

STAC (H-76): sc-292435

BACKGROUND

STAC (SH3 and cysteine rich domain-containing protein), also known as STAC1, is a 402 amino acid protein that contains one SH3 (Src homology 3) domain and one cysteine-rich domain (CRD). Expressed in brain, STAC is a neuron-specific protein that localizes to the cytoplasm and, based on the frequent involvement of SH3 and CRD domains in signal transduction, is believed to play a role in neuron-specific signal transduction. In addition, STAC may be involved in protecting cells from apoptosis. Due to its neuron-specific expression and putative role in signal transduction, STAC may be implicated in a variety of hereditary neurological diseases.

REFERENCES

1. Suzuki, H., Kawai, J., Taga, C., Yaoi, T., Hara, A., Hirose, K., Hayashizaki, Y. and Watanabe, S. 1996. STAC, a novel neuron-specific protein with cysteine-rich and SH3 domains. *Biochem. Biophys. Res. Commun.* 229: 902-909.
2. Kawai, J., Suzuki, H., Hara, A., Hirose, K. and Watanabe, S. 1998. Human and mouse chromosomal mapping of STAC, a neuron-specific protein with an SH3 domain. *Genomics* 47: 140-142.
3. Petek, E., Emberger, W., Kroisel, P.M. and Wagner, K. 1999. Assignment of STAC to human chromosome band 3p22.3 between D3S3718 and D3S1611. *Cytogenet. Cell Genet.* 84: 184-185.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602317. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Hardy, K., Mansfield, L., Mackay, A., Benvenuti, S., Ismail, S., Arora, P., O'Hare, M.J. and Jat, P.S. 2005. Transcriptional networks and cellular senescence in human mammary fibroblasts. *Mol. Biol. Cell* 16: 943-953.
6. Kato, Y., Uzawa, K., Saito, K., Nakashima, D., Kato, M., Nimura, Y., Seki, N. and Tanzawa, H. 2006. Gene expression pattern in oral cancer cervical lymph node metastasis. *Oncol. Rep.* 16: 1009-1014.
7. Satoh, J., Nanri, Y. and Yamamura, T. 2006. Rapid identification of 14-3-3-binding proteins by protein microarray analysis. *J. Neurosci. Methods* 152: 278-288.

CHROMOSOMAL LOCATION

Genetic locus: STAC (human) mapping to 3p22.3; Stac (mouse) mapping to 9 F3.

SOURCE

STAC (H-76) is a rabbit polyclonal antibody raised against amino acids 99-174 mapping near the N-terminus of STAC 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.

RESEARCH USE

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

APPLICATIONS

STAC (H-76) is recommended for detection of STAC of mouse, rat and 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).

STAC (H-76) is also recommended for detection of STAC in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for STAC siRNA (h): sc-78015, STAC siRNA (m): sc-153871, STAC shRNA Plasmid (h): sc-78015-SH, STAC shRNA Plasmid (m): sc-153871-SH, STAC shRNA (h) Lentiviral Particles: sc-78015-V and STAC shRNA (m) Lentiviral Particles: sc-153871-V.

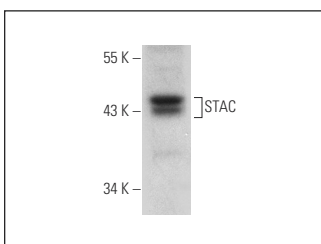
Molecular Weight of STAC: 45 kDa.

Positive Controls: C2C12 whole cell lysate: sc-364188.

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



STAC (H-76): sc-292435. Western blot analysis of STAC expression in C2C12 whole cell lysate.

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.