

# Sck (S-20): sc-25147

## 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., et al. 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., et al. 1998. Sck interacts with KDR and Flt-1 via its SH2 domain. *Biochem. Biophys. Res. Commun.* 251: 77-82.
4. Warner, A.J., et al. 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/>
6. Kojima, T., et al. 2001. Genomic organization of the Shc-related phosphotyrosine adapters and characterization of the full-length Sck/ShcB: specific association of p68-Sck/ShcB with pp135. *Biochem. Biophys. Res. Commun.* 284: 1039-1047.

## CHROMOSOMAL LOCATION

Genetic locus: SHC2 (human) mapping to 19p13.3.

## SOURCE

Sck (S-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-25147 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 (S-20) is recommended for detection of Sck 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), 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).

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

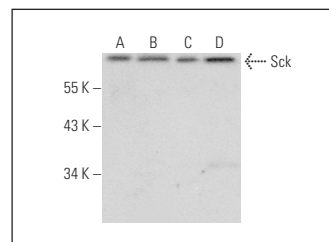
Molecular Weight of Sck: 68 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, MCF7 whole cell lysate: sc-2206 or HUV-EC-C whole cell lysate: sc-364180.

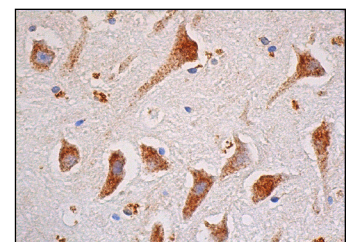
## RECOMMENDED SECONDARY REAGENTS

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 Blotting 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Sck (S-20): sc-25147. Western blot analysis of Sck expression in Hep G2 (A), IMR-32 (B), MCF7 (C) and HUV-EC-C (D) whole cell lysates.



Sck (S-20): sc-25147. 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.

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Try **Sck (E-3): sc-514627** or **Sck (R12.1): sc-100855**, our highly recommended monoclonal alternatives to Sck (S-20).