

Rabbit Anti-WNK4 antibody

SL0429R

Product Name	WNK4
Chinese Name	WNK4 抗体
Alias	PHA 2B; PHA2B; PRKWINK 4; PRKWINK4; Protein kinase lysine deficient 4; Protein kinase with no lysine 4; Serine/threonine protein kinase WNK4; WNK lysine deficient protein kinase 4; WNK4_HUMAN.
Research Area	Cardiovascular immunology Kinases and Phosphatases Channel protein
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse, (predicted: Human, Rat,) WB=1:500-2000
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	135kDa
Cellular localization	cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human WNK4: 351-450/1243
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	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.

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.

Subunit:

Interacts with the C-terminal region of KCNJ1 (By similarity). Interacts with WNK1 and WNK3 (By similarity).

Subcellular Location:

Cell junction, tight junction (By similarity). Note=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).

Tissue Specificity:

Expressed in kidney, colon and skin.

Post-translational modifications:

Phosphorylated by WNK1 and WNK3.

DISEASE:

Pseudohypoaldosteronism 2B (PHA2B) [MIM:614491]: An autosomal dominant disorder characterized by hypertension, hyperkalemia, hyperchloremia, mild hyperchloremic metabolic acidosis, and correction of physiologic abnormalities by thiazide diuretics. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:

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

WNK subfamily.
Contains 1 protein kinase domain.

SWISS:
Q96J92

Gene ID:
65266

Database links:

[Entrez Gene: 65266](#) Human

[Omim: 601844](#) Human

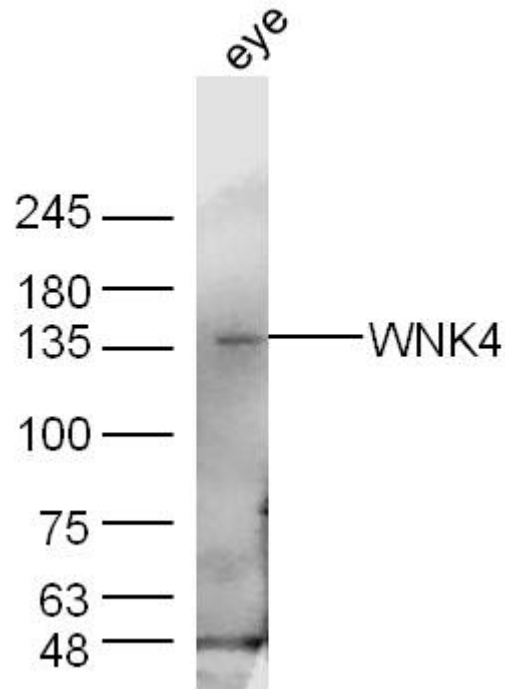
[SwissProt: Q96J92](#) Human

[Unigene: 105448](#) Human

WNK4 蛋白是一种新的丝氨酸/苏氨酸激酶家族成员的基因,在远端肾小管表达(肾小管是肾脏的基本结构,在维持人体的水电解质平衡方面有着重要的作用)而且,这一发现还有助于人们更好的了解肾脏的生理作用。

WNK4 基因的发现是非常有意义的,WNK4 的突变可能会引起高血压病的发生,为人们研究血压变化的发生机理提供了一个线索。

Product Picture



Sample: Eye(Mouse) Lysate at 30 ug

Primary: Anti- WNK4 (SL0429R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 135 kD

Observed band size: 135 kD