

BRSK1 (IN) antibody (pAb)

Rabbit Anti-Human/Mouse/Rat BRSK1 (IN)

Instruction Manual

Catalog Number	PK-AB718-4083
Synonyms	BRSK1 Antibody: BR serine-threonine kinase 1, SAD1 kinase, SAD-B
Description	BRSK1 was initially identified as a mammalian homolog to the fission yeast <i>S. pombe</i> Cdr2, a mitosis-regulatory kinase and also shows significant homology to the <i>C. elegans</i> 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, 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. 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.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	BRSK1 antibody was raised in rabbits against a 28 amino acid peptide from near the center of human BRSK1.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. BRSK1 antibody can be used for detection of BRSK1 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	Lu R, Niida H, and Nakanishi M. Human SAD1 kinase is involved in UV-induced DNA damage checkpoint function. <i>J. Biol. Chem.</i> 2004; 279:31164-70. Kishi M, Pan YA, Crump J, et al. Mammalian SAD kinases are required for neuronal polarization. <i>Science</i> 2005; 307:929-32.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4083P; BRSK1 Peptide Cat.No. PK-AB718-1303; Human Brain Tissue Lysate

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