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MAP4K3 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1903b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q8IVH8
Other Accession	NP_003609.2
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,k
Clone Names	219CT8.3.1
Calculated MW	101316

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, 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 polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	MAP4K3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:9275185). 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:26437443).

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

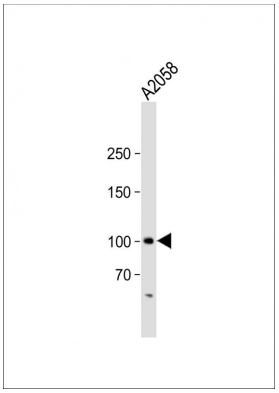
Background

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 kinase 3 (MAP4K3).

References

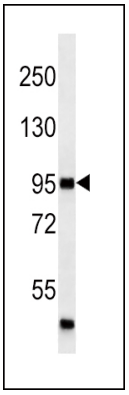
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Ichikawa, S., et al. J. Bone Miner. Res. 25(8):1821-1829(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Yan, L., et al. Mol. Cell 37(5):633-642(2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)

Images



All lanes: Anti-MAP4K3 Antibody at 1:1000 dilution + A2058 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Mouse IgM, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Observed band size: 101 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

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