




Product Sheet


## ERK Genetic Alteration Cell Panel (ATCC® TCP-1033™)

Please read this FIRST



Storage Temp.  
**liquid nitrogen  
vapor phase (less  
than -130°C) only**

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Biosafety Level  
**1**

### Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: ERK Genetic Alteration Cell Panel (ATCC® TCP-1033™)

### Description

ERK1 and ERK2 are important members of the mitogen-activated protein kinases (MAPKs) family, which controls a broad range of cellular activities and physiological processes, such as proliferation, cell survival, migration, morphology determination and oncogenic transformation. The MAPK1 gene encodes the ERK2 protein, and the MAPK3 gene encodes the ERK1 protein. ERK1/2 can be activated by upstream RAS-RAF-MEK signaling. Elevated and constitutive activation of ERK1/2 has been detected in various common cancer types. Mutations in the MAPK3 and MAPK1 genes have been observed in a subset of human tumors by next generation sequencing.

The ERK genetic alteration cell panel (ATCC TCP-1033) is composed of 7 selected human tumor cell lines from various common cancer types that carry COSMIC database validated mutations within MAPK1 and MAPK3 genes. This panel of cell lines also encompasses various basal levels of phosphor-ERK1/2. The MAPK1 and MAPK3 gene alteration status of each cell line has been sequenced and validated by ATCC.

### Components

ATCC CRL-2577 RKO  
ATCC CRL-9446 CHL-1  
ATCC HTB-111 AN3 CA  
ATCC HTB-2 RT4  
ATCC HTB-20 BT-474  
ATCC HTB-65 MeWo  
ATCC HTB-9 5637

### Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

### ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

### Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).  
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