

Datasheet: VMA00027KT

| Description: | SOCS-3 ANTIBODY WITH CONTROL LYSATE | | |
|----------------------|-------------------------------------|--|--|
| Specificity: | SOCS-3 | | |
| Other names: | Supressor of Cytokine Signaling 3 | | |
| Format: | Purified | | |
| Product Type: | PrecisionAb™ Monoclonal | | |
| Isotype: | lgG2b | | |
| Quantity: | 2 Westerns | | |

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 |
|------------------|-----|----|----------------|--------------------|
| Western Blotting | | | | 1/1000 |

PrecisionAb antibodies have been extensively <u>validated for the western blot application</u>. The antibody has been validated at the suggested dilution. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependant on sample type.

| Target Species | Human | |
|-----------------------------|---|--|
| Species Cross Reactivity | Reacts with: Mouse N.B. Antibody reactivity and working conditions may vary between species. | |
| Product Form | Purified IgG - liquid | |
| Preparation | 20µl Mouse monoclonal antibody purified by affinity chromatography on Protein A from tissue culture supernatant | |
| Buffer Solution | Phosphate buffered saline | |
| Preservative Stabilisers | 0.09% Sodium Azide (NaN ₃) | |
| Immunogen | Full length SOCS-3 protein | |
| External Database Links | UniProt: O14543 Related reagents | |
| | Entrez Gene: | |
| | 9021 SOCS3 Related reagents | |

Synonyms

CIS3, SSI3

Specificity

Mouse anti Human SOCS-3 antibody 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 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 interferon (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 tumor studies (Brender et al. 2001).

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

Mouse anti Human SOCS-3 antibody recognizes human SOCS-3 as a single band of ~25 kDa in MCF7 cell lysates by western blotting under reducing conditions. This antibody also cross reacts with SOCS-3 from murine cell lines.

Western Blotting

Anti SOCS-3 antibody detects a band of approximately 25 kDa in MCF7 cell lysates.

Instructions For Use

Please refer to the PrecisionAb western blotting protocol. For additional information on secondary antibody dilution and exposure time see product web page.

Lysate Composition

400µg MCF7 lysate lyophilized in RIPA buffer.

- Lysate Reconstitution If using DDT reconstitute the lyophilized lysate with 190µl DI H₂O, add 200µl 2x Laemmli Sample Buffer and 10µl 2M DTT.
 - If using BME reconstitute the lyophilized lysate with 180µl DI H₂O, add 200µl 2x Laemmli Sample Buffer and 20µl BME.

Heat at 95°C for 5 minutes. For 10 well mini gels load 25µl. For other gel and comb formats please refer to the PrecisionAb western blotting protocol.

Storage

Antibody: Store undiluted at -20°C, avoiding repeated freeze thaw cycles.

Lysate: Store lyophilized lysate at -20°C. After reconstitution aliquot and store at -20°C for up to 3 months or at -80°C for longer term storage.

Shelf Life

As supplied, 12 months from date of despatch.

Acknowledgements

PrecisionAb™ is a trademark of Bio-Rad Laboratories.

Health And Safety Information

Material Safety Datasheet documentation #10040 #10561 available at:

Antibody (10040): https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf

Lysate Material (10561): https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) HRP

Recommended Negative Controls

MOUSE IgG2b NEGATIVE CONTROL (MCA691)

North & South Tel: +1 800 265 7376 America

Worldwide

Tel: +44 (0)1865 852 700 Europe

Tel: +49 (0) 89 8090 95 21

Fax: +1 919 878 3751

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