



# ERK Genetic Alteration Cell Panel

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-3619 CHL-1  
ATCC HTB-111 AN3 CA  
ATCC HTB-2 RT4  
ATCC HTB-20 BT-474  
ATCC HTB-65 MeWo  
ATCC HTB-9 5637

**Shipping information:** 7 vials

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** Vapor phase of liquid nitrogen

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## Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

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## BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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### Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: ERK Genetic Alteration Cell Panel (ATCC TCP-1033)

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### References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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### Warranty

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

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## Revision

# ERK Genetic Alteration Cell Panel

TCP-1033

Product Sheet

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