PAKγ (PT1029R) PT® Rabbit mAb

CatalogNo: YM8818 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,IP,ELISA

MW
- 58kD (Calculated)

58kD (Observed)

Isotype
- IgG, Kappa

Recommended Dilution Ratios

IHC 1:200-1:1000
WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT1029R

Immunogen Information

Specificity	Endogenous

Target Information

Gene name PAK2

Protein Name Serine/threonine-protein kinase PAK 2

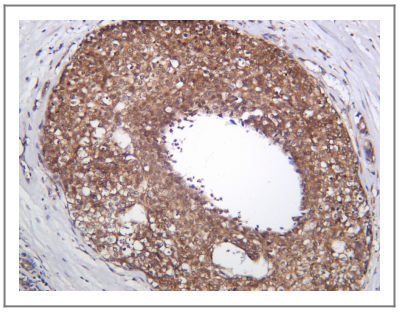
Organism	Gene ID	UniProt ID
Human	5062;	Q13177;
Mouse	224105;	Q8CIN4;
Rat	29432;	Q64303;

Cellular Localization [Serine/threonine-protein kinase PAK 2]: Cytoplasm. MYO18A mediates the cellular distribution of the PAK2-ARHGEF7-GIT1 complex to the inner surface of the cell membrane.; [PAK-2p34]: Nucleus. Cytoplasm, perinuclear region. Membrane; Lipid-anchor. Interaction with ARHGAP10 probably changes PAK-2p34 location to cytoplasmic perinuclear region. Myristoylation changes PAK-2p34 location to the membrane.

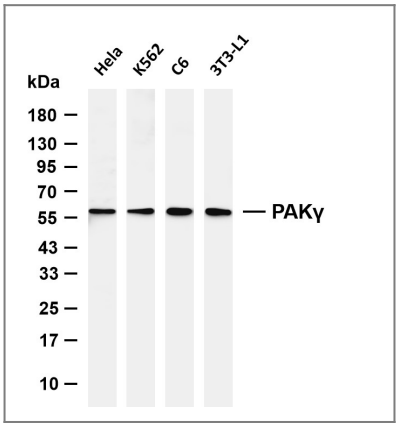
Tissue specificity Ubiquitously expressed. Higher levels seen in skeletal muscle, ovary, thymus and spleen.

Function 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, autophosphorylted 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.,

Validation Data



Human breast carcinoma was stained with anti-PAKγ (PT1029R) Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PAKγ (PT1029R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: K562 Lane 3: C6 Lane 4: 3T3-L1 Predicted band size: 58kDa Observed band size: 58kDa

Contact information

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Please scan the QR code to access additional product information:
PAKγ (PT1029R) PT® Rabbit mAb