



Rabbit Anti-SOCS5 antibody

SL13664R

Product Name:	SOCS5
Chinese Name:	Signal transduction和转录激活因子5抗体
Alias:	CIS-6; CIS6; CISH5; CISH6; Cytokine inducible SH2 containing protein 5; Cytokine inducible SH2 protein 6; KIAA0671; SOCS-5; Suppressor of cytokine signaling 5.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Cow,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	61kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SOCS5:151-250/539
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The eight members of the recently identified Suppressor of Cytokines Signaling (SOCS) family are SOCS1, SOCS2, SOCS3, SOCS4, SOCS5, SOCS6, SOCS7, and CIS. Structurally the SOCS proteins are composed of an N- terminal region of variable length and amino acid composition, a central SH2 domain, and a C-terminal motif called the SOCS box. The SOCS proteins appear to form part of a classical negative feedback loop that regulates cytokine signal transduction. Transcription of each of the

SOCS genes occurs rapidly in vitro and in vivo in response to cytokines, and once produced, the various members of the SOCS family appear to inhibit signaling in different ways. During Th1 differentiation a reduction in the association of Jak1 with the IL4 Receptor correlated with the appearance of SOCS5. SOCS5 protein was preferentially expressed in committed Th1 cells and interacted with the cytoplasmic region of the IL4 Receptor alpha chain irrespective of receptor tyrosine phosphorylation. This unconventional interaction of SOCS5 protein with IL4 Receptor resulted in the inhibition of IL4-mediated signal transducer and activator of transcription-6 activation. T cells from transgenic mice constitutively expressing SOCS5 exhibited a significant reduction of IL4-mediated Th2 development. Therefore, the induced SOCS5 protein in Th1 differentiation environment may play an important role by regulating Th1 and Th2 balance.

Function:

SOCS family proteins form part of a classical negative feedback system that regulates cytokine signal transduction. May be a 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. Inhibits for instance EGF signaling by mediating the degradation of the EGF receptor/EGFR. Involved in the regulation of T-helper cell differentiation by inhibiting of the IL4 signaling pathway which promotes differentiation into the Th2 phenotype. Can also partially inhibit IL6 and LIF signaling.

Subunit:

Interacts with IL4R; inhibits IL4 signaling (By similarity). Interacts with EGFR. Interacts with TCEB1 AND TCEB2; mediates EGFR ubiquitination and degradation.

Post-translational modifications:

Phosphorylated. Phosphorylation is induced by EGF.

Similarity:

Contains 1 SH2 domain.
Contains 1 SOCS box domain.

SWISS:

O75159

Gene ID:

9655

Database links:

[Entrez Gene: 9655](#) Human

[Omim: 607094](#) Human

[SwissProt: O75159](#) Human

[Unigene: 468426](#) Human

Important Note:

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

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