

SOCS-3 (6A463): sc-73045

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 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

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. Starr, R., et al. 1997. A family of cytokine-inducible inhibitors of signaling. *Nature* 387: 917-921.

CHROMOSOMAL LOCATION

Genetic locus: SOCS3 (human) mapping to 17q25.3; Socs3 (mouse) mapping to 11 E2.

SOURCE

SOCS-3 (6A463) is a mouse monoclonal antibody raised against full length SOCS-3 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SOCS-3 (6A463) is recommended for detection of SOCS-3 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SOCS-3 siRNA (h): sc-41000, SOCS-3 siRNA (m): sc-41001, SOCS-3 siRNA (r): sc-270156, SOCS-3 shRNA Plasmid (h): sc-41000-SH, SOCS-3 shRNA Plasmid (m): sc-41001-SH, SOCS-3 shRNA Plasmid (r): sc-270156-SH, SOCS-3 shRNA (h) Lentiviral Particles: sc-41000-V, SOCS-3 shRNA (m) Lentiviral Particles: sc-41001-V and SOCS-3 shRNA (r) Lentiviral Particles: sc-270156-V.

Molecular Weight of SOCS-3: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A549 cell lysate: sc-2413 or KNRK whole cell lysate: sc-2214.

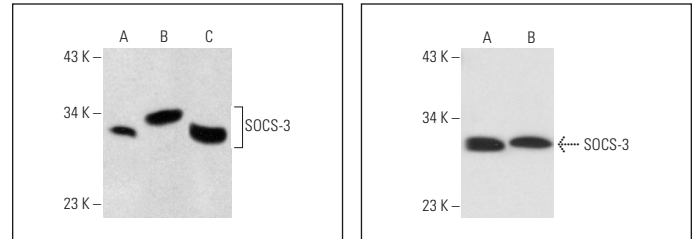
STORAGE

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.

DATA



SOCS-3 (6A463): sc-73045. Western blot analysis of SOCS-3 expression in HeLa (A), Sol8 (B) and KNRK (C) whole cell lysates.

SOCS-3 (6A463): sc-73045. Western blot analysis of SOCS-3 expression in human PBL (A) and A549 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Kim, Y.M., et al. 2015. The anti-obesity effects of a tuna peptide on 3T3-L1 adipocytes are mediated by the inhibition of the expression of lipogenic and adipogenic genes and by the activation of the Wnt/ β -catenin signaling pathway. *Int. J. Mol. Med.* 36: 327-334.
2. Kong, Y., et al. 2017. Carboxymethyl-chitosan attenuates inducible nitric oxide synthase and promotes interleukin-10 production in rat chondrocytes. *Exp. Ther. Med.* 14: 5641-5646.
3. Rolvering, C., et al. 2018. The PD-L1- and IL6-mediated dampening of the IL27/Stat1 anticancer responses are prevented by α -PD-L1 or α -IL6 antibodies. *J. Leukoc. Biol.* 104: 969-985.
4. Wang, T., et al. 2019. MiR-30a regulates cancer cell response to chemotherapy through SNAI1/IRS1/Akt pathway. *Cell Death Dis.* 10: 153.
5. Delen, E., et al. 2020. The role of JAK-Stat signaling activation in hypertrophied ligamentum flavum. *World Neurosurg.* 137: e506-e516.
6. Zhang, L., et al. 2021. Downregulation of miR-218 by porcine reproductive and respiratory syndrome virus facilitates viral replication via inhibition of type I interferon responses. *J. Biol. Chem.* 296: 100683.
7. Schmitz, R.L., et al. 2021. Targeting HDACs in pancreatic neuroendocrine tumor models. *Cells* 10: 1408.
8. Fu, B., et al. 2021. MiR-342 controls *Mycobacterium tuberculosis* susceptibility by modulating inflammation and cell death. *EMBO Rep.* 22: e52252.
9. Zhang, Y., et al. 2022. TNF- α antagonizes the effect of leptin on Insulin secretion through FOXO1-dependent transcriptional suppression of LepRb in INS-1 cells. *Oxid. Med. Cell. Longev.* 2022: 9142798.

PROTOCOLS

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