Recombinant Human ACK1/TNK2 Kinase

Catalog No.: RP03414LQ

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Sequence Information

Species
Human

Gene ID
10188

Swiss Prot
Q07912

Tags
N-GST

Synonyms
TNK2; ACK1; ACK-1; ACK; p21cdc42Hs; Activated CDC42 kinase 1; Tyrosine kinase non-receptor protein 2

Product Information

Source
Baculovirus-Insect Cells

Purification
≥ 85% as determined by SDS-PAGE;≥ 85% as determined by HPLC.

Calculated MW
68.4 kDa

Observed MW
60-70 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Supplied as a 0.22 μm filtered solution in 50 mM Tris-HCl, 150 mM NaCl, 20% glycerol, 5 mM DTT, 0.1 M Trehalose. (pH 7.5). Contact us for customized product form or formulation.

Reconstitution
Please use running water to thaw it quickly.

Background

Activated CDC42 kinase 1, also known as ACK1, is an enzyme that in humans is encoded by the TNK2 gene. ACK1 binds to multiple receptor tyrosine kinases e.g. EGFR, MERTK, AXL, HER2 and insulin receptor (IR). ACK1 also interacts with Cdc42Hs in its GTP-bound form and inhibits both the intrinsic and GTPase-activating protein (GAP)-stimulated GTPase activity of Cdc42Hs. This binding is mediated by a unique sequence of 47 amino acids C-terminal to an SH3 domain. The protein may be involved in a regulatory mechanism that sustains the GTP-bound active form of Cdc42Hs and which is directly linked to a tyrosine phosphorylation signal transduction pathway. ACK1 is a survival kinase and shown to be associated with tumor cell survival, proliferation, hormone-resistance and radiation resistance. The activation of ACK1 has been observed in prostate, breast, pancreatic, lung and ovarian cancer cells.

Basic Information

Description
Recombinant Human ACK1/TNK2 Kinase is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Gly110-Trp476) of Human TNK2 (Accession #Q07912) fused with a N-GST tag.

Activity
The activity of ACK is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -70℃

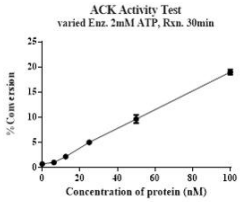
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

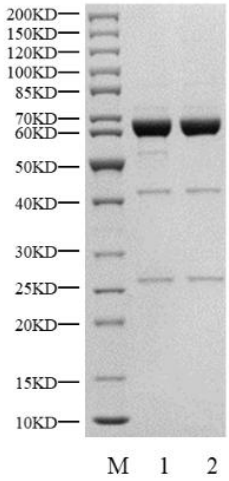
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Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



The activity of ACK is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.



Recombinant Human ACK1/TNK2 Kinase was resolved with SDS-PAGE under reducing (Lane 1) and non-reducing (Lane 2) conditions.