Recombinant Human Mitogen-Activated Protein Kinase Kinase 1, GST-tagged

Cat. No. MAP2K1-1033H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human MAP2K1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	MAP2K1 is a member of the dual specificity protein kinase family that acts as a mitogen-activated protein kinase (MAPK) kinase. MAP2K1 lies upstream of MAPK/ERK and stimulates the enzymatic activity of MAPK/ERK upon a wide variety of extra- and intracellular signals. As an essential component of MAPK/ERK signal transduction pathway, MAP2K1 is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development. Constitutive activation of MAP2K1 results in cellular transformation. Thus, MAP2K1 represents a likely target for pharmacologic intervention in proliferative disease such as cancer.
Applications	Kinase Assay; Western Blot
Molecular Weight	72 kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol.

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Specific Activity	325 nmol/min/mg
Purity	> 95%
Concentration	0.1 ug/ul
Sequences	Full-length
Storage	Store product at -70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	Acute myeloid leukemia; B cell receptor signaling pathway; Bladder cancer; Chemokine signaling pathway; Chronic myeloid leukemia; Colorectal cancer; Dorso-ventral axis formation; 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; Long-term depression; Long-term potentiation; MAPK signaling pathway; Melanogenesis; Melanoma; Natural killer cell mediated cytotoxicity; Neurotrophin signaling pathway; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Prion diseases; Progesterone-mediated oocyte maturation; Prostate cancer; Regulation of actin cytoskeleton
Functions	ATP binding; MAP kinase kinase activity; Ras GTPase binding; mitogen-activated protein kinase kinase kinase binding; nucleotide binding; protein binding; protein serine/threonine kinase activity; protein tyrosine kinase activity; receptor signaling protein tyrosine phosphatase activity; transferase activity

GENE INFORMATION

Gene Name	MAP2K1 mitogen-activated protein kinase kinase 1 [Homo sapiens]

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Official Symbol	MAP2K1
Synonyms	MAP2K1; mitogen-activated protein kinase kinase 1; MEK1; MKK1; MAPKK1; PRKMK1; protein kinase, mitogen-activated, kinase 1 (MAP kinase kinase 1); EC 2.7.12.2; ERK activator kinase 1; MAP kinase kinase 1; MAPK/ERK kinase 1
Gene ID	5604
mRNA Refseq	NM_002755
Protein Refseq	NP_002746
MIM	176872
UniProt ID	Q02750
Chromosome Location	15q22.1-q22.33
PDB rendering based on 1s9j.	

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