SANTA CRUZ BIOTECHNOLOGY, INC.

BRSK1 (N-22): sc-130122

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

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. BRSK1 (BR serine/threonine-protein kinase 1), also known as SAD1, is a 794 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one UBA domain and one protein kinase domain. Expressed in a variety of tissues with highest expression in testis and brain, BRSK1 uses magensium as a cofactor to catalyze the ATP-dependent phosphorylation of target proteins, including Wee 1 and Cdc25B. Via its kinase activity toward proteins that are involved in microtubule assembly, BRSK1 plays an essential role in neuronal polarization and may be involved in regulating cell cycle arrest in response to DNA damage. Two isoforms of BRSK1 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BRSK1 (human) mapping to 19q13.42; Brsk1 (mouse) mapping to 7 A1.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

BRSK1 (N-22) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of BRSK1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BRSK1 (N-22) is recommended for detection of BRSK1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BRSK1 siRNA (h): sc-97540, BRSK1 siRNA (m): sc-141754, BRSK1 shRNA Plasmid (h): sc-97540-SH, BRSK1 shRNA Plasmid (m): sc-141754-SH, BRSK1 shRNA (h) Lentiviral Particles: sc-97540-V and BRSK1 shRNA (m) Lentiviral Particles: sc-141754-V.

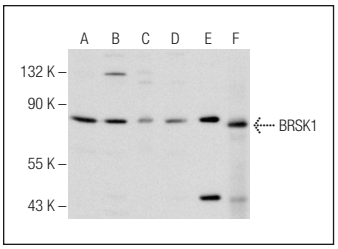
Molecular Weight of BRSK1: 87 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



BRSK1 (N-22): sc-130122. Western blot analysis of BRSK1 expression in Hep G2 (**A**), Jurkat (**B**), K-562 (**C**) and Raji (**D**) whole cell lysates and human liver (**E**) and mouse liver (**F**) tissue extracts.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.