

Human MARK3 / CTAK1 / EMK-2 Protein (His & GST Tag)

Catalog Number: 12181-H20B



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Biological Solution Specialist

General Information

Gene Name Synonym:

CTAK1; KP78; Par-1a; PAR1A; 1600015G02Rik; A430080F22Rik; C-TAK1; Emk2; ETK-1; ETK1; MPK10

Protein Construction:

A DNA sequence encoding full length of human MARK3 (AAH24773.1) (Met 1-Leu 729) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Bio Activity:

The specific activity was determined to be 7 nmol/min/mg using synthetic CHKtide peptide (KKKVSRSGLYRSPMPENLNRPR) as substrate.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human MARK3/GST chimera consists of 967 amino acids and has a calculated molecular mass of 109.3 kDa. It migrates as an approximately 120 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 0.25mM DTT, 0.1mM PMSF, 0.1mM EDTA, pH 7.4, 10% gly

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

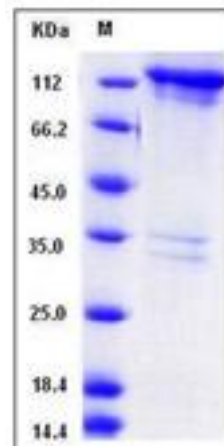
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

MAP / microtubule affinity-regulating kinase 3, also known as C-TAK1, cTAK1, Cdc25C-associated protein kinase 1, ELKL motif kinase 2, Protein kinase STK10, Ser/Thr protein kinase PAR-1, Serine/threonine-protein kinase p78, MARK3, CTAK1 and EMK2, is a ubiquitous expressed protein which belongs to the protein kinase superfamily, CAMK Ser / Thr protein kinase family and MARK subfamily. MARK3 contains one KA1 (kinase-associated) domain, one protein kinase domain and one UBA domain. The Par-1 / MARK protein kinases play a pivotal role in establishing cellular polarity. This family of kinases contains a unique domain architecture, in which a ubiquitin-associated (UBA) domain is located C-terminal to the kinase domain. MARKs / PAR-1 are common regulators of cell polarity that are conserved from nematode to human. All of these kinases have a highly conserved C-terminal domain, which is termed the kinase-associated domain 1 (KA1).

References

- 1.Kato,T. et al., 2001, Neoplasia.3 (1):4-9.
- 2.Tochio,N. et al., 2006, Protein Sci. 15 (11):2534-43.
- 3.Murphy,J.M. et al., 2007, Proc Natl Acad Sci USA.104 (36):14336-41.

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