abcam

Product datasheet

Anti-WNK4 antibody ab126477

1 References 1 Image

Overview

Product name Anti-WNK4 antibody

Description Rabbit polyclonal to WNK4

Host species Rabbit

Tested applications Suitable for: IHC-P

Species reactivity Reacts with: Human

Immunogen antigen sequence corresponding to amino acids 1005-1138 of Human WNK4.

Positive control Human kidney tissue.

General notes

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.

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

Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.20

Preservative: 0.02% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine)

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab126477 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

1

Application	Abreviews	Notes
IHC-P		1/20 - 1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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, SGK1, TRPV5 and TRPV6. Regulates the activity of the thiazide-sensitive Na-Cl cotransporter, SLC12A3, by phosphorylation which appears to prevent membrane trafficking of SLC12A3. Also inhibits the renal K(+) channel, KCNJ1, via a kinase-independent mechanism by which it induces clearance of the protein from the cell surface by clathrin-dependent endocytosis. WNK4 appears to act as a molecular switch that can vary the balance between NaCl reabsorption and K(+) secretion to maintain integrated homeostasis. Phosphorylates NEDD4L. Acts as a scaffold to inhibit SLC4A4 as well as CFTR activities and surface expression, recruits STK39 which mediates the inhibition.

Tissue specificity Expressed in kidney, colon and skin.

Involvement in disease Pseudohypoaldosteronism 2B

Sequence similarities Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. WNK subfamily.

Contains 1 protein kinase domain.

Post-translational Phosphorylated by WNK1 and WNK3.

modifications Ubiquitinated by the BCR(KLHL3) complex, leading to its degradation and increased expression

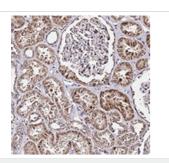
of KCNJ1 at the cell surface. Ubiquitinated by the BCR(KLHL2) complex.

Cellular localizationCell junction, tight junction. Present exclusively in intercellular junctions in the distal convoluted

tubule and in both the cytoplasm and intercellular junctions in the cortical collecting duct. WNK4 is

part of the tight junction complex (By similarity).

Images



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-WNK4 antibody (ab126477)

ab126477, at 1/20 dilution, staining WNK4 in paraffin-embedded Human kidney tissue by Immunohistochemistry.

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