BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-SOCS3 Antibody Picoband®

Catalog Number: A00274-2

About SOCS3

SOCS3 (Suppressor of cytokine signaling 3) is a protein that in humans is encoded by the SOCS3 gene. SOCS3 is transiently expressed by multiple cell lineages within the immune system and functions predominantly as a negative regulator of cytokines that activate the JAK-STAT3 pathway. This gene encodes a member of the STAT-induced STAT inhibitor (SSI), also known as suppressor of cytokine signaling (SOCS), family. SSI family members are cytokine-inducible negative regulators of cytokine signaling. The expression of this gene is induced by various cytokines, including IL6, IL10, and interferon (IFN)-gamma. The protein encoded by this gene can bind to JAK2 kinase, and inhibit the activity of JAK2 kinase. For signaling of IL-6, Epo, GCSF and Leptin, binding of SOCS3 to the respective cytokine receptor has been found to be crucial for the inhibitory function of SOCS3. Studies of the mouse counterpart of this gene suggested the roles of this gene in the negative regulation of fetal liver hematopoiesis, and placental development.

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Overview

Product Name	Anti-SOCS3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SOCS3 Antibody Picoband® catalog # A00274-2. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O14543

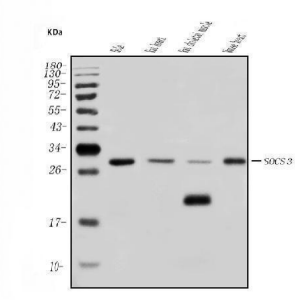
Technical Details

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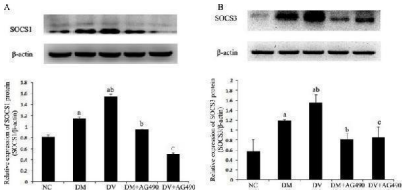
Immunogen	E.coli-derived human SOCS3 recombinant protein (Position: S13-L225).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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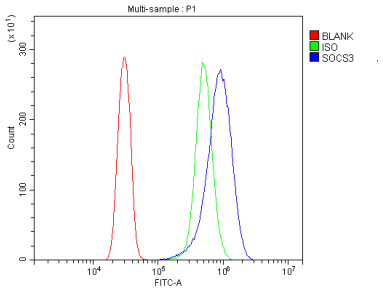
Anti-SOCS3 Antibody Picoband® (A00274-2) Images



Western blot analysis of SOCS3 using anti-SOCS3 antibody (A00274-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human HELA whole cell lysates, Lane 2: rat heart tissue lysates, Lane 3: rat skeletal muscle tissue lysates, Lane 4: mouse heart tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SOCS3 antigen affinity purified polyclonal antibody (Catalog # A00274-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SOCS3 at approximately 28-30KD. The expected band size for SOCS3 is at 28-30KD.



Protein expression levels of SOCS1 and SOCS3. NC, control. (A) SOCS1/beta-actin; (B) SOCS3/beta-actin. a P < 0.05 vs. the NC group; b P < 0.05 vs. the DM group; c P < 0.05 vs. the DV group.Index in PubMed under a CC BY license. PMID: 29228585



Flow Cytometry analysis of SiHa cells using anti-SOCS3 antibody (A00274-2). Overlay histogram showing SiHa cells stained with A00274-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SOCS3 Antibody (A00274-2, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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