October 2013

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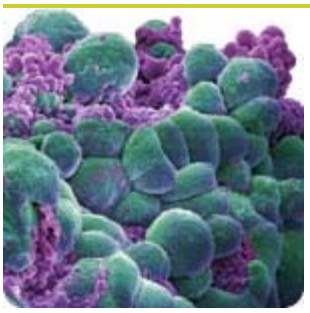
cell passages



Breast cancers are a heterogeneous array of tumors, classified according to their histological and molecular characteristics into one of at least four subtypes. Each subtype has a separate disease progression and requires a specialized course of treatment. Therefore, to generate effective treatment options matched to the individualized needs of the patient, investigators need *in vitro* research tools that represent the heterogeneity of breast cancers *in vivo*.

ATCC has an extensive collection of biological resources that researchers can use to understand and combat this complicated disease. In honor of Breast Cancer Awareness Month, Cell Passages will highlight some of our available breast cancer resources, but for a full description of the items in the collection, please download our new Breast Cancer Resource book.

Breast Cancer Tumor Cell Panels

- The Comprehensive Breast Cancer Cell Panel (ATCC® No. 30-4500K) is a comprehensive set of 45 breast cancer cell lines derived from ATCC master seed stocks to eliminate variability. Each panel features a compact disc containing signed certificates of analysis and product sheets for each individual cell line. Please see the website for a full listing of the cell lines included in the panel.

- The Triple Negative Breast Cancer Cell Panels (ATCC® No. TCP-1001™, TCP-1002, TCP-1003™) are arranged according to their classification into the following subtypes: (1) Basal-like, which includes subtypes Basal-Like 1 and 2 (BL1 and BL2) and Immunomodulatory (IM); (2) Mesenchymal-like, which includes the Mesenchymal (M) and Mesenchymal Stem-Like (MSL) groups; and, (3) the Luminal Androgen Receptor (LAR) subtype.

- The Breast Cancer Biomarkers Cell Panel (ATCC® No. TCP-1004™) includes published biomarker data for each culture in a convenient, printable format. This panel puts biomarker information at the researcher's fingertips, so they can reach a deeper understanding of the mechanisms behind the development and progression of breast cancer.

- The Breast Cancer p53 Hotspot Mutation Cell Panel (ATCC® No. TCP-2010™) is designed to help investigators unravel the relationship between TP53 (p53) gene mutations and oncogenesis. This panel combines cell lines that harbor mutations at different p53 hotspots with appropriate control lines that are either wild-type or null for p53 expression. Additionally, the p53-mutant cell lines included in these panels have mutations that result in translated proteins that are either unable to bind DNA, or that are structurally altered. Thus, this panel allows researchers to perform mechanistic assays at both the gene and protein level.

Share with others:

ATCC Publications

Breast Cancer Resource book

Animal Cell Culture guide

Primary Cell Culture guide

Stem Cell Culture guide

Tradeshows

Association for Molecular Pathology
Phoenix, AZ
November 14-16
Booth #1112

American Society for Cell Biology
New Orleans, LA
December 14-18
Booth #1224

- The Breast Cancer Mouse Model Cell Panel (ATCC® No. TCP-1005™) is composed of eight immortalized mouse mammary epithelial cell lines that stably overexpress MEK1 activated mutant (MEKDD), EGFR2/Neu, Myc or Ha-Ras. The cell lines in this panel have successfully been used to generate mouse models of breast cancer for studying metastasis and EGFR-MEK signaling, oncogenes in cell transformation, and for testing anti-cancer compounds.

Receive your Personal Deck of Cancer Cell Cards

ATCC Cancer cell cards are a convenient way to keep information about the most relevant cancer cell lines at your fingertips. A limited number of decks are available so requests yours today.

1. Click here
2. Sign up to receive your cancer cell cards
3. Receive your cell cards, hang your deck above your workstation, and never dig around for information again.

Webinar – Tumor Cell Panels

ATCC Molecular Signature Panels – Powerful tools for the genomics age

Fang Tian, Ph.D., ATCC Lead Scientist, Cell Biology
December 5th, 2013

Want to bring your research into the genomics age? In this webinar, we will describe the ATCC molecular signature panels, which were generated by combining together authenticated cell lines that contain critical gene copy number changes and site mutations identified by next-generation sequencing. These panels focus on key components of cell signaling pathways. The gene expression, protein expression and cellular localization of EGFR, AKT, PI3K, PTEN, p53, RAS, RAF, ERK, MYC and MET were studied and compared within a large number of cell lines with various genetic backgrounds.

Register now

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