PAKγ Mouse mAb

CatalogNo: YM0502

Key Features

Host Species
- Mouse

Reactivity
- Human,Monkey

Applications
- WB,IHC,IF,ELISA

MW
- 58kD (Calculated)

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:200-1:1000
IF 1:200-1:1000
ELISA 1:10000
Not yet tested in other applications.

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Monoclonal

Immunogen Information

Immunogen	Purified recombinant fragment of PAKγ expressed in E. Coli.
Specificity	PAKγ Monoclonal Antibody detects endogenous levels of PAKγ protein.

Target Information

Gene name PAK2

Protein Name Serine/threonine-protein kinase PAK 2

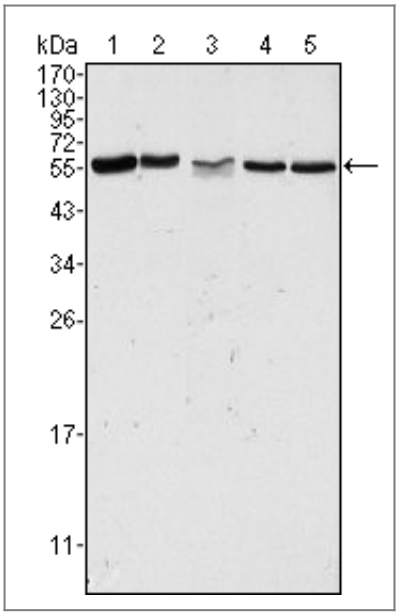
Organism	Gene ID	UniProt ID
Human	5062;	Q13177;
Mouse		Q8CIN4;

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.

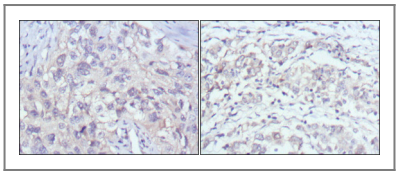
Tissue specificity Ubiquitously expressed. Higher levels seen in skeletal muscle, ovary, thymus and spleen.

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.,

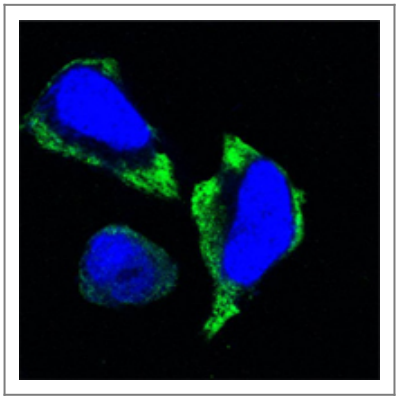
Validation Data



Western Blot analysis using PAKγ Monoclonal Antibody against HeLa (1), Jurkat (2), A549 (3), HEK293 (4) and K562 (5) cell lysate.



Immunohistochemistry analysis of paraffin-embedded human lung cancer (left) and gastric cancer (right) with DAB staining using PAKγ Monoclonal Antibody.



Confocal immunofluorescence analysis of Hela cells using PAKγ Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye.

Contact information

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Please scan the QR code to access additional product information:
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