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

Cat. No. MAP2K1-1034H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human MAP2K1 was expressed in E. coli cells using an N-terminal GST tag.
Species	Human
Source	E.coli
Description	MAP2K1 is a protein serine/threonine kinase that is an upstream activator of the extracellular signal-regulated kinases (ERKs) which are activated in response to numerous growth factors and cytokines. Activation of ERKs by MAP2K1 involves phosphorylation of both tyrosine and threonine residues. MAP2K1, like the ERKs is ubiquitously distributed in tissues with the highest expression in heart, brain and spinal cord. MEK plays an important role in the growth and survival of cancer cells. In hepatocellular carcinoma, MEK activity is frequently elevated and inhibitors of MEK activity may be an effective treatment for this disease.
Applications	Kinase Assay; Western Blot
Molecular Weight	71 kDa
Expression System	E. coli
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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Purity	> 75%
Concentration	0.2 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

GENE INFORMATION

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

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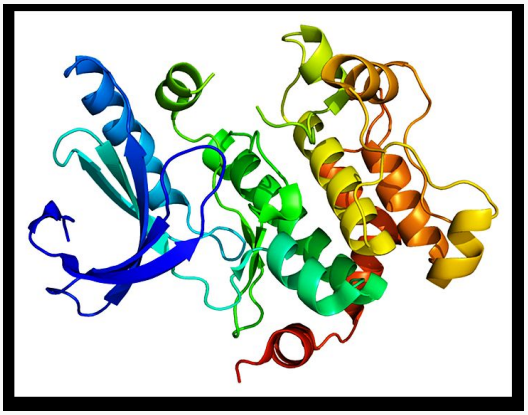
Gene ID	5604
mRNA Refseq	NM_002755
Protein Refseq	NP_002746
MIM	176872
UniProt ID	Q02750
Chromosome Location	15q22.1-q22.33
Function	ATP binding; MAP kinase kinase activity; Ras GTPase binding; mitogen-activated protein kinase kinase kinase binding; nucleotide binding; protein binding; protein serine/threonine kinase activity; protein tyrosine kinase activity; receptor signaling protein tyrosine phosphatase activity; transferase activity
PDB rendering based on 1s9j.	

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