SANTA CRUZ BIOTECHNOLOGY, INC.

Sck (P-20): sc-25148

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Src homology 2 (SH2) domains bind specifically to tyrosine-phosphorylated proteins that temporally participate in signal transduction events. Shc-like protein (Sck) is a neuronal adaptor protein that contains an N-terminal PTB (phosphotyrosine binding) domain, a collagen homology (CH) domain, and a conserved C-terminal SH2 domain. Human Sck transcripts are present at high levels in liver, pancreas, prostate and ovary. In vascular endothelial cells, Sck participates in VEGF-induced signal transduction. Treatment of human umbilical vein endothelial (HUVEC) cells with VEGF induces recruitment of Sck to Tyrosine 1175 of the kinase insert domain-containing receptor (KDR) and enhances Sck tyrosine phosphorylation.

REFERENCES

1. Kavanaugh, W.M. and Williams, L.T. 1994. An alternative to SH2 domains for binding tyrosine-phosphorylated proteins. Science 266: 1862-1865.
2. Nakamura, T., Muraoka, S., Sanokawa, R. and Mori, N. 1998. N-Shc and Sck, two neuronally expressed Shc adapter homologs: their differential regional expression in the brain and roles in neurotrophin and Src signaling. J. Biol. Chem. 273: 6960-6967.
3. Igarashi, K., Shigeta, K., Isohara, T., Yamano, T. and Uno, I. 1998. Sck interacts with KDR and Flt-1 via its SH2 domain. Biochem. Biophys. Res. Commun. 251: 77-82.
4. Warner, A.J., Lopez-Dee, J., Knight, E.L., Feramisco, J.R. and Prigent, S.A. 2000. The Shc-related adaptor protein, Sck, forms a complex with the vascular-endothelial-growth-factor receptor KDR in transfected cells. Biochem. J. 347: 501-509.
5. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605217. World Wide Web URL: http://www.ncbi.nlm.nih. gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: SHC2 (human) mapping to 19p13.3; Shc2 (mouse) mapping to 10 C1.

SOURCE

Sck (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sck 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-25148 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Sck (P-20) is recommended for detection of Sck 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sck (P-20) is also recommended for detection of Sck in additional species, including canine.

Suitable for use as control antibody for Sck siRNA (h): sc-40928, Sck siRNA (m): sc-40929, Sck shRNA Plasmid (h): sc-40928-SH, Sck shRNA Plasmid (m): sc-40929-SH, Sck shRNA (h) Lentiviral Particles: sc-40928-V and Sck shRNA (m) Lentiviral Particles: sc-40929-V.

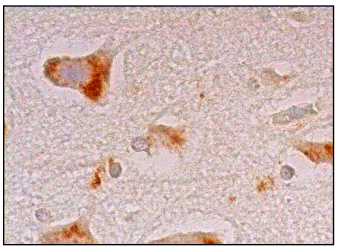
Molecular Weight of Sck: 68 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Sck (P-20): sc-25148. Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing cytoplasmic staining of neuronal cells.

RESEARCH USE

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