

### **SOCS-3 Mouse mAb**

CatalogNo: YM1098 Orthogonal Validated (•)

# **Key Features**

**Host Species** 

Reactivity Mouse Human,Pig **Applications** WB,IHC,IF

MW

25kD (Calculated)

### Recommended Dilution Ratios

WB 1:1000-1:2000 IHC 1:500-1:1000

IF 1:50-200

# Storage

Storage\* -15°C to -25°C/1 year(Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### **Basic Information**

Clonality Monoclonal

# Immunogen Information

**Immunogen** Purified recombinant human SOCS-3 (N-terminus) protein fragments expressed in E.coli.

**Specificity** SOCS-3 Monoclonal Antibody detects endogenous levels of SOCS-3 protein.

# | Target Information

**Gene name** SOCS3 CIS3 SSI3

#### **Protein Name**

Suppressor of cytokine signaling 3

Organism	Gene ID	UniProt ID
Human	<u>9021</u> ;	<u>014543;</u>

### Cellular Localization

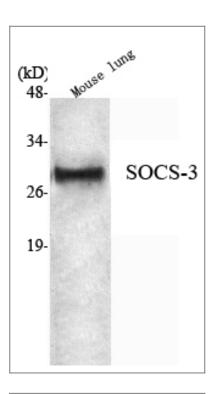
intracellular, cytoplasm, cytosol,

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.

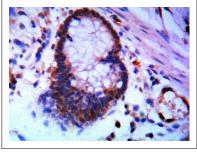
#### **Function**

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 childhook and is characterized by ichy 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 ubiquitinprotein 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.,

### Validation Data



Western Blot analysis using SOCS-3 Monoclonal Antibody against mouse lung lysate.



Immunohistochemistry analysis of paraffin-embedded human colon using SOCS-3 Monoclonal Antibody.

# | Contact information

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Please scan the QR code to access additional product information:

**SOCS-3 Mouse mAb** 

For Research Use Only. Not for Use in Diagnostic Procedures.

Antibody | ELISA Kits | Protein | Reagents