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Rabbit Anti-WNK4 antibody

SL0429R

Product Name:	WNK4
Chinese Name:	WNK4抗体
Alias:	PHA 2B; PHA2B; PRKWNK 4; PRKWNK4; Protein kinase lysine deficient 4; Protein kinase with no lysine 4; Serine/threonine protein kinase WNK4; WNK lysine deficient protein kinase 4; WNK4_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	135kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human WNK4:351-450/1243
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
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.

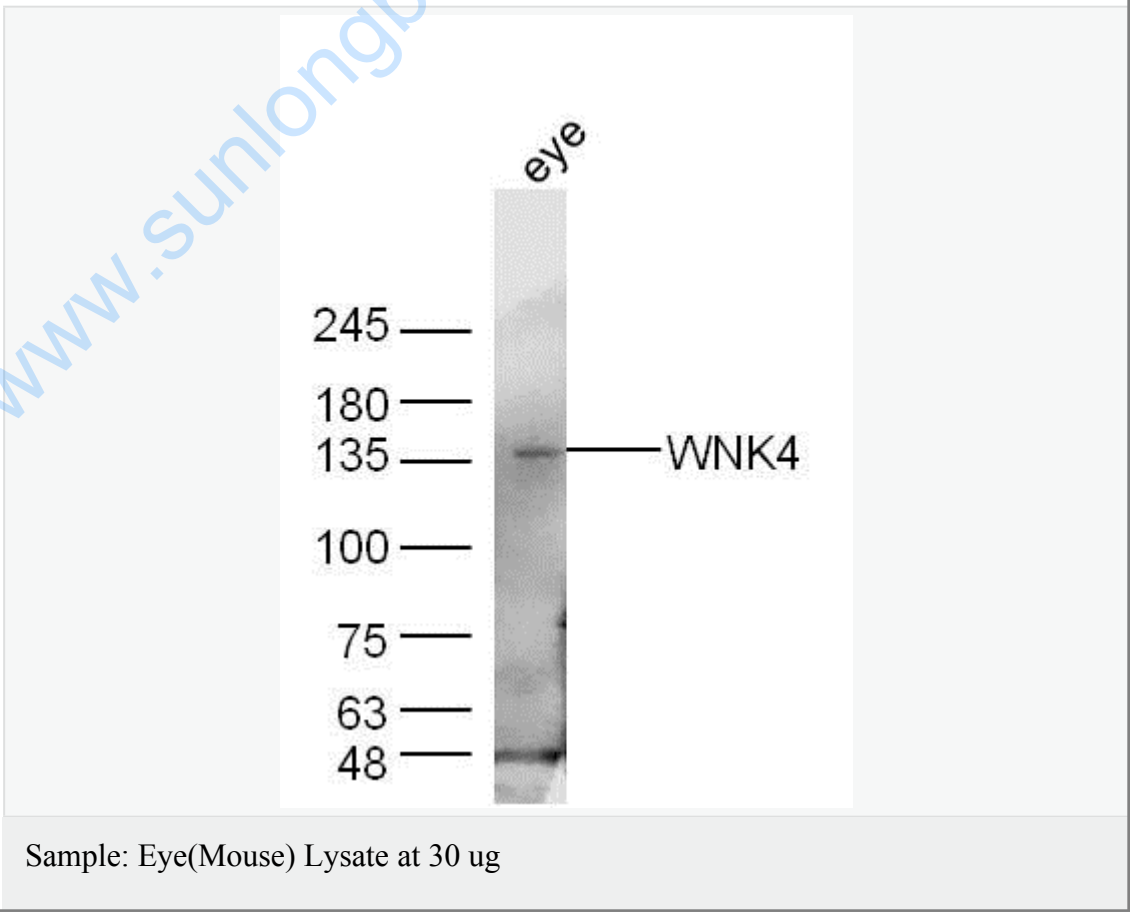
Post-translational modifications:
Phosphorylated by WNK1 and WNK3.

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: 65266Human Omim: 601844Human SwissProt: Q96J92Human Unigene: 105448Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. 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。
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