

# SOCS-1 (E-9): sc-518028

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: SOCS1 (human) mapping to 16p13.13; Socs1 (mouse) mapping to 16 A1.

## SOURCE

SOCS-1 (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 184-211 at the C-terminus of SOCS-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SOCS-1 (E-9) is available conjugated to agarose (sc-518028 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518028 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518028 PE), fluorescein (sc-518028 FITC), Alexa Fluor® 488 (sc-518028 AF488), Alexa Fluor® 546 (sc-518028 AF546), Alexa Fluor® 594 (sc-518028 AF594) or Alexa Fluor® 647 (sc-518028 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518028 AF680) or Alexa Fluor® 790 (sc-518028 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

SOCS-1 (E-9) is recommended for detection of SOCS-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SOCS-1 siRNA (h): sc-40996, SOCS-1 siRNA (m): sc-40997, SOCS-1 shRNA Plasmid (h): sc-40996-SH, SOCS-1 shRNA Plasmid (m): sc-40997-SH, SOCS-1 shRNA (h) Lentiviral Particles: sc-40996-V and SOCS-1 shRNA (m) Lentiviral Particles: sc-40997-V.

Molecular Weight of SOCS-1: 24 kDa.

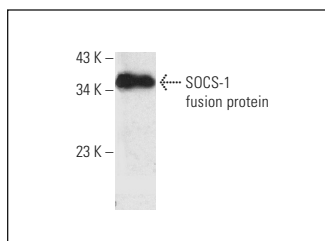
## STORAGE

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-1 (E-9): sc-518028. Western blot analysis of human recombinant SOCS-1 fusion protein.

## SELECT PRODUCT CITATIONS

- Kan, W.C., et al. 2018. Effect of osthole on advanced glycation end products-induced renal tubular hypertrophy and role of Klotho in its mechanism of action. *Phytomedicine* 53: 205-212.
- Miyawaki, A., et al. 2019. IL-11 prevents IFN-γ-induced hepatocyte death through selective downregulation of IFN-γ/Stat1 signaling and ROS scavenging. *PLoS ONE* 14: e0211123.
- Wei, J., et al. 2019. Targeting REGNASE-1 programs long-lived effector T cells for cancer therapy. *Nature* 576: 471-476.
- Qing, X., et al. 2020. LINC00669 insulates the JAK/STAT suppressor SOCS1 to promote nasopharyngeal cancer cell proliferation and invasion. *J. Exp. Clin. Cancer Res.* 39: 166.
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- Cabral, L.K.D., et al. 2021. The relevance of SOCS1 methylation and epigenetic therapy in diverse cell populations of hepatocellular carcinoma. *Diagnostics* 11: 1825.
- Guan, Y., et al. 2021. MiRNA-221-5p suppressed the Th17/Treg ratio in asthma via RORγt/Foxp3 by targeting SOCS1. *Allergy Asthma Clin. Immunol.* 17: 123.
- Kim, G., et al. 2021. Alleviation of LPS-induced inflammation and septic shock by lactiplantibacillus plantarum K8 lysates. *Int. J. Mol. Sci.* 22: 5921.
- Fu, B., et al. 2021. MiR-342 controls *Mycobacterium tuberculosis* susceptibility by modulating inflammation and cell death. *EMBO Rep.* 22: e52252.
- Wang, Y., et al. 2022. Epithelial-derived exosomes promote M2 macrophage polarization via Notch2/SOCS1 during mechanical ventilation. *Int. J. Mol. Med.* 50: 96.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.