

# SOCS-4 (C-17): sc-68825

## 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 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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-68825 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

SOCS-4 (C-17) 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), 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).

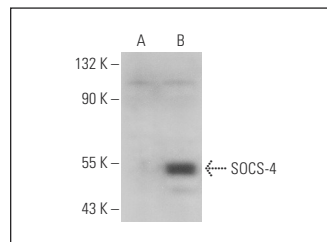
SOCS-4 (C-17) is also recommended for detection of suppressor of cytokine signaling 4 in additional species, including equine, canine, bovine, porcine and avian.

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.

Positive Controls: SOCS-4 (h): 293T Lysate: sc-371694.

## DATA



SOCS-4 (C-17): sc-68825. Western blot analysis of SOCS-4 expression in non-transfected: sc-117752 (A) and human SOCS-4 transfected: sc-371694 (B) 293T whole cell lysates.

## 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](http://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 (C-17).