10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MAP4K4 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1191a

Product Information

Application	WB, E
Primary Accession	O95819
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4H9E7
Isotype	IgG1
Calculated MW	142101
Description	MAP4K4: mitogen-activated protein kinase kinase kinase kinase 4. The protein encoded by this gene is a member of the serine/threonine protein kinase family. This kinase has been shown to specifically activate MAPK8/JNK. The activation of MAPK8 by this kinase is found to be inhibited by the dominant-negative mutants of MAP3K7/TAK1, MAP2K4/MKK4, and MAP2K7/MKK7, which suggests that this kinase may function through the MAP3K7-MAP2K4-MAP2K7 kinase cascade, and mediate the TNF-alpha signaling pathway. Alternatively spliced transcript variants encoding different isoforms have been identified.
Immunogen	Purified recombinant fragment of MAP4K4 (aa400-500) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	9448
Other Names	Mitogen-activated protein kinase kinase kinase kinase 4, 2.7.11.1, HPK/GCK-like kinase HGK, MAPK/ERK kinase kinase kinase 4, MEK kinase kinase 4, MEKKK 4, Nck-interacting kinase, MAP4K4, HGK, KIAA0687, NIK
Dilution	WB~~1/500 - 1/2000 E~~N/A
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	MAP4K4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MAP4K4 (HGNC:6866)
Synonyms	HGK, KIAA0687, NIK
Function	Serine/threonine kinase that plays a role in the response to environmental stress and cytokines such as TNF-alpha. Appears to act upstream of the JUN N-terminal pathway (PubMed:9890973). 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). Phosphorylates SMAD1 on Thr- 322 (PubMed:21690388).
Cellular Location	Cytoplasm.
Tissue Location	Widely expressed. Isoform 5 is abundant in the brain. Isoform 4 is predominant in the liver, skeletal muscle and placenta.

References

1. Mol Cell Biol. 2000 Mar;20(5):1537-45. 2. Curr Biol. 2002 Apr 16;12(8):622-31. 3. J Biol Chem. 2007 Mar 16;282(11):7783-9.

Images

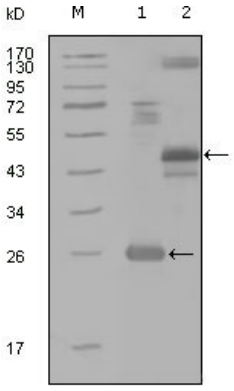

Figure 1: Western blot analysis using MAP4K4 mouse mAb against truncated Trx-MAP4K4 recombinant protein (1), MBP-MAP4K4 (aa300-400) recombinant protein (2) and MAP4K4(aa194-436)-hIgGFc transfected CH0-K1 cell lysate(3).

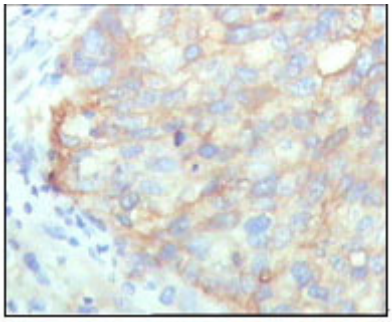

Figure 2: Immunohistochemical analysis of paraffin-embedded human cervical carcinoma, showing cytoplasmic localization with DAB staining using KARS mouse mAb.