

## Rabbit Anti-SOCS1 antibody

SL0113R

**Product Name** SOCS1

**Chinese Name** cell factor 信号传导抑制蛋白 1 抗体

**Alias** CISH 1; CISH1; Cytokine Inducible SH2 Protein 1; JAB; JAK Binding Protein; Janus kinase binding protein; SOCS 1; SOCS1; SOCS-1; SSI 1; SSI1; STAT Induced STAT Inhibitor 1; Suppressor of cytokine Signalling 1; TEC Interacting Protein 3; TIP 3; TIP3; SOCS1\_HUMAN.

**Research Area** Cell biology Neurobiology Signal transduction Apoptosis transcriptional regulatory factor

**Immunogen Species** Rabbit

**Clonality** Polyclonal

**React Species** Human(predicted:Mouse,Rat)

**Applications** WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000  
(Paraffin sections need antigen repair)  
not yet tested in other applications.  
optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight** 23kDa

**Cellular localization** The nucleus cytoplasmic

**Form** Liquid

**Concentration** 1mg/ml

**immunogen** KLH conjugated synthetic peptide derived from human Socs 1: 121-211/211

**Lsotype** IgG

**Purification** affinity purified by Protein A

**Buffer Solution** Human(predicted:Mouse,Rat)1M TBS(pH7.4) with 1% BSA,

Human(predicted:Mouse,Rat)3% Proclin300 and 50% Glycerol.

**Storage** Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

**Attention** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

## PubMed

### [PubMed](#)

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 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.

## Product Detail

#### **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.

#### **SWISS:**

O15524

**Gene ID:**  
8651

**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

cell factor 信号传导抑制蛋白(suppressor of cytokine signaling, SOCS)家族是一类由细胞产生并反馈性阻断 cell factor Signal transduction 过程的负性调节因子, SOCS1 可抑制 IL-6、LIF、OSM、INF- $\gamma$  以及 GH 等多种 cell factor 的 Signal transduction, 对体内多种免疫反应的激活起调控作用。SOCS1 异常表达与多种疾病的发病相关, 在急慢性白血病、类风湿性关节炎、肝硬化和肝癌的发病中起重要作用; 对 Signal transduction, 特别是 JAK-STAT 通路的负调控作用已被肯定。