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MAP3K4 Antibody (monoclonal) (M02)

Mouse monoclonal antibody raised against a partial recombinant MAP3K4.
Catalog # AT2775a

Specification

MAP3K4 Antibody (monoclonal) (M02) - Product Information

Application	**WB, IHC**
Primary Accession	Q9Y6R4
Other Accession	NM_005922
Reactivity	**Human, Mouse**
Host	**mouse**
Clonality	**Monoclonal**
Isotype	**IgG1 Kappa**
Calculated MW	**181685**

MAP3K4 Antibody (monoclonal) (M02) - 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
MAP3K4 (NP_005913, 1201 a.a. ~ 1300 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

Dilution
WB~~1:500~1000

Format
Clear, colorless solution in phosphate buffered saline, pH 7.2 .

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

Precautions
MAP3K4 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures.

MAP3K4 Antibody (monoclonal) (M02) - Protocols

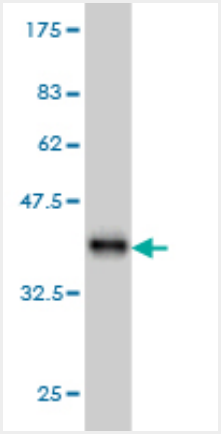
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot

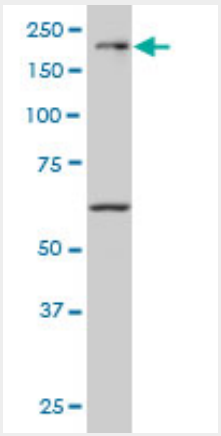
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- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

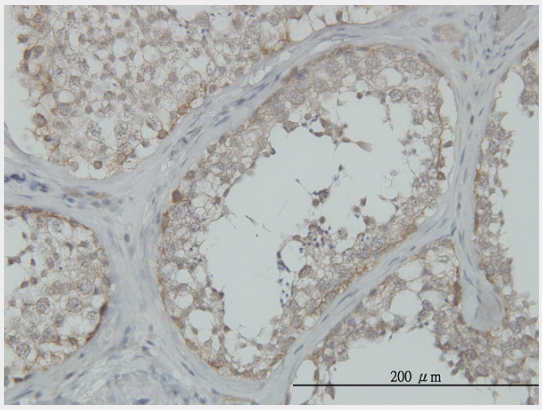
MAP3K4 Antibody (monoclonal) (M02) - Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.63 KDa) .



MAP3K4 monoclonal antibody (M02), clone 6C6 Western Blot analysis of MAP3K4 expression in NIH/3T3 ((Cat # AT2775a)



Immunoperoxidase of monoclonal antibody to MAP3K4 on formalin-fixed paraffin-embedded

human testis. [antibody concentration 3 ug/ml]

MAP3K4 Antibody (monoclonal) (M02) - 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. 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.

MAP3K4 Antibody (monoclonal) (M02) - References

Incorporating age at onset of smoking into genetic models for nicotine dependence: evidence for interaction with multiple genes. Grucza RA, et al. Addict Biol, 2010 Jul. PMID 20624154.Role of mitogen-activated protein kinase kinase 4 in cancer. Whitmarsh AJ, et al. Oncogene, 2007 May 14. PMID 17496914.CIN85 regulates the ability of MEKK4 to activate the p38 MAP kinase pathway. Aissouni Y, et al. Biochem Biophys Res Commun, 2005 Dec 16. PMID 16256071.MEKK4 is an effector of the embryonic TRAF4 for JNK activation. Abell AN, et al. J Biol Chem, 2005 Oct 28. PMID 16157600.Angiotensin II stimulated transcription of cyclooxygenase II is regulated by a novel kinase cascade involving Pyk2, MEKK4 and annexin II. Derbyshire ZE, et al. Mol Cell Biochem, 2005 Mar. PMID 15881658.