

## Datasheet

### MAP3K4 monoclonal antibody (M08), clone 4F10

**Catalog Number:** H00004216-M08

**Regulatory Status:** For research use only (RUO)

**Product Description:** Mouse monoclonal antibody raised against a partial recombinant MAP3K4.

**Clone Name:** 4F10

**Immunogen:** MAP3K4 (NP\_005913, 1201 a.a. ~ 1300 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Sequence:**

AASRPSPSGGDSVLPKSISSAHDTRGSSVPENDRLASI  
AAELQFRSLSRHSSPTEERDEPAYPRGDSSGSTRRS  
WELRTLISQSKDTASKLGPPIEAIQKS

**Host:** Mouse

**Reactivity:** Human, Mouse

**Applications:** ELISA, IHC-P, S-ELISA, WB-Ce, WB-Re  
(See our web site product page for detailed applications information)

**Protocols:** See our web site at  
<http://www.abnova.com/support/protocols.asp> or product page for detailed protocols

**Isotype:** IgG1 Kappa

**Storage Buffer:** In 1x PBS, pH 7.4

**Storage Instruction:** Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Entrez GeneID:** 4216

**Gene Symbol:** MAP3K4

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

**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, a 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]