# SANTA CRUZ BIOTECHNOLOGY, INC.

# SOCS-6 (H-251): sc-5608



# 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 SOC-3 (also called SSI-3 and CIS3) genes are known to be upregulated 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

- 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.
- 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: SOCS6 (human) mapping to 18q22.2; Socs6 (mouse) mapping to 18 E4.

## SOURCE

SOCS-6 (H-251) is a rabbit polyclonal antibody raised against amino acids 132-382 mapping to an internal region of SOCS-6 of human origin.

# PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

# APPLICATIONS

SOCS-6 (H-251) is recommended for detection of SOCS-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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-6 (H-251) is also recommended for detection of SOCS-6 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for SOCS-6 siRNA (h): sc-36520, SOCS-6 siRNA (m): sc-36521, SOCS-6 shRNA Plasmid (h): sc-36520-SH, SOCS-6 shRNA Plasmid (m): sc-36521-SH, SOCS-6 shRNA (h) Lentiviral Particles: sc-36520-V and SOCS-6 shRNA (m) Lentiviral Particles: sc-36521-V.

Molecular Weight (predicted) of SOCS-6: 60 kDa.

Molecular Weight (observed) of SOCS-6: 62-82 kDa.

Positive Controls: rat brain extract: sc-2392, KNRK whole cell lysate: sc-2214 or NIH/3T3 + TNF $\alpha$  cell lysate: sc-24753.

#### **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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941. 4) Immuno-histochemistry: use ImmunoCruz<sup>™</sup>: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

# DATA





SOCS-6 (H-251): sc-5608. Western blot analysis of SOCS-6 expression in TNF $\alpha\text{-treated NIH/3T3}$  whole cell lysate.

SOCS-6 (H-251): sc-5608. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and membrane staining of cells in glomeruili and tubuli at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

# SELECT PRODUCT CITATIONS

 Bayle, J., et al. 2006. The E3 ubiquitin ligase HOIL-1 induces the polyubiquitination and degradation of SOCS-6 associated proteins. FEBS Lett. 580: 2609-2614.

#### **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.

#### MONOS Satisfation Guaranteed

Try SOCS-6 (G-3): sc-74597 or SOCS-6 (B-11): sc-133058, our highly recommended monoclonal alternatives to SOCS-6 (H-251).