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NIK Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8004a

Product Information

Application	WB, E
Primary Accession	O95819
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	142101
Antigen Region	618-649

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 NIK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 618-649 amino acids from the C-terminal region of human NIK.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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	NIK Antibody (C-term) 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.

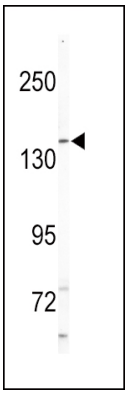
Background

HGK, 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



Western blot analysis of anti-HGK Antibody (C-term)(Cat.#AP8004a) in jurkat cell line lysates (35ug/lane). HGK(arrow) was detected using the purified Pab.

Citations

- Canonical nuclear factor □B pathway links tumorigenesis of synchronous mantle-cell lymphoma, clear-cell renal-cell carcinoma, and GI stromal tumor.
- Inflexibility in intramuscular triglyceride fractional synthesis distinguishes prediabetes from obesity in humans.
- siRNA-mediated reduction of inhibitor of nuclear factor-kappaB kinase prevents tumor necrosis factor-alpha-induced insulin resistance in human skeletal muscle.
- MAP4K4 gene silencing in human skeletal muscle prevents tumor necrosis factor-alpha-induced insulin resistance.