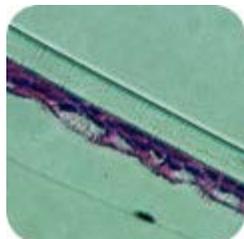




THE ESSENTIALS OF LIFE SCIENCE RESEARCH
GLOBALLY DELIVERED™



ATCC® Human Bronchial/Tracheal Epithelial Cells: Improving your functional studies

In the human body, the airway epithelium is characterized by a pseudostratified structure, ciliary motility, mucus secretion, and the formation of

cellular junctions. Some of the major roles for human bronchial/tracheal epithelial cells (HBECs) include the absorption of extraneous molecules through the respiratory tract, the maintenance of epithelial homeostasis, remodeling, and the response to acute and chronic illnesses of the lung.

You can simulate the airway *in vivo* conditions in your laboratory by culturing ATCC primary HBECs ([ATCC® PCS-300-010](#)) at the air-liquid interface (ALI). We used the PneumaCult™-ALI protocol for Maintenance Phase (STEMCELL™ Technologies) to support the ALI-differentiation of the bronchial/tracheal epithelium *in vitro*. [Read more.](#) . .

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[Human Primary Cells](#)

[hTERT Immortalized Cells](#)

[ATCC® Crossword Puzzle](#)

[What Is In Your Flask?](#)

[Primary Cell Solutions Media](#)

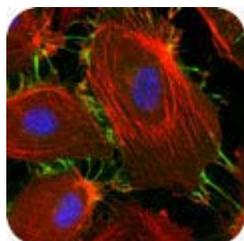
[Frequently Asked Questions](#)

ATCC Publications

[ATCC® Culture Guides](#)

Announcements

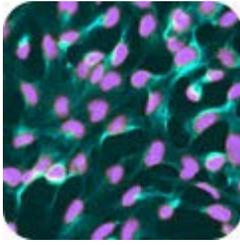
Congratulations to our 2014 photo contest winners! To view the winning submissions, [click here.](#)



ATCC offers low-passage human primary cells from a variety of tissue sources for your physiologically relevant studies

ATCC® Primary Cell Solutions consist of quality cells and reagents matched and optimized to work with each ATCC primary cell type. Relevant information summarized in the [ATCC® Primary Cell Culture Guide](#), along with tips and techniques, are at your fingertips.

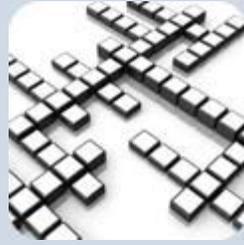
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Enjoy the best of all worlds with ATCC® hTERT Immortalized Cells

Immortalized cell lines closely mimic the physiology of cells *in vivo*. ATCC hTERT Immortalized Cells are derived from differentiated cells and exhibit tissue-specific features, express differentiation-specific proteins, and form structures that resemble those *in vivo*.

[Browse ATCC hTERT Immortalized Cells today!](#)

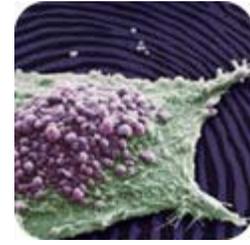


Rumination on respiration Crossword puzzle

How much do you know about the respiratory lining?

Try this [month's crossword puzzle](#) and test your airway epithelial knowledge!

Helpful hints can be found throughout the application note in this month's edition of Cell Passages. The solution will appear in next month's issue.



What's in your flask? Check your cultures!

While the use of whole cell models is essential to the *in vitro* research process, the cross contamination of those cell lines with other cell lines may call into question the validity of important studies. Protect your research by authenticating your cell lines now!

Capes-Davis A *et al*, Int J Cancer, 127(1): 1-8, 2010.

[Learn how](#) ATCC can help!

Recommended ATCC media for culturing cells. To see the best results from ATCC® Human Bronchial/Tracheal Epithelial Cells, select:

Airway Epithelial Cell Basal Medium
([ATCC® No. PCS-300-030](#))

Bronchial Epithelial Cell Growth Kit
([ATCC® No. PCS-300-040](#))

Dulbecco's Phosphate Buffered Saline (D-PBS), 1X
([ATCC® No. 30-2200](#))

Trypsin-EDTA for Primary Cells
([ATCC® No. PCS-999-003](#))

Trypsin Neutralizing Solution
([ATCC® No. PCS-999-004](#))

Gentamicin-Amphotericin B Solution
([ATCC® No. PCS-999-025](#))

Penicillin-Streptomycin-Amphotericin B Solution
([ATCC® No. PCS-999-002](#))

Phenol Red
([ATCC® No. PCS-999-001](#))



Frequently Asked Questions

Q: How many times can I passage ATCC Primary Cell Solutions cells before they senesce?

A: Each ATCC® Primary Cell Solutions cell culture is tested to assure growth for a minimum of either 10 or 15 population doublings. However, since longevity studies are not performed for these items, we cannot say for sure

how long the cells may continue to divide before reaching senescence. ATCC generally recommends minimizing the passage of cells *in vitro* to avoid the complications that are most often associated with long-term propagation; e.g. genotypic or phenotypic variation, increased risk for microbial contamination, and added opportunity for cellular cross-contamination to take place [Read more](#). . .

[Have more questions?](#)

Stay tuned for next month's issue of Cell Passages:

- Get the latest on the ATCC induced pluripotent stem cell collection
- Learn about the GeneX*Plus* transfection system
- The solution to this issue's crossword puzzle
- Register for the next Excellence in Research Webinar "Stem Cell Solutions" presented by Dr. Yukari Tokuyama, Ph.D., ATCC Field Application Scientist Sales & Marketing
- And much more!

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