

**BRSK1 Antibody(Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP19765C**

**Specification**

**BRSK1 Antibody(Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q8TDC3</a>
Other Accession	<a href="#">B2DD29</a> , <a href="#">Q5RJJ5</a> , <a href="#">NP_115806.1</a>
Reactivity	Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	85087
Antigen Region	355-384

**BRSK1 Antibody(Center) - Additional Information**

**Gene ID** 84446

**Other Names**

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 Defective homolog 1,  
SAD1 homolog, hSAD1, BRSK1, KIAA1811,  
SAD1, SADB

**Target/Specificity**

This BRSK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 355-384 amino acids from the Central region of human BRSK1.

**Dilution**

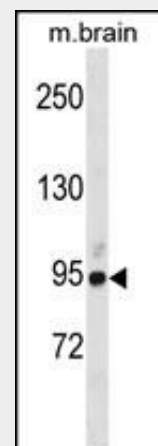
WB~1:1000

**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



BRSK1 Antibody (Center) (Cat. #AP19765c) western blot analysis in mouse brain tissue lysates (35ug/lane). This demonstrates the BRSK1 antibody detected the BRSK1 protein (arrow).

**BRSK1 Antibody(Center) - Background**

Required for the polarization of forebrain neurons which endows axons and dendrites with distinct properties, possibly by locally regulating phosphorylation of microtubule-associated proteins (By similarity). May be involved in the regulation of G2/M arrest in response to UV-or methyl methane sulfonate (MMS)-induced, but not IR-induced, DNA damage. Phosphorylates WEE1 and CDC25B in vitro and CDC25C in vitro and in vivo.

**BRSK1 Antibody(Center) - References**

Alvarado-Kristensson, M., et al. Nat. Cell Biol. 11(9):1081-1092(2009)  
He, C., et al. Nat. Genet. (2009) In press :  
Stolk, L., et al. Nat. Genet. (2009) In press :  
Fogarty, S., et al. J. Biol. Chem. 284(1):77-84(2009)  
Bright, N.J., et al. J. Biol. Chem. 283(22):14946-14954(2008)

weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

BRSK1 Antibody(Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**BRSK1 Antibody(Center) - 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. 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. Cell junction, synapse {ECO:0000250|UniProtKB:B2DD29}. Cell junction, synapse, 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 Antibody(Center) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)