Recombinant Human ERK2/MAPK1/MAPK2 Protein (GST Tag)

Catalog Number:PKSH031927

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

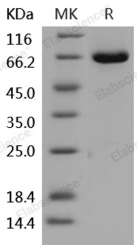
Description

Synonyms	ERK;ERK-2;ERK2;ERT1;MAPK2;p38;p40;p41;p41mapk;p42-MAPK;P42MAPK;PRKM1;PRKM2
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Ser 360
Accession	NP_002736.3
Calculated Molecular Weight	67 kDa
Observed molecular weight	67 kDa
Tag	N-GST

Properties

Purity	> 98 % 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℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM PMSF, 10% Glycerol, pH 8.0 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printe
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

Background

MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. ERK is a versatile protein kinase that regulates many cellular functions. Growing evidence suggests that extracellular signal-regulated protein kinase 1/2 (ERK1/2) plays a crucial role in promoting cell death in a variety of neuronal systems, including neurodegenerative diseases. It is believed that the magnitude and the duration of ERK1/2 activity determine its cellular function. Activation of ERK1/2 are implicated in

the pathophysiology of spinal cord injury (SCI). ERK-2, also known as Mitogen-activated protein kinase 1 (MAPK1), is a member of the protein kinase superfamily and MAP kinase subfamily. MKP-3 is a dual specificity phosphatase exclusively specific to MAPK1 for its substrate recognition and dephosphorylating activity. The activation of MAPK1 requires its phosphorylation by upstream kinases. Upon activation, MAPK1 translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. MAPK1 is involved in both the initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors such as ELK1. MAPK1 acts as a transcriptional repressor which represses the expression of interferon gamma-induced genes.

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