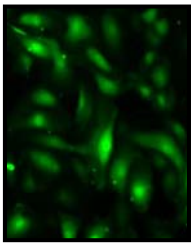
REF: P10622

HEPATIC CELL SYSTEM INNOPROFILE™

MOUSE HEPATIC SINUSOIDAL ENDOTHELIAL CELLS



Product Type:	Sinusoidal Endothelial Cells
Catalog Number:	P10622
Source:	Mouse Liver (Swiss strain)
Number of Cells:	1 x 10^6 Cells / vial
Storage:	Liquid Nitrogen

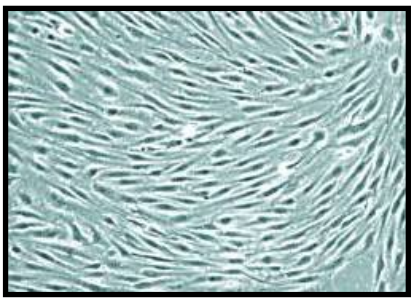
Mouse Hepatic Sinusoidal Endothelial Cells (MHSEC) are isolated by Innoprot from Swiss mice. MHSEC are cryopreserved immediately after purification and delivered frozen in dry ice. MHSEC are not recommend for expanding or long term cultures since these cells do not proliferate in vitro. These cells must be used immediately upon arrival.

SEC are microvascular endothelial cells with a unique phenotype reminiscent of dendritic cells and a unique function as antigen-presenting cells for CD4+ T cells. Thus, SEC represent a new type of organ-resident "non-professional" antigen-presenting cell that appears to be involved in the local control of the immune response and the induction of immune tolerance in the liver. SEC express well-characterized surface receptors and differ morphologically and metabolically from large-vessel endothelia. It has reported that SEC are dynamic regulators of porosity that respond rapidly and locally to environmental zonal stimuli during liver regeneration. Due to its strategic position in the liver sinusoid, SEC dysfunction and structural alterations have far-reaching repercussions for the whole liver.

Recommended Medium

- Endothelial Cell Medium

  (Reference: P60104)



Product Characterization

Immunofluorescent method

- CD31 (P-CAM)

Health quality controls regularly performed on these mice including bacteriology, virus serology and parasitology controls, certify these animals to be free of pathogens.

Hepatic Sinusoidal Endothelial Cells are PCR tested to be negative for Mycoplasma.

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

Set up culture after receiving the order:

1. Prepare a fibronectin coated flask (2 µg/cm^2. A MW6 plate or T-25 flask is recommended). Add 3 ml of sterile Dulbecco's phosphate buffered saline (DPBS, Ca++ and Mg++ free) to a T-25 flask and then add 50 µl of fibronectin stock solution (1 mg/ml, Innoprot cat. no. P8248). Leave the flask in incubator overnight.

2. Prepare complete medium: decontaminate the external surfaces of medium and medium supplements with 70% ethanol and transfer them to sterile field. Aseptically open each supplement tube and add them to the basal medium with a pipette. Rinse each tube with medium to recover the entire volume.

3. Aspirate fibronectin solution and add 20 ml of complete medium to the flask. Leave the flask in the hood and go to thaw the cells. The fibronectin solution can be used twice.

4. Place the vial in a 37°C waterbath, hold and rotate the vial gently until the contents are completely thawed. Remove the vial from the waterbath immediately, wipe it dry, rinse the vial with 70% ethanol and transfer it to a sterile field. Remove the cap, being careful not to touch the interior threads with fingers. Using a 1 ml eppendorf pipette gently resuspend the contents of the vial.

5. Dispense the contents of the vial/s into the equilibrated, fibronectin coated culture vessels. A minimum seeding density of 100,000 cells/cm^2 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 DMSO residue in the culture.

Maintenance of Culture:

1. Change the medium to fresh supplemented medium the next morning after establishing a culture.

2. Change the medium every two to three days thereafter

It is not recommended that mouse hepatic sinusoidal endothelial cells be subcultured beyond their initial plating

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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