

PAK2 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS11428**Specification****PAK2 Antibody (C-Terminus) - Product Information**

Application	IF, WB, IHC
Primary Accession	Q13177
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58kDa KDa

PAK2 Antibody (C-Terminus) - Additional Information**Gene ID** 5062**Other Names**

Serine/threonine-protein kinase PAK 2, 2.7.11.1, Gamma-PAK, PAK65, S6/H4 kinase, p21-activated kinase 2, PAK-2, p58, PAK-2p27, p27, PAK-2p34, p34, C-t-PAK2, PAK2

Target/Specificity

14 amino acid peptide from near the carboxy terminus of human PAK2

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

PAK2 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

PAK2 Antibody (C-Terminus) - 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: [7744004](http://www.uniprot.org/citations/7744004), PubMed: [19273597](http://www.uniprot.org/citations/19273597), PubMed: [19923322](http://www.uniprot.org/citations/19923322), PubMed: [9171063](http://www.uniprot.org/citations/9171063), PubMed: [12853446](http://www.uniprot.org/citations/12853446), PubMed: [16617111](http://www.uniprot.org/citations/16617111), PubMed: [33693784](http://www.uniprot.org/citations/33693784)). Acts as a downstream effector of the small GTPases CDC42 and RAC1 (PubMed: [7744004](http://www.uniprot.org/citations/7744004)). 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:7744004). Full-length PAK2 stimulates cell survival and cell growth (PubMed:7744004). Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration (PubMed:21317288). Phosphorylates JUN and plays an important role in EGF-induced cell proliferation (PubMed:21177766). Phosphorylates many other substrates including histone H4 to promote assembly of H3.3 and H4 into nucleosomes, BAD, ribosomal protein S6, or MBP (PubMed:21724829). Phosphorylates CASP7, thereby preventing its activity (PubMed:21555521, PubMed:27889207). Additionally, associates with ARHGEF7 and GIT1 to perform kinase-independent functions such as spindle orientation control during mitosis (PubMed:19273597, PubMed:19923322). 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:9171063, PubMed:12853446, PubMed:16617111). Caspase-activated PAK2 phosphorylates MKNK1 and reduces cellular translation (PubMed:15234964).

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

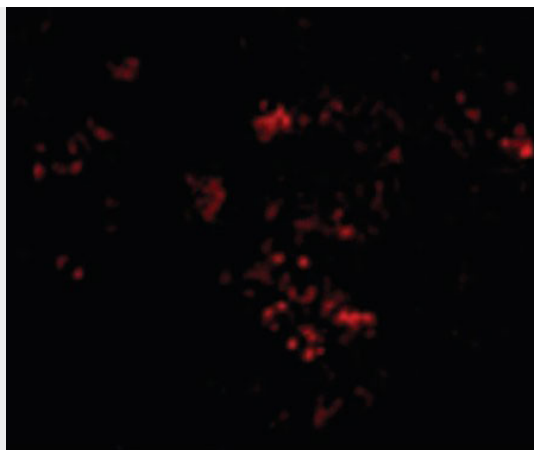
PAK2 Antibody (C-Terminus) - Protocols

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

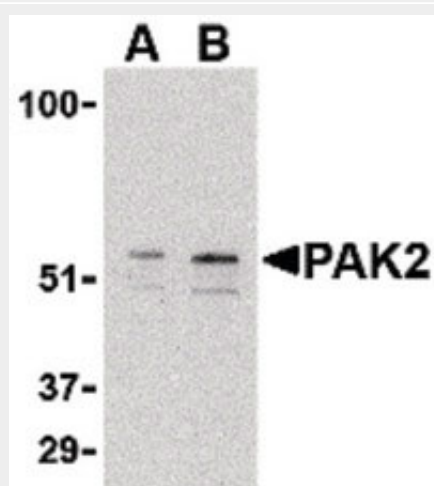
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PAK2 Antibody (C-Terminus) - Images

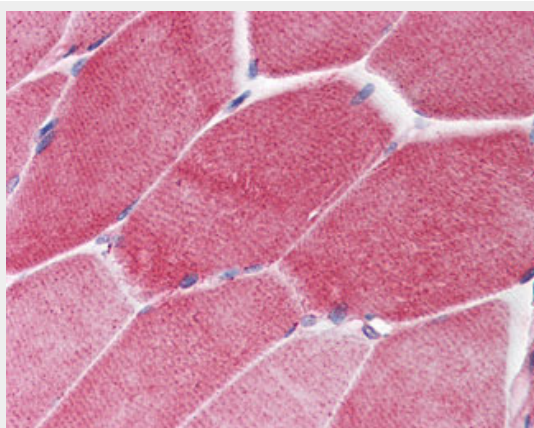




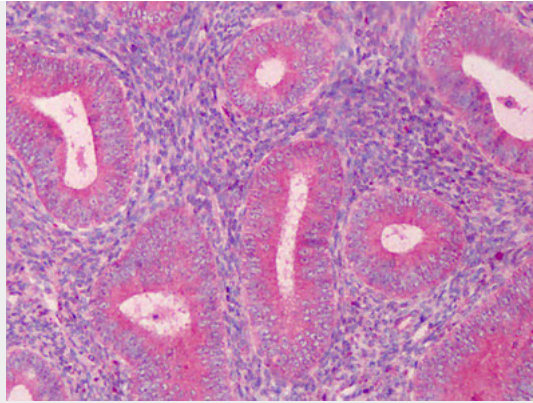
Immunofluorescence of PAK2 in Mouse Spleen cells with PAK2 antibody at 20 ug/ml.



Western blot of PAK2 in Jurkat lysate with PAK2 antibody at (A) 0.5 and (B) 1 ug/ml.



Anti-PAK2 antibody IHC of human skeletal muscle.



Anti-PAK2 antibody IHC of human endometrium.

PAK2 Antibody (C-Terminus) - Background

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. Acts as downstream effector of the small GTPases CDC42 and RAC1. 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. Full-length PAK2 stimulates cell survival and cell growth. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Phosphorylates JUN and plays an important role in EGF- induced cell proliferation. Phosphorylates many other substrates including histone H4 to promote assembly of H3.3 and H4 into nucleosomes, BAD, ribosomal protein S6, or MBP. Additionally, associates with ARHGEF7 and GIT1 to perform kinase-independent functions such as spindle orientation control during mitosis. 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. Caspase- activated PAK2 phosphorylates MKNK1 and reduces cellular translation.

PAK2 Antibody (C-Terminus) - References

Sells M.,et al.Submitted (APR-1995) to the EMBL/GenBank/DDBJ databases.
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Martin G.A.,et al.EMBO J. 14:4385-4385(1995).
Benner G.E.,et al.J. Biol. Chem. 270:21121-21128(1995).
Rudel T.,et al.Science 276:1571-1574(1997).