SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-SOCS1 antibody

Catalog Number: SL23696R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	SOCS1
Immunogen:	KLH conjugated synthetic peptide derived from human SOCS1: 1-100/211
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat,Dog,Pig,Cow,Rabbit)
Predicted MW.:	23kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	SOCS family proteins form part of a classical negative feedback system that regulates cytokine signal transduction. SOCS1 is involved in negative regulation of cytokines that signal through the JAK/STAT3 pathway. Through binding to JAKs, inhibits their kinase activity. In vitro, also suppresses Tec protein-tyrosine activity (By similarity). Appears to be a major regulator of signaling by interleukin 6 (IL6) and leukemia inhibitory factor(LIF). Regulates interferon-gamma mediated sensory neuron survival. Implicated, through SOCS box binding, in ubiquitin-dependent protein degradation. High expression in thymus. Lower expression in lung and spleen. **Function:** SOCS family proteins form part of a classical negative feedback system that regulates cytokine signal transduction. SOCS1 is involved in negative regulation of cytokines that signal through the JAK/STAT3 pathway. Through binding to JAKs, inhibits their kinase activity. In vitro, also

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	suppresses Tec protein-tyrosine activity. Appears to be a major regulator of signaling by interleukin 6 (IL6) and leukemia inhibitory factor (LIF). Regulates interferon-gamma mediated sensory neuron survival (By similarity). Probable substrate recognition component of an ECS (Elongin BC-CUL2/5-SOCS-box protein) E3 ubiquitin ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins. Seems to recognize JAK2. SOCS1 appears to be a negative regulator in IGF1R signaling pathway. **Subunit:** Interacts with multiple activated signaling proteins of the tyrosine kinase signaling pathway including JAK family kinases, TEC, KIT, GRB2 and VAV. Binding to JAKs is mediated through the KIR and SH2 domains to a phosphorylated tyrosine residue within the JAK JH1 domain. Binds the SH3 domain of GRB2 via diproline determinants in the N-terminus, and the N-terminal regulatory domain of VAV. Interacts with the Elongin BC complex (TCEB1 and TCEB2). Component of an ECS CBC(SOCS1) E3 ubiquitin-protein ligase complex which contains Elongin BC, CUL5, RBX1 and SOCS1. Interacts (via SH2 domain and SOCS box) with TRIM8. Interacts with AXL, CUL2 and FGFR3. Interacts with INSR. **Subcellular Location:** Nucleus. Cytoplasmic vesicle. Note=Detected in perinuclear cytoplasmic vesicles upon interaction with FGFR3. **Tissue Specificity:** Expressed in all tissues with high expression in spleen, small intestine and peripheral blood leukocytes. **Similarity:** Contains 1 SH2 domain. Contains 1 SOCS box domain. **Database links:** **Entrez Gene:** 8651 Human **Entrez Gene:** 12703 Mouse **Entrez Gene:** 252971 Rat Omim: 603597 Human **SwissProt:** O15524 Human **SwissProt:** O35716 Mouse **SwissProt:** Q9QX78 Rat **Unigene:** 50640 Human **Unigene:** 130 Mouse **Unigene:** 82754 Rat The cell factor signaling suppressor (suppressor of cytokine signaling, SOCS) family is a class of negative regulatory factors produced by cells that feedback-block the cell factor Signal transduction process. SOCS1 can inhibit the Signal transduction of various cell factors such as IL-6, LIF, OSM, INF-γ, and GH, and regulates the activation of multiple immune responses in the body. Abnormal expression of SOCS1 is associated with the pathogenesis of various

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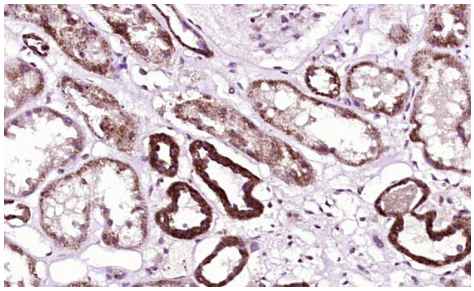
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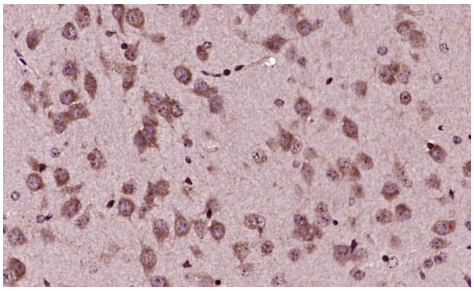
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	diseases and plays an important role in the pathogenesis of acute and chronic leukemia, rheumatoid arthritis, cirrhosis, and liver cancer; its negative regulatory effect on Signal transduction, especially the JAK STAT pathway, has been confirmed.

[VALIDATION IMAGES]



Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOCS1) Polyclonal Antibody, Unconjugated (SL23696R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOCS1) Polyclonal Antibody, Unconjugated (SL23696R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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