10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PAK4 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7929a

Specification

PAK4 Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	O96013
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**64072**
Antigen Region	**156-187**

PAK4 Antibody (N-term) - Additional Information

Gene ID 10298

Other Names
Serine/threonine-protein kinase PAK 4, p21-activated kinase 4, PAK-4, PAK4, KIAA1142

Target/Specificity
This PAK4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 156-187 amino acids from the N-terminal region of human PAK4.

Dilution
WB~~1:1000
IHC-P~~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 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
PAK4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PAK4 Antibody (N-term) - Protein Information

Name PAK4 (HGNC:16059)

Synonyms KIAA1142

Function Serine/threonine-protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell adhesion turnover, cell migration, growth, proliferation or cell survival (PubMed:26598620). 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 RHOU, thereby contributing to focal adhesion disassembly during cell migration (PubMed:26598620).

Cellular Location
Cytoplasm. 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.

Tissue Location
Highest expression in prostate, testis and colon.

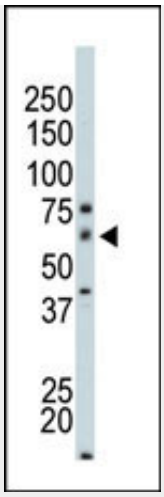
PAK4 Antibody (N-term) - Protocols

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

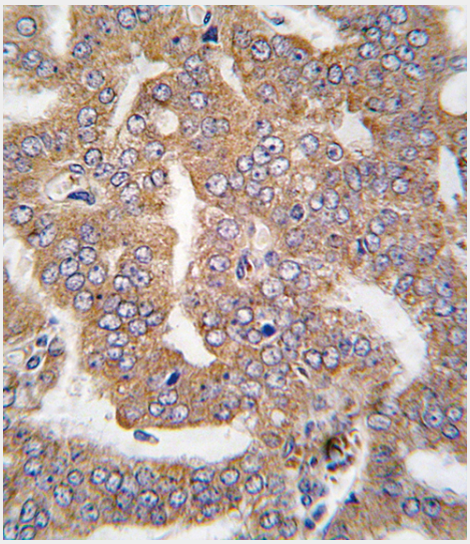
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PAK4 Antibody (N-term) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



The anti-PAK4 Pab (Cat. #AP7929a) is used in Western blot to detect PAK4 in mouse small intestine tissue lysate.



Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with PAK4 antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

PAK4 Antibody (N-term) - Background

PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins, a family of serine/threonine p21-activating kinases, include PAK1, PAK2, PAK3, PAK4, PAK5, and PAK6. PAK proteins serve as targets for the small GTP binding proteins Cdc42 and Rac and have been implicated in a wide range of biological activities. PAK4 interacts specifically with the GTP-bound form of Cdc42Hs and weakly activates the JNK family of MAP kinases. PAK4 is a mediator of filopodia formation and may play a role in the reorganization of the actin cytoskeleton.

PAK4 Antibody (N-term) - References

Lu, Y., et al., J. Biol. Chem. 278(12):10374-10380 (2003).
Bagrodia, S., et al., Trends Cell Biol. 9(9):350-355 (1999).
Abo, A., et al., EMBO J. 17(22):6527-6540 (1998).