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Anti-SOCS3 Antibody

Catalog # ABO11019

Product Information

Application	WB, IHC-P
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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, By Heat Western blot, 0.1-0.5 □g/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.
Source	Eukaryota
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 RDSSDQRHFFTLSVK), 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 r˚Constitution, 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.

Protein Information

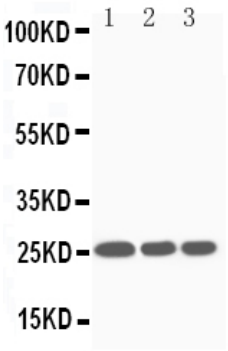
Name	SOCS3 (HGNC:19391)
Synonyms	CIS3, SSI3
Function	SOCS family proteins form part of a classical negative feedback system that regulates cytokine signal transduction. SOCS3 is involved in negative regulation of cytokines that signal through the JAK/STAT pathway (PubMed:16459330). Inhibits signal transduction by binding to transmembrane signaling receptors including IL6ST/gp130, LIFR, EPOR, INSR, IL12RB2, CSF3R/G-CSF-R and LEPR. 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). Upon OSM stimulation, negatively regulates the JAK-STAT signaling mediated through type II OSM receptor complex by interacting directly with JAK1 (PubMed:16459330).
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

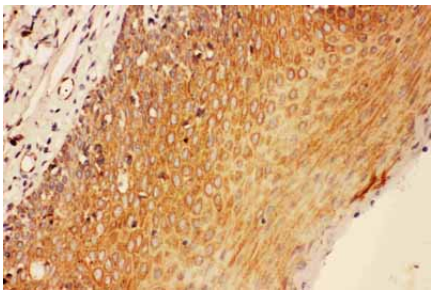
Background

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.

Images

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





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

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