Sck (M-90): sc-33808



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 68 kDa 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

- Kavanaugh, W.M. and Williams, L.T. 1994. An alternative to SH2 domains for binding tyrosine-phosphorylated proteins. Science 266: 1862-1865.
- 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.
- 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/
- Kojima, T., Yoshikawa, Y., Takada, S., Sato, M., Nakamura, T., Takahashi, N., Copeland, N.G., Gilbert, D.J., Jenkins, N.A. and Mori, N. 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.
- 7. Ratcliffe, K.E., Tao, Q., Yavuz, B., Stoletov, K.V., Spring, S.C. and Terman, B.I. 2002. Sck is expressed in endothelial cells and participates in vascular endothelial growth factor-induced signaling. Oncogene 21: 6307-6316.
- 8. LocusLink Report (LocusID: 25759). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

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

SOURCE

Sck (M-90) is a rabbit polyclonal antibody raised against amino acids 306-395 mapping within an internal region of Sck of mouse origin.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

Sck (M-90) is recommended for detection of Sck of mouse, rat and, to a lesser extent, 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 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Sck (E-3):** sc-514627 or **Sck (R12.1):** sc-100855, our highly recommended monoclonal alternatives to Sck (M-90).

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