

# Snk (A-6): sc-390827



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<sub>2</sub> 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<sub>1</sub> phase. Fnk expression peaks in late S and G<sub>2</sub> phases, and it may play a role in regulating the onset of M phase.

## REFERENCES

1. Sunkel, C.E. and Glover, D.M. 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<sub>1</sub> cell cycle mutant gene *dbf4* encodes a protein kinase and is identified as CDC5. *Mol. Cell. Biol.* 13: 4445-4457.
3. Lake, R.J. and Jelenik, W.R. 1993. Cell cycle- and terminal differentiation-associated regulation of the mouse mRNA encoding a conserved mitotic protein kinase. *Mol. Cell. Biol.* 13: 7793-7801.
4. Hamanaka, R., et al. 1994. Cloning and characterization of human and murine homologues of the *Drosophila* polo serine-threonine kinase. *Cell Growth Differ.* 5: 249-257.
5. Li, B., et al. 1996. Prk, a cytokine-inducible human protein serine/threonine kinase whose expression appears to be down-regulated in lung carcinomas. *J. Biol. Chem.* 271: 19402-19408.
6. Chase, D., et al. 1998. Expression and phosphorylation of fibroblast-growth-factor-inducible kinase (Fnk) during cell-cycle progression. *Biochem. J.* 333: 655-660.
7. Glover, D.M., et al. 1998. Polo-like kinases: a team that plays throughout mitosis. *Genes Dev.* 12: 3777-3787.

## CHROMOSOMAL LOCATION

Genetic locus: PLK2 (human) mapping to 5q11.2.

## SOURCE

Snk (A-6) is a mouse monoclonal antibody raised against amino acids 1-90 mapping at the N-terminus of Snk of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Snk (A-6) is recommended for detection of Snk of human origin by Western Blotting (starting dilution 1:100, 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).

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

Molecular Weight of Snk: 78 kDa.

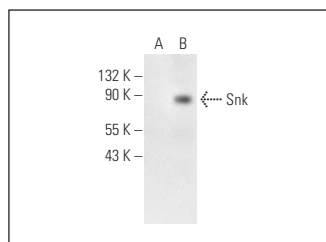
Positive Controls: Snk (h2): 293T Lysate: sc-170549.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Snk (A-6): sc-390827. Western blot analysis of Snk expression in non-transfected: sc-117752 (A) and human Snk transfected: sc-170549 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.