

Product datasheet

Anti-SOCS3 antibody [EPR24090-74] ab280884

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [1 References](#) [10 Images](#)

Overview

Product name	Anti-SOCS3 antibody [EPR24090-74]
Description	Rabbit monoclonal [EPR24090-74] to SOCS3
Host species	Rabbit
Tested applications	Suitable for: IHC-P, IP, WB Unsuitable for: Flow Cyt or ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: RAW264.7 treated with 100ng/ml LPS for 4h, Human colon, placenta, Mouse spleen, placenta, HeLa lysates. IHC-P: Human colon, placenta, Mouse spleen and Rat colon. IP: HeLa, RAW 264.7 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59.94% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR24090-74

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab280884 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

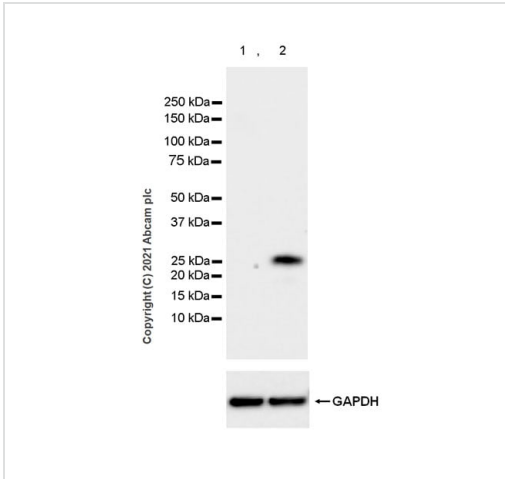
Application	Abreviews	Notes
IHC-P		1/1000.
IP		1/30.
WB	★★★★★ (1)	1/1000. Predicted molecular weight: 24 kDa.

Application notes Is unsuitable for Flow Cyt or ICC/IF.

Target

Function	SOCS family proteins form part of a classical negative feedback system that regulates cytokine signal transduction. SOCS3 is involved in negative regulation of cytokines that signal through the JAK/STAT pathway. Inhibits cytokine signal transduction by binding to tyrosine kinase receptors including gp130, LIF, erythropoietin, insulin, IL12, GCSF and leptin receptors. Binding to JAK2 inhibits its kinase activity. Suppresses fetal liver erythropoiesis. Regulates onset and maintenance of allergic responses mediated by T-helper type 2 cells. Regulates IL-6 signaling in vivo (By similarity). Probable substrate recognition component of a SCF-like ECS (Elongin BC-CUL2/5-SOCS-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins. Seems to recognize IL6ST.
Tissue specificity	Widely expressed with high expression in heart, placenta, skeletal muscle, peripheral blood leukocytes, fetal and adult lung, and fetal liver and kidney. Lower levels in thymus.
Pathway	Protein modification; protein ubiquitination.
Involvement in disease	Note=There is some evidence that SOCS3 may be a susceptibility gene for atopic dermatitis linked to 17q25. SOCS3 messenger RNA is significantly more highly expressed in skin from patients with atopic dermatitis than in skin from healthy controls. Furthermore, a genetic association between atopic dermatitis and a haplotype in the SOCS3 gene has been found in two independent groups of patients.
Sequence similarities	Contains 1 SH2 domain. Contains 1 SOCS box domain.
Domain	The ESS and SH2 domains are required for JAK phosphotyrosine binding. Further interaction with the KIR domain is necessary for signal and kinase inhibition. The SOCS box domain mediates the interaction with the Elongin BC complex, an adapter module in different E3 ubiquitin ligase complexes.
Post-translational modifications	Phosphorylated on tyrosine residues after stimulation by the cytokines, IL-2, EPO or IGF1.

Images



Western blot - Anti-SOCS3 antibody [EPR24090-74] (ab280884)

All lanes : Anti-SOCS3 antibody [EPR24090-74] (ab280884) at 1/1000 dilution

Lane 1 : Untreated RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage), whole cell lysate

Lane 2 : RAW264.7 treated with 100ng/ml LPS(Lipopolysaccharide) for 4 hours, whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

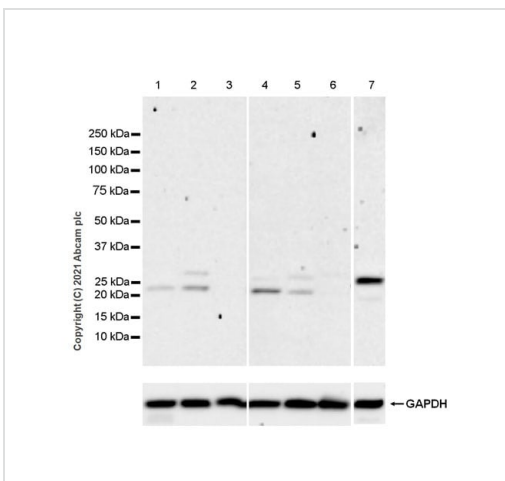
Predicted band size: 24 kDa

Observed band size: 26 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID:17114447, 32306216, 31238931)

Exposure time: 26 seconds



Western blot - Anti-SOCS3 antibody [EPR24090-74] (ab280884)

All lanes : Anti-SOCS3 antibody [EPR24090-74] (ab280884) at 1/1000 dilution

Lane 1 : Human colon tissue lysate

Lane 2 : Human placenta tissue lysate

Lane 3 : Human skin tissue lysate

Lane 4 : Mouse spleen tissue lysate

Lane 5 : Mouse placenta tissue lysate

Lane 6 : Mouse skin tissue lysate

Lane 7 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity

with human IgG at 1/2000 dilution

Predicted band size: 24 kDa

Observed band size: 23,26 kDa

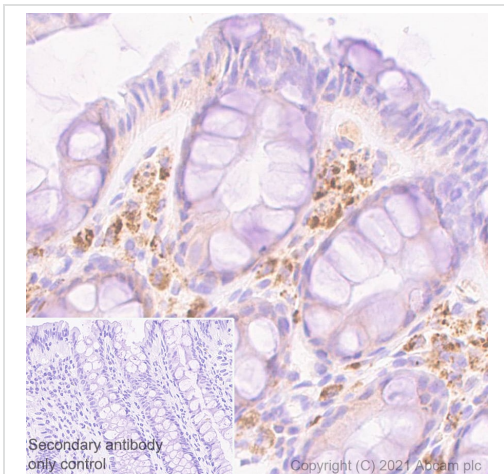
Blocking and diluting buffer and concentration: 5% NFDm/TBST

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID:17114447, 32306216, 31238931)

SOCS3 exists in two isoforms of different length that are encoded by one gene

Negative control: skin (PMID: 22739986)

Exposure time: 3 minutes

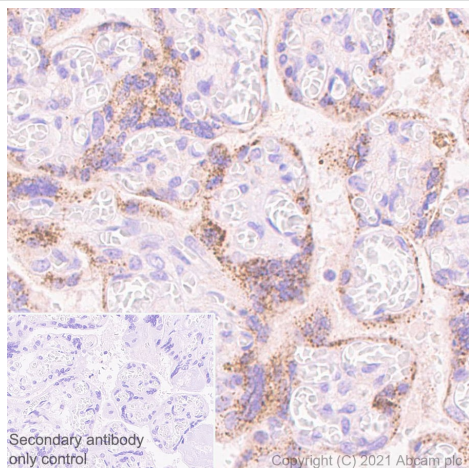


Immunohistochemical analysis of paraffin-embedded Human colon tissue labelling SOCS3 with ab280884 at 1/1000 (0.576 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on the stromal cells in human colon. (PMID: 28603075) The section was incubated with ab280884 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 minutes.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOCS3 antibody [EPR24090-74] (ab280884)

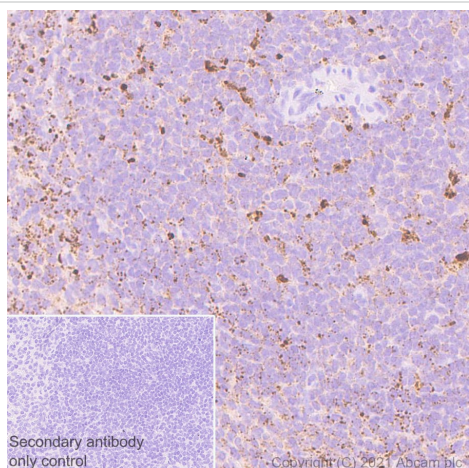


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOCS3 antibody [EPR24090-74] (ab280884)

Immunohistochemical analysis of paraffin-embedded Human placenta tissue labelling SOCS3 with ab280884 at 1/1000 (0.576 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on human placenta. (PMID: 29201185) The section was incubated with ab280884 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

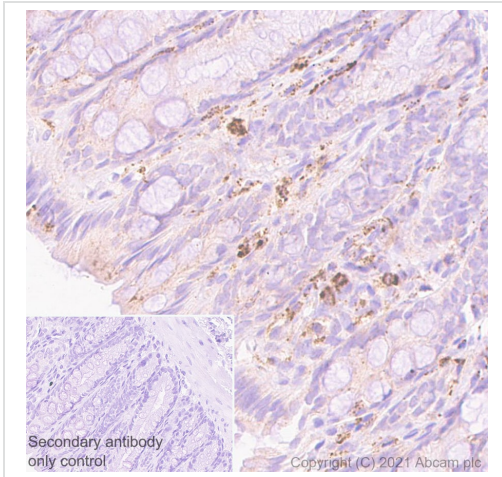


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOCS3 antibody [EPR24090-74] (ab280884)

Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labelling SOCS3 with ab280884 at 1/1000 (0.576 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on mouse spleen. The section was incubated with ab280884 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

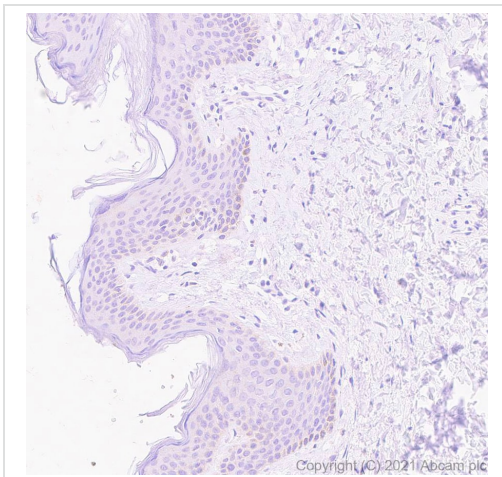


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOCS3 antibody [EPR24090-74] (ab280884)

Immunohistochemical analysis of paraffin-embedded Rat colon tissue labelling SOCS3 with ab280884 at 1/1000 (0.576 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on the stromal cells in rat colon. The section was incubated with ab280884 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

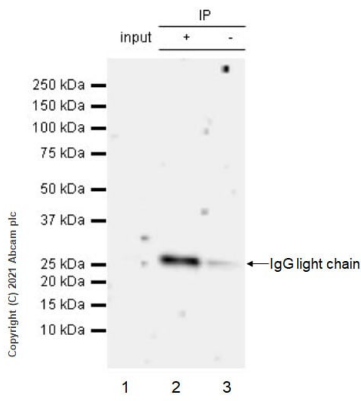


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOCS3 antibody [EPR24090-74] (ab280884)

Immunohistochemical analysis of paraffin-embedded Human skin tissue labelling SOCS3 with ab280884 at 1/1000 (0.576 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Negative control: no staining on human skin. (PMID: 22739986) The section was incubated with ab280884 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counter stain Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunoprecipitation - Anti-SOCS3 antibody
[EPR24090-74] (ab280884)

SOCS3 was immunoprecipitated from 0.35 mg HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 10ug with ab280884 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab280884 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used at 1/5000 dilution.

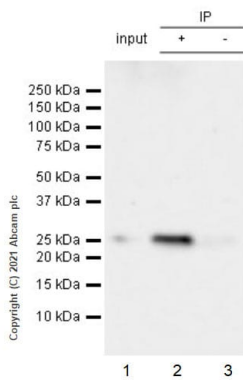
Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 10ug

Lane 2: ab280884 IP in HeLa whole cell lysate

Lane 3: Rabbit monoclonal IgG1 ([ab18443](#)) instead of ab280884 in HeLa whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 58 seconds.



Immunoprecipitation - Anti-SOCS3 antibody
[EPR24090-74] (ab280884)

SOCS3 was immunoprecipitated from 0.35 mg RAW 264.7 (mouse abelson murine leukemia virus-induced tumor macrophage) treated with 100 ng/ml LPS (Lipopolysaccharide) for 4 hours whole cell lysate 10 ug with ab280884 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab280884 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)([ab131366](#)) was used at 1/5000 dilution.

Lane 1: RAW 264.7 (mouse abelson murine leukemia virus-induced tumor macrophage) treated with 100 ng/ml LPS (Lipopolysaccharide) for 4 hours whole cell lysate 10 ug

Lane 2: ab280884 IP in RAW 264.7 treated with 100 ng/ml LPS (Lipopolysaccharide) for 4 hours whole cell lysate

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab280884 in treated with 100 ng/ml LPS (Lipopolysaccharide) for 4 hours whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 3 minutes.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-SOCS3 antibody [EPR24090-74] (ab280884)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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