HSAEC1-KT

CRL-4050™

Description

HSAEC1-KT are hTERT-immortalized cells exhibiting epithelial morphology that were isolated from the lungs of a normal 22-year-old male. This product has applications for drug development and toxicology.

- **Organism** *Homo sapiens*, human
- **Cell Type** epithelial cell
- **Tissue** Lung; Small airway
- **Age** 22 years
- **Gender** Male
- **Morphology** epithelial, packed cuboidal
- **Growth properties** Adherent
- **Disease** Normal

Storage Conditions

- **Product format** Frozen
- **Storage conditions** Vapor phase of liquid nitrogen

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

Cells immortalized by CDK4

Cells immortalized by hTERT

Cells contain SV40 promoter sequences

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

- **Temperature** 37°C
- **Atmosphere** 95% Air, 5% CO_2

Handling Procedures

- **Unpacking and storage instructions**
  1. Check all containers for leakage or breakage.
  2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.
- **Complete medium** SAGM BulletKit medium (Lonza CC-3119 and CC-4124)

  To make the complete culture medium, add SAGM™ SingleQuots™ (Lonza CC-4124) which contains supplements and growth factors (BPE, Hydrocortisone, hEGF, Epinephrine, Transferrin, Insulin, Retinoic Acid, Triiodothyronine, BSA-FAF) to 500 mL bottle of SABM Basal Medium™, phenol red free basal medium (Lonza CC-3119)

- **Handling Procedure** To ensure the highest level of viability, thaw the vial and initiate the culture soon as possible upon receipt.
  If storage of the frozen culture is necessary upon arrival, store the vial in liquid nitrogen vapor phase and NOT
  at –70°C. Storage at –70°C will result in loss of viability.
  1. Prepare a 25 cm^2 or a 75 cm^2 culture flask containing the recommended complete culture medium. Prior to the addition of the vial contents, the vessel containing the growth medium should be placed in the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6) and to avoid excessive alkalinity of the medium during recovery of the cells.
  2. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
  3. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All operations from this point on should be carried out under strict aseptic conditions.
  4. Transfer the vial contents to a centrifuge tube containing 3.0 mL of complete culture medium, mix gently, then slowly add an additional 7 mL of complete growth medium and centrifuge the cell suspension at approximately 1000 rpm for 2 minutes at room temperature.
  5. Discard the supernatant and resuspend the cells in 3 mL of fresh growth medium. Count the cells and seed at recommended seeding density.
  6. Incubate the culture at 37°C in a suitable incubator.
- **Subculturing procedure** Volumes used in this protocol are for 75 cm^2 flasks; proportionally reduce or increase amount of dissociation solutions for culture vessels of other sizes.

  Subculture when the culture is about 90% confluent.
  1. Remove and discard spent medium.
  2. Briefly rinse the cells with Dulbecco's Phosphate Buffered Saline (DPBS, ATCC 30-2200), 1 mL / 25 cm^2 and discard rinse solution.
  3. Add Trypsin-EDTA, at 1 mL / 25 cm^2, for Primary Cells (ATCC PCS-999-003) to the flask. Incubate at 37°C for 4-6 min (until 90% of the cells have detached).
  4. Rapt flask gently to ensure cells are detached. Add 2% FBS in DPBS at 1 mL / 25 cm^2 to neutralize the trypsin.
  5. Centrifuge cells at 1000rpm for 5 min at room temperature.
  6. Remove supernatant. Resuspend pellet in 6.0 to 8.0 mL Complete Growth Medium.
  7. Count cells, and seed 8.0 x 10^3 to 10.0 x 10^3 viable cells/cm^2 to new culture vessels.

  Medium Renewal: Every 2-3 days.
- **Reagents for cryopreservation** Complete growth medium supplemented with 10% (v/v) FBS and 10% (v/v) DMSO (ATCC 4-X).

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: HSAEC1-KT (ATCC CRL-4050)

References

References and other information relating to this material are available at www.atcc.org.

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