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Phospho-MAP4K4(S801) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3444a

Product Information

Application	DB, E
Primary Accession	O95819
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB11324
Calculated MW	142101

Additional Information

Gene ID	9448
Other Names	Mitogen-activated protein kinase kinase kinase kinase 4, HPK/GCK-like kinase HGK, MAPK/ERK kinase kinase kinase 4, MEK kinase kinase 4, MEKKK 4, Nck-interacting kinase, MAP4K4, HGK, KIAA0687, NIK
Target/Specificity	This MAP4K4 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S801 of human MAP4K4.
Dilution	DB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	Phospho-MAP4K4(S801) 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.

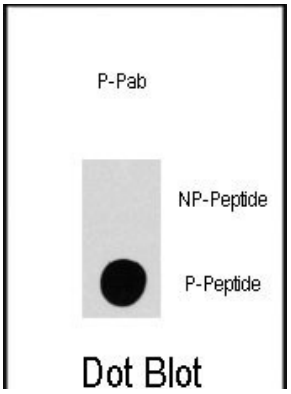
Background

M4K4, a member of the STE20 subfamily of Ser/Thr protein kinases, may play a role in the response to environmental stress and cytokines such as TNF-alpha. It appears to act upstream of the JUN N-terminal pathway. This protein is thought to interact with the SH3 domain of the adapter proteins Nck. HGK binds, via its CNH regulatory domain, to the N-terminal region of SPG3A. Expression appears to be ubiquitous, expressed in all tissue types examined. Isoform 5 appears to be more abundant in the brain, and isoform 4 is predominant in the liver, skeletal muscle and placenta.

References

Wright, J.H., et al., Mol. Cell. Biol. 23(6):2068-2082 (2003).
Yao, Z., et al., J. Biol. Chem. 274(4):2118-2125 (1999).
Ishikawa, K., et al., DNA Res. 5(3):169-176 (1998).

Images



Dot blot analysis of anti-MAP4K4-pS801 Phospho-specific Pab (RB11324) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.