Primary Proximal Tubule Cells

Species: *Mus Musculus (B6)*  
Cell Number: ~1x10^6  
Catalog Number: PCKDM02  
Storage/Shipping: Dry Ice

Introduction:

The proximal tubule cells (PTC) are one of the most common epithelial cells in kidney. They not only play important functions in maintaining normal kidney function, such as fluid, amino acid and sodium reabsorption, but also are involved in the pathological changes in the cortical tubulointerstitium\(^1,2\).

PrimCells is proud to isolate and provide to the research community the primary cultures of proximal tubule cells from mouse, rat and non-human primate. These cells were cultured in extra low serum medium to eliminate the potential contamination of fibroblasts and cryo-preserved at the earliest passages (P0 to P1) to maintain their similarity to the PTCs in vivo. They can serve as a powerful tool to study renal cell function and assess drug induced toxicity.

Thawing of Frozen Cells

1. Upon receipt of the frozen cells, it is recommended to thaw the cells and initiate the culture immediately in order to retain the highest cell viability.

2. To thaw the cells, put the vial in 37°C water bath with gentle agitation for ~1min. Keep the cap out of water to minimize the risk of contamination.

3. Pipette the cells into a 15ml conical tube with ~5ml fresh culture medium.

4. Centrifuge at 1000rpm (~220g) for 5min under room temp.

5. Remove the supernatant and resuspend the cells in fresh culture medium.

6. Transfer the cells into collagen I coated tissue culture flasks and move them to 37°C incubator (5% CO\(_2\)) for continuous culture.

Safety Precaution: it is highly recommended that protective gloves and clothing should be used when handling frozen vials.

Standard Culture Procedure

1. Cells should be maintained in the complete culture medium until reaching ~80-90% confluence.

2. Remove the medium, wash once with sterile PBS (5ml/T75 flask).

3. Add ~2.5ml of 0.05% Trypsin-EDTA to the flask and incubate for 5min at 37°C.

4. Neutralize the enzyme activity by adding trypsin neutralizing solution.
5. Centrifuge 1000rpm (~220g) for 5min and resuspend the cells in desired volume of medium.

6. Transfer the cells to a collagen I coated flask for subculture. Culture medium should be refreshed every other day.

**Complete Growth Medium**

DMEM/F12 with HEPES buffer (Invitrogen, Cat#11320033): 485ml

Anti-Anti (Invitrogen, Cat#15240096): 5ml

Proximal Tubule Cell Supplement Kit (PrimCells, Cat# MT0005): 10ml

Total Volume: 500ml

**Technical Support**

For additional information regarding the product and technical questions, please contact Supports@PrimCells.com. You are guaranteed to receive a response within 24hrs from one of our scientists.

**References**


**Disclaimers**

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