

**Mouse Brsk2 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16066c****Specification**

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**Mouse Brsk2 Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q69Z98</a>
Other Accession	<a href="#">D3ZML2</a> , <a href="#">NP_001009930.1</a> , <a href="#">NP_083702.1</a>
Reactivity	Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	81733
Antigen Region	329-356

**Mouse Brsk2 Antibody (Center) - Additional Information****Gene ID** 75770**Other Names**

Serine/threonine-protein kinase BRSK2, Brain-specific serine/threonine-protein kinase 2, BR serine/threonine-protein kinase 2, Serine/threonine-protein kinase SAD-A, Brsk2, Kiaa4256, Sada

**Target/Specificity**

This Mouse Brsk2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 329-356 amino acids from the Central region of mouse Brsk2.

**Dilution**

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 purified through a protein A column, followed by peptide affinity purification.

**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**

Mouse Brsk2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**Mouse Brsk2 Antibody (Center) - Protein Information****Name** Brsk2

**Synonyms** Kiaa4256, Sada

**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-504' and 'Ser-554'. 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. 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- 175 can inhibit insulin secretion (PubMed:[22798068](#)), BRSK2 phosphorylated at Thr-261 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 (By similarity)

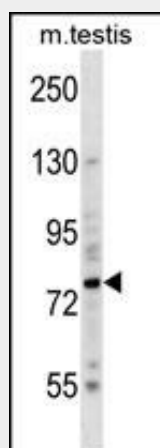
**Tissue Location**

Detected in pancreas islets and in brain (at protein level). Detected in brain and pancreas

**Mouse Brsk2 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](#)

**Mouse Brsk2 Antibody (Center) - Images**

Mouse Brsk2 Antibody (Center) (Cat. #AP16066c) western blot analysis in mouse testis tissue

lysates (35ug/lane). This demonstrates the Brsk2 antibody detected the Brsk2 protein (arrow).

#### **Mouse Brsk2 Antibody (Center) - Background**

Brsk2 is required for the polarization of forebrain neurons which endows axons and dendrites with distinct properties, possibly by locally regulating phosphorylation of microtubule-associated proteins.

#### **Mouse Brsk2 Antibody (Center) - References**

Muller, M., et al. J. Cell. Sci. 123 (PT 2), 286-294 (2010) :  
Choi, Y.J., et al. Genes Dev. 22(18):2485-2495(2008)  
Hezel, A.F., et al. Mol. Cell. Biol. 28(7):2414-2425(2008)  
Barnes, A.P., et al. Cell 129(3):549-563(2007)  
Munton, R.P., et al. Mol. Cell Proteomics 6(2):283-293(2007)