

SOCS3 Antibody

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

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 26	Source/Isotype: Rabbit	UniProt ID: #O14543	Entrez-Gene Id: 9021
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SOCS3 Antibody detects endogenous levels of total SOCS3 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys195 of SOCS3. Antibodies were purified by protein A and peptide affinity chromatography.

Background

The suppressor of cytokine signaling (SOCS) family members are negative regulators of cytokine signal transduction that inhibit the Jak/Stat pathway (1-3). The SOCS family consists of at least 8 members including the originally identified cytokine-inducible SH2-containing protein (CIS1), as well as SOCS1-7. Each SOCS family member contains a central SH2 domain and a conserved carboxy-terminal motif designated as the SOCS box. These proteins are important regulators of cytokine signaling, proliferation, differentiation, and immune responses.

Low levels of SOCS3 are observed in lung, spleen and thymus, and like other SOCS family members levels its expression is rapidly induced by a number of factors including interleukins, EPO, IFN-γ, CSF and TNF-α (4). SOCS3 uses its SH2 domain to bind activated Jaks and their cognate receptors to provide negative feedback inhibition. In addition to the initially described inducers of SOCS3 expression, subsequent studies have described SOCS3-mediated negative feedback inhibition for leptin (5), GH (6), chemokine receptors (7), insulin (8) and certain pathogens (9,10). SOCS3 deletion results in embryonic lethality with placental insufficiency (11). SOCS3 signaling has been linked pathologically to allergic responses (12), inflammatory disease (13), endotoxic shock (14), wound repair (15), and obesity (16,17).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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