


Anti-WNK1 antibody ab35069

2 Images

Overview

Product name	Anti-WNK1 antibody
Description	Rabbit polyclonal to WNK1
Host species	Rabbit
Specificity	From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help. You may also be interested in our alternative recombinant antibody, ab174854 .
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Xenopus laevis 
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 2350 to the C-terminus of Human WNK1. Read Abcam's proprietary immunogen policy (Peptide available as ab36094 .)
Positive control	This antibody gave a positive signal in the following whole cell lysates: HeLa (Human epithelial carcinoma cell line) Jurkat (Human T cell lymphoblast-like cell line) A431 (Human epithelial carcinoma cell line) HEK293 (Human embryonic kidney cell line) HepG2 (Human hepatocellular liver carcinoma cell line) MCF7 (Human breast adenocarcinoma cell line) SHSY-5Y (Human neuroblastoma cell line)
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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p> <p>Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</p>
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

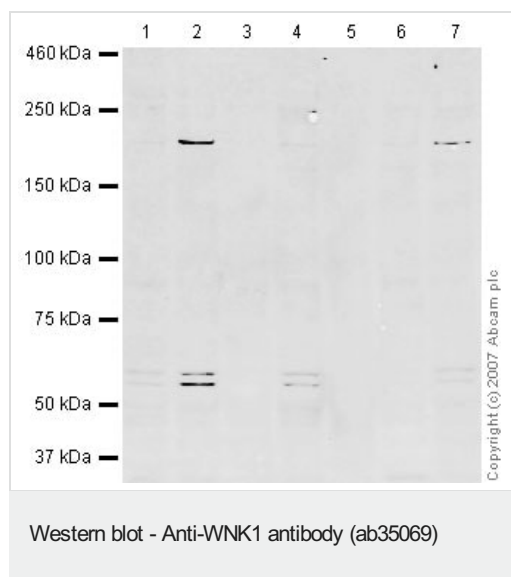
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab35069 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/250. Detects a band of approximately 200 kDa (predicted molecular weight: 250 kDa).
ICC/IF		Use a concentration of 5 µg/ml.

Target

Function	Serine/threonine kinase which plays an important role in the regulation of electrolyte homeostasis, cell signaling, survival, and proliferation. Acts as an activator and inhibitor of sodium-coupled chloride cotransporters and potassium-coupled chloride cotransporters respectively. Activates SCNN1A, SCNN1B, SCNN1D and SGK1. Controls sodium and chloride ion transport by inhibiting the activity of WNK4, by either phosphorylating the kinase or via an interaction between WNK4 and the autoinhibitory domain of WNK1. WNK4 regulates the activity of the thiazide-sensitive Na-Cl cotransporter, SLC12A3, by phosphorylation. WNK1 may also play a role in actin cytoskeletal reorganization. Phosphorylates NEDD4L. Acts as a scaffold to inhibit SLC4A4, SLC26A6 as well as CFTR activities and surface expression, recruits STK39 which mediates the inhibition.
Tissue specificity	Widely expressed, with highest levels observed in the testis, heart, kidney and skeletal muscle. Isoform 3 is kidney-specific and specifically expressed in the distal convoluted tubule (DCT) and connecting tubule (CNT) of the nephron.
Involvement in disease	Pseudohypoaldosteronism 2C Neuropathy, hereditary sensory and autonomic, 2A
Sequence similarities	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. WNK subfamily. Contains 1 protein kinase domain.
Post-translational modifications	O-glycosylated. Ubiquitinated in vitro by the BCR(KLHL3) complex and in vivo by a BCR(KLHL2) complex, leading to proteasomal degradation.
Cellular localization	Cytoplasm.

Images



All lanes : Anti-WNK1 antibody (ab35069) at 1/250 dilution

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : Jurkat whole cell lysate ([ab7899](#))

Lane 3 : A-431 whole cell lysate ([ab7909](#))

Lane 4 : HEK-293 whole cell lysate ([ab7902](#))

Lane 5 : Hep G2 whole cell lysate ([ab7900](#))

Lane 6 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lane 7 : SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

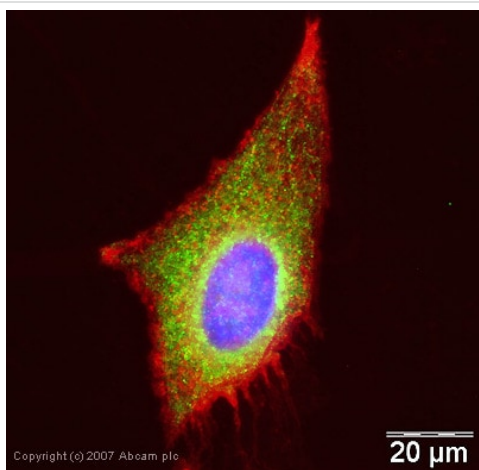
Performed under reducing conditions.

Predicted band size: 250 kDa

Observed band size: 200 kDa

Additional bands at: 55 kDa, 60 kDa. We are unsure as to the identity of these extra bands.

The band observed at 200 kDa could potentially be isoform 4 of the protein which has a predicted molecular weight of 206 kDa (Swiss-Prot data).



Immunocytochemistry/ Immunofluorescence - Anti-WNK1 antibody (ab35069)

ICC/IF image of ab35069 stained human HeLa cells. The cells were methanol fixed (5 min) and incubated with the antibody (ab35069, 5μg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™ FX Signal Enhancer was used to quench autofluorescence. 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).

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