

Anti-SOCS3 Antibody
Catalog # ABO11019

Specification

Anti-SOCS3 Antibody - Product Information

Application	WB, IHC
Primary Accession	O14543
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Suppressor of cytokine signaling 3(SOCS3) detection. Tested with WB, IHC-P in Human;Mouse.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SOCS3 Antibody - Additional Information

Gene ID 9021

Other Names

Suppressor of cytokine signaling 3, SOCS-3, Cytokine-inducible SH2 protein 3, CIS-3, STAT-induced STAT inhibitor 3, SSI-3, SOCS3, CIS3, SSI3

Calculated MW

24770 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse

Tissue Specificity

Widely expressed with high expression in heart, placenta, skeletal muscle, peripheral blood leukocytes, fetal and adult lung, and fetal liver and kidney. Lower levels in thymus.

Protein Name

Suppressor of cytokine signaling 3(SOCS-3)

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human SOCS3(71-85aa RDSSDQRHFFTLVSK), identical to the related mouse sequence, different from the related rat sequence by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 SH2 domain.

Anti-SOCS3 Antibody - Protein Information

Name SOCS3 ([HGNC:19391](#))

Synonyms CIS3, SSI3

Function

SOCS family proteins form part of a classical negative feedback system that regulates cytokine signal transduction. SOCS3 is involved in negative regulation of cytokines that signal through the JAK/STAT pathway. Inhibits cytokine signal transduction by binding to tyrosine kinase receptors including IL6ST/gp130, LIF, erythropoietin, insulin, IL12, GCSF and leptin receptors. Binding to JAK2 inhibits its kinase activity and regulates IL6 signaling. Suppresses fetal liver erythropoiesis. Regulates onset and maintenance of allergic responses mediated by T-helper type 2 cells (By similarity). Probable substrate recognition component of a SCF-like ECS (Elongin BC-CUL2/5-SOCS-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:15601820).

Tissue Location

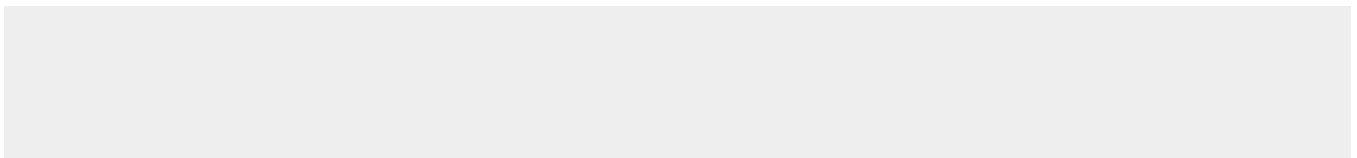
Widely expressed with high expression in heart, placenta, skeletal muscle, peripheral blood leukocytes, fetal and adult lung, and fetal liver and kidney. Lower levels in thymus

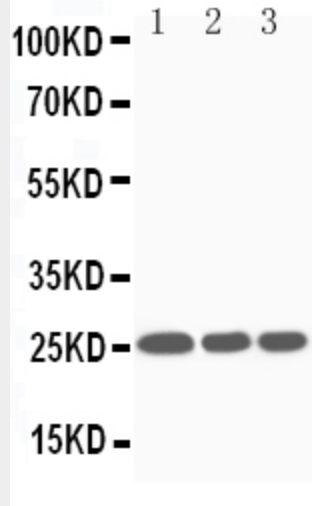
Anti-SOCS3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

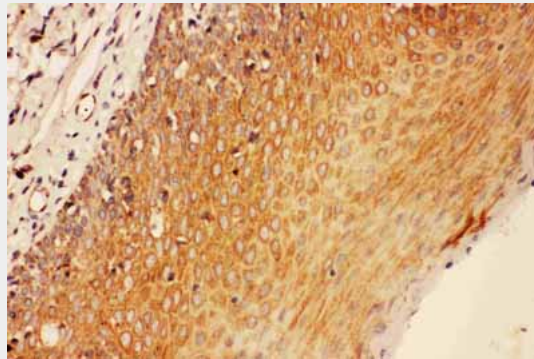
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-SOCS3 Antibody - Images





Anti-SOCS3 antibody, ABO11019, Western blotting Lane 1: JURKAT Cell Lysate Lane 2: CEM Cell Lysate Lane 3: RAJI Cell Lysate



Anti-SOCS3 antibody, ABO11019, IHC(P) IHC(P): Human Tonsil Tissue

Anti-SOCS3 Antibody - Background

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.