

#2779 Store at -20C

SOCS2 Antibody



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	22	Rabbit	#O14508	8835

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:100
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	SOCS2 Antibody detects endogenous levels of SOCS2 protein.	
Species predicted to react based on 100% sequence homology:	Monkey	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues at the carboxyl terminus of human SOCS2. Antibodies are purified by peptide affinity chromatography.	
Background	<p>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.</p> <p>Activity of SOCS2 has been predominantly linked to growth hormone (GH) and insulin-like growth factor 1 (IGF-1) signaling but may also contribute to several biological processes including metabolism, bone formation, neuronal development, cancer, infection and other cytokine-dependent pathways (5). SOCS2 is widely expressed in adult and fetal tissues and is induced upon cytokine treatment (5,6). A number of studies suggest that SOCS2 can have either a positive or negative effect on GH/cytokine signaling (7-10). Mice deficient in SOCS2 grow significantly larger than normal littermates (8). SOCS2 binds to tyrosine-phosphorylated GH and IGF-1 receptors via its SH2 domain, suppressing their signaling (6,9). In addition, the SOCS box of SOCS2 binds to Elongin B and C leading to activity as a ubiquitin ligase, promoting the degradation of the receptors as well as other SOCS family members (11-13).</p>	
Background References	<ol style="list-style-type: none"> Alexander, W.S. et al. (1999) <i>J Leukoc Biol</i> 66, 588-92. Chen, X.P. et al. (2000) <i>Immunity</i> 13, 287-90. Hilton, D.J. et al. (1998) <i>Proc Natl Acad Sci USA</i> 95, 114-9. Rico-Bautista, E. et al. (2006) <i>Cytokine Growth Factor Rev</i> 17, 431-9. Starr, R. et al. (1997) <i>Nature</i> 387, 917-21. Dey, B.R. et al. (1998) <i>J Biol Chem</i> 273, 24095-101. Favre, H. et al. (1999) <i>FEBS Lett</i> 453, 63-6. Metcalfe, D. et al. (2000) <i>Nature</i> 405, 1069-73. Greenhalgh, C.J. et al. (2002) <i>J Biol Chem</i> 277, 40181-4. Greenhalgh, C.J. et al. (2005) <i>J Clin Invest</i> 115, 397-406. Tannahill, G.M. et al. (2005) <i>Mol Cell Biol</i> 25, 9115-26. Bullock, A.N. et al. (2006) <i>Proc Natl Acad Sci U S A</i> 103, 7637-42. Piessevaux, J. et al. (2006) <i>J Biol Chem</i> 281, 32953-66. 	

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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