

CSI073Ra01

Primary Rat Adult Epidermal Keratinocytes (AEK)

Organism Species: *Rattus norvegicus* (Rat)*Instruction manual*

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Revised in Sep, 2026)

[DESCRIPTION]

Cell Type: Keratinocyte**Synonyms:** AEK**Strain:** Sprague Dawley Rat**Age:** 8-12 Weeks**Tissue Source:** Adult Epidermal tissue**Disease:** Normal**Size:** $>5 \times 10^5$ cells/vial**Growth properties:** Adherent**Morphology:** Polygonal

[PROPERTIES]

Cell activity: $>85\%$ (Viability by Trypan Blue Exclusion).**Formulation:** Frozen 1 mL or T25 flask.**Biosafety:** Negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast and fungi.**Applications:** For research use only. It is not approved for Rat or animal use, or for application in clinical diagnostic procedures.

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Form & Buffer: Supplied as solution form in frozen stock solution (Protein-free, Chemical Defined Cell Cryopreservation Medium). ***AEK are cryopreserved at P0 and delivered frozen.***

[USAGE]

Upon receiving the cells in a T-25 flask at room temperature, immediately transfer the cells to 37°C, 5% CO₂ incubator; the cells in vials, directly and immediately transfer the cells from dry ice to liquid nitrogen.

Culture conditions:**Coating conditions:** Rat tail collagen I (2-5 ug/cm²)

DMEM/F12+10% FBS+1% Keratinocyte Growth Supplement+1% Penicillin-Streptomycin Solution

Temperature: 37°C

Condition: 95% air, 5% carbon dioxide

Medium Renewal: Every 1 to 2 days

Dissociation Solution: 0.25% Trypsin

Cell recovery:

After receiving the cells, shake at 37°C in a water bath until completely dissolved, transfer to a 15 ml centrifuge tube, add 3-5 times complete culture solution, 1000 rpm for 5 min, discard the supernatant, and place in a T25 flask for culture.

Cell passage:

1. Cell passage when cell growth at 85-95%.
2. Discard the medium and wash with PBS 1-2 times.
3. Add 1 ml of Trypsin at 37°C, observe the cell under the microscope. If the cells are retracted and rounded, pat the culture flask to let the cells fall off. Stop digestion by adding 2 ml of complete medium containing 10% serum. Make it a single cell suspension.
4. Add the fresh medium to resuspend the cells. Unless otherwise stated, the recommended ratio of primary cells is 1/2.

[Shipping]

Dry ice.

[STORAGE]

Upon receiving, directly and immediately transfer the cells from dry ice to liquid nitrogen and keep the cells in liquid nitrogen until they are needed for experiments.

[IMPORTANT NOTE]

1. The culture cycle of Primary Rat Adult Epidermal Keratinocytes (AEK) is limited in vitro. It is recommended to use the specialized growth medium provided by Cloud-Clone Corp. and follow the correct operational procedures to ensure optimal culture conditions for these cells.
2. It is recommended that culture bottles be coated with Collagen type I from rat tail, and the concentration of rat tail collagen coating is 2-5µg/cm².
3. The cell is for research use only, and we will not be responsible for any issue if the cell was used in clinical diagnostic or any other procedures.

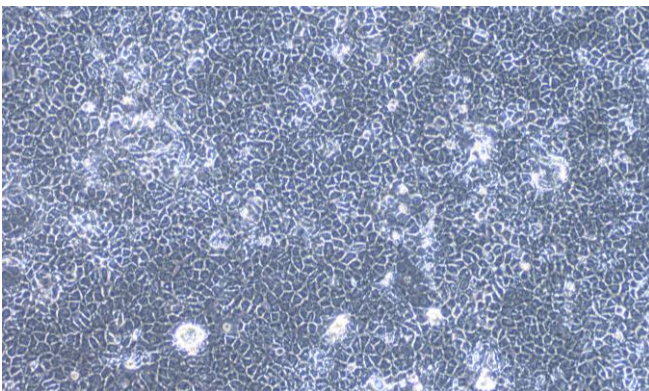
[Figure]

Figure 1

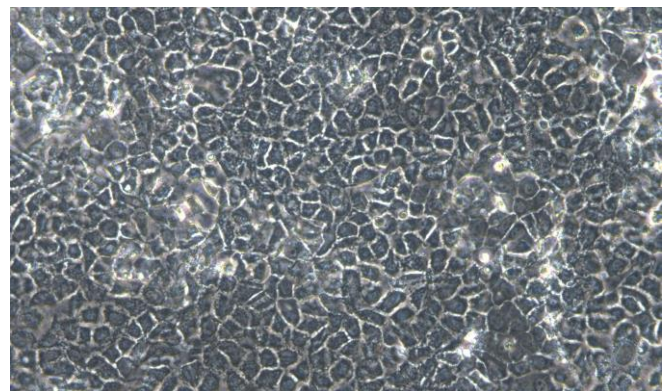


Figure 2



Figure 1 Morphology of Rat Adult Epidermal Keratinocytes (Optical microscope, x100)

Figure 2 Morphology of Rat Adult Epidermal Keratinocytes (Optical microscope, x200)