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PAK3 Antibody

Rabbit mAb
Catalog # AP91580

Product Information

Application	WB, IHC, IF, ICC, IP, IHF
Primary Accession	O75914
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	Beta PAK; bPAK; CDKN1A; hPAK3; MRX30; MRX47; OPHN3; PAK3beta; Pak65alpha; Pak65beta; Stk4;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	62310

Additional Information

Dilution	WB 1:1000~1:5000 IHC 1:50~1:200 ICC 1:50~1:200 IP:1:40
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PAK3
Description	PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins serve as targets for the small GTP binding proteins Cdc42 and RAC and have been implicated in a wide range of biological activities. PAK3 forms an activated complex with GTP-bound RAS-like (P21), CDC2 and RAC1 proteins which then catalyzes a variety of targets.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

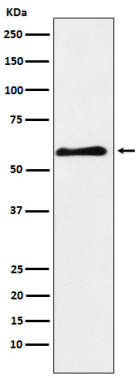
Name	PAK3
Synonyms	OPHN3
Function	Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, or cell cycle regulation. Plays a role in dendrite spine morphogenesis as well as synapse formation and plasticity. Acts 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



Western blot analysis of PAK3 expression in human fetal brain lysate.

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