













hTERT-immortalized Primary Cells

The Best of Both Worlds

ATCC human telomerase reverse transcriptase (hTERT)-immortalized primary cells represent a breakthrough in cell biology research; they combine the *in vivo* nature of primary cells with

the traditional cell line's ability to survive continuously in vitro.

- 5-fold increase in lifespan as compared to primary cells
- In vivo biological characteristics are retained at high passage
- Diploid or near-diploid, with gene expression similar to parental cells
- Derived from a single clone, limiting lot-to-lot variability

ATCC provides a wide variety of hTERT-immortalized primary cells, including keratinocytes, airway and bronchial cells, endothelial and smooth muscle cells, and mesenchymal stem cells.

Enjoy the best of both worlds today



ATCC® hTERTimmortalized Cell Culture

Guide

Culturing cells can be challenging at times, even for the expert culturist. With over 90 years of expertise with cell and microbial cultures, ATCC has acquired and developed a vast body of best





Webinar: Cell Culture 101 – Tips for Successful Cell Culture

Presenters: Steven Budd, M.S., M.B.A., Product Line Business Specialist, practices to aid researchers at all levels of proficiency. ATCC has created a culture guide to support the culture of many of the hTERT-immortalized Primary Cells in its collection. With information such as preparation of complete growth media, handling proceedures, and subculturing proceedures, this guide allows scientists to culture hTERT-immortalized cells with confidence.

Download the guide.

ATCC

Kevin Grady, B.S., *Product Line Business Manager*, ATCC

February 9, 12:00 PM ET

In this webinar, we will provide guidance on the best practices for culturing a variety of cells, from continuous cell lines to primary cells. The information delivered will cover all aspects of successful culture initiation, expansion, cryopreservation, authentication, and transfection.

Register for this session



ATCC Puzzle

Try this month's crossword puzzle

and test your knowledge of cell biology! The solution will appear in next month's issue.

For the solution to last month's DNA Dilemma puzzle click here.

Resources

- hTERT-immortalized
 Cell Lines Flyer
- hTERT-immortalized and Primary Keratinocytes
 Differentiate into
 Epidermal Structures in
 3D Organotypic Culture
 Application Note
- In Vitro Angiogenesis
 Assay Using the ATCC[®]
 Angio-Ready[™] System



Frequently Asked Questions

Q: What is the difference between primary cells and hTERT-immortalized primary cells?

A: Primary cells may grow to up to 15 population doublings (PD) until they become senescent and undergo growth arrest. By contrast, hTERT-immortalized primary cells are able to grow for more than 25 PD without undergoing senescence or losing their physiological characteristics. For example, TIME (ATCC® CRL-4025TM) and TIME-GFP (ATCC® CRL-4045TM) cells can undergo 25 PD without any changes in endothelial cell characteristics such as the expression of CD31 or the ability to uptake AcLDL.

Have more questions?

Cell Biology Collections

Cell Line Authentication

Facebook

Cell Biology Resources

Webinar Registration

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