

**Anti-PAK4 (pS474) Antibody**  
**Catalog # AP53726****Specification**

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**Anti-PAK4 (pS474) Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">O96013</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	64072

**Anti-PAK4 (pS474) Antibody - Additional Information****Gene ID** 10298**Other Names**

KIAA1142; Serine/threonine-protein kinase PAK 4; p21-activated kinase 4; PAK-4

**Target/Specificity**

Recognizes endogenous levels of PAK4 (pS474) protein.

**Dilution**

WB~~1/500 - 1/1000

IF~~1/50 - 1/200

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**Anti-PAK4 (pS474) Antibody - 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:<a href="http://www.uniprot.org/citations/26598620" target="\_blank">26598620</a>). 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:<a href="http://www.uniprot.org/citations/26598620" target="\_blank">26598620</a>).

#### 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

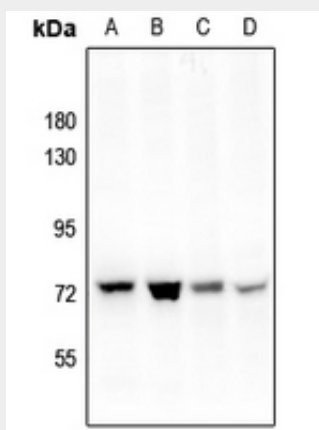
Highest expression in prostate, testis and colon.

### Anti-PAK4 (pS474) Antibody - Protocols

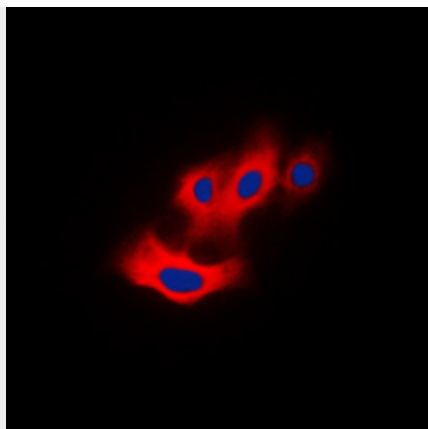
Provided below are standard protocols that you may find useful for product applications.

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

### Anti-PAK4 (pS474) Antibody - Images



Western blot analysis of PAK4 (pS474) expression in PC3 (A), MCF7 (B), NIH3T3 (C), PC12 (D) whole cell lysates.



Immunofluorescent analysis of PAK4 (pS474) staining in Raw264.7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-PAK4 (pS474) Antibody - Background**

Rabbit polyclonal antibody to PAK4 (pS474)