ATCC®

September 2017

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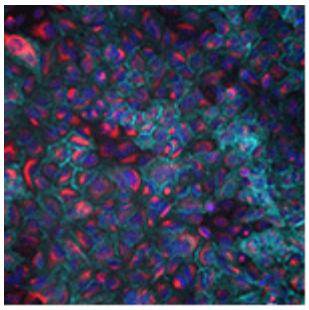
cellpassages

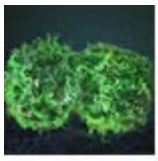


ATCC® Epithelial-mesenchymal Transition Cell Line

Epithelial-mesenchymal transition (EMT) has been shown to play critical roles in promoting metastasis and invasion in carcinoma. ATCC used CRISPR/Cas9 gene editing to develop A549 Vim RFP (ATCC® CCL-185EMT™), a reporter line designed to enable the real-time monitoring of the changing status of cells from epithelial to mesenchymal. This cell line is not only an aid in dissecting the EMT/MET pathway in the research field, but also is a robust platform for new cancer drug development.

Test your transition today>>

- CRISPR/Cas9 gene-edited
- Strong RFP signal upon vimentin induction due to EMT
- Loss of E-cadherin expression upon EMT induction
- TGF-β1-responsive
- Increased invasive capacity following EMT
- EMT sensitive to A83-01 and PP1 inhibition



New isogenics

Clinically relevant cell models are critical for studies of molecular and cellular mechanisms of tumors, as well as for drug screening for cancer.

With genome editing tools such as CRISPR/Cas9, ATCC has created isogenic cell lines with mutants of key oncogenes, which are ideal for identifying novel, personalized treatment regimens.

Webinar: New Isogenic Cell Models Created by CRISPR Genome Editing for Drug Discovery

Presenters: Fang Tian, Ph.D. & Lysa-Anne Volpe, M.S.
September 28, 12:00 ET

In this webinar, ATCC scientists will address the current role of CRISPR/Cas9 in drug

[Browse ATCC Isogenics>>](#)

- IDH1^{R132H} Mutant-U-87 (ATCC® HTB-14IG™)
- IDH2^{R140Q} Mutant-TF-1 (ATCC® CRL-2003IG™)
- NRAS^{Q61K} Mutant-A375 (ATCC® CRL-1619IG-1™)
- KRAS^{G13D} Mutant-A375 (ATCC® CRL-1619IG-2™)
- EML4-ALK Fusion-A549 (ATCC® CCL-185IG™)

discovery. Dr. Tian and Ms. Volpe will present how ATCC utilized this advanced technology to create novel human cell models that contain disease-relevant point mutations and gene rearrangements. In addition, they will introduce a new drug resistant cell line that was created using CRISPR/Cas9.

[Register for this webinar>>](#)

ATCC Puzzle

Try this [month's crossword puzzle](#). The solution will appear in next month's issue.

For the solution to last month's puzzle [click here](#).

Resources

- EMT Reporter Cell Line Flyer
- Isogenic Flyer
- Generation of EML4-ALK Isogenic Cell Line Application Note

Frequently Asked Questions

Q: What is a genetically engineered isogenic cell line?

A: An isogenic cell line is created by homologous genetic modification or genome editing of cells. It contains the same genetic composition as its parental line, differing only in the specific endogenous genes targeted

[Have more questions?](#)

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