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Mouse Pak3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13931a

Product Information

Application	IHC-P, WB, E
Primary Accession	Q61036
Other Accession	Q62829, O75914, NP_001181977.1, NP_032804.2
Reactivity	Human, Rat, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34657
Calculated MW	62398
Antigen Region	124-152

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	IHC-P~~1:100~500 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 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.

Protein Information

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.

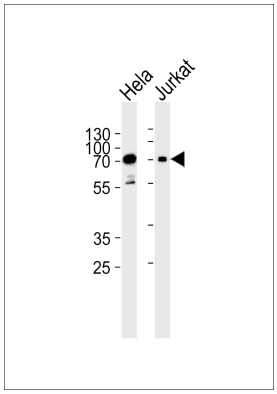
Background

Key regulator of synapse formation and plasticity in the hippocampus.

References

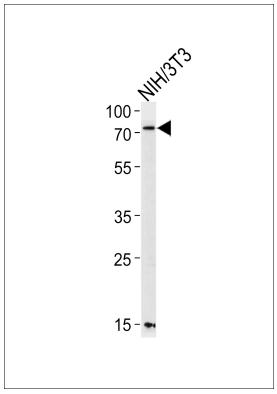
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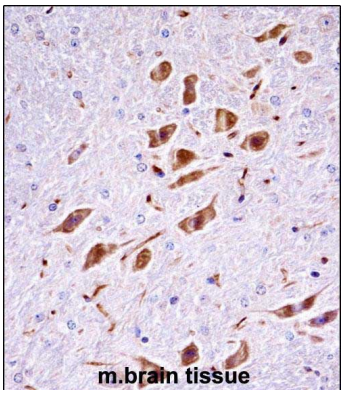
Images



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 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.