

# Phospho-PAK1/2/3 (Ser144/Ser141/Ser154) Rabbit mAb

Catalog # AP75866

### **Product Information**

**Application** WB, IHC-P, IHC-F, IF, ICC, IP

Primary Accession <u>075914</u>

Reactivity Human, Mouse, Rat

**Host** Rabbi

**Clonality** Monoclonal Antibody

Calculated MW 62310

## **Additional Information**

**Gene ID** 5063

Other Names PAK3

**Dilution** WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IF~~1/50-1/200 ICC~~N/A

IP~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

**Storage** Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

#### **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).

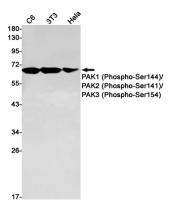
**Cellular Location** 

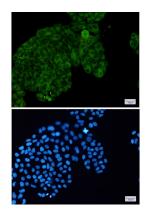
Cytoplasm.

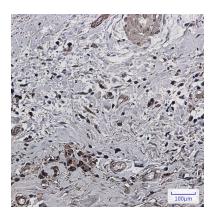
**Tissue Location** 

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

# **Images**







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