

Datasheet for ABIN7127663

Recombinant anti-PAK1 antibody**2** Images[Go to Product page](#)

Overview

Quantity:	100 µL
Target:	PAK1
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This PAK1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF)

Product Details

Immunogen:	A synthesized peptide derived from human PAK1
Clone:	4F10
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	Affinity-chromatography

Target Details

Target:	PAK1
Alternative Name:	PAK1 (PAK1 Products)
Background:	Background: Protein kinase involved in intracellular signaling pathways downstream of

Target Details

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).

Aliases: Serine/threonine-protein kinase PAK 1 (EC 2.7.11.1) (Alpha-PAK) (p21-activated kinase 1) (PAK-1) (p65-PAK), PAK1

UniProt: [Q13153](#)

Pathways: [MAPK Signaling](#), [RTK Signaling](#), [TCR Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Regulation of Intracellular Steroid Hormone Receptor Signaling](#), [Skeletal Muscle Fiber Development](#), [CXCR4-mediated Signaling Events](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [Signaling of Hepatocyte Growth Factor Receptor](#), [Embryonic Body Morphogenesis](#)

Application Details

Application Notes: Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200,

Application Details

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Rabbit IgG in phosphate buffered saline, pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

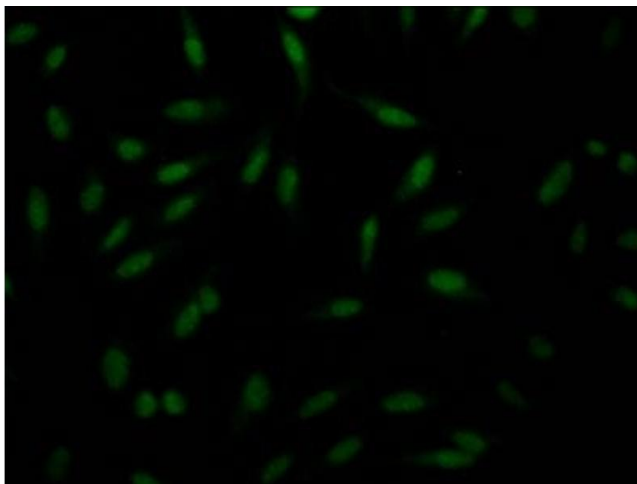
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C, -80 °C

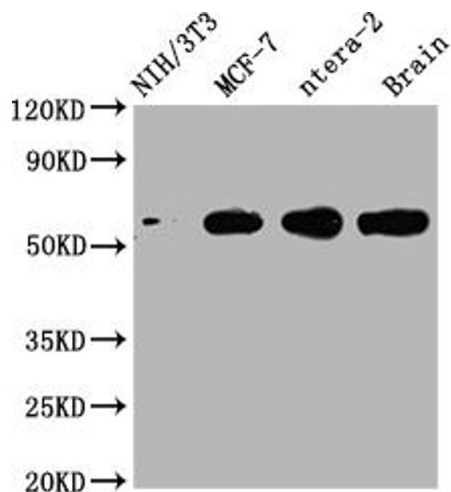
Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunofluorescence

Image 1. Immunofluorescence staining of HeLa Cells with ABIN7127663 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).



Western Blotting

Image 2. 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