

BRSK1 Antibody

BRSK1 (CT): BR serine-threonine kinase 1, SAD1 kinase, SAD-B

CATALOG No.:4081

BACKGROUND:

BRSK1 was initially identified as a mammalian homolog to the fission yeast *S. pombe* Cdr2, a mitosis-regulatory kinase (1) and also shows significant homology to the *C. elegans* neuronal cell polarity regulator SAD1. BRSK1 is ubiquitously expressed, with highest levels of expression in the brain and testes. Similar to its yeast homolog, BRSK1 is thought to be involved in stress-induced cell cycle arrest. Overexpression of this protein leads to the G₂/M arrest in HeLa S2 cells and UV-induced G₂/M arrest could be partially abrogated by reduced expression of BRSK1 through the use of siRNA (1), indicating its role in DNA damage checkpoint function. More recently, it has been shown that both BRSK1 and the related protein BRSK2 are required for mammalian neuronal polarization (2). While BRSK1- and BRSK2-null mice were viable, double-mutant mice died within two hours of birth. Neurons from these mice showed uniformly-sized neurites as opposed to the normal long axon and multiple shorter dendrites. These neurites also displayed both axonal and dendritic markers. At least two isoforms of BRSK1 are known to exist.

SOURCE:

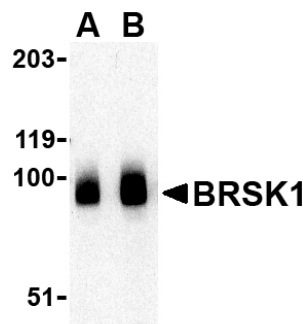
Rabbit polyclonal BRSK1 antibody was raised against a 28 amino acid peptide from near the carboxy terminus of human BRSK1 (GenBank accession no. Q8TDC3).

APPLICATION:

BRSK1 antibody can be used for detection of BRSK1 by Western blot at 0.5 – 1 µg/ml. (Optimal dilution should be determined by user.) Human brain lysate can be used as positive control. BRSK1 antibody is human, mouse and rat reactive. **For research use only.**

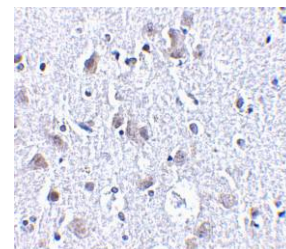
STORAGE:

BRSK1 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of BRSK1 in human brain tissue lysate with BRSK1 antibody at (A) 0.5 and (B) 1 µg/ml.

Immunohistochemistry of BRSK1 in human brain tissue with BRSK1 antibody at 2.5 µg/ml.



RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4081P**.
Human Brain Tissue Lysate, Catalog No. **1303**.
BRSK1 Antibody (IN), Catalog No. **4083**.
BRSK2 Antibody, Catalog No. **4085**.

REFERENCES:

1. Lu R, Niida H, and Nakanishi M. Human SAD1 kinase is involved in UV-induced DNA damage checkpoint function. *J. Biol. Chem.* 2004; 279:31164-70.
2. Kishi M, Pan YA, Crump J, et al. Mammalian SAD kinases are required for neuronal polarization. *Science* 2005; 307:929-32.
(08-01D)