



AKT Genetic Alteration Cell Panel

TCP-1029™

Description

AKT is a serine–threonine protein kinase that is expressed as three isoforms (AKT1, -2 and -3). AKT activation is initiated by translocation to the plasma membrane, which is mediated by a receptor tyrosine kinase-PI3K pathway. Activated AKT phosphorylates many key proteins, such as glycogen synthase kinase 3 and FOXOs, and regulates cell survival, proliferation and other cellular processes. Amplification of AKT1 and AKT2 has been discovered in a variety of common tumor types. AKT1 is linked to tumor cell survival and growth, whereas AKT2 is linked to tumor invasiveness.

The AKT genetic alteration cell panel (ATCC TCP-1029) is composed of eight human tumor cell lines from common cancer types that carry AKT gene copy number changes. The AKT1 and AKT2 gene alteration status of each cell line has been sequenced and validated by ATCC. This panel is useful for AKT pathway research, as well as for developing pan-AKT inhibitors or isoform-specific AKT inhibitors for anti-cancer therapeutics.

Components: ATCC CRL-2321 HCC1143

ATCC CRL-7245 Hs 343.T

ATCC CRL-1469 PANC-1

ATCC HTB-161 NIH:OVCAR-3

ATCC CRL-1622 KLE

ATCC HTB-183 NCI-H661

ATCC HTB-20 BT-474

ATCC HTB-128 MDA-MB-415

Storage Conditions

Product format: Frozen

Storage conditions: Vapor phase of liquid nitrogen

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.

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.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: AKT Genetic Alteration Cell Panel (ATCC TCP-1029)

References

References and other information relating to this material are available at www.atcc.org.

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Revision

This information on this document was last updated on 2022-11-05

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Product Sheet

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