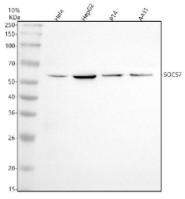
SOCS7 Antibody / Suppressor of cytokine signaling 7 [clone 30S97] (FY13089)

Catalog No.	Formulation	Size
FY13089	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30S97
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O14512
Applications	Western blot: 1:500-1:2000 Immunohistochemistry: 1:50-1:200
Limitations	This SOCS7 antibody is available for research use only.



Western blot analysis of SOCS7 using anti-SOCS7 antibody. Lane 1: human Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human RT4 whole cell lysates, Lane 4: human whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SOCS7 antibody at 1:500 overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A band is detected in the commonly cited 58-63 kDa range. This migration is consistent with endogenous SOCS7 and reflects differences in phosphorylation state and isoform usage, which modestly alter SDS-PAGE mobility.

Description

SOCS7 antibody detects Suppressor of cytokine signaling 7, encoded by the SOCS7 gene. Suppressor of cytokine signaling 7 belongs to the SOCS family of proteins that negatively regulate cytokine and growth factor signaling through the JAK-STAT pathway. By acting as feedback inhibitors, SOCS proteins help maintain immune balance and prevent excessive signaling. SOCS7 antibody provides researchers with a key reagent to study signal regulation, immune homeostasis, and disease.

Suppressor of cytokine signaling 7 contains a central SH2 domain and a C terminal SOCS box, which targets signaling complexes for ubiquitination and proteasomal degradation. Research using SOCS7 antibody has shown that it regulates not only STAT pathways but also insulin receptor and growth factor receptor signaling. This broadens its role beyond immune regulation into metabolism and growth control. Because it functions as a scaffold that recruits ubiquitin ligases, SOCS7 coordinates protein turnover of key signaling mediators.

In addition to its signaling roles, SOCS7 has nuclear functions. Studies with SOCS7 antibody have demonstrated that the protein translocates to the nucleus in response to DNA damage and stress, where it interacts with signaling and structural proteins to regulate cell cycle checkpoints. This nuclear activity links SOCS7 to genome stability and cellular stress responses, making it more than a classic negative regulator of cytokines.

Dysregulation of SOCS7 contributes to disease. Reduced expression can lead to prolonged signaling through pathways such as STAT3, promoting inflammation and tumorigenesis. Elevated expression may impair insulin signaling and contribute to metabolic imbalance. Research using SOCS7 antibody has explored its roles in autoimmune disease, cancer, and diabetes. By influencing multiple pathways, SOCS7 serves as a critical checkpoint in cellular signaling.

SOCS7 antibody is widely used in western blotting, immunohistochemistry, and immunofluorescence. Western blotting demonstrates protein abundance and post-translational modifications, immunohistochemistry highlights expression patterns in tissues such as spleen and pancreas, and immunofluorescence reveals subcellular distribution, including nuclear translocation. These applications make SOCS7 antibody an indispensable tool in signaling research.

By providing validated SOCS7 antibody reagents, NSJ Bioreagents supports studies into cytokine signaling, metabolism, and cancer biology. Detection of Suppressor of cytokine signaling 7 enables researchers to better understand how signaling feedback loops are maintained and disrupted in disease.

Application Notes

Optimal dilution of the SOCS7 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human SOCS7 was used as the immunogen for the SOCS7 antibody.

Storage

Store the SOCS7 antibody at -20oC.

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