

SOCS-2 (M-19): sc-7007

BACKGROUND

The SOCS (suppressor of cytokine signaling) gene family consists of a group of proteins that negatively regulate cytokine signal transduction. The SOCS family proteins contain a central SH2 domain and a carboxy-terminal region termed the "SOCS box". The SOCS-1 (also called SSI-1 and JAB), SOCS-2 (also called SSI-2 and CIS2) and SOCS-3 (also called SSI-3 and CIS3) genes are known to be up-regulated by IL-6 and other cytokines. SOCS-4, SOCS-5, SOCS-6 and SOCS-7 were identified by their sequence homology with the SOCS box. CIS (for cytokine-inducible SH2-containing protein) is also a member of the SOCS family.

REFERENCES

1. Yoshimura, A., et al. 1995. A novel cytokine-inducible gene CIS encodes an SH2-containing protein that binds to tyrosine-phosphorylated interleukin-3 and erythropoietin receptors. *EMBO J.* 14: 2816-2826.
2. Matsumoto, A., et al. 1997. CIS, a cytokine inducible SH2 protein, is a target of the JAK/Stat5 pathway and modulates Stat5 activation. *Blood* 89: 3148-3154.

CHROMOSOMAL LOCATION

Genetic locus: SOCS2 (human) mapping to 12q22; Socs2 (mouse) mapping to 10 C2.

SOURCE

SOCS-2 (M-19) is available as either goat (sc-7007) or rabbit (sc-7007-R) polyclonal affinity purified antibody raised against a peptide mapping to the C-terminus of SOCS-2 of mouse 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-7007 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SOCS-2 (M-19) is recommended for detection of SOCS-2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SOCS-2 (M-19) is also recommended for detection of SOCS-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SOCS-2 siRNA (h): sc-40998, SOCS-2 siRNA (m): sc-40999, SOCS-2 shRNA Plasmid (h): sc-40998-SH, SOCS-2 shRNA Plasmid (m): sc-40999-SH, SOCS-2 shRNA (h) Lentiviral Particles: sc-40998-V and SOCS-2 shRNA (m) Lentiviral Particles: sc-40999-V.

Molecular Weight (predicted) of SOCS-2: 22 kDa.

Molecular Weight (observed) of SOCS-2: 33 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: for goat primary antibody (sc-7007): 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), for rabbit primary antibody (sc-7007-R): 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) Immunofluorescence: for goat primary antibody (sc-7007): 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, for rabbit primary antibody (sc-7007-R): 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.

SELECT PRODUCT CITATIONS

1. Federici, M., et al. 2002. Impaired IFN-γ-dependent inflammatory responses in human keratinocytes overexpressing the suppressor of cytokine signaling 1. *J. Immunol.* 169: 434-442.
2. Schultheis, B., et al. 2002. Overexpression of SOCS-2 in advanced stages of chronic myeloid leukemia: possible inadequacy of a negative feedback mechanism. *Blood* 99: 1766-1775.
3. Yoshida, N.L., et al. 2002. Analysis of gene expression patterns during glucocorticoid-induced apoptosis using oligonucleotide arrays. *Biochem. Biophys. Res. Commun.* 293: 1254-1261.
4. Denson, L.A., et al. 2003. Interleukin-6 inhibits hepatic growth hormone signaling via upregulation of Cis and Socs-3. *Am. J. Physiol. Gastrointest. Liver Physiol.* 284: 646-654.
5. Gomez-Guerrero, C., et al. 2004. Suppressors of cytokine signaling regulate Fc receptor signaling and cell activation during immune renal injury. *J. Immunol.* 172: 6969-6977.
6. Sass, G., et al. 2005. Tumour necrosis factor α (TNF)-TNF receptor 1-inducible cytoprotective proteins in the mouse liver: relevance of suppressors of cytokine signalling. *Biochem. J.* 385: 537-544.
7. Shimura, T., et al. 2006. Suppression of replication fork progression in low-dose-specific p53-dependent S-phase DNA damage checkpoint. *Oncogene* 25: 5921-5932.

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.