

**SPAK Rabbit mAb**  
Catalog # AP78419**Specification**

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**SPAK Rabbit mAb - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">Q9UEW8</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Monoclonal Antibody</b>
Calculated MW	<b>59474</b>

**SPAK Rabbit mAb - Additional Information****Gene ID** 27347**Other Names**  
STK39**Dilution**  
WB~~1/500-1/1000**Format**  
Liquid**SPAK Rabbit mAb - 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: [12740379](http://www.uniprot.org/citations/12740379), PubMed: [16669787](http://www.uniprot.org/citations/16669787), PubMed: [16669787](http://www.uniprot.org/citations/16669787)).

[21321328](http://www.uniprot.org/citations/21321328)). 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: [16669787](http://www.uniprot.org/citations/16669787), PubMed: [19665974](http://www.uniprot.org/citations/19665974), PubMed: [21321328](http://www.uniprot.org/citations/21321328)). 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: [18270262](http://www.uniprot.org/citations/18270262)). 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.

#### SPAK Rabbit mAb - 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](#)

#### SPAK Rabbit mAb - Images

