

PAK4 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10323**Specification**

PAK4 Antibody - Product Information

Application	WB
Primary Accession	O96013
Other Accession	BAF84528
Reactivity	Human, Mouse, Rat, Hamster
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	64072

PAK4 Antibody - Additional Information**Gene ID** 10298

Application & Usage	Western blot analysis (0.5-4 µg/ml). However, the optimal conditions should be determined individually. The antibody recognizes ~60-70 kDa Pak4 in samples of human, mouse, and rat origins. The antibody does not cross-react with other Paks. Reactivity to other species has not been tested.
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Other Names

PAK-4 , KIAA1142

Target/Specificity

PAK4

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) affinity purified rabbit anti-PAK4 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

PAK4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PAK4 Antibody - Protein Information

Name PAK4

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.

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

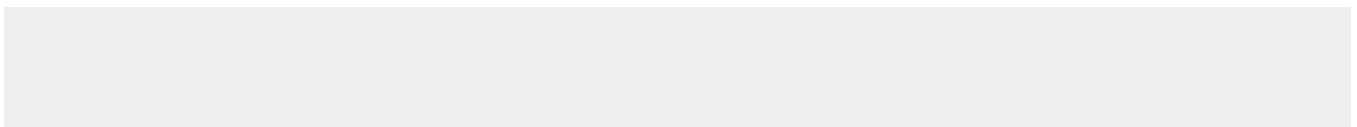
Highest expression in prostate, testis and colon.

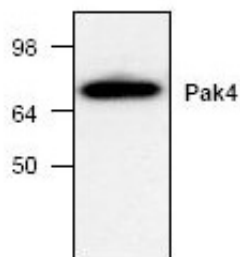
PAK4 Antibody - Protocols

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](#)

PAK4 Antibody - Images





Western blot analysis of PAK4 expression in Jurkat cell lysate.

PAK4 Antibody - Background

The PAK (p21-activated kinase) family of serine/threonine kinases plays an important role in multiple cellular processes, including cytoskeletal reorganization, MAPK signaling, apoptotic signaling, etc. Several mechanisms that induce PAK activation have been reported. Binding of Rac/cdc42 to the CRIB (or PBD) domain at the N-terminal region of PAK causes autophosphorylation and conformational change of PAK. More recently identified members PAK4, PAK5 and PAK6 have lower sequence similarity with PAK1-3 in the regulatory N-terminal region. It has been demonstrated that phosphorylation of serine 474 of PAK4 may play a pivotal role in the activity and function of PAK4 kinase