SANTA CRUZ BIOTECHNOLOGY, INC.

Snk (H-90): sc-25421

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Plks (polo-like kinases) encode serine/threonine kinases that are closely related to polo and CDC5, genes that are required for passage through mitosis in *Drosophila* and *Saccharomyces,* respectively. Polo-like kinases, which include Plk, Snk (for serum-inducible kinase, also designated Plk2) and Fnk (for FGF-inducible kinase, also designated Plk3 or PRK), play a role in cell proliferation. Plk protein accumulates in the cell during S and G_2 phases of the cell cycle, and both protein content and catalytic activity peak at the onset of mitosis, followed by a rapid reduction after mitosis. Snk and Fnk are immediate-early response genes that are first expressed during G_1 phase. Fnk expression peaks in late S and G_2 phases, and it may play a role in regulating the onset of M phase.

REFERENCES

1. Sunkel, C.E., et al. 1988. Polo, a mitotic mutant of *Drosophila* displaying abnormal spindle poles. J. Cell Sci. 89: 25-38.
2. Kitada, K., et al. 1993. A multicopy suppressor gene of the *Saccharomyces cerevisiae* G_1 cell cycle mutant gene Dbf4 encodes a protein kinase and is identified as Cdc5. Mol. Cell. Biol. 13: 4445-4457.

CHROMOSOMAL LOCATION

Genetic locus: PLK2 (human) mapping to 5q11.2; Plk2 (mouse) mapping to 13 D2.2.

SOURCE

Snk (H-90) is a rabbit polyclonal antibody raised against amino acids 1-90 mapping at the N-terminus of Snk 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

Snk (H-90) is recommended for detection of Snk 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Snk (H-90) is also recommended for detection of Snk in additional species, including bovine and porcine.

Suitable for use as control antibody for Snk siRNA (h): sc-39152, Snk siRNA (m): sc-39153, Snk shRNA Plasmid (h): sc-39152-SH, Snk shRNA Plasmid (m): sc-39153-SH, Snk shRNA (h) Lentiviral Particles: sc-39152-V and Snk shRNA (m) Lentiviral Particles: sc-39153-V.

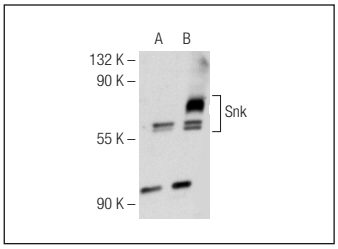
Molecular Weight of Snk: 78 kDa.

Positive Controls: Snk (h2): 293T Lysate: sc-170549, T24 cell lysate: sc-2292 or ES-2 cell lysate: sc-24674.

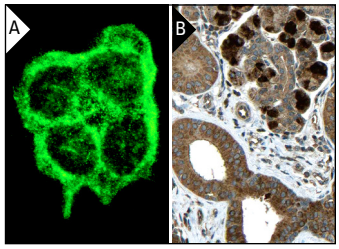
STORAGE

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

DATA



Snk (H-90): sc-25421. Western blot analysis of Snk expression in non-transfected: sc-117752 (**A**) and human Snk transfected: sc-170549 (**B**) 293T whole cell lysates.



Snk (H-90): sc-25421. Immunofluorescence staining of methanol-fixed JAR cells showing membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic staining of glandular cells magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Spänkuch, B., et al. 2008. Downregulation of Plk1 expression by receptor-mediated uptake of antisense oligonucleotide-loaded nanoparticles. Neoplasia 10: 223-234.
2. Zuco, V., et al. 2008. Cyclic pifithrin-α sensitizes wild type p53 tumor cells to antimicrotubule agent-induced apoptosis. Neoplasia 10: 587-596.
3. Mbefo, M.K., et al. 2010. Phosphorylation of synucleins by members of the Polo-like kinase family. J. Biol. Chem. 285: 2807-2822.
4. Ward, A., et al. 2011. Aberrant methylation of Polo-like kinase CpG islands in Plk4 heterozygous mice. BMC Cancer 11: 71.
5. Miko, E., et al. 2011. miR-126 inhibits proliferation of small cell lung cancer cells by targeting SLC7A5. FEBS Lett. 585: 1191-1196.

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.