SANTA CRUZ BIOTECHNOLOGY, INC.

SPAK (430CT4.4.1): sc-517361

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. SPAK, also known as STK39 (serine threonine kinase 39), DCHT or PASK, is a 547 amino acid protein that localizes to both the cytoplasm and the nucleus and contains one protein kinase domain. Expressed predominately in pancreas, brain, heart, lung, liver and testis, SPAK functions as a Ser/Thr protein kinase that catalyzes the ATP-dependent phosphorylation of target proteins and is thought to be involved in mediating stress-activated signals. The gene encoding SPAK maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: STK39 (human) mapping to 2q24.3.

SOURCE

SPAK (430CT4.4.1) is a mouse monoclonal antibody raised against purified His-tagged SPAK protein fragment of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

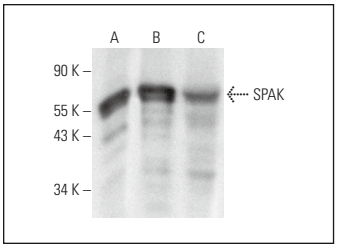
SPAK (430CT4.4.1) is recommended for detection of SPAK of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for SPAK siRNA (h): sc-76547, SPAK shRNA Plasmid (h): sc-76547-SH and SPAK shRNA (h) Lentiviral Particles: sc-76547-V.

Molecular Weight of SPRED1: 60 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Jurkat whole cell lysate: sc-2204 or human lung extract: sc-363767.

DATA



SPAK (430CT4.4.1): sc-517361. Western blot analysis of SPAK expression in Hep G2 (**A**) and Jurkat (**B**) whole cell lysates and human lung tissue extract (**C**).

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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