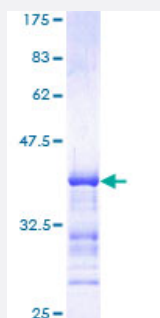


# MAP3K4 (Human) Recombinant Protein (Q01)

Catalog # H00004216-Q01

Size 25 ug, 10 ug

## Applications



## Specification

<b>Product Description</b>	Human MAP3K4 partial ORF ( NP_005913, 1201 a.a. - 1300 a.a.) recombinant protein with GST-tag at N-terminal.
<b>Sequence</b>	AASRPSPSGGDSVLPKSISSAHDTRGSSVPENDRLASIAAELQFRSLSRHSSPTEERDEPAYPRGDSSGSTRRSWELRTLISQSKDTASKLGPIEAIQKS
<b>Host</b>	Wheat Germ (in vitro)
<b>Theoretical MW (kDa)</b>	36.63
<b>Interspecies Antigen Sequence</b>	Mouse (88); Rat (95)
<b>Preparation Method</b>	<a href="#">in vitro wheat germ expression system</a>
<b>Purification</b>	Glutathione Sepharose 4 Fast Flow
<b>Quality Control Testing</b>	12.5% SDS-PAGE Stained with Coomassie Blue.
<b>Storage Buffer</b>	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
<b>Storage Instruction</b>	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
<b>Note</b>	Best use within three months from the date of receipt of this protein.

## Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

## Gene Info — MAP3K4

Entrez GeneID [4216](#)

GeneBank Accession# [NM\\_005922](#)

Protein Accession# [NP\\_005913](#)

Gene Name MAP3K4

Gene Alias FLJ42439, KIAA0213, MAPKKK4, MEKK4, MTK1, PRO0412

Gene Description mitogen-activated protein kinase kinase kinase 4

Omim ID [602425](#)

Gene Ontology [Hyperlink](#)

**Gene Summary**

The central core of each mitogen-activated protein kinase (MAPK) pathway is a conserved cascade of 3 protein kinases: an activated MAPK kinase kinase (MAPKKK) phosphorylates and activates a specific MAPK kinase (MAPKK), which then activates a specific MAPK. While the ERK MAPKs are activated by mitogenic stimulation, the CSBP2 and JNK MAPKs are activated by environmental stresses such as osmotic shock, UV irradiation, wound stress, and inflammatory factors. This gene encodes a MAPKKK, the MEKK4 protein, also called MTK1. This protein contains a protein kinase catalytic domain at the C terminus. The N-terminal nonkinase domain may contain a regulatory domain. Expression of MEKK4 in mammalian cells activated the CSBP2 and JNK MAPK pathways, but not the ERK pathway. In vitro kinase studies indicated that recombinant MEKK4 can specifically phosphorylate and activate PRKMK6 and SERK1, MAPKKs that activate CSBP2 and JNK, respectively but cannot phosphorylate PRKMK1, an MAPKK that activates ERKs. MEKK4 is a major mediator of environmental stresses that activate the CSBP2 MAPK pathway, and a minor mediator of the JNK pathway. Two alternatively spliced transcripts encoding distinct isoforms have been described. [provided by RefSeq]

**Other Designations**

MAP/ERK kinase kinase 4|MAPK/ERK kinase kinase 4|SSK2/SSK22 MAP kinase kinase kinase, yeast, homolog of|dJ473J16.1 (mitogen-activated protein kinase kinase kinase 4)|predicted protein of HQ0412

## Pathway

- [GnRH signaling pathway](#)
- [MAPK signaling pathway](#)

## Disease

- [Tobacco Use Disorder](#)