SANTA CRUZ BIOTECHNOLOGY, INC.

SOCS-3 (G-5): sc-518020

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

SOCS-3 (G-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 200-225 at the C-terminus of SOCS-3 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SOCS-3 (G-5) is available conjugated to agarose (sc-518020 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518020 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518020 PE), fluorescein (sc-518020 FITC), Alexa Fluor® 488 (sc-518020 AF488), Alexa Fluor® 546 (sc-518020 AF546), Alexa Fluor® 594 (sc-518020 AF594) or Alexa Fluor® 647 (sc-518020 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518020 AF680) or Alexa Fluor® 790 (sc-518020 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SOCS-3 (G-5) is recommended for detection of SOCS-3 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), 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).

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.

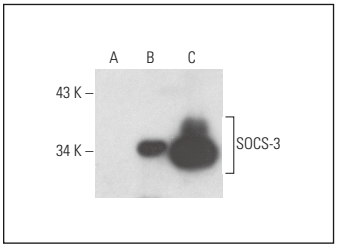
Molecular Weight of SOCS-3: 30 kDa.

Positive Controls: human SOCS-3 transfected HEK293T whole cell lysate or mouse SOCS-3 transfected HEK293T whole cell lysate.

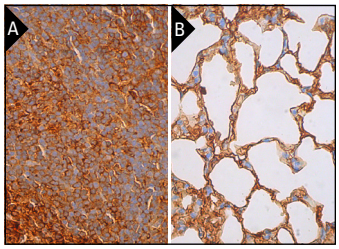
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



SOCS-3 (G-5): sc-518020. Western blot analysis of SOCS-3 expression in non-transfected (**A**), human SOCS-3 transfected (**B**) and mouse SOCS-3 transfected (**C**) HEK293T whole cell lysates.



SOCS-3 (G-5): sc-518020. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse spleen tissue showing cytoplasmic staining of cells in white pulp and cells in red pulp (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lung tissue showing cytoplasmic and membrane staining of pneumocytes and macrophages (**B**).

SELECT PRODUCT CITATIONS

1. Kan, W.C., et al. 2019. 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.
2. Chen, Y., et al. 2019. Carbenoxolone ameliorates hepatic lipid metabolism and inflammation in obese mice induced by high fat diet via regulating the JAK2/Stat3 signaling pathway. Int. Immunopharmacol. 74: 105498.
3. Gao, J., et al. 2021. Nicotine aggravates vascular adiponectin resistance via ubiquitin-mediated adiponectin receptor degradation in diabetic Apolipoprotein E knockout mouse. Cell Death Dis. 12: 508.
4. Dokhanchi, M., et al. 2021. Colorectal cancer cell-derived extracellular vesicles transfer miR-221-3p to promote endothelial cell angiogenesis via targeting suppressor of cytokine signaling 3. Life Sci. 285: 119937.
5. Morais, G.P., et al. 2021. Excessive downhill training leads to early onset of knee osteoarthritis. Osteoarthritis Cartilage 29: 870-881.
6. Ahn, Y.J., et al. 2022. Lutein inhibits IL-6 expression by inducing PPAR-γ activation and SOCS-3 expression in cerulein-stimulated pancreatic acinar cells. Mol. Med. Rep. 26: 302.
7. Yu, C., et al. 2022. LINC00893 inhibits the progression of prostate cancer through miR-3173-5p/SOCS-3/JAK2/Stat3 pathway. Cancer Cell Int. 22: 228.
8. Oliveira, L.D.C., et al. 2023. Intermittent fasting combined with exercise training reduces body mass and alleviates hypothalamic disorders induced by high-fat diet intake. J. Nutr. Biochem. 119: 109372.

RESEARCH USE

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