

## Recombinant Human MAP3K5

Cat. No. MAP3K5-26518TH Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant fragment, corresponding to amino acids 649-946 of Human ASK1, expressed by baculovirus in Sf9 insect cells using an N-terminal tag, MW 60kDa.
<b>Species</b>	Human
<b>ProteinLength</b>	649-946 a.a.
<b>Description</b>	Mitogen-activated protein kinase (MAPK) signaling cascades include MAPK or extracellular signal-regulated kinase (ERK), MAPK kinase (MKK or MEK), and MAPK kinase kinase (MAPKKK or MEKK). MAPKK kinase/MEKK phosphorylates and activates its downstream protein kinase, MAPK kinase/MEK, which in turn activates MAPK. The kinases of these signaling cascades are highly conserved, and homologs exist in yeast, Drosophila, and mammalian cells. MAPKKK5 contains 1,374 amino acids with all 11 kinase subdomains. Northern blot analysis shows that MAPKKK5 transcript is abundantly expressed in human heart and pancreas. The MAPKKK5 protein phosphorylates and activates MKK4 (aliases SERK1, MAPKK4) in vitro, and activates c-Jun N-terminal kinase (JNK)/stress-activated protein kinase (SAPK) during transient expression in COS and 293 cells; MAPKKK5 does not activate MAPK/ERK.
<b>Tissue specificity</b>	Abundantly expressed in heart and pancreas.
<b>Form</b>	Liquid
<b>Purity</b>	>90% by SDS-PAGE

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<b>Storage buffer</b>	Preservative: None Constituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
<b>Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequence Similarities</b>	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily. Contains 1 protein kinase domain.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	MAP3K5 mitogen-activated protein kinase kinase kinase 5 [ Homo sapiens ]
<b>Official Symbol</b>	MAP3K5
<b>Synonyms</b>	MAP3K5; mitogen-activated protein kinase kinase kinase 5; MEKK5; apoptosis signal regulating kinase 1; ASK1; MAPKKK5;
<b>Gene ID</b>	4217
<b>mRNA Refseq</b>	NM_005923
<b>Protein Refseq</b>	NP_005914
<b>MIM</b>	602448
<b>Uniprot ID</b>	Q99683
<b>Chromosome Location</b>	6q22.33
<b>Pathway</b>	Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral

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sclerosis (ALS), conserved biosystem; Class I PI3K signaling events mediated by Akt, organism-specific biosystem; HIV-1 Nef: Negative effector of Fas and TNF-alpha, organism-specific biosystem; Insulin Signaling, organism-specific biosystem;

**Function**

ATP binding; MAP kinase kinase kinase activity; cysteine-type endopeptidase activator activity involved in apoptotic process; magnesium ion binding; nucleotide binding;

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