



Anti-MAP3K4 (aa 1201-1300) polyclonal antibody (DPAB-DC1916)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

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. Several alternatively spliced transcripts encoding distinct isoforms have been described.

Immunogen

MAP3K4 (NP_005913, 1201 a.a. ~ 1300 a.a) partial recombinant protein with GST tag.

The sequence is

AASRPSPSGGDSVLPKSISSAHDRGSSVPENDRLASIAAELQFRSLSRHSSPTEERDEP
AYPRGDSSGSTRRSWELRTLISQSKDTASKLGPIEAIQKS

Source/Host

Mouse

Species Reactivity

Human

Conjugate

Unconjugated

Applications

WB (Recombinant protein), ELISA,

Size

50 µl

Buffer	50 % glycerol
Preservative	None
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	MAP3K4 mitogen-activated protein kinase kinase kinase 4 [Homo sapiens (human)]
Official Symbol	MAP3K4
Synonyms	MAP3K4; mitogen-activated protein kinase kinase kinase 4; MTK1; MEKK4; MAPKKK4; PRO0412; MEKK 4; MEK kinase 4; MAP three kinase 1; MAP/ERK kinase kinase 4; MAPK/ERK kinase kinase 4; predicted protein of HQ0412; SSK2/SSK22 MAP kinase kinase kinase, yeast, homolog of; dJ473J16.1 (mitogen-activated protein kinase kinase kinase 4);
Entrez Gene ID	4216
Protein Refseq	NP_001278887
UniProt ID	Q9Y6R4
Chromosome Location	6q26
Pathway	DNA damage response (only ATM dependent); G13 Signaling Pathway; GnRH signaling pathway; Insulin Signaling
Function	ATP binding; MAP kinase kinase kinase activity; metal ion binding; protein binding