



Rabbit Anti-BRSK2 antibody

SL21426R

Product Name:	BRSK2
Chinese Name:	脑蛋白丝氨酸/苏氨酸激酶29抗体
Alias:	BR serine/threonine kinase 2; BR serine/threonine-protein kinase 2; Brain selective kinase 2; Brain specific serine/threonine protein kinase 2; Brsk2; BRSK2_HUMAN; C11orf7; PEN11B; Protein kinase SAD1B; SAD1; Serine/threonine kinase 29; Serine/threonine protein kinase BRSK2; Serine/threonine-protein kinase 29; Serine/threonine-protein kinase SAD-A; STK29; SADA.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	82kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BRSK2:624-724/736
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are

intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. BRSK2 (BR serine/threonine kinase 2), also known as SAD1, STK29 or PEN11B, is a 736 amino acid protein that contains one protein kinase domain and is preferentially expressed in brain and testis. One of several members of the Ser/Thr protein kinase family, BRSK2 uses magnesium as a cofactor to catalyze the ATP-dependent phosphorylation of target proteins and is thought to be involved in microtubule assembly, neuronal polarization and synaptic development. Additionally, BRSK2 may function as an autoantigen involved in small-cell lung cancer-associated limbic encephalitis. Five isoforms of BRSK2 exist due to alternative splicing events.

Function:

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

Subcellular Location:

Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. AMPK subfamily. Contains 1 protein kinase domain.

Post-translational modifications:

Phosphorylated at Thr-174 by STK11/LKB1 in complex with STE20-related adapter-alpha (STRADA) pseudo kinase and CAB39. Not phosphorylated at Thr-174 by CaMKK2. In contrast, it is phosphorylated and activated by CaMKK1. May be inactivated via dephosphorylation of Thr-174 by PP2C. May be phosphorylated at Thr-260 by PKA. However, phosphorylation at Thr-260 by PKA was not confirmed later (PubMed:18339622).

Similarity:

Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily.

Contains 1 protein kinase domain.

Contains 1 UBA domain.

SWISS:

Q8IWQ3

Gene ID:

9024

Database links:

[Entrez Gene: 9024](#) Human

[Entrez Gene: 75770](#) Mouse

[Omim: 609236](#) Human

[SwissProt: Q8IWQ3](#) Human

[SwissProt: Q69Z98](#) Mouse

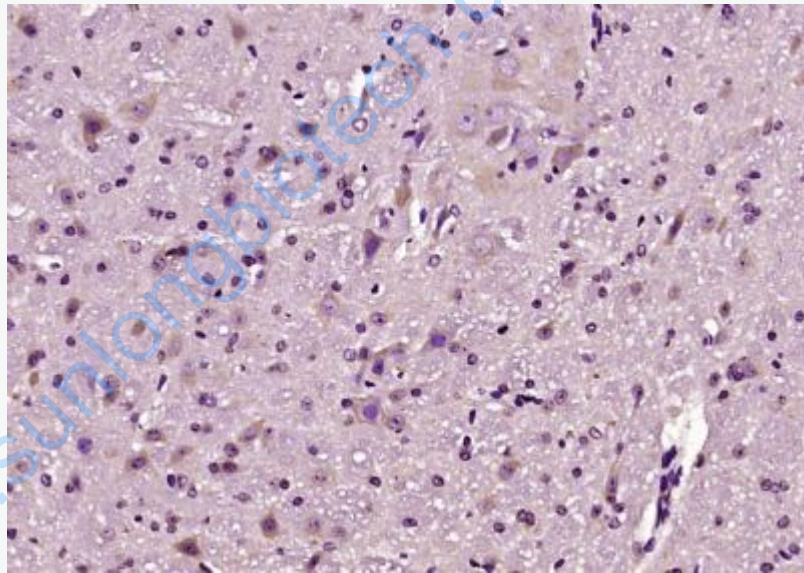
[Unigene: 170819](#) Human

[Unigene: 274868](#) Mouse

[Unigene: 482784](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (BRISK2) Polyclonal Antibody, Unconjugated (SL21426R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.