystallins, elongate to form lens fiber cells and loose their nuclei and other organelles. The causes of lens epithelial cells differentiation are not well understood; however, some progress has been made in determining the underlying molecular and cellular processes of lens epithelial cell differentiation. This process can be promoted by growth factors present in the ocular fluids.

Recommended Medium

- Epithelial Cell Medium-animal (Reference: P60106-a)



Product Characterization

Immunofluorescent method

- Cytokeratin-18
- Cytokeratin-19
- Fibronectin

The cells test negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast and fungi

Product Use

THESE PRODUCTS ARE FOR RESEARCH USE ONLY. Not approved for human or veterinary use, for application to humans or animals, or for use in vitro diagnostic or clinical procedures

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INSTRUCTIONS FOR CULTURING CELLS

IMPORTANT: Cryopreserved cells are very delicate. Thaw the vial in a 37 °C waterbath and return them to culture as quickly as possible with minimal handling!

Note: Experiments should be well organized before thawing RLEpiC. It is recommended that RLEpiC are used for experiments as quickly as possible after thawing the cells. ***RLEpiC should not be subcultured or passaged, as the cells do not proliferate.***

Set up culture after receiving the order:

1. Prepare a poly-L-lysine-coated culture vessel (2 µg/cm², T-75 flask is recommended). Add 10 ml of sterile water to a T-75 flask and then add 150 µl of poly-L-lysine stock solution (1 mg/ml). Leave the vessel in a 370C incubator overnight (or for a minimum of one hour).

2. Prepare complete medium. Decontaminate the external surfaces of medium bottle and medium supplement tubes with 70% ethanol and transfer them to a sterile field. Aseptically transfer supplement to the basal medium with a pipette. Rinse the supplement tube with medium to recover the entire volume.

3. Rinse the poly-L-lysine-coated vessel twice with sterile water and then add 15 ml of complete medium. Leave the vessel in the sterile field and proceed to thaw the cryopreserved cells.

4. Place the frozen vial in a 37°C water bath. Hold and rotate the vial gently until the contents completely thaw. Promptly remove the vial from the water bath, wipe it down with 70% ethanol, and transfer it to the sterile field.

5. Carefully remove the cap without touching the interior threads. Gently resuspend and dispense the contents of the vial into the equilibrated, poly-L-lysine-coated culturevessel. A seeding density of 7,000-8,000 cells/cm² is recommended.

Note: Dilution and centrifugation of cells after thawing are not recommended since these actions are more harmful to the cells than the effect of residual DMSO in the culture. It is also important that cells are plated in poly-L-lysine-coated culture vessels to promote cell attachment.

6. Replace the cap or lid of the culture vessel and gently rock the vessel to distribute the cells evenly. Loosen cap, if necessary, to allow gas exchange.

7. Return the culture vessel to the incubator.

8. For best results, do not disturb the culture for at least 16 hours after the culture has been initiated. Refresh culture medium the next day to remove residual DMSO and unattached cells, then every other day thereafter.

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Caution: *Handling human derived products is potentially bioharzadous. Although each cell strain testes negative for HIV, HBV and HCV DNA, diagnostic tests are not necessarily 100% accurate, therefore, proper precautions mush be taken to avoid inadvertent exposure. Always wear gloves and safety glasses when working these materials. Never mouth pipette. We recommend following the universal procedures for handling products of human origin as the minimum precaution against contamination [1].*

[1]. Grizzle, W. E., and Polt, S. S. (1988) Guidelines to avoid personal contamination by infective agents in research laboratories that use human tissues. *J Tissue Culture Methods*. 11(4).

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