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BRSK2 / STK29 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF2465a

Specification

BRSK2 / STK29 Antibody (internal region) - Product Information

Application	**E**
Primary Accession	Q8IWQ3
Other Accession	NP_003948.2, 9024, 75770 (mouse), 293631 (rat)
Predicted	**Human, Mouse, Rat, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**81633**

BRSK2 / STK29 Antibody (internal region) - Additional Information

Gene ID 9024

Other Names
Serine/threonine-protein kinase BRSK2, 2.7.11.1, Brain-selective kinase 2, 2.7.11.26, 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

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
BRSK2 / STK29 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

BRSK2 / STK29 Antibody (internal region) - 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).

BRSK2 / STK29 Antibody (internal region) - 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

BRSK2 / STK29 Antibody (internal region) - Images

BRSK2 / STK29 Antibody (internal region) - References

Mammalian SAD kinases are required for neuronal polarization. Kishi M, Pan YA, Crump JG, Sanes JR. Science. 2005 Feb 11;307(5711):929-32. PMID: 15705853