

Product datasheet

Anti-PAK4 antibody [EPR25195-73] ab300503

KO VALIDATED Recombinant RabMAB

[5 Images](#)

Overview

Product name	Anti-PAK4 antibody [EPR25195-73]
Description	Rabbit monoclonal [EPR25195-73] to PAK4
Host species	Rabbit
Specificity	We recommend using freshly made lysate to perform western blot testing.
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt (Intra), ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Whole cell lysates of: HeLa (human cervix adenocarcinoma epithelial cell), 293T (human embryonic kidney epithelial cell), PC-12 (rat adrenal gland pheochromocytoma), THP-1 (human monocytic leukemia monocyte), Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate, NR8383 (rattus norvegicus lung macrophage (alveolar)), C2C12 (mouse myoblasts myoblast), LNCaP (human prostate carcinoma epithelial cell). Purified His-tagged human PAK4 recombinant protein.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR25195-73
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab300503 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

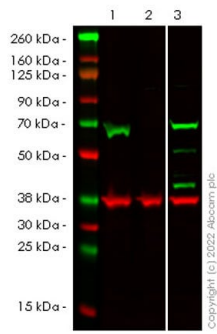
Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 68 kDa (predicted molecular weight: 64 kDa).

Application notes Is unsuitable for Flow Cyt (Intra), ICC/IF, IHC-P or IP.

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



Western blot - Anti-PAK4 antibody [EPR25195-73] (AB300503)

All lanes : Anti-PAK4 antibody [EPR25195-73] (ab300503) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T (human embryonic kidney epithelial cell) whole cell lysate

Lane 2 : PAK4 knockout HEK-293T whole cell lysate

Lane 3 : LNCaP (human prostate carcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

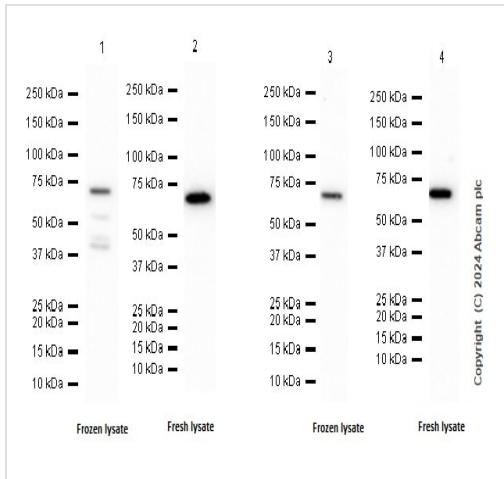
Predicted band size: 64 kDa

Observed band size: 68 kDa

False colour image of Western blot: Anti-PAK4 antibody [EPR25195-73] (ab300503) staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red.

In Western blot, ab300503 was shown to bind specifically to PAK4. A band was observed at 68 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 an immobilon-FL PVDF membrane. Membranes were blocked in Intercept® (TBS) Blocking Buffer diluted with an equal volume of 0.1% TBS 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.

The bands beneath the target band (68 kDa) are expected to be degradation products.



Western blot - Anti-PAK4 antibody [EPR25195-73] (ab300503)

All lanes : Anti-PAK4 antibody [EPR25195-73] (ab300503) at 1/1000 dilution

Lane 1 : 293T (Human embryonic kidney epithelial cell) whole cell lysate, frozen lysate

Lane 2 : 293T (Human embryonic kidney epithelial cell) whole cell lysate, fresh lysate

Lane 3 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate, frozen lysate

Lane 4 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate, fresh lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

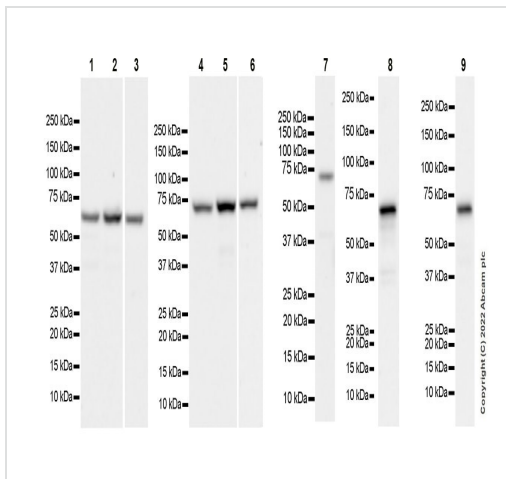
Predicted band size: 64 kDa

Observed band size: 68 kDa

Exposure time: 40 seconds

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

We recommend using freshly made lysate to perform western blot testing.



Western blot - Anti-PAK4 antibody [EPR25195-73] (AB300503)

All lanes : Anti-PAK4 antibody [EPR25195-73] (ab300503) at 1/1000 dilution

Lane 1 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2 : 293T (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 3 : PC-12 (rat adrenal gland pheochromocytoma), whole cell lysate at 20 µg

Lane 4 : THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

Lane 5 : Jurkat (human T cell leukemia T lymphocyte) whole cell lysate at 20 µg

Lane 6 : NR8383 (rattus norvegicus lung macrophage (alveolar)) whole cell lysate at 20 µg

Lane 7 : C2C12 (mouse myoblasts myoblast), whole cell lysate at 20 µg

Lane 8 : LNCaP (human prostate carcinoma epithelial cell), whole cell lysate at 10 µg

Lane 9 : PANC-1 (human pancreatic epithelioid carcinoma epithelial cell), whole cell lysate at 10 µg

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 64 kDa

Observed band size: 68 kDa

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure times:

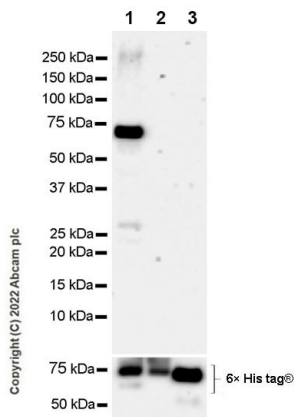
Lane 1-5: 26 seconds

Lane 6: 70 seconds

Lane 7-8: 10 seconds

Lane 9: 37seconds

Lysates were freshly made and used immediately for Western blotting to minimize protein degradation.



Western blot - Anti-PAK4 antibody [EPR25195-73] (AB300503)

All lanes : Anti-PAK4 antibody [EPR25195-73] (ab300503) at 1/1000 dilution

Lane 1 : Purified His-tagged human PAK4 recombinant protein 10 ng

Lane 2 : Purified His-tagged human PAK5 recombinant protein 10 ng

Lane 3 : Purified His-tagged human PAK6 recombinant protein 10 ng

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 64 kDa

Observed band size: 68 kDa

Exposure time: 3 minutes

Blocking and dilution buffer and concentration: 5% NFD/MTBST.

Exposure time: 3 minutes.

This antibody does not cross-react with human PAK5 and human PAK6.

All the recombinant proteins were made in-house and produced by *E. coli* expression systems.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-PAK4 antibody [EPR25195-73] (AB300503)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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