SANTA CRUZ BIOTECHNOLOGY, INC.

Ctk (C-20): sc-470



BACKGROUND

All members of the Src gene family of tyrosine kinases are characterized by a carboxy-terminal domain tyrosine, Y527 in the case of Src p60, which is highly phosphorylated in the inactive form of the enzyme, while phosphorylated to a much lesser extent when the enzyme is active. For instance, a mutant of c-Src, in which Y527 is replaced by phenylalanine, is transforming and displays 5 to 10-fold elevated kinase activity compared to its normal counterpart. Csk has been identified as a Src related tyrosine kinase having both SH2 and SH3 domains and a catalytic domain but lacking sequences amino-terminal to the SH3 domain as well as the carboxy-terminal regulatory sequences. Csk phosphorylates Src on Y527 and also downregulates Fyn, Fyn and Lck by tyrosine phosphorylation of carboxy-terminal regulatory sites. A Csk-like protein-tyrosine kinase of mouse cell origin (Ctk), also designated Ntk, and its human homolog, Lsk, have also been described.

REFERENCES

- Okada, M., et al. 1989. A protein tyrosine kinase involved in regulation of pp60c-Src function. J. Biol. Chem. 264: 20886-20893.
- 2. Nada, S., et al. 1991. Cloning of a complementary DNA for a proteintryosine kinase that specifically phosphorylates a negative regulatory site of p60c-Src. Nature 351: 69-72.

CHROMOSOMAL LOCATION

Genetic locus: Matk (mouse) mapping to 10 C1.

SOURCE

Ctk (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Ctk of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-470 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ctk (C-20) is recommended for detection of Ctk, which represents the mouse homolog of the human gene designated Lsk of mouse and rat 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).

Suitable for use as control antibody for Ctk siRNA (m): sc-38972, Ctk shRNA Plasmid (m): sc-38972-SH and Ctk shRNA (m) Lentiviral Particles: sc-38972-V.

Molecular Weight of Ctk: 52 kDa.

Positive Controls: BC₃H1 cell lysate: sc-2299 or EOC 20 whole cell lysate.

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.

DATA



sion in BC₃H1 (**A**) and EOC 20 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

- Ingley, E., et al. 2006. Csk-binding protein mediates sequential enzymatic downregulation and degradation of Lyn in erythropoietin-stimulated cells. J. Biol. Chem. 281: 31920-31929.
- 2. Mitsuhashi, H., et al. 2008. Csk-homologous kinase interacts with SHPS-1 and enhances neurite outgrowth of PC-12 cells. J. Neurochem. 105: 101-112.

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.

MONOS Satisfation Guaranteed

Try Lsk/Ctk (H-1): sc-271174 or Lsk/Ctk (32): sc-136309, our highly recommended monoclonal alternatives to Ctk (C-20).