Recombinant Human MAPKAPK3 Protein (GST Tag)

Catalog Number: PKSH030397

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

Description	
Species	Human
Source	Baculovirus-Insect Cells-derived Human MAPKAPK3 protein Met 1-Gln 382, with an
	N-terminal GST
Calculated MW	69.0 kDa
Observed MW	69 kDa
Accession	NP_004626.1
Bio-activity	Not validated for activity
Properties	
Purity	>90 % 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 $< -20^{\circ}$ C.
Formulation	Supplied as sterile solution of 50mM Tris, 100mM NaCl, pH 7.5, 0.25mM DTT,
	0.1mM EDTA, 0.5mM PMSF, 10% glycerol
Data	
	KDa MK R
	116
	66.2
	45.0
	35.0
	25.0
	18.4
	14.4

> 90 % as determined by reducing SDS-PAGE.

Background

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The MAPKAP kinases are a group of MAP kinase substrates which are themselves kinases. In response to activation, the MAP kinases phosphorylate downstream components on a consensus Pro-X-Ser/Thr-Pro motif. Several kinases that contain this motif have been identifed and serve as substrates for the ERK and p38 MAP kinases. Mitogen-activated protein (MAP) kinase-activated protein kinase 3, also known as MAPKAPK-3 and 3pK, is a member of the Ser/Thr protein kinase family. It is Widely expressed in human tissues, with a higher expression level observed in heart and skeletal muscle. No expression in brain. MAPKAPK-3 is unique since it was shown to be activated by three members of the MAPK family, namely extracellular-signal-regulated kinase (ERK), p38, and Jun-N-terminal kinase (JNK). It is highly activated both by mitogens and by stress-inducing agents or proinflammatory cytokines, and translocates to the cytoplasm from nucleus. MAPKAPK-3 is exclusively activated via the classical MAPK cascade, while stress-induced activation of MAPKAPK-3 is mainly mediated by p38, however the mechanism defining the specificity remains unknown