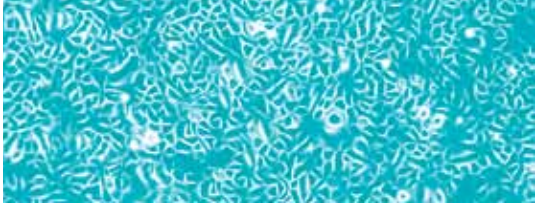
THE ESSENTIALS OF
LIFE SCIENCE RESEARCH
GLOBALLY DELIVERED™



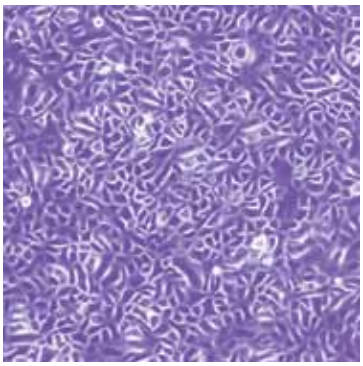
AIRWAY EPITHELIAL CELL SOLUTIONS

As part of your portfolio for success, ATCC now provides a range of pulmonary products designed to breathe new life into your research. At the heart of each Primary Cell Solutions™ pulmonary system is a growing collection of human primary cells, which now include:

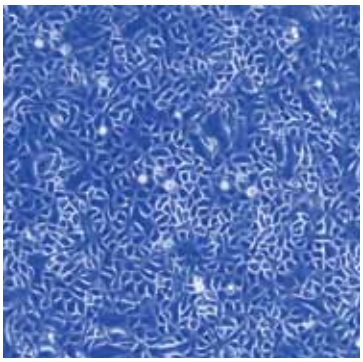
- Bronchial/tracheal epithelial cells (BTEC)
- Small airway epithelial cells (SAEC)

This very special group of airway epithelial cells represents some of the most widely used models for *in vitro* research related to:

- Asthma, airway inflammation and wound healing
- Pulmonary fibrosis; COPD, including chronic bronchitis and emphysema
- Microbial infection and pathogenesis, including influenza
- Cancer
- Toxicology



ATCC® Primary Cell Solutions airway epithelial cells, when grown in Airway Epithelial Cell Basal Medium supplemented with cell-specific growth kits, provide ideal cell systems for propagation in serum-free conditions.



Each lot of ATCC Normal Human Pulmonary Primary Cells is:

- Cryopreserved in the first or second passage to ensure the highest viability and plating efficiency
- Performance tested together with ATCC Primary Cell Solutions media, kit supplements and reagents to guarantee optimum reliability
- Thoroughly tested for sample purity as part of the ATCC commitment to quality

OPTIMIZED GROWTH MEDIUM MAKES A DIFFERENCE

We put a lot of thought into how ATCC could improve the success of *in vitro* primary cell culture, focusing on reliability, consistency and reproducibility. The result was a full system approach, matching each cell type in the Primary Cell Solutions portfolio with:

- An optimal basal media
- Key growth factors and supplements conveniently packaged in ready-to-use kits
- Antibiotics, vessel substrates and subculture reagents

All designed to yield outstanding results and valuable data!

BREATHE DEEP: WE'VE TAKEN THE GUESS-WORK OUT OF PRIMARY CELL CULTURE!

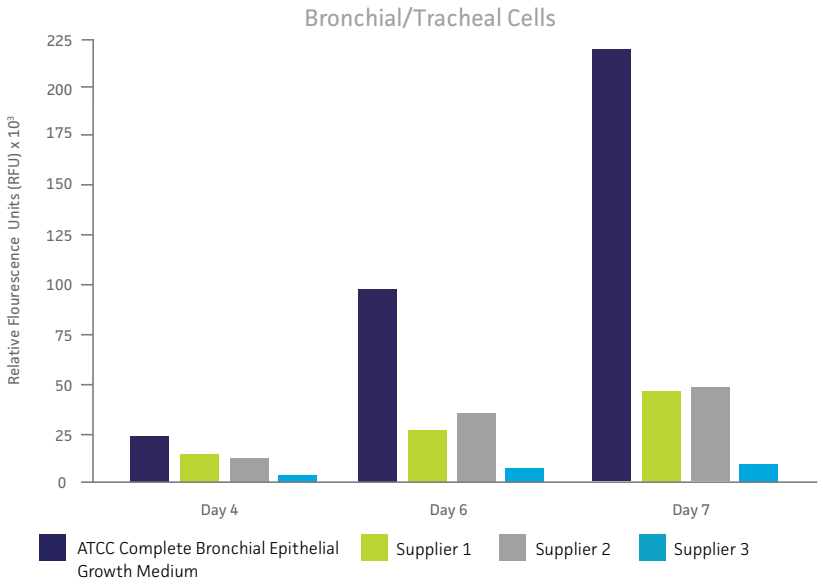
Designed to provide optimal support for cells derived from normal pulmonary tissues, Airway Epithelial Cell Basal Medium is a sterile, phenol red-free, liquid tissue culture medium intended for use as one component in a complete ATCC Primary Cell Solutions system. Used in combination with the Bronchial Epithelial Cell Growth Kit or the Small Airway Epithelial Cell Growth Kit, each complete ATCC Primary Cell Solutions airway epithelial cell system selectively sustains the proliferation and plating efficiency of cells derived from normal human bronchial/tracheal tissues or bronchioles.

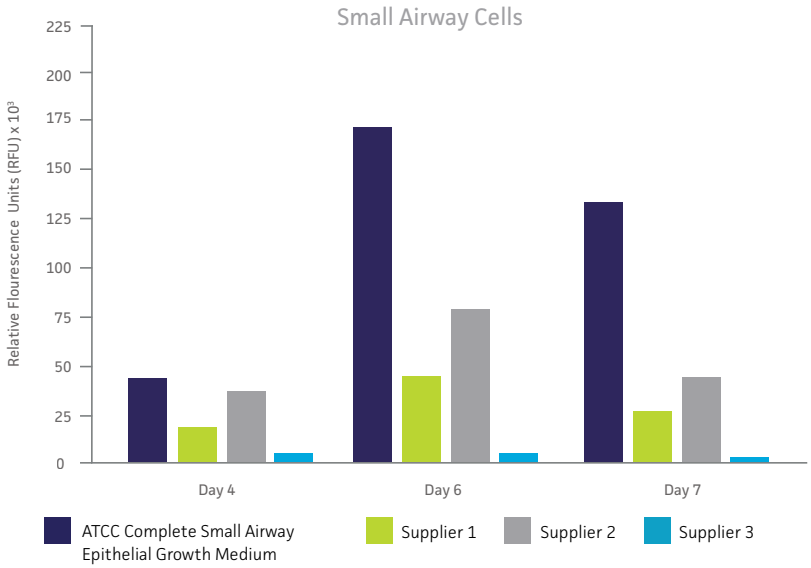
These unique formulations are designed to produce cultures with:

- Functional expression of relevant biomarkers
- Normal morphology
- Superior growth and proliferation

Use of this complete system removes the need for additional components such as feeder layers, extracellular matrix proteins or other substrates.

Growth of ATCC Primary Cell Solutions Primary Airway Epithelial Cells in Different Brands of Serum-Free Media





ATCC Primary Cell Solutions airway epithelial cells were taken from liquid nitrogen and cultures initiated. The cells were cultured for 3 to 4 days. Bronchial/tracheal epithelial cells were then seeded in triplicate into a 24-well plate at 1,000 cells/cm², 500 cells/cm², or 250 cells/cm², and small airway epithelial cells were seeded at 2,000 cells/cm², 1,000 cells/cm², or 400 cells/cm². The cells were grown for 4, 6, or 7 days respectively in different brands of serum-free media. Cell proliferation was measured by adding alamarBlue® to each well, incubating for two hours, and then measuring fluorescence using a Wallac VICTOR2™ MultiLabel Counter. The medium was not changed during the incubation period; the assay is a measure of a media's capacity to support log-phase growth over time. The higher the Relative Fluorescence Unit (RFU) value, the higher the rate of cell proliferation.

Growth Characteristics of Primary Airway Epithelial Cells in ATCC Complete Growth Medium

Cell Type	Number of Doublings	Average Doubling Time (hrs)	Average Doubling/Passage
Bronchial/Tracheal Epithelial Cells	13.6	28.0	3.4
Small Airway Epithelial Cells	15.4	33.3	3.3

PUTTING ALL THE PIECES TOGETHER ADDS UP TO YOUR SUCCESS.

To achieve the best possible results, we suggest that you order a complete system for each cell type:

	Product Name	Components	Catalog No.
1	Primary Bronchial/Tracheal Epithelial Cells; Normal, Human	≥ 5 x 10^5 viable cells	PCS-300-010
1	Primary Small Airway Epithelial Cells; Normal, Human	≥ 5 x 10^5 viable cells	PCS-301-010
2	Airway Epithelial Cell Basal Medium	485 mL	PCS-300-030
3	Bronchial Epithelial Cell Growth Kit	1 kit	PCS-300-040
3	Small Airway Epithelial Cell Growth Kit	1 kit	PCS-301-040
4	Phenol Red	1 mL	PCS-999-001
4	Penicillin-Streptomycin-Amphotericin B Solution	1 mL	PCS-999-002
4	Trypsin-EDTA for Primary Cells	100 mL	PCS-999-003
4	Trypsin Neutralizing Solution	100 mL	PCS-999-004
4	Gentamicin-Amphotericin B Solution	1 mL	PCS-999-025
4	Dulbecco's Phosphate Buffered Saline (D-PBS)	500 mL	30-2200

Additional cells/cell types will be added in the coming months.
Visit us online at **www.atcc.org/PCS** to bookmark the primary cell page for easy reference.

SUPERIOR QUALITY. EXPERT SUPPORT. RELIABLE RESULTS.

PHONE
800.638.6597
703.365.2700

EMAIL
sales@atcc.org
tech@atcc.org

WEB
www.atcc.org

10801 University Blvd.
Manassas, VA 20110

PC-0910-0.1-01