ATCC has been supporting cancer research for over 50 years. We currently provide over 4,000 fully characterized cell lines and novel cell-based models to support the global cancer research community in understanding how cancer manifests itself and discovering effective treatment options. ATCC Cancer Resources include:

**Cancer Resources**

**CRISPR/Cas9-Gene Edited Isogenic Cell Lines**
- EML4-ALK Fusion A549 Isogenic Cell Line
- NRAS Mutant A375 Isogenic Cell Line
- KRAS Mutant A375 Isogenic Cell Line
- IDH1 Mutant Isogenic Cell Line
- IDH2 Mutant Isogenic Cell Line
  
  www.atcc.org/isogenic

**Tumor Cell Panels**
- Tumor Panels by Genetic Alteration
- Tumor Panels by Tissue Type
- p53 Hotspot Mutation Cell Panels
  
  www.atcc.org/tcp

**Cell Health & Viability**
- MTT and XTT Assays
- Reliablue™ Cell Viability Assay
- Mycoplasma Detection Kit
- CoolCell® LX Alcohol-free Cryopreservation Container
  
  www.atcc.org/cellhealth

**Cell Line Genomic DNA**
- Quantitative DNA
- Highly Purified DNA
- Certified Reference Material DNA
  
  www.atcc.org/celldna

**Epithelial-mesenchymal Transition (EMT) Reporter Cell Line**
- CRISPR/Cas9 gene-edited
- Vimentin-RFP fusion protein
- Strong RFP signal upon EMT induction
- Sensitive to EMT inhibitors
  
  www.atcc.org/EMT

**Angiogenesis Resources**
- Angio-Ready™ Angiogenesis Assay System
- Primary Endothelial and Smooth Muscle Cells
- Cardiovascular Cell Lines
- CellMatrix Basement Membrane Gel
  
  www.atcc.org/angio

**Complete Primary Cell Solutions**
- Human Airway, Renal, Epidermal, Mammary, and More
- Complete Growth Media and Supplements
- hTERT-immortalized Primary Cells
  
  www.atcc.org/primarycells

**Custom Solutions**
- Custom Services
- Custom Cell Production and Manufacturing
- Cell Line Development
- Cell Line Authentication
- Biorepository Services℠
  
  www.atcc.org/services
**Angio-Ready™, a tool for high-throughput angiogenesis studies**

Angio-Ready™ was engineered at ATCC to provide researchers with an assay-ready kit to measure the growth of new blood vessels\(^1\).

![Image of Angio-Ready™](image)

**Figure 1.** Establishment of TeloHAEC-GFP and hTERT-MSC co-culture angiogenesis. TeloHAEC-GFPs co-cultured with hTERT-MSCs for 7 days in the optimized angiogenesis medium displayed A) 3D tubule structures and B) a long branching organization C) that exhibited immuno-reactivity to an α-SMA antibody, which D) co-localized with the TeloHAEC-GFP.

---

**Isogenic cell lines**

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, such as EML4-ALK fusion and NRAS mutation. These cell lines are ideal for identifying novel, personalized treatment regimens\(^2\).

![Graph of Crizotinib dose-response](image)

**Figure 2.** (A) EML4-ALK Fusion-A549 Isogenic Cell Line (ATCC® CCL-185IG™) is sensitive to ALK signaling pathway inhibition. A549 (ATCC® CCL-185™) and CCL-185IG cells were treated with the indicated concentrations of ALK inhibitor crizotinib and cell survival was determined via live cell analysis. (B) NRAS Q61K Mutant A375 Isogenic Cell Line (ATCC® CRL-1619IG-2™) is resistant to BRAF signaling pathway inhibition. A357 (ATCC® CRL-1619™) and CRL-1619IG-2 cells were treated with the indicated concentrations of BRAF inhibitor dabrafenib and cell survival was determined as in A).

---

**References**
