

## 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.

### 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.                                           |
| 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

|                               |                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------|
| Immunogen                     | E.coli-derived human SOCS3 recombinant protein (Position: S13-L225).                            |
| Predicted Reactive Species    | Chicken                                                                                         |
| 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 | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat</p> <p>Flow Cytometry, 1-3ug/1x10<sup>6</sup> cells, Human</p> <p>Direct ELISA, 0.1-0.5ug/ml, Human</p> |

## Anti-SOCS3 Antibody Picoband™ (A00274-2) Images

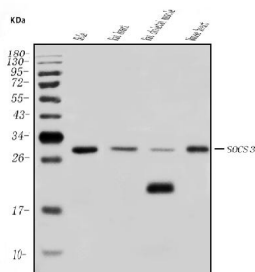


Figure 1. Western blot analysis of SOCS3 using anti-SOCS3 antibody (A00274-2).

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.

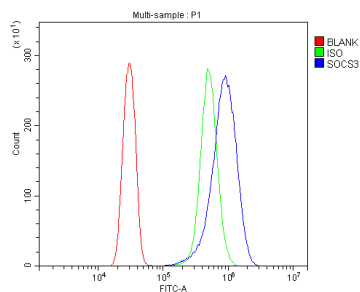


Figure 2. Flow Cytometry analysis of SiHa cells using anti-SOCS3 antibody (A00274-2).

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/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) 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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