Active Recombinant Human MAP2K1, His-tagged

Cat. No. MAP2K1-2568H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human mitogen-activated protein kinase kinase 1 (MAP2K1/MEK1) produced in Sf9 cells is a single polypeptide chain with a 6His tag at the N-terminus. It contains 405 (12+393) amino acids, and having a predicted molecular mass of approximately 44.7kD, but migrates in SDS-PAGE with an apparent molecular mass of 50kD.
Species	Human
Source	Insect Cells
Description	The protein encoded by this gene is a member of the dual-specificity protein kinase family that acts as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein kinase lies upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon activation by a wide variety of extra- and intracellular signals. As an essential component of the MAP kinase signal transduction pathway, this kinase is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development.
Form	20mM Tris-Cl (pH7.9), 20% Glycerol, 100mM NaCl, 1mM DTT and 0.5mM EDTA
Bio-activity	In addition to being a member of the dual specificity protein kinase family, MAP2K1 also acts as an integration point for multiple biochemical signals in signal tansduction pathway. Recombinant human MAP2K1 (or MEK1) protein is ideal for the studies of

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	protein phosphorylation and other related function assays.
AA Sequence	MAHHHHHHASGGMPKKKPTPIQLNPAPDGSAVNGTSSAETNLEALQKKLEELELDE QQRKRLEAFLTQKQKVGE LKDDDFEKISELGAGNGGVVFKVSHKPSGLVMARKLIH LEIKPAIRNQIIRELQVLHECNSPYIVGFYGAFYSD GEISICMEHMDGGSLDQVLKKA GRIPEQILGKVSIAVIKGLTYLREKHKIMHRDVKPSNILVNSRGEIKLCDF GVSGQLID SMANSFVGTRSYMSPERLQGTHYSVQSDIWSMGLSLVEMAVGRYPIPPPDAKELEL MFGCQVEGDA AETPPRPRTPGRPLSSYGMDSRPPMAIFELLDYIVNEPPPKLPSGV FSLEFQDFVNKCLIKNPAERADLKQLM VHAFIKRSDAEEVDFAGWLCSTIGLNQPST PTHAAGV
Purity	≥90%, as determined by SDS-PAGE
Usage	FOR RESEARCH ONLY
Storage	The protein sample can be stored under sterile conditions at 2- 8 centigrade for one month or at -70 centigrade for three months without detectable loss of activity. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	MAP2K1 mitogen-activated protein kinase kinase 1 [Homo sapiens]
Official Symbol	MAP2K1
Synonyms	CFC3; MEK1; MKK1; MAPKK1; PRKMK1; dual specificity mitogen-activated protein kinase kinase 1; ERK activator kinase 1; MAPK/ERK kinase 1; MAPKK 1; MEK 1; protein kinase, mitogen-activated, kinase 1 (MAP kinase kinase 1)
Gene ID	5604

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mRNA Refseq	NM_002755
Protein Refseq	NP_002746
MIM	176872
UniProt ID	Q02750
Chromosome Location	15q22.1-q22.33
Pathway	AGE/RAGE pathway, organism-specific biosystem; ARMS-mediated activation, organism-specific biosystem; Acute myeloid leukemia, organism-specific biosystem
Function	ATP binding; MAP kinase kinase activity; Ras GTPase binding

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