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Mouse Pak3 Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP13931a

Specification

Mouse Pak3 Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q61036

Mouse Pak3 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 18481

Other Names
Serine/threonine-protein kinase PAK 3, Beta-PAK, CDC42/RAC effector kinase PAK-B, p21-activated kinase 3, PAK-3, Pak3, Pak-3, Pakb, Stk4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13931a was selected from the N-term region of Mouse Pak3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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 Pak3 Antibody (N-term) Blocking peptide - Protein Information

Name Pak3

Synonyms Pak-3, Pakb, Stk4

Function
Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, or cell cycle regulation. Plays a role in dendrite spine morphogenesis as well as synapse formation and plasticity (PubMed:25851601). Acts as a 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. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Additionally, phosphorylates TNNI3/troponin I to modulate calcium sensitivity and relaxation kinetics of thin myofilaments. May also be involved in early neuronal development. In hippocampal

neurons, necessary for the formation of dendritic spines and excitatory synapses; this function is dependent on kinase activity and may be exerted by the regulation of actomyosin contractility through the phosphorylation of myosin II regulatory light chain (MLC) (PubMed:15800193).

Cellular Location
Cytoplasm.

Mouse Pak3 Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

Mouse Pak3 Antibody (N-term) Blocking peptide - Images

Mouse Pak3 Antibody (N-term) Blocking peptide - Background

Key regulator of synapse formation and plasticity in the hippocampus.

Mouse Pak3 Antibody (N-term) Blocking peptide - References

Shimogori, T., et al. Nat. Neurosci. 13(6):767-775(2010)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)Sansom, S.N., et al. PLoS Genet. 5 (6), E1000511 (2009) :