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PAK3
Purified Mouse Monoclonal Antibody
Catalog # AO2501a

Specification

PAK3 - Product Information

Application	**WB, IHC, ICC, E**
Primary Accession	O75914
Reactivity	**Human, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**62.3kDa KDa**

Immunogen
Purified recombinant fragment of human PAK3 (AA: 1-100) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

PAK3 - Additional Information

Gene ID 5063

Other Names
ARA; bPAK; MRX30; MRX47; OPHN3; PAK-3; PAK3beta; beta-PAK

Dilution
WB~~ 1/500 - 1/2000
IHC~~1:100~500
ICC~~N/A
E~~ 1/10000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PAK3 is for research use only and not for use in diagnostic or therapeutic procedures.

PAK3 - Protein Information

Name PAK3

Synonyms OPHN3

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. 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) (By similarity).

Cellular Location
Cytoplasm.

Tissue Location
Restricted to the nervous system. Highly expressed in postmitotic neurons of the developing and postnatal cerebral cortex and hippocampus.

PAK3 - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PAK3 - Images

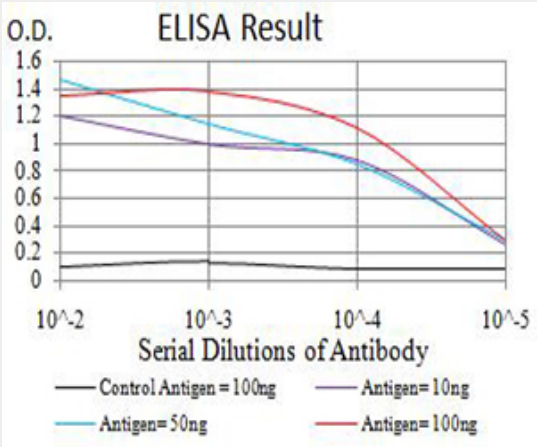

Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

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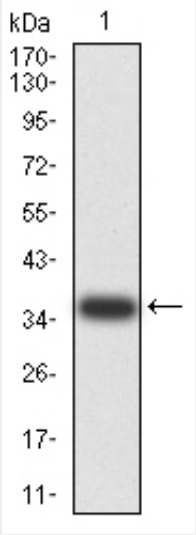

Figure 2:Western blot analysis using PAK3 mAb against human PAK3 (AA: 1-100) recombinant protein. (Expected MW is 37 kDa)

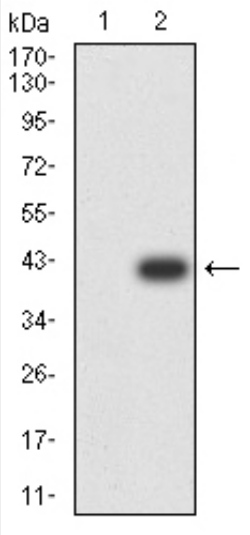

Figure 3:Western blot analysis using PAK3 mAb against HEK293 (1) and PAK3 (AA: 1-100)-hIgGFc transfected HEK293 (2) cell lysate.

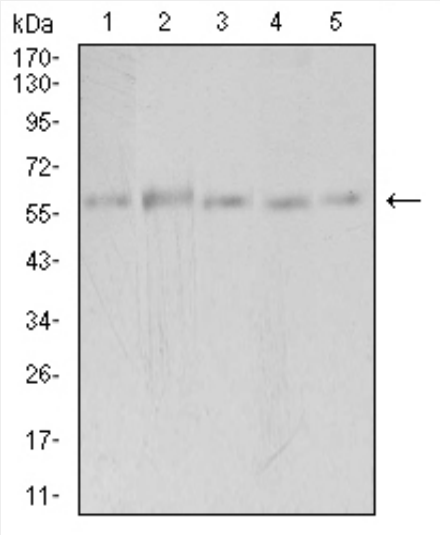

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Figure 4:Western blot analysis using PAK3 mouse mAb against Hela (1), SK-N-SH (2), T47D (3), COS7 (4), and HepG2 (5) cell lysate.

PAK3 - References

1.J Mol Biol. 2014 Oct 23;426(21):3520-38.2.J Biol Chem. 2011 Nov 18;286(46):40044-59.