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Mouse Pak3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13931a

Specification

Mouse Pak3 Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q61036
Other Accession	Q8AXB4, Q62829, O75914, NP_001181977.1, NP_032804.2
Reactivity	**Mouse**
Predicted	**Human, Rat, Xenopus**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**62398**
Antigen Region	**124-152**

Mouse Pak3 Antibody (N-term) - Additional Information

Gene ID 18481

Other Names
Serine/threonine-protein kinase PAK 3, Beta-PAK, CDC42/RAC effector kinase PAK-B, p21-activated kinase 3, PAK-3, Pak3, Pak-3, Pakb, Stk4

Target/Specificity
This Mouse Pak3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 124-152 amino acids from the N-terminal region of mouse Pak3.

Dilution
WB~~1:1000
IHC-P~~1:10~50

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
Mouse Pak3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Pak3 Antibody (N-term) - Protein Information

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Name Pak3

Synonyms Pak-3, Pakb, Stk4

Function Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, or cell cycle regulation. Plays a role in dendrite spine morphogenesis as well as synapse formation and plasticity (PubMed:25851601). Acts as a downstream effector of the small GTPases CDC42 and RAC1. Activation by the binding of active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Additionally, phosphorylates TNNI3/troponin I to modulate calcium sensitivity and relaxation kinetics of thin myofilaments. May also be involved in early neuronal development. In hippocampal neurons, necessary for the formation of dendritic spines and excitatory synapses; this function is dependent on kinase activity and may be exerted by the regulation of actomyosin contractility through the phosphorylation of myosin II regulatory light chain (MLC) (PubMed:15800193).

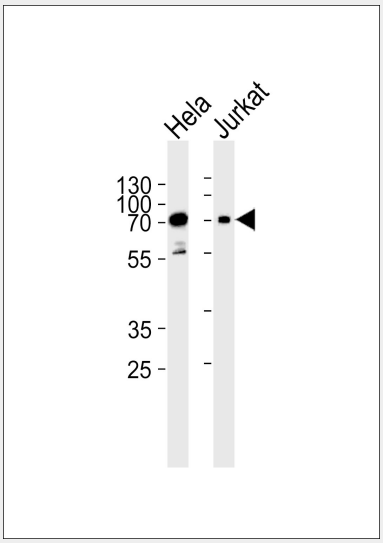
Cellular Location
Cytoplasm.

Mouse Pak3 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Pak3 Antibody (N-term) - Images



Western blot analysis of lysates from Hela, Jurkat cell line (from left to right), using Mouse Pak3 Antibody (N-term)(Cat. #AP13931a). AP13931a was diluted at 1:1000 at each lane. A goat

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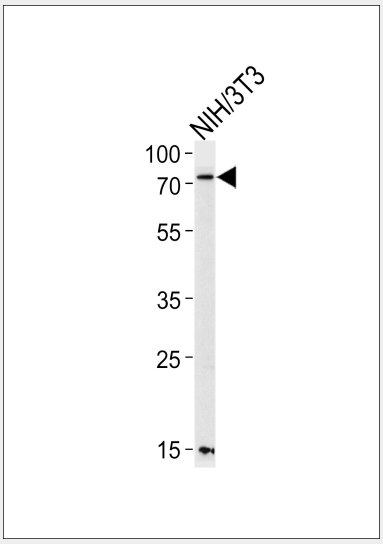
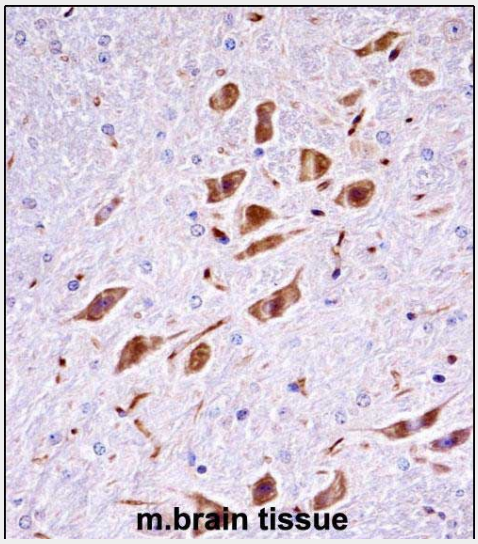
anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Western blot analysis of lysate from mouse NIH/3T3 cell line, using Mouse Pak3 Antibody (N-term)(Cat. #AP13931a). AP13931a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.



Mouse Pak3 Antibody (N-term) (AP13931a)immunohistochemistry analysis in formalin fixed and paraffin embedded mouse brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of Mouse Pak3 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Mouse Pak3 Antibody (N-term) - Background

Key regulator of synapse formation and plasticity in the hippocampus.

Mouse Pak3 Antibody (N-term) - References

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Jiang, X.S., et al. Hum. Mol. Genet. 19(7):1347-1357(2010)
Demyanenko, G.P., et al. Neuroscience 165(1):107-115(2010)
Grimsley-Myers, C.M., et al. J. Neurosci. 29(50):15859-15869(2009)
Sansom, S.N., et al. PLoS Genet. 5 (6), E1000511 (2009) :