PAK3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PAK3, Polyclonal Antibody
Full Product Name	PAK3 Antibody
Product Gene Name	anti-PAK3 antibody
Product Synonym Names	bPAK; MRX30; MRX47; OPHN3; hPAK3; CDKN1A; PAK3beta
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Rabbit IgG in pH7.4 PBS, 0.05% NaN3, 40% Glycerol.
Purity/Purification	Antigen affinity purification.
Specificity	The antibody detects endogenous levels of total PAK3 protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	62,310 Da
Chromosome Location	Chromosome: X; NC_000023.10 (110187513..110464173). Location: Xq23
OMIM	300142
3D Structure	ModBase 3D Structure for O75914
Immunogen	Synthetic peptide of human PAK3
Product Categories/Family for anti-PAK3 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PAK3 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-PAK3 antibody	WB: 1:200-1:1000 IHC: 1:25-1:100
Related Product Information for anti-PAK3 antibody	PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins, a family of serine/threonine p21-activating kinases, serve as targets for the small GTP binding proteins Cdc42 and RAC and have been implicated in a wide range of biological activities. The protein encoded by this gene forms an activated complex with GTP-bound RAS-like (P21), CDC2 and RAC1 proteins which then catalyzes a variety of targets.
Other Notes	Small volumes of anti-PAK3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PAK3 purchase	MBS8593719 is an antibody targeting PAK3. Also known as PAK3 Antibody. Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PAK3. It may not necessarily be applicable to this product.

NCBI GI #	189491751
NCBI GeneID	5063
NCBI Accession #	NP_001121638.1
UniProt Primary Accession #	O75914
UniProt Secondary Accession #	Q5JWX1; Q5JWX2; Q7Z2D6; Q7Z2E4; Q7Z3Z8; Q8WWK5; Q8WX23; A8K389; B1GX77; B1GX78; B1GX79
UniProt Related Accession #	O75914
GenBank Nucleotide #	NM_001128166.1
NCBI Official Full Name	serine/threonine-protein kinase PAK 3 isoform a
NCBI Official Synonym Full Names	p21 protein (Cdc42/Rac)-activated kinase 3
NCBI Official Symbol	PAK3
NCBI Official Synonym Symbols	bPAK; MRX30; MRX47; OPHN3; hPAK3; CDKN1A; PAK3beta
UniProt Protein Name	Serine/threonine-protein kinase PAK 3
UniProt Synonym Protein Names	Beta-PAK; Oligophrenin-3; p21-activated kinase 3
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	PAK3
UniProt Synonym Gene Names	OPHN3; PAK-3
UniProt Entry Name	PAK3_HUMAN
NCBI Protein Information	serine/threonine-protein kinase PAK 3; PAK-3; beta-PAK; oligophrenin-3; p21-activated kinase 3; p21 (CDKN1A)-activated kinase 3
NCBI Summary for PAK3	PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins, a family of serine/threonine p21-activating kinases, serve as targets for the small GTP binding proteins Cdc42 and RAC and have been implicated in a wide range of biological activities. The protein encoded by this gene forms an activated complex with GTP-bound RAS-like (P21), CDC2 and RAC1 proteins which then catalyzes a variety of targets. This protein may be necessary for dendritic development and for the rapid cytoskeletal reorganization in dendritic spines associated with synaptic plasticity. Defects in this gene are the cause of non-syndromic mental retardation X-linked type 30 (MRX30), also called X-linked mental retardation type 47 (MRX47). Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]

UniProt Comments for PAK3	PAK3: a protein kinase of the STE20 family that regulates synapse formation and plasticity in the hippocampus. May be necessary for dendritic development and for the rapid cytoskeletal reorganization in dendritic spines associated with synaptic plasticity. Forms an activated complex with GTP-bound P21, CDC2 and RAC1 proteins. Missense and truncation mutations linked to nonsyndromic mental retardation type 30 (MRX30). Two alternatively spliced human isoforms have been reported. Protein type: Protein kinase, Ser/Thr (non-receptor); EC 2.7.11.1; Kinase, protein; Protein kinase, STE; STE group; STE20 family; PAKA subfamily Chromosomal Location of Human Ortholog: Xq23 Cellular Component: cytoplasm; plasma membrane; cytosol; endosome Molecular Function: MAP kinase kinase activity; protein serine/threonine kinase activity; protein binding; Rho GTPase binding; metal ion binding; SH3 domain binding; ATP binding; receptor signaling protein serine/threonine kinase activity Biological Process: axon guidance; activation of MAPK activity; MAPKKK cascade; protein amino acid phosphorylation; T cell receptor signaling pathway; regulation of actin filament polymerization; axonogenesis; positive regulation of neuron apoptosis; T cell costimulation; synapse organization and biogenesis; ephrin receptor signaling pathway; dendrite development; mitotic cell cycle; vascular endothelial growth factor receptor signaling pathway Disease: Mental Retardation, X-linked 30
Research Articles on PAK3	**1.** p21-Activated kinase 3 (PAK3) protein regulates synaptic transmission through its interaction with the Nck2/Grb4 protein adaptor.
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