

# PAK3

Purified Mouse Monoclonal Antibody  
Catalog # AO2502a

## Product Information

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<b>Application</b>	WB, IHC, ICC, E
<b>Primary Accession</b>	<a href="#">O75914</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	4G8A5
<b>Isotype</b>	Mouse IgG1
<b>Calculated MW</b>	62310
<b>Immunogen</b>	Purified recombinant fragment of human PAK3 (AA: 1-100) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	5063
<b>Other Names</b>	ARA; bPAK; MRX30; MRX47; OPHN3; PAK-3; PAK3beta; beta-PAK
<b>Dilution</b>	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
<b>Storage</b>	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.
<b>Precautions</b>	PAK3 is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	PAK3
<b>Synonyms</b>	OPHN3
<b>Function</b>	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.

## References

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

## Images

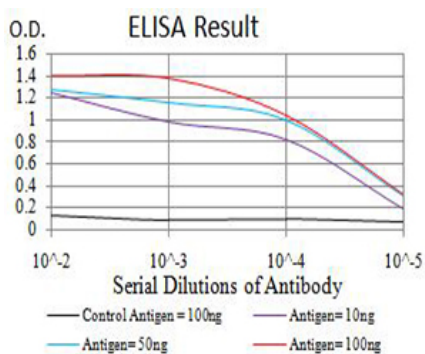


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

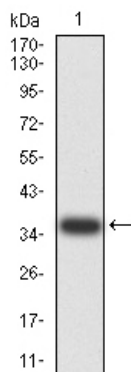


Figure 2:Western blot analysis using PAK3 mAb against human PAK3 (AA: 1-100) recombinant protein. (Expected MW is 37 kDa)

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

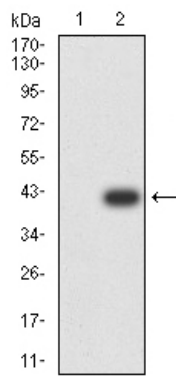
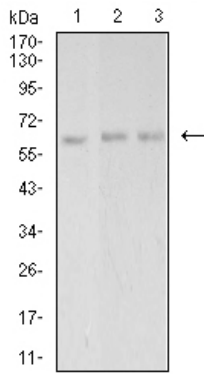


Figure 4: Western blot analysis using PAK3 mouse mAb against Hela (1), SK-N-SH (2), and T47D (3) cell lysate.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.