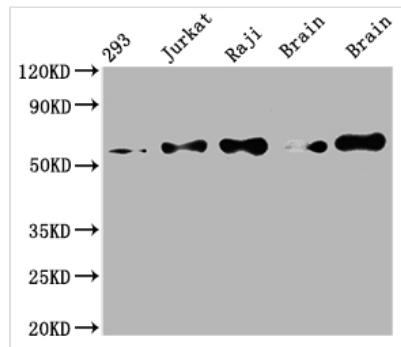




# PAK2 Antibody

<b>Product Code</b>	CSB-RA592787A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	Q13177
<b>Immunogen</b>	A synthesized peptide derived from human PAK2
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Tested Applications</b>	ELISA, WB, FC, IP; Recommended dilution: WB:1:500-1:5000, FC:1:20-1:200, IP:1:200-1:1000
<b>Relevance</b>	<p>Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell motility, cell cycle progression, apoptosis or proliferation. Acts as downstream effector of the small GTPases CDC42 and RAC1. Activation by the binding of active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Full-length PAK2 stimulates cell survival and cell growth. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Phosphorylates JUN and plays an important role in EGF-induced cell proliferation. Phosphorylates many other substrates including histone H4 to promote assembly of H3.3 and H4 into nucleosomes, BAD, ribosomal protein S6, or MBP. Additionally, associates with ARHGEF7 and GIT1 to perform kinase-independent functions such as spindle orientation control during mitosis. On the other hand, apoptotic stimuli such as DNA damage lead to caspase-mediated cleavage of PAK2, generating PAK-2p34, an active p34 fragment that translocates to the nucleus and promotes cellular apoptosis involving the JNK signaling pathway. Caspase-activated PAK2 phosphorylates MKNK1 and reduces cellular translation.</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>	Neuroscience; Cancer; Cell biology; Microbiology; Signal transduction
<b>Gene Names</b>	PAK2
<b>Accession NO.</b>	6D12

Image


**Western Blot**

Positive WB detected in: 293 whole cell lysate, Jurkat whole cell lysate, Raji whole cell lysate, Mouse brain tissue, Rat brain tissue

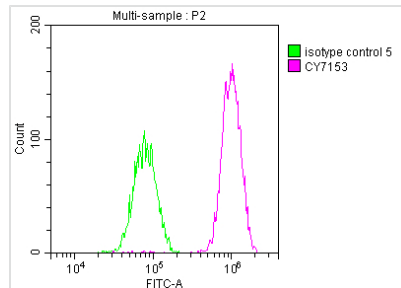
All lanes: PAK2 antibody at 1:2000

Secondary

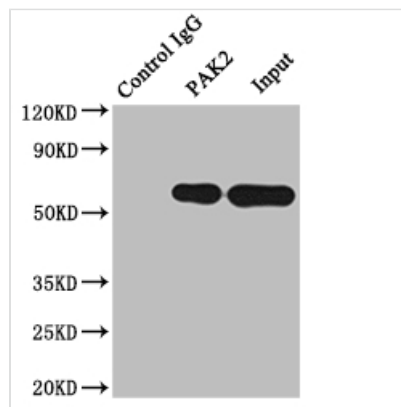
Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 59 kDa

Observed band size: 59 kDa



Overlay histogram showing HepG2 cells stained with CSB-RA592787A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1µg/1\*10<sup>6</sup>cells) for 1 h at 4°C. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4°C. Control antibody (green line) was Rabbit IgG (1µg/1\*10<sup>6</sup>cells) used under the same conditions. Acquisition of >10,000 events was performed.



Immunoprecipitating PAK2 in Raji whole cell lysate

Lane 1: Rabbit control IgG instead of CSB-RA592787A0HU in Raji whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)

Lane 2: CSB-RA592787A0HU(2µg)+ Raji whole cell lysate(500µg)

Lane 3: Raji whole cell lysate (10µg)

## Description

PAK2 is the most abundant PAK in T cells, and it has been linked to T cell function. PAK2 is required for Treg stability and the prevention of Th2-like effector cell deviation. PAK2 is an effector for the Rho family GTPases Rac and Cdc42 that regulate actin cytoskeletal remodeling. PAK2 is necessary for the formation, maturation, and timely egress of thymocytes, according to research. Apoptosis, endothelial lumen creation, viral pathogenesis, and cancer, particularly breast, hepatocarcinoma, and gastric cancer, are all influenced by PAK2 signaling.

The production of the recombinant PAK2 antibody includes extracting RNA from spleen cells that are derived from immunized animals, reversely transcribing the RNA into DNA, sequencing and screening antibody genes, amplifying the heavy chain and light chain genes of the antibody using PCR technology, linking and cloning the genes into a plasma vector, and introducing the vector clone into a mammalian cell for functional antibody expression. The



recombinant PAK2 antibody was purified using Affinity-chromatography. It can be used to detect the PAK2 antibody from Human, Mouse, Rat in the ELISA, WB, FC, IP.