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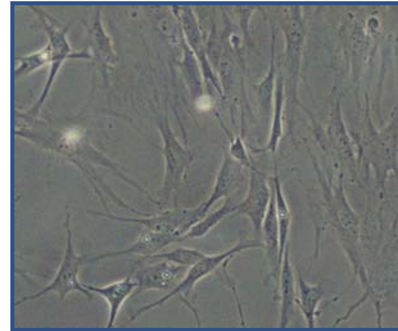
Rat Kidney Mesangial Cells DPK-KMGC-R



Introduction

High pure mesangial cell cultures are obtained after two weeks cell culture of renal glomeruli obtained from male rat kidneys using enzymatic digestion, graded sieving and differential centrifugation as described by Mene *et al.* (J.Nephrol. 2001 May-Jun;14(3):198-203).

Safety Statements

Health quality controls regularly performed on these animals including bacteriology, virus serology and parasitological controls, certify these animals to be free of pathogens.
PCR testing on these cells gave negative results for presence of mycoplasma.

*** For research use only, not approved for application to humans, or for use in vitro diagnostic or clinical procedures.**

Product characteristics

Organism: *Rattus norvegicus*

Strain: Sprague-Dawley

Tissue: Kidney

Cell type: Mesangial cells

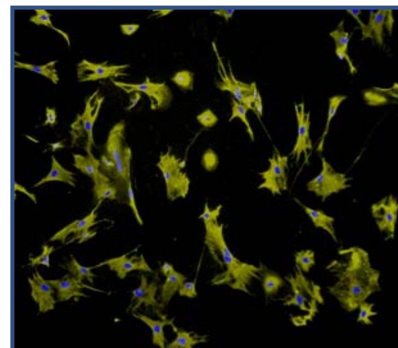
Number of cells per vial: > 0.5×10^6

Doubling time prior cryopreservation: > 5 days

Nº Passages: 2 passages

Growth properties: Adherent (plastic)

Cell characterization



Plated cells are visually checked for proper morphology.
Phenotypical characterization of mesangial cells is done by specific staining with α-vimentine (shown in yellow).
Nuclei are shown in blue (DAPI).
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Handling instructions:

1. The recommended seeding density for attachment is approximately 7000 cells/cm^2 on plastic flasks/wells.

2. Use approximately 0.25 ml of culture medium per cm^2 of the plating surface and allow flasks/wells to equilibrate in a humidified 5% CO_2 incubator at 37ºC for a minimum of 30 minutes.

3. Rapidly transfer the cryovial to thaw in a clean water bath at 37ºC with gentle shaking. Monitor the contents of the vial, and when a small ice crystal remains remove the vial from the water bath. Wipe the cryovial with ethanol before opening.

4. Immediately mix the cell suspension using a micropipette avoiding the formation of bubbles and transfer it gently to the flasks previously prepared in step 2.

5. Help to distribute cells evenly by rocking the flasks gently. Loosen caps of flasks (unless vented caps are used) and return them to the incubator.

6. Change culture medium once cells are properly attached (no longer than 24 hours after seeding) and every second day thereafter. Pre-warm an appropriate amount of medium to 37ºC before each medium change. Subculture cells when they are 70-90% confluent using Trypsin/EDTA solution.

   * Please, note that primary culture cells have a finite *in vitro* life-span.

Culture medium

Culture medium consists of DMEM/ F-12 HAM (Sigma), 20% Fetal bovine serum, 50 U/ml penicillin and 50 µg/ml streptomycin.

Storage:

Store in liquid nitrogen. For best results, use upon arrival.

Note:

- *Dominion Pharmakine SL guarantees the performance of this product only when the recommended storage and protocols are followed.*

- *If this product does not arrive in good condition, please contact your distributor*