

**WNK2 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP51689****Specification****WNK2 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">O9Y3S1</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	243 KDa

**WNK2 Antibody - Additional Information****Gene ID** 65268**Other Names**

Serine/threonine-protein kinase WNK2, Antigen NY-CO-43, Protein kinase lysine-deficient 2, Protein kinase with no lysine 2, Serologically defined colon cancer antigen 43, WNK2, KIAA1760, PRKWNK2, SDCCAG43

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**WNK2 Antibody - Protein Information****Name** WNK2 {ECO:0000303|PubMed:11571656, ECO:0000312|HGNC:HGNC:14542}**Function**

Serine/threonine-protein kinase component of the WNK2- SPAK/OSR1 kinase cascade, which plays an important role in the regulation of electrolyte homeostasis, cell signaling, survival, and proliferation (PubMed: [17667937](http://www.uniprot.org/citations/17667937), PubMed: [18593598](http://www.uniprot.org/citations/18593598), PubMed: [21733846](http://www.uniprot.org/citations/21733846)). The WNK2-SPAK/OSR1 kinase cascade is composed of WNK2, which mediates phosphorylation and activation of downstream kinases OXSR1/OSR1 and STK39/SPAK (By similarity). Following activation, OXSR1/OSR1 and STK39/SPAK catalyze phosphorylation of ion cotransporters, regulating their activity (By similarity). Acts as an activator and inhibitor of sodium-coupled chloride cotransporters and potassium-coupled chloride cotransporters respectively (PubMed: [21733846](http://www.uniprot.org/citations/21733846))

target="\_blank">21733846</a>). Activates SLC12A2, SCNN1A, SCNN1B, SCNN1D and SGK1 and inhibits SLC12A5 (PubMed:<a href="http://www.uniprot.org/citations/21733846" target="\_blank">21733846</a>). Negatively regulates the EGF-induced activation of the ERK/MAPK-pathway and the downstream cell cycle progression (PubMed:<a href="http://www.uniprot.org/citations/17667937" target="\_blank">17667937</a>, PubMed:<a href="http://www.uniprot.org/citations/18593598" target="\_blank">18593598</a>). Affects MAPK3/MAPK1 activity by modulating the activity of MAP2K1 and this modulation depends on phosphorylation of MAP2K1 by PAK1 (PubMed:<a href="http://www.uniprot.org/citations/17667937" target="\_blank">17667937</a>, PubMed:<a href="http://www.uniprot.org/citations/18593598" target="\_blank">18593598</a>). WNK2 acts by interfering with the activity of PAK1 by controlling the balance of the activity of upstream regulators of PAK1 activity, RHOA and RAC1, which display reciprocal activity (PubMed:<a href="http://www.uniprot.org/citations/17667937" target="\_blank">17667937</a>, PubMed:<a href="http://www.uniprot.org/citations/18593598" target="\_blank">18593598</a>).

### **Cellular Location**

Cytoplasm. Cell membrane

### **Tissue Location**

Expressed in various cancer cell lines (at protein level). Predominantly expressed in heart, brain, skeletal muscle and colon.

## **WNK2 Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **WNK2 Antibody - Images**

## **WNK2 Antibody - Background**

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 SLC12A2, SCNN1A, SCNN1B, SCNN1D and SGK1 and inhibits SLC12A5. Negatively regulates the EGF-induced activation of the ERK/MAPK-pathway and the downstream cell cycle progression. Affects MAPK3/MAPK1 activity by modulating the activity of MAP2K1 and this modulation depends on phosphorylation of MAP2K1 by PAK1. WNK2 acts by interfering with the activity of PAK1 by controlling the balance of the activity of upstream regulators of PAK1 activity, RHOA and RAC1, which display reciprocal activity.

## **WNK2 Antibody - References**

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Jordan P.,et al.Submitted (JAN-2005) to the EMBL/GenBank/DDBJ databases.  
Humphray S.J.,et al.Nature 429:369-374(2004).  
Ito M.,et al.Cancer Res. 61:2038-2046(2001).  
Nagase T.,et al.DNA Res. 7:347-355(2000).

