

Product Name: SOCS-3 Rabbit Polyclonal Antibody
Catalog #: APRab18092



Summary

Production Name	SOCS-3 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	SOCS3 CIS3 SSI3
Alternative Names	Suppressor of cytokine signaling 3 (SOCS-3;Cytokine-inducible SH2 protein 3;CIS-3;STAT-induced STAT inhibitor 3;SSI-3)
Gene ID	9021.0
SwissProt ID	O14543.Synthetic peptide from human protein at AA range: 20-70

Application

Dilution Ratio	WB 1:500-1:2000.IHC-P 1:50-300, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	

Background

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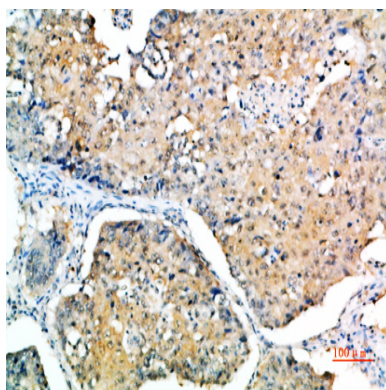
This gene encodes a member of the STAT-induced STAT inhibitor (SSI), also known as suppressor of cytokine signaling (SOCS), family. SSI family members are cytokine-inducible negative regulators of cytokine signaling. The expression of this gene is induced by various cytokines, including IL6, IL10, and interferon (IFN)-gamma. The protein encoded by this gene can bind to JAK2 kinase, and inhibit the activity of JAK2 kinase. 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. [provided by RefSeq, Jul 2008],disease:Genetic variation in the promoter region of SOCS3 may be associated with susceptibility to atopic dermatitis 4 (ATOD4) [MIM:605805]. Atopic dermatitis [MIM:603165], also known as eczema commonly begins in infancy or early childhood and is characterized by itchy and inflamed skin.,domain:The ESS and SH2 domains are required for JAK phosphotyrosine binding. Further interaction with the KIR domain is necessary for signal and kinase inhibition.,domain:The SOCS box domain mediates the interaction with the Elongin BC complex, an adapter module in different E3 ubiquitin ligase complexes.,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 gp130, LIF, erythropoietin, insulin, IL12, GCSF and leptin receptors. Binding to JAK2 inhibits its kinase activity. Suppresses fetal liver erythropoiesis. Regulates onset and maintenance of allergic responses mediated by T-helper type 2 cells. Regulates IL-6 signaling in vivo (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. Seems to recognize IL6ST.,pathway:Protein modification; protein ubiquitination.,pharmaceutical:SOCS3 could be used as a possible therapeutic agent for treating rheumatoid arthritis.,PTM:Phosphorylated on tyrosine residues after stimulation by the cytokines, IL-2, EPO or IGF1.,similarity:Contains 1 SH2 domain.,similarity:Contains 1 SOCS box domain.,subunit:Interacts with multiple activated proteins of the tyrosine kinase signaling pathway including IGF1 receptor, insulin receptor and JAK2. Binding to JAK2 is mediated through the KIR and SH2 domains to a phosphorylated tyrosine residue within the JAK2 JH1 domain. Binds specific activated tyrosine residues of the leptin, EPO, IL12, GSCF and gp130 receptors. Interaction with CSNK1E stabilizes SOCS3 protein. Component of the probable ECS(SOCS3) E3 ubiquitin-protein ligase complex which contains CUL5, RNF7/RBX2, Elongin BC complex and SOCS3. Interacts with CUL5, RNF7, TCEB1 and TCEB2. Interacts with CUL2.,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.,

Research Area

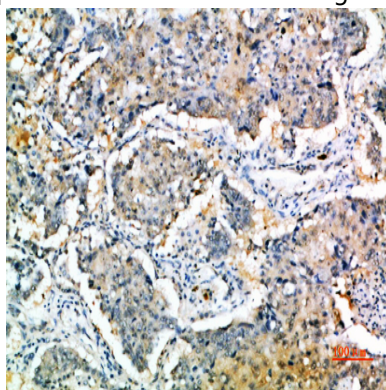
Ubiquitin mediated proteolysis;Jak_STAT;Insulin_Receptor;Adipocytokine;Type II diabetes mellitus;

Image Data

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Immunohistochemical analysis of paraffin-embedded human-lung-cancer, antibody was diluted at 1:200



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Note

For research use only.