

Product datasheet

Anti-PBK/SPK antibody [31/PBK] ab280209

KO **VALIDATED** Recombinant

8 Images

Overview

Product name	Anti-PBK/SPK antibody [31/PBK]
Description	Mouse monoclonal [31/PBK] to PBK/SPK
Host species	Mouse
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P Unsuitable for: ICC
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Wild-type HEK-293T whole cell lysate. HeLa, HepG2, RAW264.7, C6, PC-12 and U-87 MG whole cell lysate. Human, rat and mouse testis tissue lysate. IHC-P: Human tonsil tissue. Mouse and rat testis tissue. Flow Cyt (intra) (intra): HEK-239T cells.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <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>

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	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	31/PBK

Isotype

IgG2b

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab280209 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
Flow Cyt (Intra)		1/1000.
WB		1/1000. Predicted molecular weight: 36 kDa.
IHC-P		1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Application notes

Is unsuitable for ICC.

Target

Function

Phosphorylates MAP kinase p38. Seems to be active only in mitosis. May also play a role in the activation of lymphoid cells. When phosphorylated, forms a complex with TP53, leading to TP53 destabilization and attenuation of G2/M checkpoint during doxorubicin-induced DNA damage.

Tissue specificity

Expressed in the testis and placenta. In the testis, restrictedly expressed in outer cell layer of seminiferous tubules.

Sequence similarities

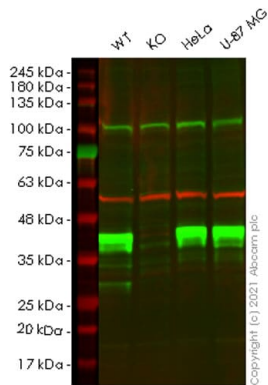
Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. MAP kinase kinase subfamily.

Contains 1 protein kinase domain.

Post-translational modifications

Phosphorylated; in a cell-cycle dependent manner at mitosis.

Images



Western blot - Anti-PBK/SPK antibody [31/PBK] (ab280209)

All lanes : Anti-PBK/SPK antibody [31/PBK] (ab280209) at 1/1000 dilution

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

Lane 2 : PBK knockout HEK-293T (human embryonic kidney epithelial cell), whole cell lysate

Lane 3 : HeLa (human epithelial cell line from cervix adenocarcinoma), whole cell lysate

Lane 4 : U-87 MG (human glioblastoma-astrocytoma epithelial cell), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Mouse IgG H&L (IRDye® 800CW) (ab216772) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) (ab216777) at 1/10000 dilution

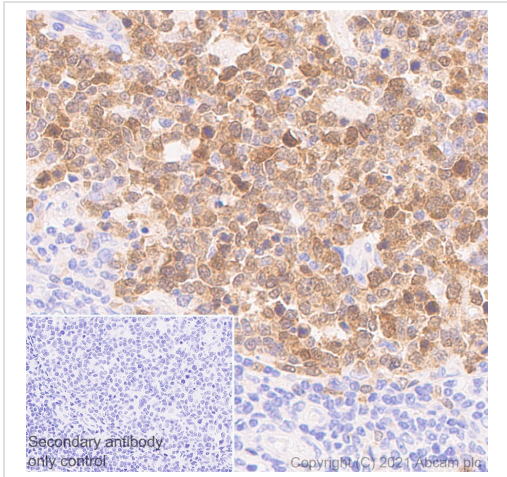
Predicted band size: 36 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab280209 observed at 36 kDa. Red - loading control ab52901 (Rabbit monoclonal [EP1331Y] to beta Tubulin) observed at 52 kDa.

Lanes 1-2: ab280209 Anti-PBK antibody was shown to react with in HEK-293T cells in Western blot. Loss of signal was observed when PBK knockout sample was used. Wild-type and PBK knockout samples were subjected to SDS-PAGE.

ab280209 and Anti-beta Tubulin antibody [EP1331Y] (ab52901) were incubated at 4° overnight at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 680CW) (ab216777) and Goat anti-Mouse IgG H&L (IRDye® 800RD) (ab216772) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.

Blocking/Dilution buffer: Intercept® (TBS) Blocking Buffer diluted with an equal volume of 0.1% TBS.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PBK/SPK antibody [31/PBK] (ab280209)

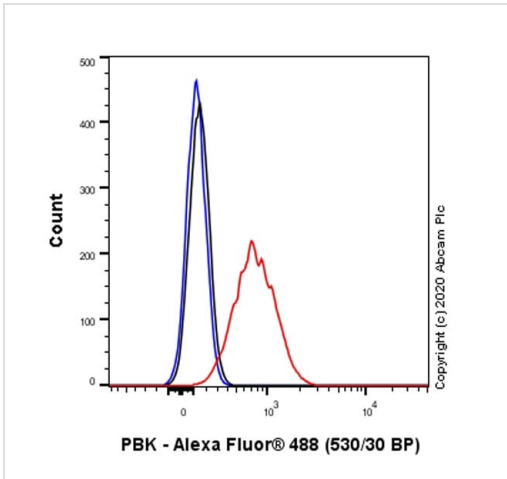
Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling PBK/PSK with ab280209 at 1/500 (1.946 µg/ml) dilution followed by ready to use LeicaDS9800 (Bond® Polymer Refine Detection).

Positive staining in germinal center of human tonsil.

The section was incubated with ab280209 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond® Polymer Refine Detection).

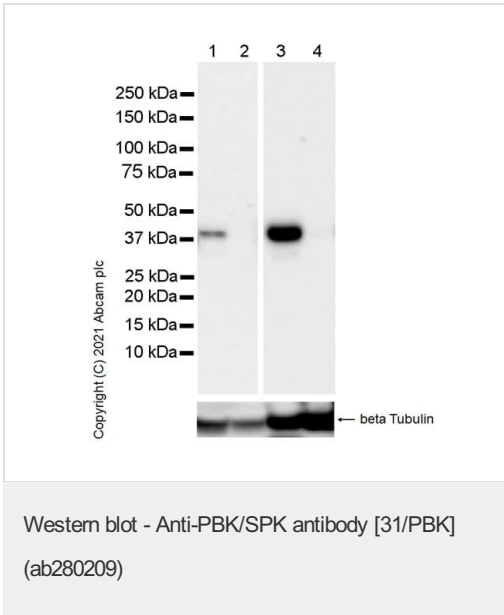
Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Flow Cytometry (Intracellular) - Anti-PBK/SPK antibody [31/PBK] (ab280209)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling PBK/SPK with ab280209 at 1/1000 dilution (0.1 µg) (red) compared with a mouse monoclonal IgG isotype control (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti mouse IgG (Alexa Fluor® 488, ab150113) at 1/2000 dilution was used as the secondary antibody.



All lanes : Anti-PBK/SPK antibody [31/PBK] (ab280209) at 1/1000 dilution

Lane 1 : Human testis tissue lysate

Lane 2 : Human heart tissue lysate

Lane 3 : Mouse testis tissue lysate

Lane 4 : Mouse brain tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

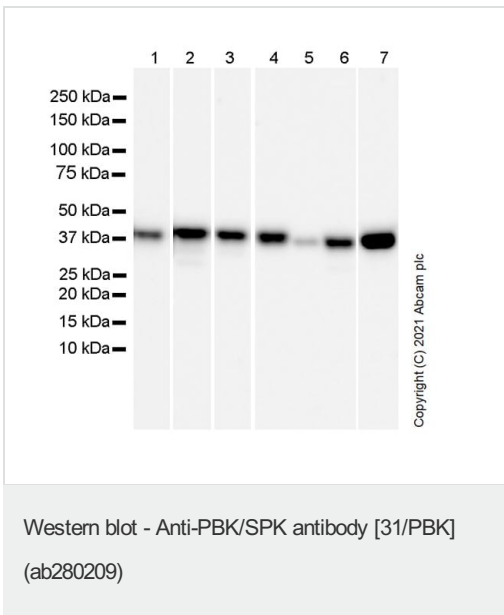
All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 36 kDa

Negative control: Human heart, mouse brain (PMID: 27898655).

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID:23547718).

Blocking/Dilution buffer: 5% NFDm/TBST.



All lanes : Anti-PBK/SPK antibody [31/PBK] (ab280209) at 1/1000 dilution

Lane 1 : HepG2 (human hepatocellular carcinoma epithelial cell), whole cell lysate

Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma), whole cell lysate

Lane 3 : U-87 MG (human glioblastoma-astrocytoma epithelial cell), whole cell lysate

Lane 4 : RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage), whole cell lysate

Lane 5 : C6 (rat glial tumor glial cell), whole cell lysate

Lane 6 : PC-12 (rat adrenal gland pheochromocytoma), whole cell lysate

Lane 7 : Rat testis tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

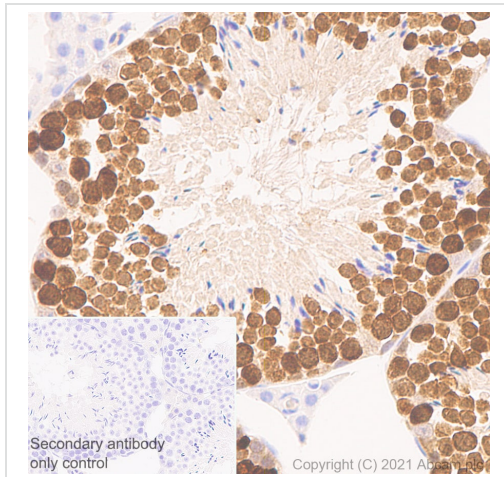
All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 36 kDa

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID:23547718).

Exposure time: lane 1: 37 secs; lane 2-7: 15 secs.

Blocking/Dilution buffer: 5% NFDm/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PBK/SPK antibody [31/PBK] (ab280209)

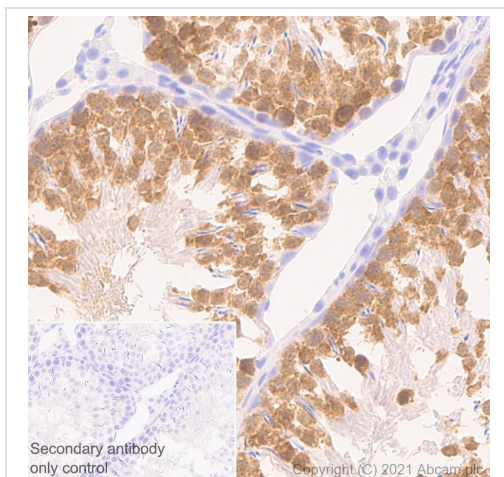
Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling PBK/PSK with ab280209 at 1/500 (1.946 µg/ml) dilution followed by ready to use LeicaDS9800 (Bond® Polymer Refine Detection).

Positive staining in mouse testis.

The section was incubated with ab280209 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond® Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PBK/SPK antibody [31/PBK] (ab280209)

Immunohistochemical analysis of paraffin-embedded rat testis tissue labeling PBK/PSK with ab280209 at 1/500 (1.946 µg/ml) dilution followed by ready to use LeicaDS9800 (Bond® Polymer Refine Detection).

Positive staining in rat testis.

The section was incubated with ab280209 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond® Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

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-PBK/SPK antibody [31/PBK] (ab280209)

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

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