Recombinant Human DAPK3/ZIPK Protein (GST Tag)

Catalog Number: PKSH030384

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

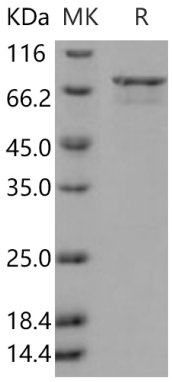
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human DAPK3/ZIPK protein Met 1-Arg 454, with an N-terminal GST
Mol_Mass	79.0 kDa
Accession	NP_001339.1
Bio-activity	The specific activity was determined to be 5 nmol/min/mg using MBP as substrate.

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 20mM Tris, 500mM NaCl, 10mM GSH, pH 7.4
Reconstitution	Not Applicable

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Death-associated protein kinase 3, also known as DAP kinase 3, ZIP-kinase, DAPK3 and ZIPK, is a nucleus and cytoplasm protein which belongs to theprotein kinase superfamily, CAMK Ser/Thr protein kinase family and DAP kinase subfamily. DAPK3 / ZIPK contains oneprotein kinase domain. It is a serine/threonine kinase which acts as a positive regulator of apoptosis. It phosphorylates histone H3 on 'Thr-11' at centromeres during mitosis. DAPK3 / ZIPK is a homodimer or forms heterodimers with ATF4. Both interactions require an intact leucine zipper domain and oligomerization is required for full enzymatic activity. It also binds to DAXX and PAWR, possibly in a ternary complex which plays a role in caspase activation. DAPK3 / ZIPK regulates myosin light chain phosphatase through phosphorylation of MYPT1 thereby regulating the assembly of the actin cytoskeleton, cell migration, invasiveness of tumor cells, smooth muscle contraction and neurite outgrowth. It is involved in the formation of promyelocytic leukemia protein nuclear body (PML-NB), one of many subnuclear domains in the eukaryotic cell nucleus, and which is involved in oncogenesis and viral infection.

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