

**PAK2 Antibody**  
**Rabbit mAb**  
**Catalog # AP91582**

**Specification**

**PAK2 Antibody - Product Information**

Application	WB, IHC, FC, ICC
Primary Accession	<a href="#">Q13177</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
CB422; Gamma PAK; hPAK65; p27; p34; p58; p65PAK; PAK-2p34; Pak2; PAK65; PAKgamma; S6 H4 kinase;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	58043 Da

**PAK2 Antibody - Additional Information**

Dilution	WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 ICC~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PAK2
Description	The activated kinase acts on a variety of targets. Phosphorylates ribosomal protein S6, histone H4 and myelin basic protein. Full length PAK 2 stimulates cell survival and cell growth. The process is, at least in part, mediated by phosphorylation and inhibition of pro-apoptotic BAD.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

**PAK2 Antibody - Protein Information**

**Name** PAK2

**Function**

Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell motility, cell cycle progression, apoptosis or proliferation (PubMed:<a href="http://www.uniprot.org/citations/12853446" target="\_blank">12853446</a>, PubMed:<a href="http://www.uniprot.org/citations/16617111" target="\_blank">16617111</a>,

PubMed:<a href="http://www.uniprot.org/citations/19273597" target="\_blank">19273597</a>,  
PubMed:<a href="http://www.uniprot.org/citations/19923322" target="\_blank">19923322</a>,  
PubMed:<a href="http://www.uniprot.org/citations/33693784" target="\_blank">33693784</a>,  
PubMed:<a href="http://www.uniprot.org/citations/7744004" target="\_blank">7744004</a>,  
PubMed:<a href="http://www.uniprot.org/citations/9171063" target="\_blank">9171063</a>).  
Acts as a downstream effector of the small GTPases CDC42 and RAC1 (PubMed:<a href="http://www.uniprot.org/citations/7744004" target="\_blank">7744004</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/7744004" target="\_blank">7744004</a>). Full-length PAK2 stimulates cell survival and cell growth (PubMed:<a href="http://www.uniprot.org/citations/7744004" target="\_blank">7744004</a>). Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration (PubMed:<a href="http://www.uniprot.org/citations/21317288" target="\_blank">21317288</a>). Phosphorylates JUN and plays an important role in EGF-induced cell proliferation (PubMed:<a href="http://www.uniprot.org/citations/21177766" target="\_blank">21177766</a>). Phosphorylates many other substrates including histone H4 to promote assembly of H3.3 and H4 into nucleosomes, BAD, ribosomal protein S6, or MBP (PubMed:<a href="http://www.uniprot.org/citations/21724829" target="\_blank">21724829</a>). Phosphorylates CASP7, thereby preventing its activity (PubMed:<a href="http://www.uniprot.org/citations/21555521" target="\_blank">21555521</a>, PubMed:<a href="http://www.uniprot.org/citations/27889207" target="\_blank">27889207</a>). Additionally, associates with ARHGEF7 and GIT1 to perform kinase-independent functions such as spindle orientation control during mitosis (PubMed:<a href="http://www.uniprot.org/citations/19273597" target="\_blank">19273597</a>, PubMed:<a href="http://www.uniprot.org/citations/19923322" target="\_blank">19923322</a>). On the other hand, apoptotic stimuli such as DNA damage lead to caspase-mediated cleavage of PAK2, generating PAK-2p34, an active p34 fragment that translocates to the nucleus and promotes cellular apoptosis involving the JNK signaling pathway (PubMed:<a href="http://www.uniprot.org/citations/12853446" target="\_blank">12853446</a>, PubMed:<a href="http://www.uniprot.org/citations/16617111" target="\_blank">16617111</a>, PubMed:<a href="http://www.uniprot.org/citations/9171063" target="\_blank">9171063</a>). Caspase-activated PAK2 phosphorylates MKN1 and reduces cellular translation (PubMed:<a href="http://www.uniprot.org/citations/15234964" target="\_blank">15234964</a>).

### Cellular Location

[Serine/threonine-protein kinase PAK 2]: Cytoplasm Nucleus Note=MYO18A mediates the cellular distribution of the PAK2-ARHGEF7-GIT1 complex to the inner surface of the cell membrane

### Tissue Location

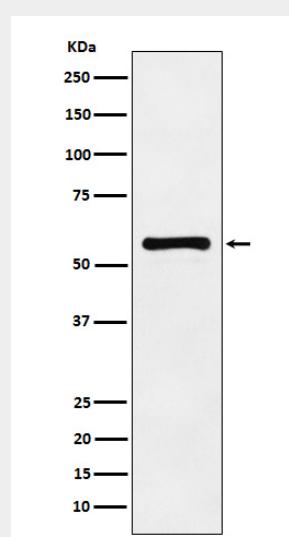
Ubiquitously expressed. Higher levels seen in skeletal muscle, ovary, thymus and spleen

### PAK2 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](#)

### PAK2 Antibody - Images



Western blot analysis of PAK2 expression in HeLa cell lysate.