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

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^{o}C or at -20^{o}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.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation available at: Material Safety Datasheet Documentation #10040 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG2b (HCA038...)	FITC, HRP

Recommended Negative Controls

MOUSE IgG2b NEGATIVE CONTROL (MCA691)

North & South America
Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com

Worldwide
Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739
Email: antibody_sales_uk@bio-rad.com

Europe
Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50
Email: antibody_sales_de@bio-rad.com

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