

Mouse Pak2 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP14452a**Specification**

Mouse Pak2 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q8CIN4](#)**Mouse Pak2 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 224105**Other Names**

Serine/threonine-protein kinase PAK 2, Gamma-PAK, p21-activated kinase 2, PAK-2, PAK-2p27, PAK-2p34, Pak2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Pak2 Antibody (N-term) Blocking Peptide - 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:11278362). Acts as a downstream effector of the small GTPases CDC42 and RAC1 (By similarity). 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 (By similarity). Full-length PAK2 stimulates cell survival and cell growth (By similarity). Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration (By similarity). Phosphorylates JUN and plays an important role in EGF-induced cell proliferation (By similarity). Phosphorylates many other substrates including histone H4 to promote assembly of H3.3 and H4 into nucleosomes, BAD, ribosomal protein S6, or MBP (PubMed:11278362). Phosphorylates CASP7, thereby preventing its activity (By similarity). Additionally, associates with ARHGEF7 and GIT1 to perform kinase-independent functions such as spindle orientation control during mitosis (By similarity). 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

(By similarity). Caspase-activated PAK2 phosphorylates MKNK1 and reduces cellular translation (By similarity).

Cellular Location

[Serine/threonine-protein kinase PAK 2]: Cytoplasm {ECO:0000250|UniProtKB:Q13177}. Nucleus {ECO:0000250|UniProtKB:Q13177}. Note=MYO18A mediates the cellular distribution of the PAK2-ARHGEF7-GIT1 complex to the inner surface of the cell membrane. {ECO:0000250|UniProtKB:Q13177}

Mouse Pak2 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

Mouse Pak2 Antibody (N-term) Blocking Peptide - Images**Mouse Pak2 Antibody (N-term) Blocking Peptide - Background**

The activated kinase acts on a variety of targets. 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. Caspase-activated PAK-2p34 is involved in cell death response, probably involving the JNK signaling pathway (By similarity).

Mouse Pak2 Antibody (N-term) Blocking Peptide - References

Jiang, X.S., et al. Hum. Mol. Genet. 19(7):1347-1357(2010)Demyanenko, G.P., et al. Neuroscience 165(1):107-115(2010)Grimsley-Myers, C.M., et al. J. Neurosci. 29(50):15859-15869(2009)Hsuuw, Y.D., et al. Ann. N. Y. Acad. Sci. 1171, 501-508 (2009) :Van den Broeke, C., et al. Proc. Natl. Acad. Sci. U.S.A. 106(21):8707-8712(2009)