

**STK39 Antibody**  
Rabbit mAb  
Catalog # AP92520

## Specification

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### STK39 Antibody - Product Information

Application **WB, IHC, FC**  
Primary Accession [O9UEW8](#)  
Clonality **Monoclonal**  
**Other Names**  
DCHT; PASK; SPAK; Stk39;

Isotype **Rabbit IgG**  
Host **Rabbit**  
Calculated MW **59474 Da**

### STK39 Antibody - Additional Information

Purification **Affinity-chromatography**  
Immunogen **A synthesized peptide derived from human STK39**  
Description **May act as a mediator of stress-activated signals.**  
Storage Condition and Buffer **Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

### STK39 Antibody - Protein Information

**Name** STK39

#### **Function**

Effector serine/threonine-protein kinase component of the WNK-SPAK/OSR1 kinase cascade, which is involved in various processes, such as ion transport, response to hypertonic stress and blood pressure (PubMed: [16669787](http://www.uniprot.org/citations/16669787), PubMed: [18270262](http://www.uniprot.org/citations/18270262), PubMed: [21321328](http://www.uniprot.org/citations/21321328), PubMed: [34289367](http://www.uniprot.org/citations/34289367)). Specifically recognizes and binds proteins with a RFXV motif (PubMed: [16669787](http://www.uniprot.org/citations/16669787), PubMed: [21321328](http://www.uniprot.org/citations/21321328)). Acts downstream of WNK kinases (WNK1, WNK2, WNK3 or WNK4): following activation by WNK kinases, catalyzes phosphorylation of ion cotransporters, such as SLC12A1/NKCC2, SLC12A2/NKCC1, SLC12A3/NCC, SLC12A5/KCC2 or SLC12A6/KCC3, regulating their activity (PubMed: [21321328](http://www.uniprot.org/citations/21321328)). Mediates regulatory volume increase in response to hyperosmotic stress by catalyzing phosphorylation of ion cotransporters SLC12A1/NKCC2, SLC12A2/NKCC1 and SLC12A6/KCC3

downstream of WNK1 and WNK3 kinases (PubMed:<a href="http://www.uniprot.org/citations/12740379" target="\_blank">12740379</a>, PubMed:<a href="http://www.uniprot.org/citations/16669787" target="\_blank">16669787</a>, PubMed:<a href="http://www.uniprot.org/citations/21321328" target="\_blank">21321328</a>).

Phosphorylation of Na-K-Cl cotransporters SLC12A2/NKCC1 and SLC12A2/NKCC1 promote their activation and ion influx; simultaneously, phosphorylation of K-Cl cotransporters SLC12A5/KCC2 and SLC12A6/KCC3 inhibit their activity, blocking ion efflux (PubMed:<a href="http://www.uniprot.org/citations/16669787" target="\_blank">16669787</a>, PubMed:<a href="http://www.uniprot.org/citations/19665974" target="\_blank">19665974</a>, PubMed:<a href="http://www.uniprot.org/citations/21321328" target="\_blank">21321328</a>). Acts as a regulator of NaCl reabsorption in the distal nephron by mediating phosphorylation and activation of the thiazide-sensitive Na-Cl cotransporter SLC12A3/NCC in distal convoluted tubule cells of kidney downstream of WNK4 (PubMed:<a href="http://www.uniprot.org/citations/18270262" target="\_blank">18270262</a>). Mediates the inhibition of SLC4A4, SLC26A6 as well as CFTR activities (By similarity). Phosphorylates RELT (By similarity).

### Cellular Location

Cytoplasm. Nucleus. Note=Nucleus when caspase-cleaved.

### Tissue Location

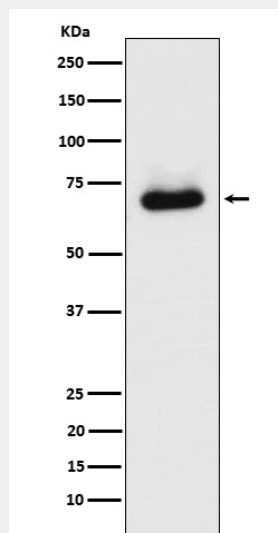
Predominantly expressed in brain and pancreas followed by heart, lung, kidney, skeletal muscle, liver, placenta and testis.

## STK39 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](#)

## STK39 Antibody - Images



Western blot analysis of STK39 expression in HepG2 cell lysate.