Product Name: **WNK1 Rabbit Polyclonal Antibody**
Catalog #: **APRab19910**
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:20000
Molecular Weight	230kDa

Antigen Information

Gene Name	WNK1
Alternative Names	WNK1; HSN2; KDP; KIAA0344; PRKWNK1; Serine/threonine-protein kinase WNK1; Erythrocyte 65 kDa protein; p65; Kinase deficient protein; Protein kinase lysine-deficient 1; Protein kinase with no lysine 1; hWNK1
Gene ID	65125.0
SwissProt ID	Q9H4A3
Immunogen	The antiserum was produced against synthesized peptide derived from human WNK1. AA range:24-73

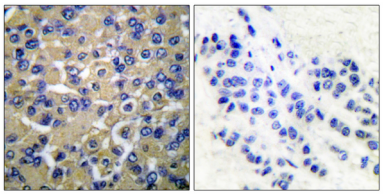
Background

This gene encodes a member of the WNK subfamily of serine/threonine protein kinases. The encoded protein may be a key regulator of blood pressure by controlling the transport of sodium and chloride ions. Mutations in this gene have been associated with pseudohypoaldosteronism type II and hereditary sensory neuropathy type II. Alternatively spliced transcript variants encoding different isoforms have been described but the full-length nature of all of them has yet to be determined. [provided by RefSeq, May 2010],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,caution:Cys-250 is present instead of the conserved Lys which is expected to be an active site residue. Lys-233 appears to fulfill the required catalytic function.,caution:PubMed:2507249 describes a peptide sequence containing a GlcNAc glycosylated Ser in position 164 while it is an Arg residue according to others.,cofactor:Magnesium.,disease:Defects in WNK1 are a cause of pseudohypoaldosteronism type II (PHAII) [MIM:145260]. PHAII is an autosomal dominant disease characterized by severe hypertension, hyperkalemia, and sensitivity to thiazide diuretics which may result from a chloride shunt in the renal distal nephron.,enzyme regulation:By hypertonicity. Activation requires autophosphorylation of Ser-382. Phosphorylation of Ser-378 also promotes increased activity.,function:Controls sodium and chloride ion transport by inhibiting the activity of WNK4, potentially 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.,PTM:O-glycosylated.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. WNK subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Interacts with SYT2.,tissue specificity:Widely expressed, with highest levels observed in the testis, heart, kidney and skeletal muscle.,

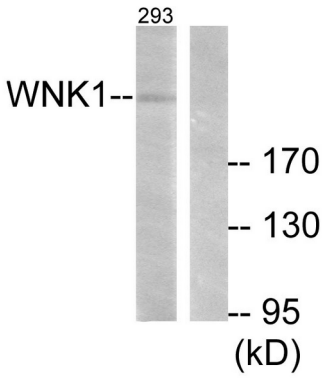
Research Area

Signal Transduction; Protein Phosphorylation; Ser / Thr Kinases

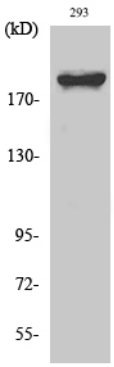
Image Data



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using WNK1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from 293 cells, treated with EGF 200ng/ml 30 ', using WNK1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using WNK1 Polyclonal Antibody. Secondary antibody was diluted at 1:20000