



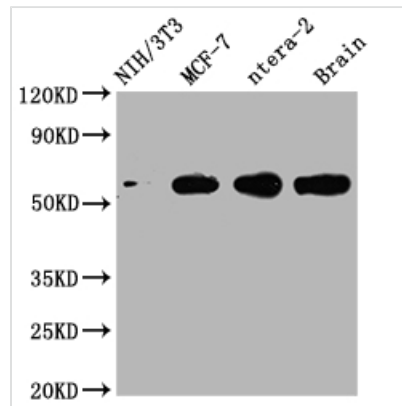
# PAK1 Antibody

<b>Product Code</b>	CSB-RA287160A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	Q13153
<b>Immunogen</b>	A synthesized peptide derived from human PAK1
<b>Species Reactivity</b>	Human, Mouse
<b>Tested Applications</b>	ELISA, WB, IF; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200
<b>Relevance</b>	<p>Protein kinase involved in intracellular signaling pathways downstream of integrins and receptor-type kinases that plays an important role in cytoskeleton dynamics, in cell adhesion, migration, proliferation, apoptosis, mitosis, and in vesicle-mediated transport processes. Can directly phosphorylate BAD and protects cells against apoptosis. Activated by interaction with CDC42 and RAC1. Functions as GTPase effector that links the Rho-related GTPases CDC42 and RAC1 to the JNK MAP kinase pathway. Phosphorylates and activates MAP2K1, and thereby mediates activation of downstream MAP kinases. Involved in the reorganization of the actin cytoskeleton, actin stress fibers and of focal adhesion complexes. Phosphorylates the tubulin chaperone TBCB and thereby plays a role in the regulation of microtubule biogenesis and organization of the tubulin cytoskeleton. Plays a role in the regulation of insulin secretion in response to elevated glucose levels. Part of a ternary complex that contains PAK1, DVL1 and MUSK that is important for MUSK-dependent regulation of AChR clustering during the formation of the neuromuscular junction (NMJ). Activity is inhibited in cells undergoing apoptosis, potentially due to binding of CDC2L1 and CDC2L2. Phosphorylates MYL9/MLC2. Phosphorylates RAF1 at 'Ser-338' and 'Ser-339' resulting in: activation of RAF1, stimulation of RAF1 translocation to mitochondria, phosphorylation of BAD by RAF1, and RAF1 binding to BCL2. Phosphorylates SNAI1 at 'Ser-246' promoting its transcriptional repressor activity by increasing its accumulation in the nucleus. In podocytes, promotes NR3C2 nuclear localization. Required for atypical chemokine receptor ACKR2-induced phosphorylation of LIMK1 and cofilin (CFL1) and for the up-regulation of ACKR2 from endosomal compartment to cell membrane, increasing its efficiency in chemokine uptake and degradation. In synapses, seems to mediate the regulation of F-actin cluster formation performed by SHANK3, maybe through CFL1 phosphorylation and inactivation. Plays a role in RUFY3-mediated facilitating gastric cancer cells migration and invasion (PubMed:25766321).</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG



<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Cancer; Cell biology; Signal transduction
<b>Gene Names</b>	PAK1
<b>Accession NO.</b>	4F10

### Image



#### Western Blot

Positive WB detected in: NIH/3T3 whole cell lysate, MCF-7 whole cell lysate, ntera-2 whole cell lysate, Mouse brain tissue

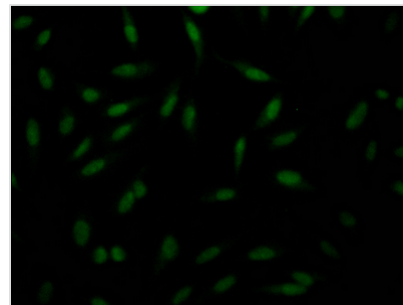
All lanes: PAK1 antibody at 1:2000

#### Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 61, 62 kDa

Observed band size: 61 kDa



Immunofluorescence staining of HeLa Cells with CSB-RA287160A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

### Description

PAK1 is a member of the highly conserved family of serine/threonine protein kinases regulated by Ras-related small G-proteins, Cdc42/Rac1. PAK1 regulates cytoskeleton remodeling, cell motility and invasion, metastasis, cell cycle, apoptosis, cell survival, and angiogenesis. PAK1 has the ability to control cancer cell motility, as well as neurodevelopment, neuroplasticity, and nervous system maturation. PAK1 has been implicated in a variety of cancers, particularly in the regulation of invasive cell metastatic ability.

The recombinant PAK1 antibody is a monoclonal antibody made in vitro using the PAK1 antibody genes that are typically expressed from a plasmid in a stable mammalian cell line. The genes coding for the PAK1 antibody will ultimately assemble into a fully functional antibody after translation. The synthesized antibody is the recombinant antibody against PAK1. It underwent purification using Affinity-chromatography. This recombinant PAK1 antibody is suitable for use in the ELISA, WB, IF to detect the PAK1 protein from Human, Mouse.