Recombinant human biotinylated MAP2K6, His-tagged

Cat. No. MAP2K6-34H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human biotinylated MAP2K6, N-terminally fused to HIS6, was expressed in E.coli. Biotinylated protein is not phosphorylated and activated by MKKs. It is suitable as substrate for kinase activity assays and for western blot analyses.
Species	Human
Source	E.coli
Description	MKK6 is a dual specificity kinase belonging to the group of MAP kinase kinase (MKKs). MKKs are one part of three-kinase phosphorelay system "MAPK cascade" that converts extra cellular stimuli into various cellular responses such as gene expression, mitosis, and differentiation, proliferation, and cell survival/apoptosis. Upon phosphorylation by MKKKs (e.g. MLKs, ASK1, TAK1) MKK6 is activated and able to phosphorylate the Thr–Gly–Tyr motif in the activation loop of p38α, p38β, p38γ and p38δ. MKK6, a closely related MKK serves also as activator of p38 MAPK. The activation of the p38MAPKs by one or more MKK is stimulus-specific and cell specific. Whereas MKK3 seems to be the major activator of p38 in mesangial cells, MKK6 appears to be the predominant isoform in thymocytes. In contrast, both kinases are needed for full p38α activation in response to stimulation by TNFα. Upon UV irradiation, p38α is activated by MKK3, MKK6 and MKK4, which has also a minor contribution for p38α activity. Upon UV irradiation, p38α is activated by MKK3, MKK6 and MKK4, which triggers the stress-activated protein kinases, JNK and has also a minor contribution p38α activity. Whereas MKK6 can phosphorylate all four p38

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	MAPK family members, MKK3 activates p38α, p38γ and p38δ, but not p38β.
Form	20 mM Tris-HCl, 150 mM NaCl, 1 mM DTT, 20 % glycerol, pH 8.0.
Molecular Mass	38.9 kDa
Purity	>90% by SDS PAGE
Storage	- 80°C (avoid repeated freeze-thaw cycles !)
Concentration	0.47 mg/ml (Bradford with BSA as standard)
Conjugation	Biotin

GENE INFORMATION

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

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MIM	601254
UniProt ID	P52564
Chromosome Location	17q
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; CDO in myogenesis, organism-specific biosystem; CXCR3-mediated signaling events, organism-specific biosystem; Cellular roles of Anthrax toxin, organism-specific biosystem;
Function	ATP binding; MAP kinase kinase activity; nucleotide binding; protein kinase binding; protein serine/threonine kinase activity; protein tyrosine kinase activity;

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