abcam

ab215995

Anti-STAT6 antibody [YE361] - BSA and Azide free

Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995) is a rabbit recombinant monoclonal antibody provided in a PBS only buffer for easy conjugation detecting STAT6 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- BSA, sodium azide, and glycerol-free for easy conjugation
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | Advanced Validation

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	YE361
Purification technique	Affinity purification Protein A
Specificity	This antibody does not cross-react with other Stat family members.
Concentration	1.022 - 1.072 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ChIC/CUT&RUN-seq

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information STAT6

Function	Carries out a dual function: signal transduction and activation of transcription. Involved in IL4/interleukin-4- and IL3/interleukin-3-mediated signaling.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

What is this antibody validated in?
Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse samples.

What is the molecular weight of STAT6?
Anti-STAT6 [YE361] - BSA and Azide free (ab215995) specifically detects a band for STAT6 (UniProt: P42226) at a molecular weight of 94kDa.

Other related products
We have a range of other formats of antibody clone [YE361] also available for your convenience: ab32520, Alexa Fluor® 488 - ab196478, HRP - ab196480, Alexa Fluor® 647 - ab196928, Alexa Fluor® 594 - ab207012, Alexa Fluor® 405 - ab207013, Alexa Fluor® 555 - ab207014, Carrier free - ab215995, PE - ab223917, FITC - ab223918, APC - ab223919

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Species reactivity
Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	STAT6 also known as Signal Transducer and Activator of Transcription 6 is a transcription factor with a mass of around 94 kDa. This protein is an important component in the signaling pathways that respond to cytokines especially those of the IL-4 and IL-13 receptors. STAT6 mainly expresses in immune cells including T cells B cells and macrophages. It exists in the cytoplasm until the cytokine stimulation prompts its phosphorylation and translocation to the nucleus where it influences gene expression.
Biological function summary	STAT6 plays a central role in the development and function of Th2 cells a subset of T helper cells. The protein controls genes linked to the immune response and inflammation such as IL-4 and IL-13 by binding to specific DNA sequences as part of the transcriptional complex. These processes are critical for antibody class switching in B cells and also for regulating the differentiation of T cells which are processes important in defending against parasitic infections and are linked to allergies.
Pathways	STAT6 functions mainly in the JAK-STAT signaling pathway a pathway important for transmitting information from chemical signals outside cells to the cell nucleus resulting in DNA transcription. Within this pathway STAT6 works closely with JAK1 and JAK3 kinases which phosphorylate STAT6 enabling its activation. The protein also connects with other members of the STAT family like STAT1 and STAT3 during overlapping signaling processes.
Associated diseases and disorders	STAT6 has associations with asthma and certain types of cancer such as colorectal cancer. In asthma STAT6 influences the production of IgE and eosinophilic inflammation often connected to allergic responses. Meanwhile STAT6 promotes tumorigenesis in some cancers by regulating genes responsible for cell survival and proliferation. It connects with proteins like IL-4 and IL-13 in these disorders which suggests potential therapeutic targets for treatment.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

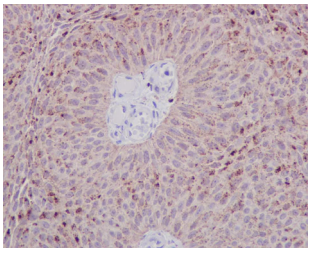
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

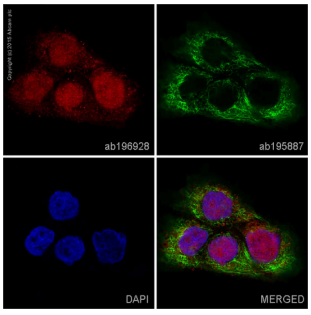
19 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STAT6 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human transitional cell carcinoma of bladder tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).

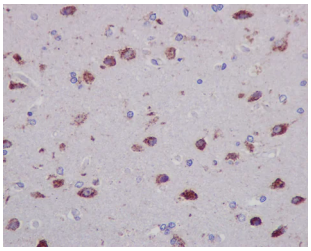


Immunocytochemistry/ Immunofluorescence - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-STAT6 antibody

Clone YE361 (ab215995) has been successfully conjugated by Abcam. This image was generated using Anti-STAT6 antibody [YE361] (Alexa Fluor® 647). Please refer to ab196928 for protocol details. ab196928 staining STAT6 in HACAT cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 10% normal goat serum in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab196928 at 1/200 dilution (shown in red) and ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at

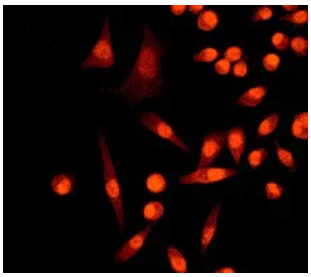
1/200 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STAT6 antibody

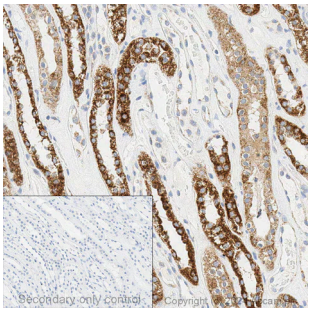
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human glioma tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).



Immunocytochemistry/ Immunofluorescence - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-STAT6 antibody

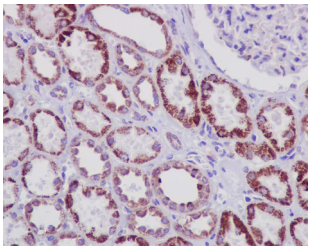
Immunocytochemistry/Immunofluorescence analyis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells labelling STAT6 with unpurified ab32520 at 1/100.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human kidney using rabbit Anti-STAT6 antibody

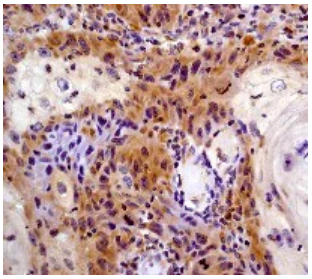
Immunohistochemical analysis of formalin fixed paraffin embedded human kidney labelling STAT6 with ab32520 at a concentration of 0.79µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with an OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was conducted for 32 min with DISCOVERY cell conditioning solution (CC1) 100°C, pH 8.5. ab32520 was incubated at 37°C for 16 min. Sections were counterstained with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STAT6 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).

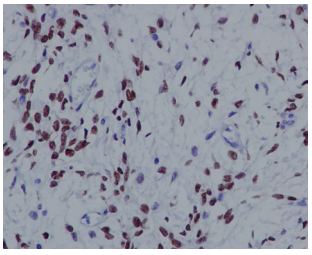


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STAT6 antibody

This IHC data was generated using the same anti-STAT6 antibody clone, YE361, in a different buffer formulation (cat# ab32520).
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skin carcinoma tissue labelling STAT6 with unpurified ab32520 at 1/100.

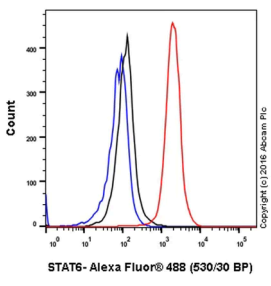
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STAT6 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human solitary fibrous tumor tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).

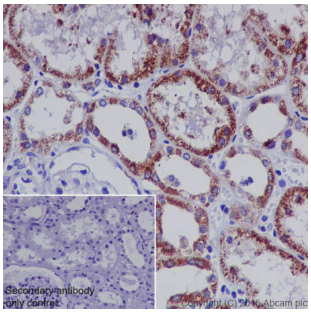


Flow Cytometry (Intracellular) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Flow Cytometry (Intracellular) staining using rabbit Anti-STAT6 antibody

Intracellular Flow Cytometry analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling STAT6 with purified ab32520 at 1/30 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal

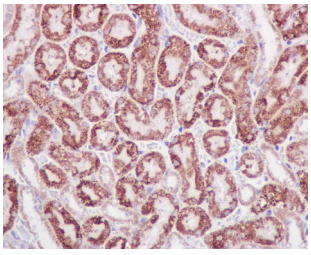
IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STAT6 antibody

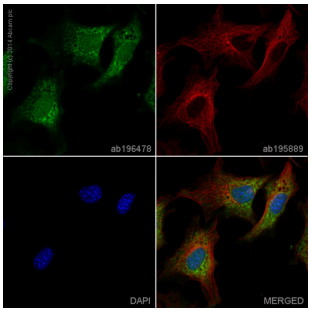
Immunohistochemical staining of paraffin embedded human kidney with purified ab32520 at a working dilution of 1/50. The secondary antibody used is HRP goat anti-rabbit IgG H&L (ab97051) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STAT6 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).

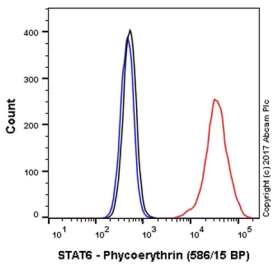


Immunocytochemistry/ Immunofluorescence - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-STAT6 antibody

Clone YE361 (ab215995) has been successfully conjugated by Abcam. This image was generated using Anti-STAT6 antibody [YE361] (Alexa Fluor® 488). Please refer to ab196478 for protocol details. ab196478 staining STAT6 in NIH3T3 cells. The cells were fixed with 100% methanol (5 min), permeabilised in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab196478 at 1/100 dilution (shown in green) and ab195889, Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 594, shown in red) at 1/167 dilution overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Flow Cytometry (Intracellular) - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

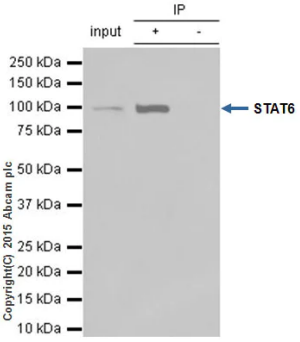
STAT6 Flow Cytometry (Intracellular) staining using rabbit Anti-STAT6 antibody

Clone YE361 (ab215995) has been successfully conjugated by Abcam. This image was generated using Anti-STAT6 antibody [YE361] (PE). Please refer to ab223917 for protocol details.
Overlay histogram showing NIH3T3 cells stained with ab223917 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab223917, 1/1000 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Phycoerythrin (ab209478) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Yellow/Green laser (561nm) and 586/15 bandpass filter.

This antibody gave a positive signal in NIH3T3 cells fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Triton X-100 for 15 min used under the same conditions.

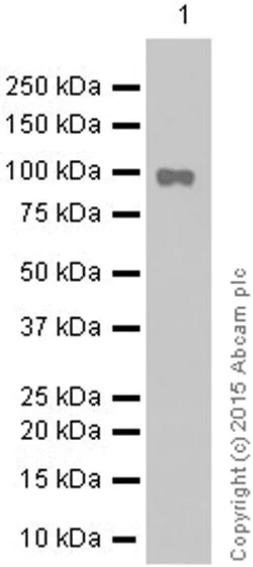


Immunoprecipitation - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

ab32520 (purified) at 1/20 immunoprecipitating STAT6 in 10 µg NIH/3T3 (mouse embyro fibroblast cell line; Lanes 1 and 2, observed at 100 kDa). Lane 3 - PBS. For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10,000 dilution. Blocking buffer and concentration: 5% NFDM/TBST Dilution buffer and concentration: 5% NFDM/TBST
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).

All lanes:
Immunoprecipitation - Anti-STAT6 antibody [YE361] (ab32520)

Predicted band size: 94 kDa



Western blot - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Western blot staining of Raji (human Burkitt's lymphoma cell line) cell lysate using rabbit Anti-STAT6 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).
Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-STAT6 antibody [YE361] (ab32520) at 1/20000 dilution

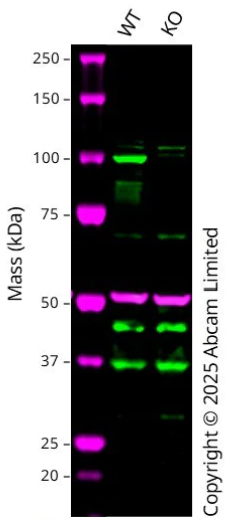
All lanes:
Raji (human Burkitt's lymphoma cell line) cell lysate at 10 µg

Secondary

All lanes:
HRP goat anti-rabbit IgG (H+L) at 1/20000 dilution

Predicted band size: 94 kDa

Observed band size: 100 kDa



Western blot - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Western blot staining of Wild-type A549 using rabbit Anti-STAT6 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).
Western blot: Anti-STAT6 antibody [YE361] ab32520 staining at 1000 µg/mL, shown in green; Mouse anti alpha Tubulin (ab7291) loading control staining at 1/20,000 dilution, shown in magenta. A band was observed at 100 kDa in Wild-type A549 cell lysates with no signal observed at this size in STAT6 knockout A549 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20,000 dilution.

All lanes:
Western blot - Anti-STAT6 antibody [YE361] (ab32520) at 1000 µg/mL

Lane 1:
Wild-type A549 at 20 µg

Lane 2:
Western blot - Human STAT6 knockout A549 cell line (ab286716) at 20 µg

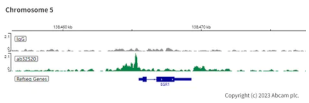
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

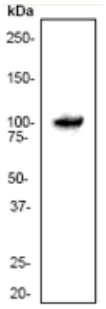
Predicted band size: 97 kDa

Observed band size: 100 kDa



ChIC/CUT&RUN sequencing - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

ChIC/CUT&RUN was performed using a pAG-MNAse at a final concentration of 700 ng/mL, 2.5 x 10^5 HeLa (Human cervix adenocarcinoma epithelial cell line) cells and 5µg of ab32520 [YE361]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control ab172730 is also shown. Additional screenshots of mapped reads can be found in the Protocol booklet in the Product Protocol section. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).



Western blot - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

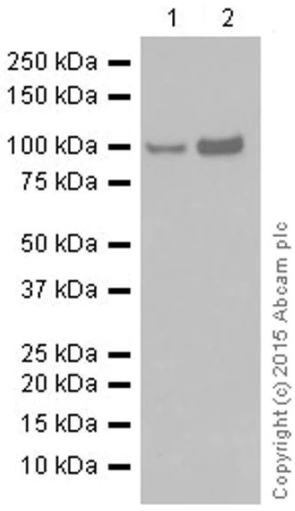
STAT6 Western blot staining of NIH/3T3 (mouse embyro fibroblast cell line) cell lysate using rabbit Anti-STAT6 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).
All lanes:
Western blot - Anti-STAT6 antibody [YE361] (ab32520) at 1/1000 dilution

All lanes:
NIH/3T3 (mouse embyro fibroblast cell line) cell lysate

Predicted band size: 94 kDa

Observed band size: 100 kDa



Western blot - Anti-STAT6 antibody [YE361] - BSA and Azide free (ab215995)

STAT6 Western blot staining using rabbit Anti-STAT6 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab32520).
Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-STAT6 antibody [YE361] (ab32520) at 1/1000 dilution

Lane 1:
NIH/3T3 (mouse embyro fibroblast cell line) cell lysate at 10 µg

Lane 2:
RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate at 10 µg

Secondary

All lanes:
HRP goat anti-rabbit IgG (H+L) at 1/20000 dilution

Predicted band size: 94 kDa

Observed band size: 100 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.