10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

MEKK4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7910a

Specification

MEKK4 Antibody (C-term) - Product Information

Primary Accession	O9Y6R4
Other Accession	O08648
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	181685
Antigen Region	1074-1104

MEKK4 Antibody (C-term) - Additional Information

Gene ID 4216

Other Names
Mitogen-activated protein kinase kinase kinase 4, MAP three kinase 1, MAPK/ERK kinase kinase 4, MEK kinase 4, MEKK 4, MAP3K4, KIAA0213, MAPKKK4, MEKK4, MTK1

Target/Specificity
This MEKK4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1074~1104 amino acids from the C-terminal region of human MEKK4.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MEKK4 Antibody (C-term) is for research use only and not for use in diagnostic or

MEKK4 Antibody (C-term) - Background

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. The MEKK4 protein, also called MTK1, 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; it could not 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. Northern blot analysis detected an approximately 6-kb transcript in various human tissues. RT-PCR identified a shorter form of MEKK4 mRNA that lacks 49 codons and is probably generated by alternative splicing.

MEKK4 Antibody (C-term) - References

Luo, W., et al., J. Biol. Chem. 278(39):37451-37458 (2003).
Takekawa, M., et al., EMBO J. 16(16):4973-4982 (1997).

therapeutic procedures.

MEKK4 Antibody (C-term) - Protein Information

Name MAP3K4

Synonyms KIAA0213, MAPKKK4, MEKK4, MTK1

Function
Component of a protein kinase signal transduction cascade. Activates the CSBP2, P38 and JNK MAPK pathways, but not the ERK pathway. Specifically phosphorylates and activates MAP2K4 and MAP2K6.

Cellular Location
Cytoplasm, perinuclear region. Note=Localized in perinuclear vesicular-like structures, probably Golgi-associated vesicles.

Tissue Location
Expressed at high levels in heart, placenta, skeletal muscle and pancreas, and at lower levels in other tissues

MEKK4 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MEKK4 Antibody (C-term) - Citations

- The DIX domain protein coiled-coil-DIX1 inhibits c-Jun N-terminal kinase activation by Axin and dishevelled through distinct mechanisms.
- Axin utilizes distinct regions for competitive MEKK1 and MEKK4 binding and JNK activation.