

Datasheet: MCA2382

Description:	MOUSE ANTI HUMAN SOCS-3
Specificity:	SOCS-3
Other names:	SUPPRESSOR OF CYTOKINE SIGNALING 3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	SO1
Isotype:	IgG2b
Quantity:	0.1 mg

Product Details

RRID AB_2193292

Applications This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			1/100 - 1/500

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species Human

Product Form Purified IgG - liquid

Preparation Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.09% Sodium Azide

Approx. Protein Concentrations Ig concentration 1.0 mg/ml

Immunogen Full - length SOCS3 protein.

**External Database
Links**

UniProt:

[O14543](#) [Related reagents](#)

Entrez Gene:

[9021](#) SOCS3 [Related reagents](#)

Synonyms

CIS3, SSI3

Specificity

Mouse anti Human SOCS-3 antibody, clone SO1 recognizes the human suppressor of cytokine signaling 3 protein, also known as SOCS-3, cytokine-inducible SH2 protein 3 or STAT-induced STAT inhibitor 3. SOCS-3 is a 225 amino acid, ~30 kDa member of the suppressor of cytokine signaling family ([Starr et al. 1997](#)) containing a single [SH2](#) and a single [SOCS](#) box domain. SOCS-3 acts as a negative regulator of Janus Kinase (JAK) and signal transducer and activators of transcription (STAT) signaling pathways.

SOCS-3 specifically acts as a negative feedback regulator for the STAT3 pathways, by directly binding to the Tyr-759 motif of the IL-6 signal-transducing receptor subunit gp130, thereby preventing the IL-6 activation of STAT3. The expression of SOCS-3 is inducible by numerous factors, including IL-6, IL-10, Toll-like receptor (TLR) agonists and IFN gamma, making this protein the focus of research into inflammatory diseases, such as Arthritis, Colitis, and Crohn's Disease ([Elliott and Johnstone 2004](#)). SOCS-3 expression has also been shown to affect IFN alpha sensitivity in tumour studies ([Brender et al.2001](#)).

Notch signaling plays a critical role in the determination of M1 versus M2 macrophage polarization, and that RBPJ-mediated Notch signaling, regulates this polarization through SOCS-3 ([Narayana and Balaji 2008](#), [Schroeder and Just 2000](#)).

Western Blotting

MCA2382 detects a band of approximately 30kDa in Hela cell lysates.

References

1. De Rosa, V. *et al.* (2007) A key role of leptin in the control of regulatory T cell proliferation. [Immunity. 26: 241-55.](#)

Further Reading

1. Lehmann, U. *et al.* (2003) SHP2 and SOCS3 contribute to Tyr-759-dependent attenuation of interleukin-6 signaling through gp130. [J Biol Chem. 278 \(1\): 661-71.](#)
2. Suzuki, A. *et al.* (2001) CIS3/SOCS3/SSI3 plays a negative regulatory role in STAT3 activation and intestinal inflammation. [J Exp Med. 193 \(4\): 471-81.](#)
3. Lang, R. *et al.* (2003) SOCS3 regulates the plasticity of gp130 signaling. [Nat Immunol. 4 \(6\): 546-50.](#)
4. Sakai, I. *et al.* (2002) Constitutive expression of SOCS3 confers resistance to IFN-alpha in chronic myelogenous leukemia cells. [Blood. 100 \(8\): 2926-31.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody.

Guarantee

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Human Anti Mouse IgG2b (HCA038...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®680](#),
[DyLight®800](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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