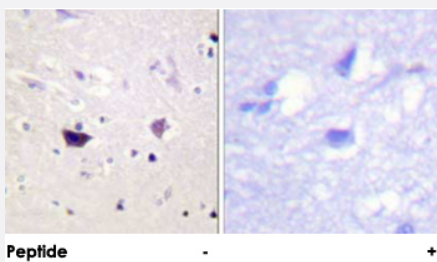


# PAK1/PAK2/PAK3 polyclonal antibody

Catalog # PAB18203      Size 100 ug

## Applications



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human brain tissue using PAK1/PAK2/PAK3 polyclonal antibody (Cat # PAB18203).

Peptide "+" means "peptide blocking".

## Specification

**Product Description** Rabbit polyclonal antibody raised against synthetic peptide of PAK1/PAK2/PAK3.

**Immunogen** A synthetic peptide corresponding to human PAK1/PAK2/PAK3.

**Host** Rabbit

**Reactivity** Human, Mouse, Rat

**Specificity** This antibody is specific to PAK1/PAK2/PAK3.

**Form** Liquid

**Purification** Affinity purification

**Concentration** 1 mg/mL

**Recommend Usage** Immunohistochemistry (1:50-1:100)  
ELISA (1:5000)  
The optimal working dilution should be determined by the end user.

**Storage Buffer** In PBS, 150mM NaCl, pH 7.4 (50% glycerol, 0.02% sodium azide)

**Storage Instruction**

Store at -20°C.  
Aliquot to avoid repeated freezing and thawing.

**Note**

This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

## Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human brain tissue using PAK1/PAK2/PAK3 polyclonal antibody (Cat # PAB18203).

Peptide "+" means "peptide blocking".

- Enzyme-linked Immunoabsorbent Assay

## Gene Info — PAK1

**Entrez GeneID**[5058](#)**Gene Name**

PAK1

**Gene Alias**

MGC130000, MGC130001, PAKalpha

**Gene Description**

p21 protein (Cdc42/Rac)-activated kinase 1

**Omim ID**[602590](#)**Gene Ontology**[Hyperlink](#)**Gene Summary**

PAK proteins are critical effectors that link RhoGTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins, a family of serine/threonine p21-activating kinases, include PAK1, PAK2, PAK3 and PAK4. These proteins serve as targets for the small GTP binding proteins Cdc42 and Rac and have been implicated in a wide range of biological activities. PAK1 regulates cell motility and morphology. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq]

**Other Designations**

STE20 homolog, yeast|p21-activated kinase 1|p21/Cdc42/Rac1-activated kinase 1 (STE20 homolog, yeast)|p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related)

## Gene Info — PAK2

**Entrez GeneID**[5062](#)

Gene Name	PAK2
Gene Alias	PAK65, PAKgamma
Gene Description	p21 protein (Cdc42/Rac)-activated kinase 2
Omim ID	<a href="#">605022</a>
Gene Ontology	<a href="#">Hyperlink</a>
Gene Summary	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]
Other Designations	S6/H4 kinasep21 (CDKN1A)-activated kinase 2p21-activated kinase 2

## Gene Info — PAK3

Entrez GeneID	<a href="#">5063</a>
Gene Name	PAK3
Gene Alias	CDKN1A, MRX30, MRX47, OPHN3, PAK3beta, bPAK, hPAK3
Gene Description	p21 protein (Cdc42/Rac)-activated kinase 3
Omim ID	<a href="#">300142</a> <a href="#">300558</a>
Gene Ontology	<a href="#">Hyperlink</a>
Gene Summary	PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins, a family of serine/threonine p21-activating kinases, serve as targets for the small GTP binding proteins Cdc42 and RAC and have been implicated in a wide range of biological activities. The protein encoded by this gene forms an activated complex with GTP-bound RAS-like (P21), CDC2 and RAC1 proteins which then catalyzes a variety of targets. This protein may be necessary for dendritic development and for the rapid cytoskeletal reorganization in dendritic spines associated with synaptic plasticity. Defects in this gene are the cause of non-syndromic mental retardation X-linked type 30 (MRX30), also called X-linked mental retardation type 47 (MRX47). Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq]
Other Designations	OTTHUMP00000023855 OTTHUMP00000062894 beta-PAK oligophrenin-3 p21 (CDKN1A)-activated kinase 3 p21-activated kinase 3 p21-activated kinase-3 serine/threonine-protein kinase PAK 3

## Publication Reference

- [A probability-based approach for high-throughput protein phosphorylation analysis and site localization.](#)

Beausoleil SA, Villén J, Gerber SA, Rush J, Gygi SP.

Nature Biotechnology 2006 Oct; 24(10):1285.

- [Pak1 kinase homodimers are autoinhibited in trans and dissociated upon activation by Cdc42 and Rac1.](#)

Parrini MC, Lei M, Harrison SC, Mayer BJ.

Mol Cell 2002 Jan; 9(1):73.

Application: WB-Tr, Human, HEK 293T cells

## Pathway

- [Axon guidance](#)
- [Axon guidance](#)
- [Axon guidance](#)
- [Chemokine signaling pathway](#)
- [Epithelial cell signaling in Helicobacter pylori infection](#)
- [ErbB signaling pathway](#)
- [ErbB signaling pathway](#)
- [ErbB signaling pathway](#)
- [Fc gamma R-mediated phagocytosis](#)
- [Focal adhesion](#)
- [Focal adhesion](#)
- [Focal adhesion](#)
- [MAPK signaling pathway](#)
- [MAPK signaling pathway](#)
- [Natural killer cell mediated cytotoxicity](#)

- [Regulation of actin cytoskeleton](#)
- [Regulation of actin cytoskeleton](#)
- [Regulation of actin cytoskeleton](#)
- [Renal cell carcinoma](#)
- [Renal cell carcinoma](#)
- [Renal cell carcinoma](#)
- [T cell receptor signaling pathway](#)
- [T cell receptor signaling pathway](#)
- [T cell receptor signaling pathway](#)

## Disease

- [Carcinoma](#)
- [Chronic Disease](#)
- [Cognition Disorders](#)
- [Endometrial Neoplasms](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [HIV Infections](#)
- [HIV Infections](#)
- [Neuropsychological Tests](#)
- [Schizophrenia](#)
- [Schizophrenia](#)
- [Tobacco Use Disorder](#)