

Snk (h2): 293T Lysate: sc-170549

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 G₂ 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 G₁ phase. Fnk expression peaks in late S and G₂ 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* G₁ cell cycle mutant gene Dbf4 encodes a protein kinase and is identified as Cdc5. *Mol. Cell. Biol.* 13: 4445-4457.
3. Lake, R.J., et al. 1993. Cell cycle- and terminal differentiation-associated regulation of the mouse mRNA encoding a conserved mitotic protein kinase. *Mol. Cell. Biol.* 73: 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 downregulated in lung carcinomas. *J. Biol. Chem.* 271: 19402-19408.
6. Glover, D.M., et al. 1998. Polo-like kinases: a team that plays throughout mitosis. *Genes Dev.* 12: 3777-3787.
7. Chase, D., et al. 1998. Expression and phosphorylation of fibroblast-growth-factor-inducible kinase (Fnk) during cell-cycle progression. *Biochem. J.* 333: 655-660.

CHROMOSOMAL LOCATION

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

PRODUCT

Snk (h2): 293T Lysate represents a lysate of human Snk transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Snk (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Snk antibodies. Recommended use: 10-20 µl per lane.

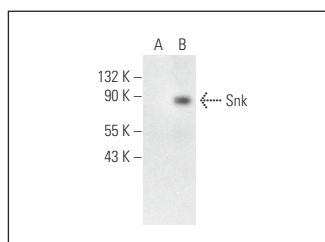
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Snk (A-6): sc-390827 is recommended as a positive control antibody for Western Blot analysis of enhanced human Snk expression in Snk transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

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.