

Stk39 Antibody

Catalog # ASC10787

Specification

Stk39 Antibody - Product Information

| Application | |
|-------------------|--|
| Primary Accession | |
| Other Accession | |

Reactivity Host Clonality Isotype Application Notes

WB, IHC, IF **Q9UEW8** NP 037365, 115430252 Human, Mouse Rabbit Polyclonal lgG Stk39 antibody can be used for detection of stk39 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immu nohistochemistry starting at 2.5 μg/mL. For immun ofluorescence start at 20 µg/mL.

Stk39 Antibody - Additional Information

Gene ID 273 Target/Specificity STK39;

27347

Reconstitution & Storage Stk39 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

Stk39 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Stk39 Antibody - Protein Information

Name STK39



Western blot analysis of Stk39 in SK-N-SH cell lysate with Stk39 antibody at (A) 1 and (B) 2 μ g/mL.



Immunohistochemistry of Stk39 in human brain tissue with Stk39 antibody at 2.5 μ g/mL.



Synonyms SPAK

Function

May act as a mediator of stress-activated signals. Mediates the inhibition of SLC4A4, SLC26A6 as well as CFTR activities by the WNK scaffolds, probably through phosphorylation. Phosphorylates RELT.

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.

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



Immunofluorescence of stk39 in human brain tissue with stk39 antibody at 20 μ g/mL.

Stk39 Antibody - Background

Stk39 Antibody: The serine/threonine kinase Stk39 belongs to the STE20 family, a group of kinases that are known to interact with inflammation-related kinases (such as p38, JNK, NKCC1, PKC-theta, WNK and MLCK), and with transcription factor AP-1. The STE 20 family is involved in diverse biological phenomena, including cell differentiation, cell transformation/ proliferation, cytoskeleton rearrangement, and the regulation of ion transporters. STK39 contains an N-terminal series of proline and alanine repeats (PAPA box), followed by a serine/threonine kinase catalytic domain and is abundantly expressed in the brain. STK39 is activated in response to hypotonic stress, leading to phosphorylation of several cation-chloride-coupled co-transporters. The catalytically active kinase specifically activates the p38 MAP kinase pathway, and its interaction with p38 decreases upon cellular stress, suggesting that this kinase may serve as an intermediate in the response to cellular stress. Recent studies show that STK39 tend to be a novel candidate gene for autism and hypertension.

Stk39 Antibody - References

Johnston AM, Nacelli G, Gonzales LJ, et al. SPAK, a STE20/SPS1-related kinase that activates the p38 pathway. Oncogene2000; 19:4290-7.

Li Y, Hu J, Vita R, et al. SPAK kinase is a substrate and target of PKCtheta in T-cell



receptor-induced AP-1 activation pathway. EMBO J.2004; 23:1112-22. Gagnon KB, England R, and Delpire E. Characterization of SPAK and OSR1, regulatory kinases of the Na-K-2Cl cotransporter. Mol. Cell Biol.2006; 26:689-98. Dan I, Watanabe NM, and Kasumi A. The Ste20

group kinases as regulators of MAP kinase cascades. Trends Cell. Biol.2001; 11:220-30.