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MAP2K6 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1518a

Specification

MAP2K6 Antibody - Product Information

Application	**E, WB, IHC**
Primary Accession	P52564
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**38kDa KDa**

Description
This gene encodes a member of the dual specificity protein kinase family, which functions as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein phosphorylates and activates p38 MAP kinase in response to inflammatory cytokines or environmental stress. As an essential component of p38 MAP kinase mediated signal transduction pathway, this gene is involved in many cellular processes such as stress induced cell cycle arrest, transcription activation and apoptosis. Tissue specificity: Isoform 2 is only expressed in skeletal muscle. Isoform 1, on the other hand, is found in skeletal muscle, heart, and in lesser extent in liver or pancreas.

Immunogen
Purified recombinant fragment of human MAP2K6 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

MAP2K6 Antibody - Additional Information

Gene ID 5608

Other Names
Dual specificity mitogen-activated protein kinase kinase 6, MAP kinase kinase 6, MAPKK 6, 2.7.12.2, MAPK/ERK kinase 6, MEK 6, Stress-activated protein kinase kinase 3, SAPK kinase 3, SAPKK-3, SAPKK3, MAP2K6, MEK6, MKK6, PRKMK6, SKK3

Dilution
E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/500 - 1/2000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

MAP2K6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MAP2K6 Antibody - Protein Information

Name MAP2K6

Synonyms MEK6, MKK6, PRKMK6, SKK3

Function
Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. With MAP3K3/MKK3, catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinases p38 MAPK11, MAPK12, MAPK13 and MAPK14 and plays an important role in the regulation of cellular responses to cytokines and all kinds of stresses. Especially, MAP2K3/MKK3 and MAP2K6/MKK6 are both essential for the activation of MAPK11 and MAPK13 induced by environmental stress, whereas MAP2K6/MKK6 is the major MAPK11 activator in response to TNF. MAP2K6/MKK6 also phosphorylates and activates PAK6. The p38 MAP kinase signal transduction pathway leads to direct activation of transcription factors. Nuclear targets of p38 MAP kinase include the transcription factors ATF2 and ELK1. Within the p38 MAPK signal transduction pathway, MAP3K6/MKK6 mediates phosphorylation of STAT4 through MAPK14 activation, and is therefore required for STAT4 activation and STAT4- regulated gene expression in response to IL-12 stimulation. The pathway is also crucial for IL-6-induced SOCS3 expression and down-regulation of IL-6-mediated gene induction; and for IFNG-dependent gene transcription. Has a role in osteoclast differentiation through NF- kappa-B transactivation by TNFSF11, and in endochondral ossification and since SOX9 is another likely downstream target of the p38 MAPK pathway. MAP2K6/MKK6 mediates apoptotic cell death in thymocytes. Acts also as a regulator for melanocytes dendricity, through the modulation of Rho family GTPases.

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, cytoskeleton. Note=Binds to microtubules

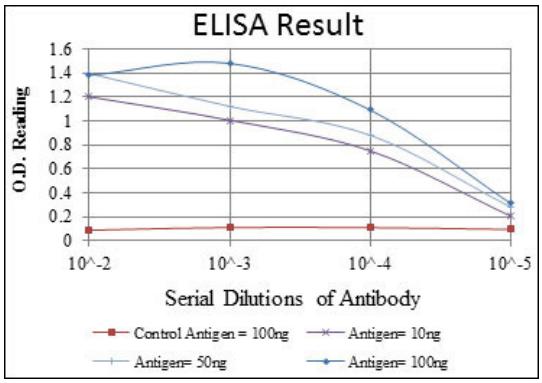
Tissue Location
Isoform 2 is only expressed in skeletal muscle. Isoform 1 is expressed in skeletal muscle, heart, and in lesser extent in liver or pancreas.

MAP2K6 Antibody - 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

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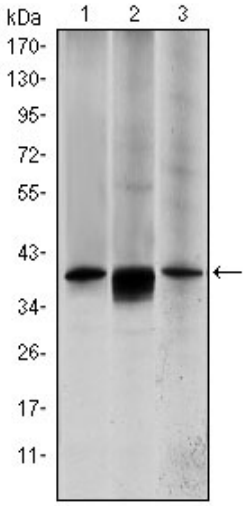


Figure 1: Western blot analysis using MAP2K6 mouse mAb against HepG2 (1), MCF-7 (2) and NIH/3T3 (3) cell lysate.

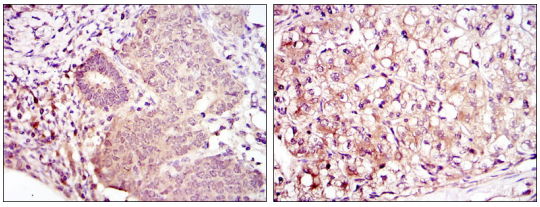


Figure 2: Immunohistochemical analysis of paraffin-embedded ovarian cancer (left) and kidney cancer (right) using MAP2K6 mouse mAb with DAB staining.

MAP2K6 Antibody - References

1. J Mol Med. 2008 Apr;86(4):485-90. 2. Blood. 2007 Jan 1;109(1):185-93.