

Recombinant Human MAP2K3, His-tagged

Cat. No. MAP2K3-29204TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview Human MEK3, with an N terminal His tag; 338 amino acids with a predicted MWt 38.3kDa including tag corresponding to the full length isoform 1 or fragment of isoform 3

Species Human

Source E.coli

ProteinLength 328 amino acids

Description

The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is activated by mitogenic and environmental stress, and participates in the MAP kinase-mediated signaling cascade. It phosphorylates and thus activates MAPK14/p38-MAPK. This kinase can be activated by insulin, and is necessary for the expression of glucose transporter. Expression of RAS oncogene is found to result in the accumulation of the active form of this kinase, which thus leads to the constitutive activation of MAPK14, and confers oncogenic transformation of primary cells. The inhibition of this kinase is involved in the pathogenesis of Yersina pseudotuberculosis. Multiple alternatively spliced transcript variants that encode distinct isoforms have been reported for this gene.

Conjugation HIS

Molecular Weight 38.300kDa inclusive of tags

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Tissue specificity	Abundant expression is seen in the skeletal muscle. It is also widely expressed in other tissues.
Form	Liquid
Purity	>90% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 10% Glycerol, 20mM Tris HCl, pH 8
Storage	Store at +4°C short term (1-2 weeks). Aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MSKPPAPNPTPPRNLDSTRF ITIGDRNFEV EADDLVTISE LGRGAYGVVEKVRHAQSGTI MAVKRIRATV NSQEQKRLLM DLINMRTVDCFYTVTFYGA LFREGDVVIC MELMDTSLDK FYRKVLDKNMTIPEDILGEI AVSIVRALEH LHSKLSVIHR DVKPSNVLIN KEGHVKMCDG GISGYLVDSV AKTMDAGCKP YMAPERINPELNQKGYNVKS DVWSLGITMI EMAILRFPYE SWGTPFQQLKQVVEEPSPQL PADRFSPFV DFTAQCLRKN PAERMSYLELMEHPFFTLHK TKKTDIAAFV KEILGEDS
Sequence Similarities	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily. Contains 1 protein kinase domain.

GENE INFORMATION

Gene Name	MAP2K3 mitogen-activated protein kinase kinase 3 [Homo sapiens]
Official Symbol	MAP2K3
Synonyms	MAP2K3; mitogen-activated protein kinase kinase 3; PRKMK3; dual specificity mitogen-activated protein kinase kinase 3; dual specificity mitogen activated protein

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kinase kinase 3; MAP kinase kinase 3; MAPK/ERK kinase 3; MAPKK3; MEK3; MKK3;

Gene ID [5606](#)

mRNA Refseq [NM_002756](#)

Protein Refseq [NP_002747](#)

MIM [602315](#)

Uniprot ID [P46734](#)

Chromosome Location 17q11.2

Pathway Activated TLR4 signalling, organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; CDC42 signaling events, organism-specific biosystem; CXCR3-mediated signaling events, organism-specific biosystem;

Function ATP binding; MAP kinase kinase activity; nucleotide binding; protein binding; protein kinase binding;

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