

**WNK4 (PRKWINK4) Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP7055b****Specification****WNK4 (PRKWINK4) Antibody (C-term) Blocking peptide - Product Information**Primary Accession [Q96J92](#)**WNK4 (PRKWINK4) Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 65266**Other Names**Serine/threonine-protein kinase WNK4,  
Protein kinase lysine-deficient 4, Protein  
kinase with no lysine 4, WNK4, PRKWINK4**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7055b](/product/products/AP7055b) was selected from the C-term region of human PRKWINK4 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**WNK4 (PRKWINK4) Antibody (C-term) Blocking peptide - Protein Information****Name** WNK4 ([HGNC:14544](#))**WNK4 (PRKWINK4) Antibody (C-term) Blocking peptide - Background**

The WNK4 gene encodes a serine-threonine kinase expressed in distal nephron.[supplied by OMIM]

**WNK4 (PRKWINK4) Antibody (C-term) Blocking peptide - References**

Erlich, P.M., et al., Hypertension 41(6):1191-1195 (2003).Verissimo, F., et al., Oncogene 20(39):5562-5569 (2001).Wilson, F.H., et al., Science 293(5532):1107-1112 (2001).

**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 (By similarity).

**Cellular Location**

Cell junction, tight junction  
{ECO:0000250|UniProtKB:Q80UE6}.  
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  
{ECO:0000250|UniProtKB:Q80UE6}

**Tissue Location**

Expressed in kidney, colon and skin.

**WNK4 (PRKWNK4) Antibody (C-term)  
Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)