Recombinant Human MEK2/MAP2K2/MKK2 Protein (GST Tag)

Catalog Number: PKSH031494

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

Description	
Species	Human
Source	Baculovirus-Insect Cells-derived Human MEK2/MAP2K2/MKK2 protein Met 1-Val
	400, with an N-terminal GST
Calculated MW	70.7 kDa
Observed MW	66 kDa
Accession	NP_109587.1
Bio-activity	Not validated for activity
Properties	
Purity	> 92 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}C$ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, 2mM GSH, pH 7.4
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	
	KDa MK R
	116 -
	66.2
	45.0
	35.0

> 92 % as determined by reducing SDS-PAGE.

25.0

18.4 14.4

Background

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Dual specificity mitogen-activated protein kinase kinase 2, also known as MAP kinase kinase 2, MAPKK2, ERK activator kinase 2, MAPK / ERK kinase 2, MEK2 and MAP2K2, is a member of the protein kinase superfamily, STE Ser/ Thr protein kinase family and MAP kinase kinase subfamily. MAP2K2 / MEK2 contains oneprotein kinase domain. MEK1 and MEK2 (also known as MAP2K1 and MAP2K2, respectively) are evolutionarily conserved, dual-specificity kinases that mediate Erk1 and Erk2 activation during adhesion and growth factor signaling. MAP2K1 / MEK1 is a crucial modulator of Mek and Erk signaling and have potential implications for the role of MEK1 and MEK2 in tumorigenesis. MAP2K2 / MEK2 catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. It also activates the ERK1 and ERK2 MAP kinases. Defects in MAP2K2 are a cause of cardiofaciocutaneous syndrome (CFC syndrome) which is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy.