

MAP4K3 Antibody

Mouse Monoclonal Antibody (Mab) Catalog # AM1903b

Specification

MAP4K3 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW WB, IHC-P,E <u>O8IVH8</u> <u>NP_003609.2</u> Human Mouse Monoclonal IgM,k 101316

MAP4K3 Antibody - Additional Information

Gene ID 8491

Other Names

Mitogen-activated protein kinase kinase kinase kinase 3, Germinal center kinase-related protein kinase, GLK, MAPK/ERK kinase kinase kinase 3, MEK kinase kinase 3, MEK kinase 3, MEKKK 3, MAP4K3, RAB8IPL1

Target/Specificity

This MAP4K3 monoclonal antibody is generated from mouse immunized with MAP4K3 recombinant protein.

Dilution WB~~1:1000 IHC-P~~1:100 E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin 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

MAP4K3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MAP4K3 Antibody - Protein Information

Name MAP4K3 (HGNC:6865)

Synonyms RAB8IPL1



Function Serine/threonine kinase that plays a role in the response to environmental stress. Appears to act upstream of the JUN N-terminal pathway (PubMed:<u>9275185</u>). Activator of the Hippo signaling pathway which plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. MAP4Ks act in parallel to and are partially redundant with STK3/MST2 and STK4/MST2 in the phosphorylation and activation of LATS1/2, and establish MAP4Ks as components of the expanded Hippo pathway (PubMed:<u>26437443</u>).

Tissue Location

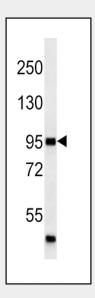
Ubiquitously expressed in all tissues examined, with high levels in heart, brain, placenta, skeletal muscle, kidney and pancreas and lower levels in lung and liver

MAP4K3 Antibody - Protocols

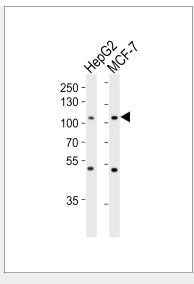
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

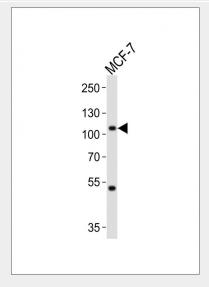
MAP4K3 Antibody - Images



MAP4K3 (Cat. #AM1903b) western blot analysis in A2058 cell line lysates (35µg/lane). This demonstrates the MAP4K3 antibody detected the MAP4K3 protein (arrow).

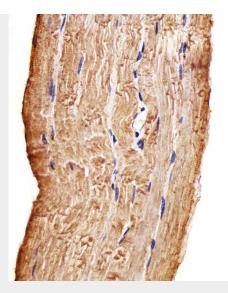


Western blot analysis of lysates from HepG2, MCF-7 cell line (from left to right), using MAP4K3 Antibody(Cat. #AM1903b). AM1903b was diluted at 1:1000 at each lane. A goat anti-mouse IgM H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysates at 35µg per lane.



Western blot analysis of lysate from MCF-7 cell line, using MAP4K3(Cat. #AM1903b). AM1903b was diluted at 1:1000. A goat anti-mouse IgM H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at $20\mu g$.





Immunohistochemical analysis of paraffin-embedded H. skeletal muscle section using MAP4K3 Antibody(Cat#AM1903b). AM1903b was diluted at 1:100 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

MAP4K3 Antibody - Background

This gene encodes a member of the Ste20 family of serine/threonine protein kinases. The protein belongs to the subfamily that consists of members, such as germinal center kinase (GCK), that are characterized by an N-terminal catalytic domain and C-terminal regulatory domain. The kinase activity of the encoded protein can be stimulated by UV radiation and tumor necrosis factor-alpha. The protein specifically activates the c-Jun N-terminal kinase (JNK) signaling pathway. Evidence suggests that it functions upstream of mitogen-activated protein kinase kinase kinase 1 (MEKK1). This gene previously was referred to as RAB8-interacting protein-like 1 (RAB8IPL1), but it has been renamed mitogen-activated protein kinase kinase kinase 3 (MAP4K3).

MAP4K3 Antibody - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Ichikawa, S., et al. J. Bone Miner. Res. 25(8):1821-1829(2010) Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) : Yan, L., et al. Mol. Cell 37(5):633-642(2010) Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)