abcam

ab32520

Anti-STAT6 antibody [YE361]

Anti-STAT6 antibody [YE361] (ab32520) is a rabbit monoclonal antibody detecting STAT6 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 60 publications
- Trusted since 2006

Recombinant | RabMAb | Advanced Validation | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	YE361
Purification technique	Affinity purification Protein A
Specificity	This antibody does not cross-react with other Stat family members.
Concentration	0.536 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	5 µg
Notes	-

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/50
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Human
Dilution info	1/50
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

IP

Tested

Species	Mouse
Dilution info	1/20 - 1/80
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/2000
Notes	-

Species	Human
Dilution info	1/1000 - 1/2000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

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	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Product Specifications
Anti-STAT6 antibody [YE361] (ab32520) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in ChIC/CUT&RUN-seq, Flow Cyt (Intra), ICC/IF, IHC-P, IP, WB in human, mouse samples.
Anti-STAT6 antibody [YE361] (ab32520) specifically detects STAT6 (UniProt ID: P42226; Molecular weight: 94kDa) and is sold in 100 µL and 1 mL selling sizes.

Quality and Validation
Abcam's high quality manufacturing and validation processes ensure Anti-STAT6 antibody [YE361] (ab32520) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.
Anti-STAT6 antibody [YE361] (ab32520) has been cited over 68 times in peer reviewed journals and is trusted by the scientific community.

Related Products
Antibody clone YE361 is also available pre-conjugated to a variety of labels for your convenience - Alexa Fluor® 488, HRP, Alexa Fluor® 647, Alexa Fluor® 594, Alexa Fluor® 405, Alexa Fluor® 555, Alexa Fluor® 568, PE, FITC, APC (ab196478, ab196480, ab196928, ab207012, ab207013, ab207014, ab207015, ab223917, ab223918, 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.

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

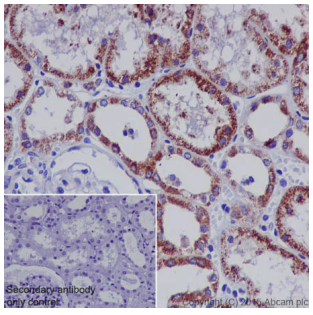
We do not recommend this combination. It is not covered by our product promise.

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.

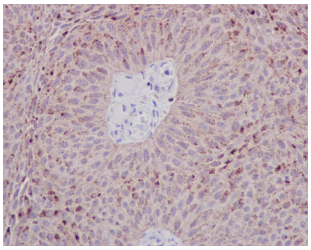
16 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

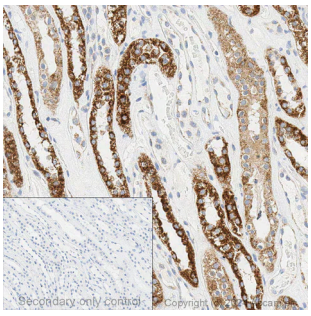
Immunohistochemical staining of paraffin embedded human kidney with purified ab32520 at a working dilution of 1/50. The secondary antibody used is HRP goat anti-rabbit IgG H&L (ab97051) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

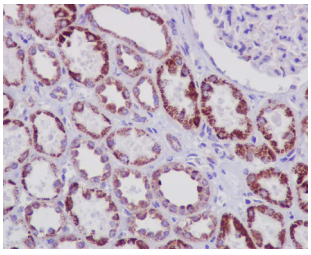
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human transitional cell carcinoma of bladder tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

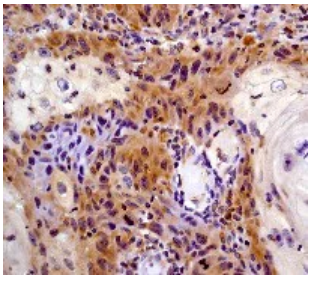
Immunohistochemical analysis of formalin fixed paraffin embedded human kidney labelling STAT6 with ab32520 at a concentration of 0.79µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with an OptiView DAB IHC Detection Kit. Heat mediated antigen 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

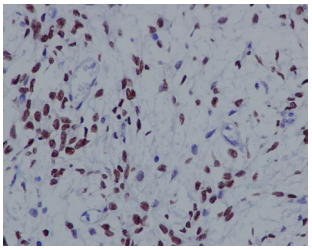
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

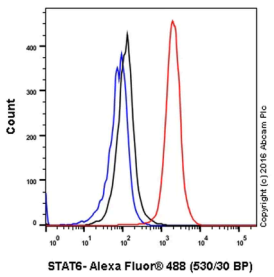
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skin carcinoma tissue labelling STAT6 with unpurified ab32520 at 1/100.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

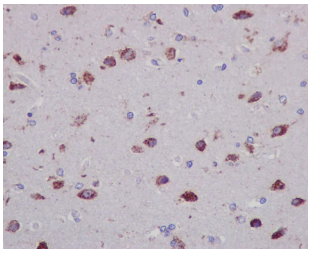
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human solitary fibrous tumor tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.



Flow Cytometry (Intracellular) - Anti-STAT6 antibody [YE361] (ab32520)

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

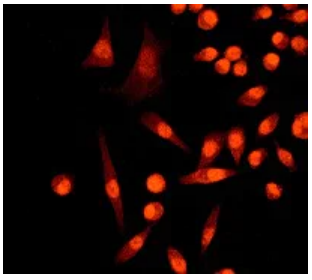
Intracellular Flow Cytometry analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling STAT6 with purified ab32520 at 1/30 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

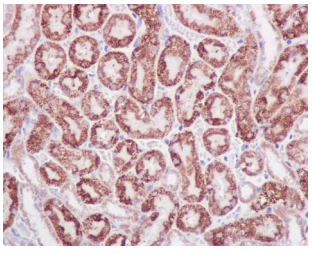
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human glioma tissue sections labelling STAT6 with unpurified ab32520 at a dilution of 1/1000. HRP goat anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.



Immunocytochemistry/ Immunofluorescence - Anti-STAT6 antibody [YE361] (ab32520)

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.

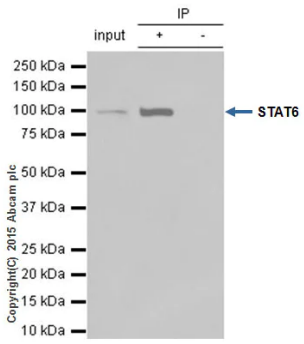


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT6 antibody [YE361] (ab32520)

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

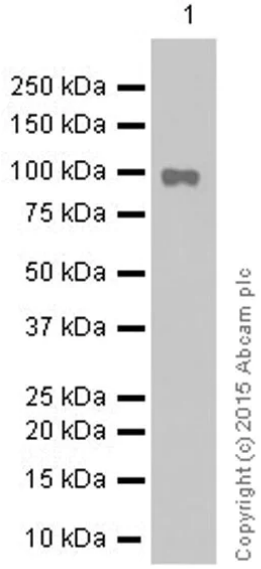
anti-rabbit (ab97051) was used at a dilution of 1/500. The antigen retrieval solution was Tris-EDTA buffer, pH 9.0.



Immunoprecipitation - Anti-STAT6 antibody [YE361] (ab32520)

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, HRP Veriblot for IP (ab131366) was used for detection (1/10 000). Blocking buffer and concentration: 5% NFDM/TBST Dilution buffer and concentration: 5% NFDM/TBST
All lanes:
Immunoprecipitation - Anti-STAT6 antibody [YE361] (ab32520)

Predicted band size: 94 kDa



Western blot - Anti-STAT6 antibody [YE361] (ab32520)

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

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-STAT6 antibody [YE361] (ab32520) at 1/20000 dilution

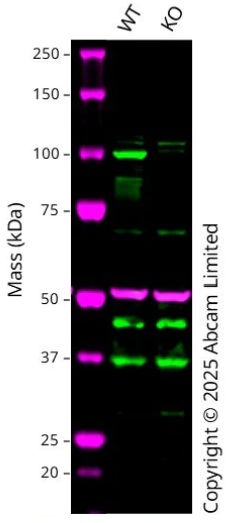
All lanes:
Raji (human Burkitt's lymphoma cell line) cell lysate at 10 µg

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] (ab32520)

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

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

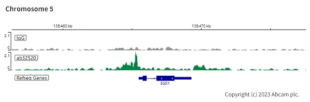
Secondary

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

Performed under reducing conditions.

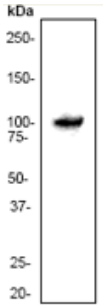
Predicted band size: 97 kDa

Observed band size: 100 kDa



ChIC/CUT&RUN sequencing - Anti-STAT6 antibody [YE361] (ab32520)

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.



Western blot - Anti-STAT6 antibody [YE361] (ab32520)

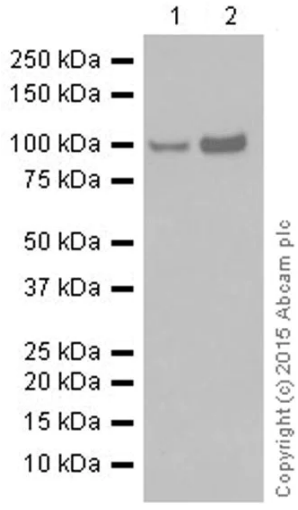
STAT6 Western blot staining of NIH/3T3 (mouse embyro fibroblast cell line) cell lysate using rabbit Anti-STAT6 antibody

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] (ab32520)

STAT6 Western blot staining using rabbit Anti-STAT6 antibody

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'.