

Product datasheet

Anti-STAT2 antibody [22/Stat2] ab280900

KO VALIDATED Recombinant

4 Images

Overview

Product name	Anti-STAT2 antibody [22/Stat2]
Description	Mouse monoclonal [22/Stat2] to STAT2
Host species	Mouse
Tested applications	Suitable for: WB, IP Unsuitable for: ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Wild type HeLa whole cell lysate. Ramos, K-562 and THP1 whole cell lysate. IP: Ramos whole cell lysate.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <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>

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% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	22/Stat2
Isotype	IgG2a

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab280900 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
WB		1/1000. Predicted molecular weight: 97 kDa.
IP		1/30.

Application notes

Is unsuitable for ICC/IF.

Target

Function

Signal transducer and activator of transcription that mediates signaling by type I IFNs (IFN-alpha and IFN-beta). Following type I IFN binding to cell surface receptors, Jak kinases (TYK2 and JAK1) are activated, leading to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize, associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus. ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of interferon stimulated genes, which drive the cell in an antiviral state.

Sequence similarities

Belongs to the transcription factor STAT family.
Contains 1 SH2 domain.

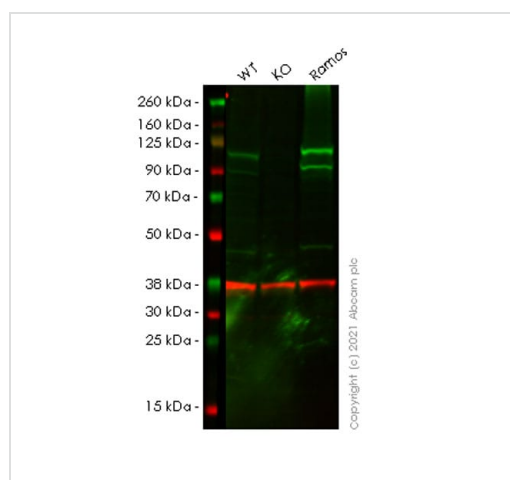
Post-translational modifications

Tyrosine phosphorylated in response to IFN-alpha.

Cellular localization

Cytoplasm. Nucleus. Translocated into the nucleus upon activation by IFN-alpha/beta.

Images



Western blot - Anti-STAT2 antibody [22/Stat2] (ab280900)

All lanes : Anti-STAT2 antibody [22/Stat2] (ab280900) at 1/1000 dilution

Lane 1 : Wild-type HeLa (human epithelial cell line from cervix adenocarcinoma), whole cell lysate

Lane 2 : STAT2 knockout HeLa whole cell lysate

Lane 3 : Ramos (Human Burkitt's lymphoma B lymphocyte), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Mouse IgG H&L (IRDye® 800CW)

(**ab216772**) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD)

([ab216777](#)) at 1/10000 dilution

Predicted band size: 97 kDa

Observed band size: 97,113 kDa

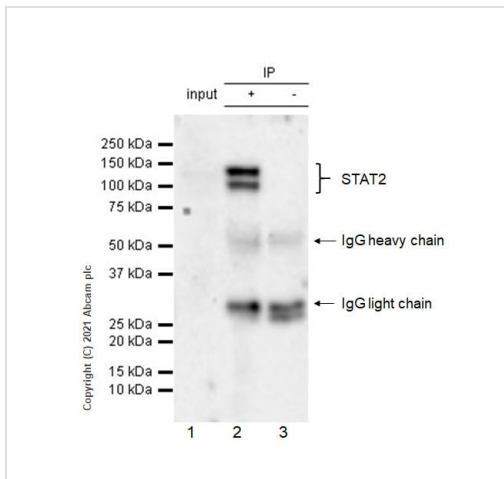
Blocking and diluting buffer and concentration: Intercept® (TBS)

Blocking Buffer diluted with an equal volume of 0.1% TBS.

Lanes 1 - 3: Merged signal (red and green). Green - ab280900 observed at 97, 113 kDa. Red - loading control [ab181602](#) (Rabbit monoclonal [EPR16891] to GAPDH) observed at 36 kDa.

Lanes 1-2: ab280900 Anti-Stat2 antibody was shown to react with STAT2 in HeLa cells in Western blot. Loss of signal was observed when STAT2 knockout sample was used. Wild-type and STAT2 knockout samples were subjected to SDS-PAGE.

ab280900 and Anti-GAPDH antibody [EPR16891] - Loading Control ([ab181602](#)) were incubated at 4°C overnight at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 680CW) preadsorbed ([ab216777](#)) and Goat anti-Mouse IgG H&L (IRDye® 800RD) preadsorbed ([ab216772](#)) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



Immunoprecipitation - Anti-STAT2 antibody
[22/Stat2] (ab280900)

Stat2 was immunoprecipitated from 0.35 mg Ramos (Human Burkitt's lymphoma B lymphocyte), whole cell lysate 10 µg with ab280900 at 1/30 dilution (2 µg in 0.35 mg lysates). Western blot was performed on the immunoprecipitate using ab280900 at 1/1000 dilution. Mouse IgG for IP (HRP) ([ab131368](#)) was used at 1/5000 dilution.

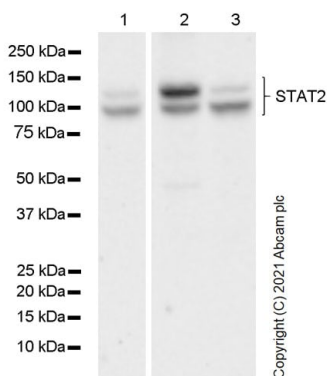
Lane 1: Ramos whole cell lysate 10 µg

Lane 2: ab280900 IP in Ramos whole cell lysate

Lane 3: Mouse monoclonal IgG2a ([ab18413](#)) instead of ab280900 in Ramos whole cell lysate

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

Exposure time: 3 minutes.



Western blot - Anti-STAT2 antibody [22/Stat2] (ab280900)

All lanes : Anti-STAT2 antibody [22/Stat2] (ab280900) at 1/1000 dilution

Lane 1 : K-562 (human chronic myelogenous leukemia lymphoblast), whole cell lysate

Lane 2 : Ramos (Human Burkitt's lymphoma B lymphocyte), whole cell lysate

Lane 3 : THP1 (human monocytic leukemia monocyte), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 97 kDa

Observed band size: 97,113 kDa

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

Exposure time: 92 seconds

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-STAT2 antibody [22/Stat2] (ab280900)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors