

Mouse Pak4 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14453C

Specification

Mouse Pak4 Antibody (Center) - Product Information

Application	WB, FC,E
Primary Accession	O8BTW9
Other Accession	O96013 , NP_081746.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	64623
Antigen Region	187-216

Mouse Pak4 Antibody (Center) - Additional Information

Gene ID 70584

Other Names

Serine/threonine-protein kinase PAK 4, p21-activated kinase 4, PAK-4, Pak4, Kiaa1142

Target/Specificity

This Mouse Pak4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 187-216 amino acids from the Central region of mouse Pak4.

Dilution

WB~~1:1000

FC~~1:10~50

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 Pak4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Pak4 Antibody (Center) - Protein Information

Name Pak4 {ECO:0000312|MGI:MGI:1917834}

Synonyms Kiaa1142

Function Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, growth, proliferation or cell survival. Activation by various effectors including growth factor receptors or active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Phosphorylates and inactivates the protein phosphatase SSH1, leading to increased inhibitory phosphorylation of the actin binding/depolymerizing factor cofilin. Decreased cofilin activity may lead to stabilization of actin filaments. Phosphorylates LIMK1, a kinase that also inhibits the activity of cofilin. Phosphorylates integrin beta5/ITGB5 and thus regulates cell motility. Phosphorylates ARHGEF2 and activates the downstream target RHOA that plays a role in the regulation of assembly of focal adhesions and actin stress fibers. Stimulates cell survival by phosphorylating the BCL2 antagonist of cell death BAD. Alternatively, inhibits apoptosis by preventing caspase-8 binding to death domain receptors in a kinase independent manner. Plays a role in cell-cycle progression by controlling levels of the cell- cycle regulatory protein CDKN1A and by phosphorylating RAN. Promotes kinase-independent stabilization of RHOA, thereby contributing to focal adhesion disassembly during cell migration (By similarity).

Cellular Location

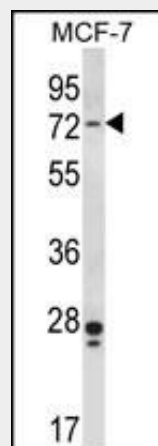
Cytoplasm {ECO:0000250|UniProtKB:O96013}. Note=Seems to shuttle between cytoplasmic compartments depending on the activating effector. For example, can be found on the cell periphery after activation of growth-factor or integrin-mediated signaling pathways. {ECO:0000250|UniProtKB:O96013}

Mouse Pak4 Antibody (Center) - Protocols

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

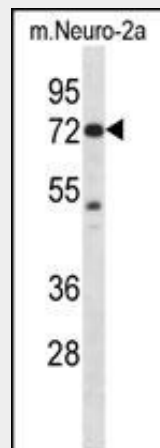
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Mouse Pak4 Antibody (Center) - Images

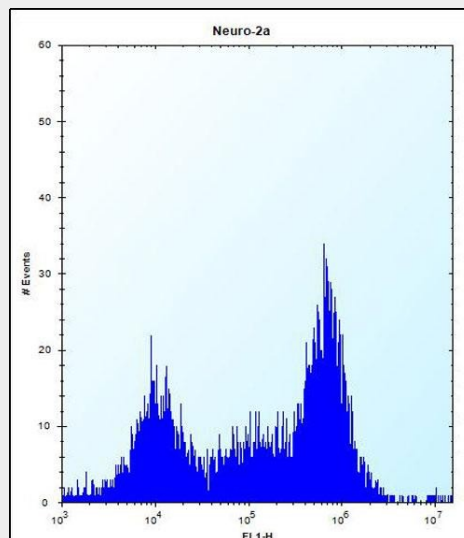


Mouse Pak4 Antibody (Center) (Cat. #AP14453c) western blot analysis in MCF-7 cell line lysates

(35ug/lane). This demonstrates the Pak4 antibody detected the Pak4 protein (arrow).



Mouse Pak4 Antibody (Center) (Cat. #AP14453c) western blot analysis in Neuro-2a cell line lysates (35ug/lane). This demonstrates the Pak4 antibody detected the Pak4 protein (arrow).



Mouse Pak4 Antibody (Center) (Cat. #AP14453c) flow cytometric analysis of Neuro-2a cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

Mouse Pak4 Antibody (Center) - Background

Pak4 activates the JNK pathway. Plays a role in the reorganization of the actin cytoskeleton and in the formation of filopodia. Phosphorylates and inactivates the protein phosphatase SSH1, leading to increased inhibitory phosphorylation of the actin binding/depolymerizing factor cofilin. Decreased cofilin activity may lead to stabilization of actin filaments. Phosphorylates ARHGEF2 (By similarity).

Mouse Pak4 Antibody (Center) - References

- Liu, Y., et al. *Oncogene* 29(44):5883-5894(2010)
- Tian, Y., et al. *Mech. Dev.* 126 (8-9), 710-720 (2009) :
- Ha, U.H., et al. *J. Biol. Chem.* 283(45):30624-30631(2008)
- Liu, Y., et al. *Mol. Cancer Res.* 6(7):1215-1224(2008)
- Danzer, K.M., et al. *J. Neurochem.* 103(6):2401-2407(2007)