

Recombinant Human MAPK1, GST-tagged

Cat. No. MAPK1-918H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human MAPK1 protein (Met 1-Ser 360), fused with the GST tag at the N-terminus, was expressed in <i>Insect cells</i> .
Species	Human
Source	Insect Cells
ProteinLength	1-360 a.a.
Description	Mitogen-activated protein kinase 1, also known as Extracellular signal-regulated kinase 2, ERK-2, and MAPK1, is a member of the protein kinase superfamily and MAP kinase subfamily. 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. 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.
Molecular Mass	The recombinant human ERK2/GST chimera consists of 585 amino acids and predicts a molecular mass of 67 kDa as estimated in SDS-PAGE under reducing conditions.
Predicted N Terminal	Met.
Purity	> 98 % as determined by SDS-PAGE.

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Formulation	Lyophilized from sterile 50mM Tris , 100 mM NaCl, 0.5mM PMSF, 10%Glycerol, pH 8.0.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Storage And Stability	Samples are stable for up to twelve months from date of receipt at -70 ⁰ C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	MAPK1 mitogen-activated protein kinase 1 [Homo sapiens]
Synonyms	MAPK1; mitogen-activated protein kinase 1; ERK; p38; p40; p41; ERK2; ERT1; MAPK2; PRKM1; PRKM2; P42MAPK; p41mapk; p42-MAPK; MAP kinase 2; Mitogen-activated protein kinase 2; Extracellular signal-regulated kinase 2; OTTHUMP00000174492; MAP kinase 2; protein tyrosine kinase ERK2
Gene ID	5594
mRNA Refseq	NM_002745
Protein Refseq	NP_002736
MIM	176948
UniProt ID	P28482

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Chromosome Location	22q11.2; 22q11.21
Pathway	Acute myeloid leukemia; Adherens junction; Alzheimer"s disease; Axon guidance; cell receptor signaling pathway; Bladder cancer; Chemokine signaling pathway; Chronic myeloid leukemia; Dorso-ventral axis formation; Colorectal cancer; Endometrial cancer; ErbB signaling pathway; Fc epsilon RI signaling pathway; Fc gamma R-mediated phagocytosis; Focal adhesion; Gap junction; Glioma; GnRH signaling pathway; Insulin signaling pathway
Function	ATP binding; MAP kinase 2 activity; mitogen-activated protein kinase kinase kinase binding; nucleotide binding; phosphotyrosine binding; protein binding; protein serine/threonine kinase activity; transferase activity

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