Recombinant Human MAP2K6 Protein, His-tagged

Cat. No. MAP2K6-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MKK6 (1-334aa), fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Human
Source	Insect Cells
ProteinLength	1-334 a.a.
Description	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. With MAP3K3/MKK3, catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinases p38 MAPK11, MAPK12, MAPK13 and MAPK14 and plays an important role in the regulation of cellular responses to cytokines and all kinds of stresses. Especially, MAP2K3/MKK3 and MAP2K6/MKK6 are both essential for the activation of MAPK11 and MAPK13 induced by environmental stress, whereas MAP2K6/MKK6 is the major MAPK11 activator in response to TNF. MAP2K6/MKK6 also phosphorylates and activates PAK6. The p38 MAP kinase signal transduction pathway leads to direct activation of transcription factors. Nuclear targets of p38 MAP kinase include the transcription factors ATF2 and ELK1. Within the p38 MAPK signal transduction pathway, MAP3K6/MKK6 mediates phosphorylation of STAT4 through MAPK14 activation, and is therefore required for STAT4 activation and STAT4-regulated gene expression in response to IL-12 stimulation. The pathway is also crucial for IL-6-induced SOCS3 expression and down-regulation of IL-6-mediated gene induction;

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	and for IFNG-dependent gene transcription. Has a role in osteoclast differentiation through NF-kappa-B transactivation by TNFSF11, and in endochondral ossification and since SOX9 is another likely downstream target of the p38 MAPK pathway. MAP2K6/MKK6 mediates apoptotic cell death in thymocytes. Acts also as a regulator for melanocytes dendricity, through the modulation of Rho family GTPases.
Form	Liquid
Molecular Mass	38.3 kDa (340aa) confirmed by MALDI-TOF
AA Sequence	MSQSKGKKRNPGLKIPKEAFEQPQTSSTPPRDLDSKACISIGNQNFEVKADDLEPIM ELGRGAYGVVEKMRHVPSGQIMAVKRIRATVNSQEQKRLLMDLDISMRTVDCPFTV TFYGALFREGDVWICMELMDTSLDKFYKQVIDKGQTIPEDILGKIAVSIVKALEHLHSK LSVIHRDVKPSNVLINALGQVKMCDFGISGYLVDSVAKTIDAGCKPYMAPERINPELN QKGYSVKSDIWSLGITMIELAILRFPYDSWGTPFQQLKQVVEEPSPQLPADKFSAEF VDFTSQCLKKNSKERPTYPELMQHPFFTLHESKGTDVASFVKLILGD
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/mL (determined by absorbance at 280nm)
Storage Buffer	In Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol

GENE INFORMATION

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Gene Name	MAP2K6 mitogen-activated protein kinase kinase 6 [Homo sapiens (human)]
Official Symbol	MAP2K6
Synonyms	MAP2K6 mitogen-activated protein kinase kinase 6; MEK6; MKK6; MAPKK6; PRKMK6; SAPKK3; SAPKK-3; dual specificity mitogen-activated protein kinase kinase 6; MAPK/ERK kinase 6; MAPKK 6; MEK 6; SAPK kinase 3; protein kinase, mitogen-activated, kinase 6 (MAP kinase kinase 6); stress-activated protein kinase kinase 3; EC 2.7.12.2
Gene ID	5608
mRNA Refseq	NM_002758
Protein Refseq	NP_002749
MIM	601254
UniProt ID	P52564

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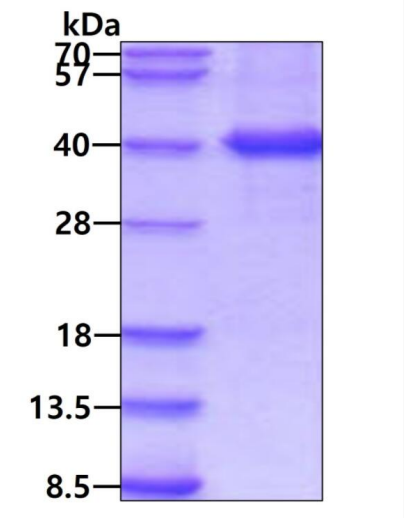
SDS-PAGE	 3 μg by SDS-PAGE under reducing condition and visualized by coomassie blue stain

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