

Rabbit PAK1 Polyclonal Antibody | anti-PAK1 antibody

PAK1 Antibody

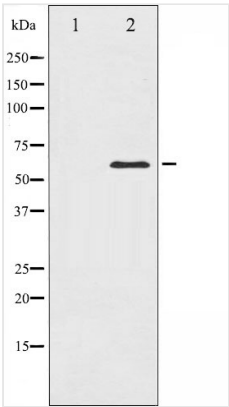
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31096	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

PAK1; Polyclonal Antibody; PAK1 Antibody; ADRB2; Alpha PAK; Alpha-PAK; MGC130000; MGC130001; p21 activated kinase 1; p21 protein (Cdc42/Rac) activated kinase 1; p21-activated kinase 1; p21/Cdc42/Rac1 activated kinase 1 (yeast Ste20 related); p21/Cdc42/Rac1-activated kinase 1 (STE20 homolog; yeast); p65 PAK; p65-PAK; P68-PAK; PAK alpha; PAK-1; Pak1; PAK1_HUMAN; Paka; PAKalpha; Protein kinase MUK2; Rac/p21-activated kinase; Serine/threonine-protein kinase PAK 1; STE20 homolog yeast; anti-PAK1 antibody

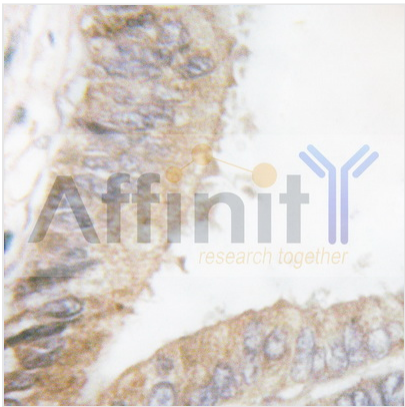
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PAK1 antibody detects endogenous levels of total PAK1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	553
Applicable Applications for anti-PAK1 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:200 IF/ICC: 1:100-1:500
Immunogen	A synthesized peptide derived from human PAK1
Subcellular Location	Cytoplasm. Cell Junction > Focal Adhesion. Recruited to focal adhesions upon activation.
Tissue Specificity	Overexpressed in gastric cancer cells and tissues (at protein level) (PubMed:25766321).
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (92%), Bovine (92%), Horse (92%), Sheep (92%), Rabbit (100%), Dog (92%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



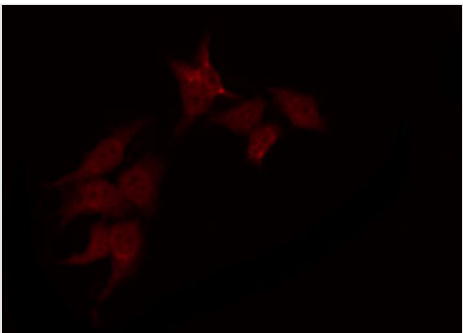
WB (Western Blot)

Western blot analysis of PAK1 expression in Etoposide treated 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



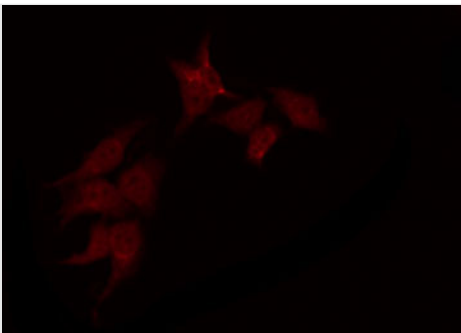
IHC (Immunohistochemistry)

AAA31096 at 1/100 staining human colon tissues sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 119 degree



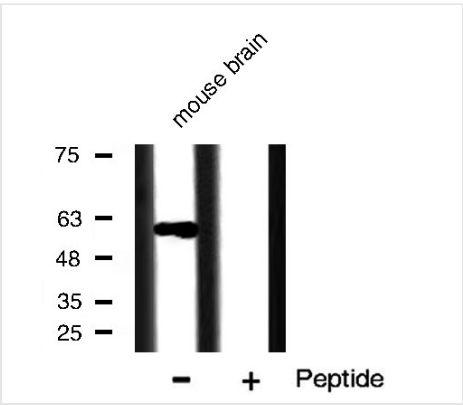
IF (Immunofluorescence)

AAA31096 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IF (Immunofluorescence)

AAA31096 staining 293 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of PAK1 expression in mouse brain tissue lysates, The lane on the right is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PAK1 antibody	Description: PAK proteins are critical effectors that link RhoGTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins, a family of serine/threonine p21-activating kinases, include PAK1, PAK2, PAK3 and PAK4. Function: Protein kinase involved in intracellular signaling pathways downstream of integrins and receptor-type kinases that plays an important role in cytoskeleton dynamics, in cell adhesion, migration, proliferation, apoptosis, mitosis, and in vesicle-mediated transport processes. Can directly phosphorylate BAD and protects cells against apoptosis. Activated by interaction with CDC42 and RAC1. Functions as GTPase effector that links the Rho-related GTPases CDC42 and RAC1 to the JNK MAP kinase pathway. Phosphorylates and activates MAP2K1, and thereby mediates activation of downstream MAP kinases. Involved in the reorganization of the actin cytoskeleton, actin stress fibers and of focal adhesion complexes. Phosphorylates the tubulin chaperone TBCB and thereby plays a role in the regulation of microtubule biogenesis and organization of the tubulin cytoskeleton. Plays a role in the regulation of insulin secretion in response to elevated glucose levels. Part of a ternary complex that contains PAK1, DVL1 and MUSK that is important for MUSK-dependent regulation of AChR clustering during the formation of the neuromuscular junction (NMJ). Activity is inhibited in cells undergoing apoptosis, potentially due to binding of CDC2L1 and CDC2L2. Phosphorylates MYL9/MLC2. Phosphorylates RAF1 at 'Ser-338' and 'Ser-339' resulting in: activation of RAF1, stimulation of RAF1 translocation to mitochondria, phosphorylation of BAD by RAF1, and RAF1 binding to BCL2. Phosphorylates SNAI1 at 'Ser-246' promoting its transcriptional repressor activity by increasing its accumulation in the nucleus. In podocytes, promotes NR3C2 nuclear localization. Required for atypical chemokine receptor ACKR2-induced phosphorylation of LIMK1 and cofilin (CFL1) and for the up-regulation of ACKR2 from endosomal compartment to cell membrane, increasing its efficiency in chemokine uptake and degradation. In synapses, seems to mediate the regulation of F-actin cluster formation performed by SHANK3, maybe through CFL1 phosphorylation and inactivation. Plays a role in RUFY3-mediated facilitating gastric cancer cells migration and invasion (PubMed:25766321). Subunit Structure: Homodimer in its autoinhibited state. Active as monomer. Component of cytoplasmic complexes, which also contains PXN, ARHGEF6 and GIT1. Interacts with NISCH (By similarity). Interacts with DVL1; mediates the formation of a DVL1, MUSK and PAK1 ternary complex involved in AChR clustering (By similarity). Binds to the caspase-cleaved p110 isoform of CDC2L1 and CDC2L2, p110C, but not the full-length proteins (PubMed:12624090). Interacts with ARHGEF7 (PubMed:16101281). Interacts tightly with GTP-bound but not GDP-bound CDC42/P21 and RAC1 (By similarity). Probably found in a ternary complex composed of DSCAM, PAK1 and RAC1. Interacts with DSCAM (via cytoplasmic domain); the interaction is direct and enhanced in presence of RAC1 (PubMed:15169762). Interacts with SCRIB (PubMed:18716323). Interacts with PDPK1 (PubMed:10995762). Interacts (via kinase domain) with RAF1 (PubMed:11733498). Interacts with NCK1 and NCK2 (PubMed:10026169). Interacts with TBCB (PubMed:15831477). Interacts with CRIPAK (PubMed:16278681). Interacts with BRSK2 (By similarity). Interacts with SNAI1 (PubMed:15833848). Interacts with CIB1 isoform 2 (PubMed:23503467). Interacts with CIB1 (via N-terminal region); the interaction is direct, promotes PAK1 activity and occurs in a calcium-dependent manner. Interacts with INPP5K (PubMed:26940976). Post-translational Modifications: Autophosphorylated in trans, meaning that in a dimer, one kinase molecule phosphorylates the other one. Activated by autophosphorylation at Thr-423 in response to a conformation change, triggered by interaction with GTP-bound CDC42 or RAC1. Activated by phosphorylation at Thr-423 by BRSK2 and by PDPK1. Phosphorylated by JAK2 in response to PRL; this increases PAK1 kinase activity. Phosphorylated at Ser-21 by PKB/AKT; this reduces interaction with NCK1 and association with focal adhesion sites. Similarity: Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	190886457
NCBI GeneID	5058
NCBI Accession #	NP_001122092.1
NCBI GenBank Nucleotide #	NM_001128620.1
UniProt Accession #	Q13153; O75561; Q13567; Q32M53; Q32M54; Q86W79
Molecular Weight	Observed: 60 kDa Predicted: 61 kDa
NCBI Official Full Name	serine/threonine-protein kinase PAK 1 isoform 1
NCBI Official Synonym Full Names	p21 (RAC1) activated kinase 1
NCBI Official Symbol	PAK1

NCBI Official Synonym Symbols	PAKalpha
NCBI Protein Information	serine/threonine-protein kinase PAK 1
UniProt Protein Name	Serine/threonine-protein kinase PAK 1
UniProt Gene Name	PAK1
UniProt Synonym Gene Names	PAK-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pak1-antibody-western-blot-immunohistochemistry-immunofluorescence-immunocytochemistry-elisa/31096>