

# SPAK Rabbit mAb

Catalog # AP78419

## Product Information

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<b>Application</b>	WB, IHC-P, FC
<b>Primary Accession</b>	<a href="#">Q9UEW8</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Immunogen</b>	A synthesized peptide derived from human STK39
<b>Purification</b>	Affinity Purified
<b>Calculated MW</b>	59474

## Additional Information

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<b>Gene ID</b>	27347
<b>Other Names</b>	STK39
<b>Dilution</b>	WB~~1/500-1/1000 IHC-P~~N/A FC~~1:10~50
<b>Format</b>	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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<b>Name</b>	STK39
<b>Function</b>	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: <a href="#">16669787</a> , PubMed: <a href="#">18270262</a> , PubMed: <a href="#">21321328</a> , PubMed: <a href="#">34289367</a> ). Specifically recognizes and binds proteins with a RFXV motif (PubMed: <a href="#">16669787</a> , PubMed: <a href="#">21321328</a> ). 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: <a href="#">21321328</a> ). 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="#">12740379</a> , PubMed: <a href="#">16669787</a> , PubMed: <a href="#">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:[16669787](#), PubMed:[19665974](#), PubMed:[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](#)). Mediates the inhibition of SLC4A4, SLC26A6 as well as CFTR activities (By similarity). Phosphorylates RELT (By similarity).

**Cellular Location**

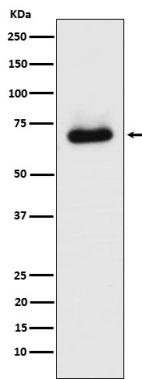
Cytoplasm. Nucleus. Note=Nucleus when caspase-cleaved.

**Tissue Location**

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

## Images

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