

# PAK1 (PT0342R) PT® Rabbit mAb

CatalogNo: YM8201 Recombinant R

# **Key Features**

**Host Species** 

Rabbit

MW
• 61kD (Calculated)
61kD (Observed)

Reactivity

· Human, Mouse, Rat,

Isotype

IgG,Kappa

**Applications** 

WB,IHC,IF,IP,ELISA

#### Recommended Dilution Ratios

IHC 1:200-1:1000 WB 1:1000-1:5000 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 PT0342R

# Immunogen Information

**Specificity** Endogenous

# | Target Information

Gene name

PAK1

**Protein Name** 

Serine/threonine-protein kinase PAK 1

Organism	Gene ID	UniProt ID
Human	<u>5058;</u>	<u>Q13153;</u>
Mouse		<u>088643;</u>
Rat	<u>29431;</u>	<u>P35465;</u>

Cellular Localization

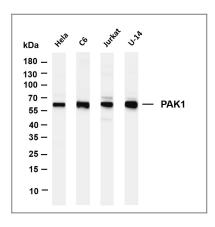
Cytoplasm

**Tissue specificity** Overexpressed in gastric cancer cells and tissues (at protein level) (PubMed:25766321).

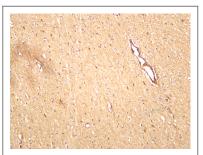
#### **Function**

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 Rhorelated 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 caspasecleaved 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.,

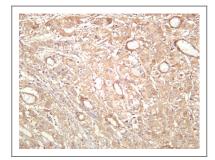
## **Validation Data**



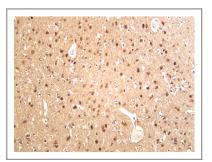
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PAK1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: C6 Lane 3: Jurkat Lane 4: U-14 Predicted band size: 61kDa Observed band size: 61kDa



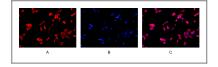
Human brain was stained with anti-PAK1 rabbit antibody



Human hepatocellular carcinoma was stained with anti-PAK1 rabbit antibody



Rat brain was stained with anti-PAK1 rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: PAK1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

## | Contact information

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Please scan the QR code to access additional product information:
PAK1 (PT0342R)
PT® Rabbit mAb

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