SANTA CRUZ BIOTECHNOLOGY, INC.

Fnk (C-20): sc-9580

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

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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., Maloid, S., Smith, M.R., O'Connell, C.D., Longo, D.L. and Ferris, D.K. 1994. Cloning and characterization of human and murine homologues of the *Drosophila* polo serine-threonine kinase. Cell Growth Differ. 5: 249-257.
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6. Glover, D.M., Hagan, I.M. and Tavares, A.A. 1998. Polo-like kinases: a team that plays throughout mitosis. Genes Dev. 12: 3777-3787.
7. Chase, D., Feng, Y., Hanshew, B., Winkles, J.A., Longo, D.L. and Ferris, D.K. 1998. Expression and phosphorylation of fibroblast-growth-factor-inducible kinase (Fnk) during cell-cycle progression. Biochem. J. 333: 655-660.

CHROMOSOMAL LOCATION

Genetic locus: PLK3 (human) mapping to 1p34.1; Plk3 (mouse) mapping to 4 D1.

SOURCE

Fnk (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Fnk of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-9580 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Fnk (C-20) is recommended for detection of Fnk of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Fnk (C-20) is also recommended for detection of Fnk in additional species, including bovine and porcine.

Suitable for use as control antibody for Fnk siRNA (h): sc-39150, Fnk siRNA (m): sc-39151, Fnk shRNA Plasmid (h): sc-39150-SH, Fnk shRNA Plasmid (m): sc-39151-SH, Fnk shRNA (h) Lentiviral Particles: sc-39150-V and Fnk shRNA (m) Lentiviral Particles: sc-39151-V.

Molecular Weight of Fnk: 70 kDa.

Positive Controls: Mouse lung extract: sc-2390.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.