

Product datasheet

Anti-PAK4 antibody ab62509

★★★★★ [2 Abreviews](#) [11 References](#) [5 Images](#)

Overview

Product name	Anti-PAK4 antibody
Description	Rabbit polyclonal to PAK4
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	A 13 amino acid synthetic peptide from near the center of human PAK4
Positive control	SW480 cell lysate and human colon tissue
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.2 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab62509 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★★ (1)	Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 64 kDa (predicted molecular weight: 64 kDa).
IHC-P	★★★★★ (1)	Use a concentration of 10 µg/ml.

Target

Function

Activates the JNK pathway. Plays a role in the reorganization of the actin cytoskeleton and in the formation of filopodia. Phosphorylates and inactivates the protein phosphatase SSH1, leading to increased inhibitory phosphorylation of the actin binding/depolymerizing factor cofilin. Decreased cofilin activity may lead to stabilization of actin filaments. Phosphorylates ARHGEF2.

Tissue specificity

Highest expression in prostate, testis and colon.

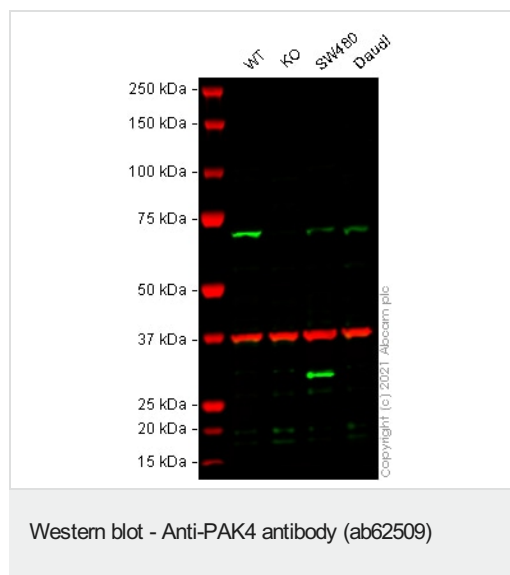
Sequence similarities

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily. Contains 1 CRIB domain.
Contains 1 protein kinase domain.

Post-translational modifications

Autophosphorylated on serine residues when activated by CDC42/p21.
Phosphorylated on tyrosine residues upon stimulation of FGFR2.

Images



All lanes : Anti-PAK4 antibody (ab62509) at 1 µg/ml

Lane 1 : Wild-type HEK-293T cell lysate

Lane 2 : PAK4 knockout HEK-293T cell lysate

Lane 3 : SW480 cell lysate

Lane 4 : Daudi cell lysate

Lysates/proteins at 20 µg per lane.

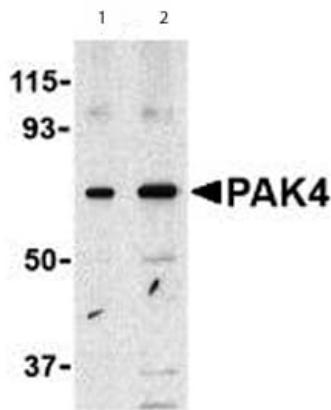
Performed under reducing conditions.

Predicted band size: 64 kDa

Observed band size: 70 kDa

False colour image of Western blot: Anti-PAK4 antibody staining at 1 µg/ml, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab62509 was shown to bind specifically to PAK4. A

band was observed at 70 kDa in wild-type HEK-293T cell lysates with no signal observed at this size in PAK4 knockout cell line [ab266807](#) (knockout cell lysate [ab258560](#)). To generate this image, wild-type and PAK4 knockout HEK-293T cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % milk in TBS-0.1 % Tween[®] 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye[®] 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye[®] 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



Western blot - Anti-PAK4 antibody (ab62509)

Lane 1 : Anti-PAK4 antibody (ab62509) at 1 µg/ml

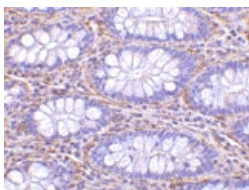
Lane 2 : Anti-PAK4 antibody (ab62509) at 2 µg/ml

All lanes : SW480 cell lysate

Lysates/proteins at 15 µg per lane.

Predicted band size: 64 kDa

Observed band size: 64 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAK4 antibody (ab62509)

Immunohistochemistry of PAK4 in paraffin embedded human colon tissue section with ab62509 antibody at 10 µg/ml.

Immunocytochemistry/ Immunofluorescence - Anti-PAK4 antibody (ab62509)

ICC/IF image of ab62509 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab62509, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor[®] 488 goat anti-rabbit IgG (H+L) used at a

1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunocytochemistry/ Immunofluorescence - Anti-PAK4 antibody (ab62509)

Immunofluorescence of PAK4 in Human Colon cells using ab62509 at 20 ug/ml.

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