

SOCS5 Rabbit pAb

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Catalog # AP55235

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O75159
Predicted	Rat, Human, Mouse, Chicken, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61246
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SOCS5
Epitope Specificity	151-250/539
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Gene ID	9655
Other Names	Suppressor of cytokine signaling 5, SOCS-5, Cytokine-inducible SH2 protein 6, CIS-6, Cytokine-inducible SH2-containing protein 5, SOCS5, CIS6, CISH5,

CISH6, KIAA0671

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	SOCS5
Synonyms	CIS6, CISH5, CISH6, KIAA0671
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.

Background

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