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STK29 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7191B

Specification

STK29 Antibody (C-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	Q8IWQ3
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**81633**
Antigen Region	**706-736**

STK29 Antibody (C-term) - Additional Information

Gene ID 9024

Other Names
Serine/threonine-protein kinase BRSK2, Brain-selective kinase 2, Brain-specific serine/threonine-protein kinase 2, BR serine/threonine-protein kinase 2, Serine/threonine-protein kinase 29, Serine/threonine-protein kinase SAD-A, BRSK2, C11orf7, PEN11B, SADA, STK29

Target/Specificity
This STK29 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 706-736 amino acids from the C-terminal region of human STK29.

Dilution
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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
STK29 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

STK29 Antibody (C-term) - Protein Information

Name BRSK2

Synonyms C11orf7, PEN11B, SADA, STK29

Function Serine/threonine-protein kinase that plays a key role in polarization of neurons and axonogenesis, cell cycle progress and insulin secretion. Phosphorylates CDK16, CDC25C, MAPT/TAU, PAK1 and WEE1. Following phosphorylation and activation by STK11/LKB1, acts as a key regulator of polarization of cortical neurons, probably by mediating phosphorylation of microtubule-associated proteins such as MAPT/TAU at 'Thr-529' and 'Ser-579'. Also regulates neuron polarization by mediating phosphorylation of WEE1 at 'Ser-642' in postmitotic neurons, leading to down-regulate WEE1 activity in polarized neurons. Plays a role in the regulation of the mitotic cell cycle progress and the onset of mitosis. Plays a role in the regulation of insulin secretion in response to elevated glucose levels, probably via phosphorylation of CDK16 and PAK1. While BRSK2 phosphorylated at Thr- 174 can inhibit insulin secretion (PubMed:22798068), BRSK2 phosphorylated at Thr-260 can promote insulin secretion (PubMed:22669945). Regulates reorganization of the actin cytoskeleton. May play a role in the apoptotic response triggered by endoplasmic reticulum (ER) stress.

Cellular Location
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, perinuclear region. Endoplasmic reticulum. Note=Detected at centrosomes during mitosis. Localizes to the endoplasmic reticulum in response to stress caused by tunicamycin

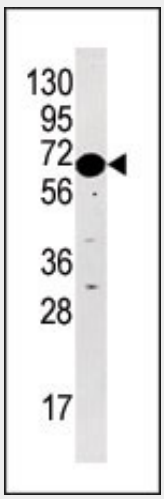
Tissue Location
Detected in pancreas islets (at protein level).

STK29 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

STK29 Antibody (C-term) - Images



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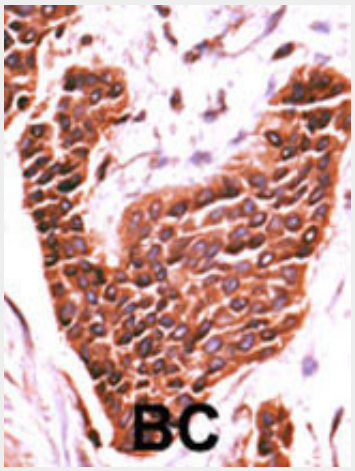
Western blot analysis of anti-STK29 Pab(Cat. #AP7191b) in HL60 cell line lysate (35ug/lane). STK29(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

STK29 Antibody (C-term) - Background

BRSK2 expressed in insect cells specifically phosphorylates WEE1A, CDC25C, and CDC25B in an in vitro assay, but a kinase-dead mutant does not. Overexpression of BRSK2 in HeLa cells results in increased phosphorylation of CDC25C. DNA damage induced by ultraviolet (UV) irradiation or methyl methane sulfonate, but not by ionizing radiation, enhances endogenous BRSK2 kinase activity in a caffeine-sensitive manner and causes translocation of BRSK2 from the cytoplasm to the nucleus. Overexpression of BRSK2 induces G2/M arrest in HeLa cells. Small interfering RNA against BRSK2 partly abrogates UV-induced G2/M arrest. BRSK2 may act as a checkpoint kinase upon DNA damage induced by UV irradiation or methyl methane sulfonate.

STK29 Antibody (C-term) - References

J. Biol. Chem. 279: 31164-31170, 2004.
J. Hum. Genet. 44:1-9(1999).
J. Hum. Genet. 43: 283-284, 1998.