SANTA CRUZ BIOTECHNOLOGY, INC.

Lsk (C-20): sc-533

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 down regulates Lyn, Fyn and Lck by tyrosine phosphorylation of carboxy terminal regulatory sites. A Csk-like protein-tyrosine kinase of mouse origin (Ctk), also designated Ntk, and its human homolog, Lsk, have also been described.

CHROMOSOMAL LOCATION

Genetic locus: MATK (human) mapping to 19p13.3.

SOURCE

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

Blocking peptide available for competition studies, sc-533 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lsk (C-20) is recommended for detection of Lsk of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Lsk siRNA (h): sc-38973, Lsk shRNA Plasmid (h): sc-38973-SH and Lsk shRNA (h) Lentiviral Particles: sc-38973-V.

Molecular Weight of Lsk: 57 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182.

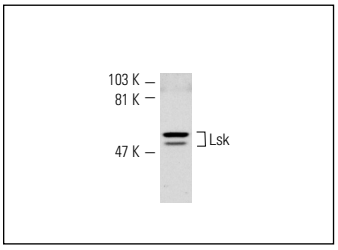
RECOMMENDED SECONDARY REAGENTS

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.

STORAGE

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

DATA



Lsk (C-20): sc-533. Western blot analysis of Lsk expression in AML-193 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Price, D.J., et al. 1997. Direct association of Csk homologous kinase (CHK) with the diphosphorylated site Tyr$^{568/570}$ of the activated c-KIT in megakaryocytes. J. Biol. Chem. 272: 5915-5920.
2. Mikkola, E.T., et al. 2003. Conserved hydrophobicity in the SH2-kinase linker is required for catalytic activity of Csk and CHK. FEBS Lett. 544: 11-14.
3. Lee, B.C., et al. 2005. Carboxyl-terminal Src kinase homologous kinase negatively regulates the chemokine receptor CXCR4 through YY1 and impairs CXCR4/CXCL12 (SDF-1α)-mediated breast cancer cell migration. Cancer Res. 65: 2840-2845.
4. Han, S., et al. 2010. A novel bile acid-activated vitamin D receptor signaling in human hepatocytes. Mol. Endocrinol. 24: 1151-1164.
5. Tan, S.Y., et al. 2011. Nuclear expression of MATK is a novel marker of type II enteropathy-associated T-cell lymphoma. Leukemia 25: 555-557.
6. Zaytseva, Y.Y., et al. 2011. The PPARγ antagonist T0070907 suppresses breast cancer cell proliferation and motility via both PPARγ-dependent and -independent mechanisms. Anticancer Res. 31: 813-823.
7. Seo, Y.K., et al. 2013. SULT2B1b sulfotransferase: induction by vitamin D receptor and reduced expression in prostate cancer. Mol. Endocrinol. 27: 925-939.
8. Shukla, S., et al. 2015. Suppression of NF-κB and NF-κB-regulated gene expression by apigenin through IκBα and IKK pathway in TRAMP mice. PLoS ONE 10: e0138710.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

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