

**PAK3**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2502a**

**Specification**

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**PAK3 - Product Information**

Application	<b>E, WB</b>
Primary Accession	<a href="#">O75914</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>Mouse IgG1</b>
Calculated MW	<b>62.3kDa KDa</b>

**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**

E~~ 1/10000  
WB~~ 1/500 - 1/2000

**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 Cytometry](#)
- [Cell Culture](#)

**PAK3 - Images**

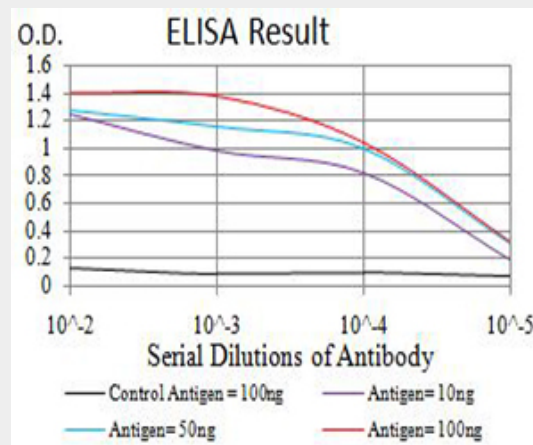


Figure 1: Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

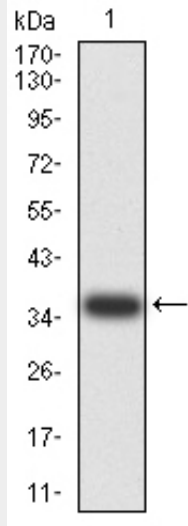


Figure 2:Western blot analysis using PAK3 mAb against human PAK3 (AA: 1-100) recombinant protein. (Expected MW is 37 kDa)

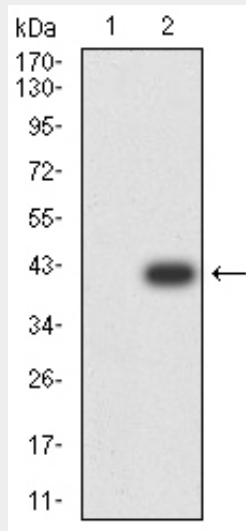


Figure 3:Western blot analysis using PAK3 mAb against HEK293 (1) and PAK3 (AA: 1-100)-hIgGFc transfected HEK293 (2) cell lysate.

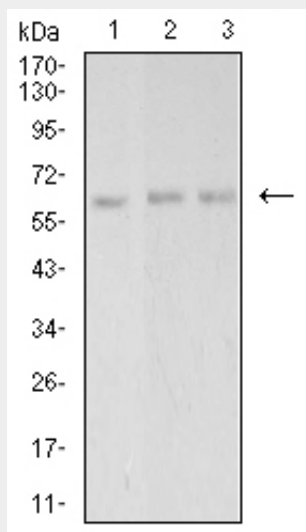


Figure 4:Western blot analysis using PAK3 mouse mAb against Hela (1), SK-N-SH (2), and T47D (3) cell lysate.

**PAK3 - References**

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