SANTA CRUZ BIOTECHNOLOGY, INC.

SIK1 (H-40): sc-366014

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. SIK1 (salt-inducible kinase 1), also known as SNF1LK or MSK, is a 783 amino acid protein that contains one UBA domain and one protein kinase domain and belongs to the Ser/Thr protein kinase family. Localized to both the nucleus and the cytoplasm, SIK1 uses magnesium as a cofactor to catalyze the ATP-dependent phosphorylation of target proteins and is thought to be important for the early stages of skeletal muscle growth and myocardial cell differentiation. Additionally, SIK1 has a potential role in regulation of the G_2/M cell cycle transition, as well as in inhibitory control of CREB protein function.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SIK1 (human) mapping to 21q22.3; Sik1 (mouse) mapping to 17 B1.

SOURCE

SIK1 (H-40) is a rabbit polyclonal antibody raised against amino acids 241-280 mapping within an internal region of SIK1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SIK1 (H-40) is recommended for detection of SIK1 of mouse, rat 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SIK1 (H-40) is also recommended for detection of SIK1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for SIK1 siRNA (h): sc-91428, Sik siRNA (m): sc-153465, SIK1 shRNA Plasmid (h): sc-91428-SH, Sik shRNA Plasmid (m): sc-153465-SH, SIK1 shRNA (h) Lentiviral Particles: sc-91428-V and Sik shRNA (m) Lentiviral Particles: sc-153465-V.

Molecular Weight of SIK1: 85 kDa.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.