Recombinant Human MAPKAPK5 Protein (His &GST Tag)

Catalog Number: PKSH030328

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

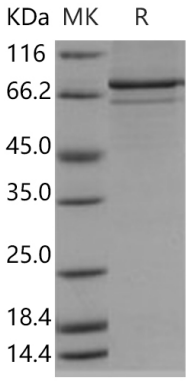
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human MAPKAPK5 protein Met 1-Gln 471, with an N-terminal His & GST
Calculated MW	82.0 kDa
Observed MW	75 kDa
Accession	NP_003659.2
Bio-activity	Not validated for activity

Properties

Purity	> 76 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
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, pH 8.0, 10% glycerol

Data



> 76 % as determined by reducing SDS-PAGE.

Background

MAPKAPK5 contains 1 protein kinase domain and belongs to the protein kinase superfamily, CAMK Ser/Thr protein kinase family. MAPKAPK5 has significant sequence homology to mitogen-activated protein kinase (MAPK)-activated protein kinase (MAPKAPK). It is widely distributed. MAPKAPK5 can be phosphorylated by extracellular-regulated kinase (ERK), and p38 kinase but not by c-jun N-terminal kinase (JNK)in vitro.Recombinant GST-MAPKAPK5 protein can phosphorylate a peptide derived from the regulatory light chain of myosin II. Phosphorylation of MAPKAPK5 by ERK and p38 kinase increased its activity by 9 and 15 fold respectively. Taken together, these data suggest that MAPKAPK5 is a novelin vitrosubstrate for ERK and p38 kinase. In response to cellular stress and proinflammatory cytokines, this kinase is activated through its phosphorylation by MAP kinases including MAPK1/ERK, MAPK14/p38-alpha, and MAPK11/p38-beta. MAPKAPK5 also mediates stress-induced small heat shock protein 27 phosphorylation .

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