

Product Name: PAK γ (phospho Ser141) Rabbit Polyclonal Antibody
Catalog #: APRab05208

Summary

Production Name	PAK γ (phospho Ser141) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PAK2
Alternative Names	PAK2; Serine/threonine-protein kinase PAK 2; Gamma-PAK; PAK65; S6/H4 kinase; p21-activated kinase 2; PAK-2; p58
Gene ID	5062.0
SwissProt ID	Q13177. The antiserum was produced against synthesized peptide derived from human PAK2 around the phosphorylation site of Ser141. AA range:107-156

Application

Dilution Ratio	WB 1:500-1:2000, IHC-P 1:100-1:300, ELISA 1:10000, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	60kDa

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Background

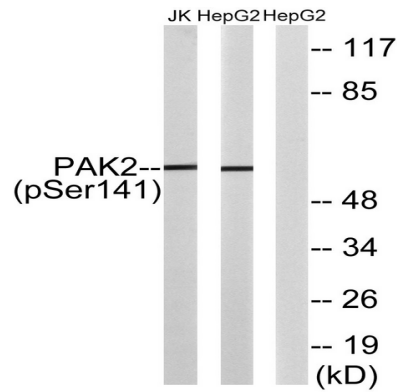
The p21 activated kinases (PAK) are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. The PAK proteins are a family of serine/threonine kinases that serve as targets for the small GTP binding proteins, CDC42 and RAC1, and have been implicated in a wide range of biological activities. The protein encoded by this gene is activated by proteolytic cleavage during caspase-mediated apoptosis, and may play a role in regulating the apoptotic events in the dying cell. [provided by RefSeq, Jul 2008], catalytic activity: ATP + a protein = ADP + a phosphoprotein., enzyme regulation: Activated by binding small G proteins. Binding of GTP-bound CDC42 or RAC1 to the autoregulatory region releases monomers from the autoinhibited dimer, enables phosphorylation of Thr-402 and allows the kinase domain to adopt an active structure (By similarity). Following caspase cleavage, autophosphorylated PAK-2p34 is constitutively active., function: The activated kinase acts on a variety of targets. Phosphorylates ribosomal protein S6, histone H4 and myelin basic protein. Full length PAK 2 stimulates cell survival and cell growth. The process is, at least in part, mediated by phosphorylation and inhibition of pro-apoptotic BAD. Caspase-activated PAK-2p34 is involved in cell death response, probably involving the JNK signaling pathway. Cleaved PAK-2p34 seems to have a higher activity than the CDC42-activated form., PTM: During apoptosis proteolytically cleaved by caspase-3 or caspase-3-like proteases to yield active PAK-2p34., PTM: Full length PAK 2 is autophosphorylated when activated by CDC42/p21. Following cleavage, both peptides, PAK-2p27 and PAK-2p34, become highly autophosphorylated, with PAK-2p27 being phosphorylated on serine and PAK-2p34 on threonine residues, respectively. Autophosphorylation of PAK-2p27 can occur in the absence of any effectors and is dependent on phosphorylation of Thr-402, because PAK-2p27 is acting as an exogenous substrate., PTM: PAK-2p34 is myristoylated., PTM: Ubiquitinated, leading to its proteosomal degradation., similarity: Belongs to the protein kinase superfamily., similarity: Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily., similarity: Contains 1 CRIB domain., similarity: Contains 1 protein kinase domain., subcellular location: Interaction with ARHGAP10 probably changes PAK-2p34 location to cytoplasmic perinuclear region. Myristoylation changes PAK-2p34 location to the membrane., subunit: Interacts tightly with GTP-bound but not GDP-bound CDC42/p21 and RAC1. Interacts with SH3MD4. Interacts with and activated by HIV-1 Nef. PAK-2p34 interacts with ARHGAP10., tissue specificity: Ubiquitously expressed. Higher levels seen in skeletal muscle, ovary, thymus and spleen.,

Research Area

MAPK_ERK_Growth; MAPK_G_Protein; ErbB_HER; Axon guidance; Focal adhesion; T_Cell_Receptor; Regulates Actin and Cytoskeleton; Renal cell carcinoma;

Image Data

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Western blot analysis of lysates from HepG2 cells treated with Adriamycin 0.5uM 24h/Jurkat cells treated with PMA 125ng/ml 30 ', using PAK2 (Phospho-Ser141) Antibody. The lane on the right is blocked with the phospho peptide.

Note

For research use only.