

# Mouse Stk39 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP17317b

## **Specification**

# Mouse Stk39 Antibody (C-term) - Product Information

**Application** WB,E **Primary Accession** 09Z1W9 Other Accession NP 058562.1 Reactivity Mouse Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 60320 Antigen Region 433-460

## Mouse Stk39 Antibody (C-term) - Additional Information

#### **Gene ID 53416**

#### **Other Names**

STE20/SPS1-related proline-alanine-rich protein kinase, Ste-20-related kinase, Serine/threonine-protein kinase 39, Stk39, Spak

## Target/Specificity

This Mouse Stk39 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 433-460 amino acids from the C-terminal region of mouse Stk39.

## **Dilution**

WB~~1:1000

### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

# **Precautions**

Mouse Stk39 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Mouse Stk39 Antibody (C-term) - Protein Information

Name Stk39

Synonyms Spak



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:16382158, PubMed:17488636, PubMed:19633012, PubMed:21486947). Specifically recognizes and binds proteins with a RFXV motif (PubMed: 14563843). 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: 14563843, PubMed: 16382158, PubMed: 17488636, PubMed: 19633012, PubMed:21486947). 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 (By similarity). 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 (By similarity). 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: 17488636, PubMed: 19633012, PubMed: 21486947). Mediates the inhibition of SLC4A4, SLC26A6 as well as CFTR activities (PubMed: 21317537, PubMed: 23542070). Phosphorylates RELT (PubMed: 16530727).

#### **Cellular Location**

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

#### **Tissue Location**

Expressed in the kidney, including in epithelial cells of the thick ascending limb of Henle's loop and in the distal convoluted tubule (at protein level).

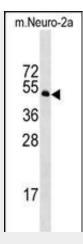
# Mouse Stk39 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Stk39 Antibody (C-term) - Images





Mouse Stk39 Antibody (C-term) (Cat. #AP17317b) western blot analysis in mouse Neuro-2a cell line lysates (35ug/lane). This demonstrates the Stk39 antibody detected the Stk39 protein (arrow).

# Mouse Stk39 Antibody (C-term) - Background

Stk39 may act as a mediator of stress-activated signals.

# Mouse Stk39 Antibody (C-term) - References

Yang, S.S., et al. J. Am. Soc. Nephrol. 21(11):1868-1877(2010) Gagnon, K.B., et al. Am. J. Physiol., Cell Physiol. 299 (3), C614-C620 (2010): Sid, B., et al. J. Physiol. (Lond.) 588 (PT 13), 2315-2328 (2010): Reiche, J., et al. Mol. Cell. Biol. 30(12):3027-3037(2010) Hengl, T., et al. Proc. Natl. Acad. Sci. U.S.A. 107(13):6052-6057(2010)