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Immunotag™ WNK4 Polyclonal Antibody

Antibody Specification

Catalog No.	ITN1274
Product Description	Immunotag™ WNK4 Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	WNK4
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	WB 1:500-2000 ELISA 1:5000-20000
Concentration	1 mg/ml
Reactive Species	Human,Rat,Mouse
Host Species	Rabbit
Immunogen	Synthesized peptide derived from part region of human protein
Specificity	WNK4 Polyclonal Antibody detects endogenous levels of protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Gene Name	WNK4 PRKWNK4
Accession No.	Q96J92 Q80UE6 Q7TPK6
Description	WNK lysine deficient protein kinase 4(WNK4) Homo sapiens This gene encodes a member of the WNK family of serine-threonine protein kinases. The kinase is part of the tight junction complex in kidney cells, and regulates the balance between NaCl reabsorption and K(+) secretion. The kinase regulates the activities of several types of ion channels, cotransporters, and exchangers involved in electrolyte flux in epithelial cells. Mutations in this gene result in pseudohypoaldosteronism type IIB.[provided by RefSeq, Sep 2009],

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Protein Expression	Colon,Kidney,Pooled,
Subcellular Localization	cytosol,bicellular tight junction,membrane,
Protein Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,caution:Cys-203 is present instead of the conserved Lys which is expected to be an active site residue. Lys-186 appears to fulfill the required catalytic function.,cofactor:Magnesium.,disease:Defects in WNK4 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:Activation requires autophosphorylation of Ser-335. Phosphorylation of Ser-331 also promotes increased activity.,function: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.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. WNK subfamily.,similarity:Contains 1 protein kinase domain.,subcellular location: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.,subunit:Interacts with the C-terminal region of KCNJ1.,tissue specificity:Expressed in kidney, colon and skin.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.