G-Biosciences Image not found or type unknown

Immunotag™ PAKα/β/γ Polyclonal Antibody

Antibody Specification

Catalog No.	ITT3579
Product Description	Immunotag™ PAKα/β/γ Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PAKα/β/γ
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	IHC-p,ELISA
Recommended Dilution	Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from PAKα/β/γ, at AA range: 80-160
Specificity	PAKα/β/γ Polyclonal Antibody detects endogenous levels of PAKα/β/γ protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	PAK1/PAK2/PAK3
Accession No.	Q13153/Q13177/O75914 P35465/Q64303/Q62829
Alternate Names	PAK1; Serine/threonine-protein kinase PAK 1; Alpha-PAK; p21-activated kinase 1; PAK-1; p65-PAK; PAK2; Serine/threonine-protein kinase PAK 2; Gamma-PAK; PAK65; S6/H4 kinase; p21-activated kinase 2; PAK-2; p58; PAK3; OPHN3; Serine/threonine-p

Antibody Specification

Description	p21 (RAC1) activated kinase 1(PAK1) Homo sapiens This gene encodes a family member of serine/threonine p21-activating kinases, known as PAK proteins. These proteins are critical effectors that link RhoGTPases to cytoskeleton reorganization and nuclear signaling, and they serve as targets for the small GTP binding proteins Cdc42 and Rac. This specific family member regulates cell motility and morphology. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2010],
Cell Pathway/ Category	MAPK_ERK_Growth,MAPK_G_Protein,ErbB_HER,Chemokine,Axon guidance,Focal adhesion,Natural killer cell mediated cytotoxicity,T_Cell_Receptor,Fc gamma R-mediated phagocytosis,Regulates Actin and Cytoskeleton,Epithelial cell signaling in Helicobacter pylori infection,Renal cell carcinoma,
Protein Expression	Epithelium,Pituitary tumor,Placenta,
Subcellular Localization	ruffle,cytoplasm,Golgi apparatus,cytosol,plasma membrane,cell-cell junction,focal adhesion,intercalated disc,Z disc,axon,dendrite,filamentous actin,nuclear membrane,ruffle membrane,protei
Protein Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,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-423 and allows the kinase domain to adopt an active structure. Also activated by binding to GTP-bound CDC42, independent of the phosphorylation state of Thr-423. Phosphorylation of Thr-84 by OXSR1 inhibits this activation.,function:The activated kinase acts on a variety of targets. Likely to be the GTPase effector that links the Rho-related GTPases to the JNK MAP kinase pathway. Activated by CDC42 and RAC1. Involved in dissolution of stress fibers and reorganization of focal complexes. Involved in regulation of microtubule biogenesis through phosphorylation of TBCB. Activity is inhibited in cells undergoing apoptosis, potentially due to binding of CDC2L1 and CDC2L2.,PTM:Autophosphorylated when activated by CDC42/p21 and RAC1.,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:Recruited to focal adhesions upon activation.,subunit:Homodimer in its autoinhibited state. Active as monomer. Interacts tightly with GTP-bound but not GDP-bound CDC42/P21 and RAC1. Binds to the caspase-cleaved p110 isoform of CDC2L1 and CDC2L2, p110C, but not the full-length proteins. Component of cytoplasmic complexes, which also contain PXN, ARHGEF6 and GIT1. Interacts with ARHGEF7. Also interacts with CRIPAK. Interacts with NISCH.,
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