

Product datasheet for **AP21120PU-N**

PAK1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections 1/50 - 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of PAKalpha protein. (region surrounding Lys198)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 60 kDa
Gene Name:	p21 (RAC1) activated kinase 1
Database Link:	<u>Entrez Gene 18479 Mouse</u> <u>Entrez Gene 29431 Rat</u> <u>Entrez Gene 5058 Human</u> <u>Q13153</u>



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Background:

Pak1 belongs to the Ser/Thr protein kinase family and may function by modifying and partially stabilizing thermolabile DNA polymerases, perhaps during DNA repair. Expression of PAK1 increases specific activity of p53 in DNA-binding assays accompanied by a corresponding increase in transactivation. In vitro protein kinase assays show that GST-Pak1 can autophosphorylate, and can phosphorylate casein as an exogenous substrate. The Pak1 protein autophosphorylates on serine residues and preferentially binds to activated Cdc42p both in vitro and in vivo. This binding is mediated through the p21 binding domain on Pak1p and the effector domain on Cdc42p. Pak1 catalytic domain binds to the same highly conserved region on the regulatory domain that binds Cdc42, a GTPase protein capable of activating Pak1.

Synonyms:

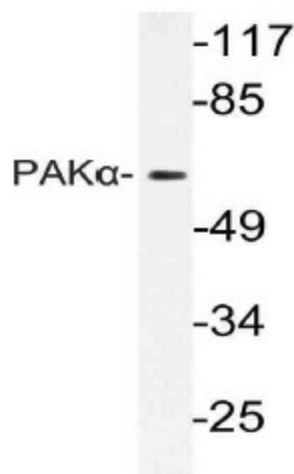
PAK 1, PAK-1, Alpha-PAK, PAK alpha, p21-activated kinase 1, p65-PAK

Protein Families:

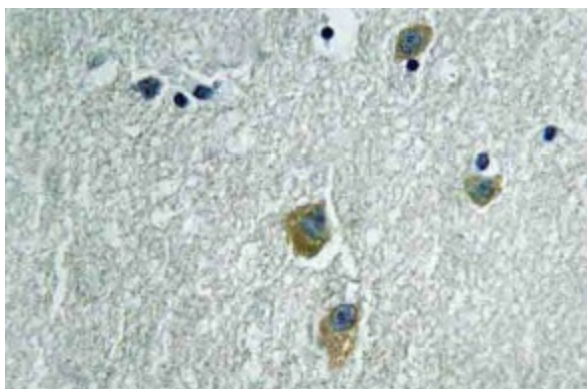
Druggable Genome, Protein Kinase, Stem cell - Pluripotency

Protein Pathways:

Axon guidance, Chemokine signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway

Product images:

Western blot (WB) analysis of PAKalpha antibody (Cat.-No.: AP21120PU-N) in extracts from 3T3 cells.



Immunohistochemistry (IHC) analyzes of PAKalpha antibody (Cat.-No.: AP21120PU-N) in paraffin-embedded human brain tissue.