

SOCS-4 (N-20): sc-68827

BACKGROUND

Members of the suppressor of cytokine signaling (SOCS) family of proteins contain C-terminal regions of homology called the SOCS box, which serves to couple SOCS proteins and their binding partners with the Elongin B/C complex. Several other families of proteins also contain SOCS boxes, but differ from the SOCS proteins in the type of domain they contain upstream of the SOCS box. SOCS-4 (suppressor of cytokine signaling 4), also known as SOCS7, is a 440 amino acid protein that contains one SH2 domain and one SOCS box domain, the latter of which mediates interaction with the Elongin B/C complex. Involved in the pathway of protein modification, SOCS-4 exhibits E3 ubiquitin-protein ligase activity and functions to mediate the ubiquitination and subsequent proteasomal degradation of target proteins.

REFERENCES

1. Kamura, T., et al. 1998. The Elongin B/C complex interacts with the conserved SOCS-box motif present in members of the SOCS, Ras, WD-40 repeat, and Ankyrin repeat families. *Genes Dev.* 12: 3872-3881.
2. Zhang, J.G., et al. 1999. The conserved SOCS box motif in suppressors of cytokine signaling binds to Elongins B and C and may couple bound proteins to proteasomal degradation. *Proc. Natl. Acad. Sci. USA* 96: 2071-2076.
3. Kile, B.T. and Alexander, W.S. 2001. The suppressors of cytokine signalling (SOCS). *Cell. Mol. Life Sci.* 58: 1627-1635.
4. Larsen, L. and Röpke, C. 2002. Suppressors of cytokine signalling: SOCS. *APMIS* 110: 833-844.
5. Kile, B.T., et al. 2002. The SOCS box: a tale of destruction and degradation. *Trends Biochem. Sci.* 27: 235-241.
6. Kario, E., et al. 2005. Suppressors of cytokine signaling 4 and 5 regulate epidermal growth factor receptor signaling. *J. Biol. Chem.* 280: 7038-7048.
7. Bullock, A.N., et al. 2007. Structure of the SOCS4-Elongin B/C complex reveals a distinct SOCS box interface and the molecular basis for SOCS-dependent EGFR degradation. *Structure* 15: 1493-1504.

CHROMOSOMAL LOCATION

Genetic locus: SOCS4 (human) mapping to 14q22.2; Socs4 (mouse) mapping to 14 C1.

SOURCE

SOCS-4 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SOCS-4 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-68827 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

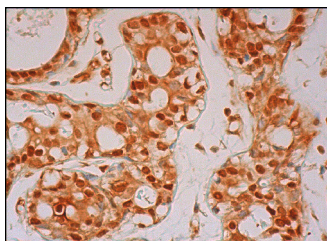
SOCS-4 (N-20) is recommended for detection of suppressor of cytokine signaling 4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded 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).

SOCS-4 (N-20) is also recommended for detection of suppressor of cytokine signaling 4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SOCS-4 siRNA (h): sc-63050, SOCS-4 siRNA (m): sc-63051, SOCS-4 shRNA Plasmid (h): sc-63050-SH, SOCS-4 shRNA Plasmid (m): sc-63051-SH, SOCS-4 shRNA (h) Lentiviral Particles: sc-63050-V and SOCS-4 shRNA (m) Lentiviral Particles: sc-63051-V.

Molecular Weight of SOCS-4: 51 kDa.

DATA



SOCS-4 (N-20): sc-68827. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic and nuclear staining of glandular cells and myoepithelial cells.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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



Try **SOCS-4 (9J12): sc-135566**, our highly recommended monoclonal alternative to SOCS-4 (N-20).