

# **BRSK1 Polyclonal Antibody**

**Catalog # AP68718** 

#### **Specification**

# **BRSK1 Polyclonal Antibody - Product Information**

Application WB, IF
Primary Accession Q8TDC3
Reactivity Human, Mouse

Host Rabbit Clonality Polyclonal

# **BRSK1 Polyclonal Antibody - Additional Information**

#### **Gene ID 84446**

#### **Other Names**

BRSK1; KIAA1811; SAD1; SADB; Serine/threonine-protein kinase BRSK1; Brain-selective kinase 1; Brain-specific serine/threonine-protein kinase 1; BR serine/threonine-protein kinase 1; Serine/threonine-protein kinase SAD-B; Synapses of Amphids

#### **Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.  $IF\sim 1:50\sim 200$ 

#### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

# **Storage Conditions** -20°C

# **BRSK1 Polyclonal Antibody - Protein Information**

#### Name BRSK1

Synonyms KIAA1811, SAD1, SADB

## **Function**

Serine/threonine-protein kinase that plays a key role in polarization of neurons and centrosome duplication. Phosphorylates CDC25B, CDC25C, MAPT/TAU, RIMS1, TUBG1, TUBG2 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. In neurons, localizes to synaptic vesicles and plays a role in neurotransmitter release, possibly by phosphorylating RIMS1. Also acts as a positive regulator of centrosome duplication by mediating phosphorylation of gamma-tubulin (TUBG1 and TUBG2) at 'Ser-131', leading to translocation of gamma-tubulin and its associated proteins to the centrosome.



Tel: 858.875.1900 Fax: 858.875.1999

Involved in the UV-induced DNA damage checkpoint response, probably by inhibiting CDK1 activity through phosphorylation and activation of WEE1, and inhibition of CDC25B and CDC25C.

#### **Cellular Location**

Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Synapse {ECO:0000250|UniProtKB:B2DD29}. Presynaptic active zone {ECO:0000250|UniProtKB:B2DD29}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle {ECO:0000250|UniProtKB:B2DD29}. Note=Nuclear in the absence of DNA damage. Translocated to the nucleus in response to UV- or MMS-induced DNA damage (By similarity).

#### **Tissue Location**

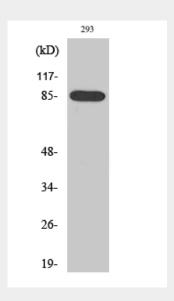
Widely expressed, with highest levels in brain and testis. Protein levels remain constant throughout the cell cycle

## **BRSK1 Polyclonal Antibody - Protocols**

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

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

## **BRSK1 Polyclonal Antibody - Images**



## **BRSK1 Polyclonal Antibody - Background**

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MAPT/TAU at 'Thr-529' and 'Ser-579'. Also regulates neuron polarization by mediating phosphorylation of WEE1 at 'Ser-642' in post-mitotic neurons, leading to down-regulate WEE1 activity in polarized neurons. In neurons, localizes to synaptic vesicles and plays a role in neurotransmitter release, possibly by phosphorylating RIMS1. Also acts as a positive regulator of centrosome duplication by mediating phosphorylation of gamma-tubulin (TUBG1 and TUBG2) at 'Ser-131', leading to translocation of gamma-tubulin and its associated proteins to the centrosome. Involved in the UV-induced DNA damage checkpoint response, probably by inhibiting CDK1 activity through phosphorylation and activation of WEE1, and inhibition of CDC25B and CDC25C.