abcam

ab247230

Anti-STAT6 antibody [E265] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	E265
Purification technique	Affinity purification Protein A
Specificity	This antibody recognises Stat-6. It does not cross react with other STAT family members.
Concentration	0.969 - 1.025 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human

Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

IHC

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
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

ab247230 is the carrier-free version of ab32108.

Species reactivity

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

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.

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

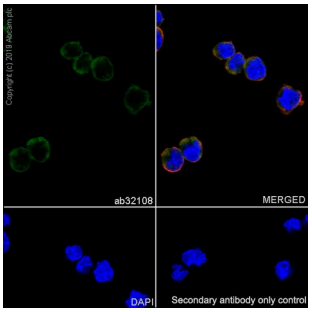
We do not recommend this combination. It is not covered by our product promise.

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.

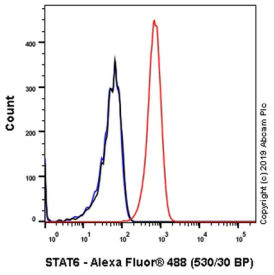
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-STAT6 antibody [E265] - BSA and Azide free (ab247230)

STAT6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-STAT6 antibody

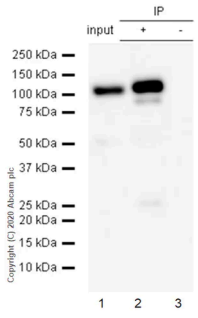
This data was developed using ab32108, the same antibody clone in a different buffer formulation. Confocal image showing cytoplasmic staining in Raji cells.
Immunocytochemistry/immunofluorescence analysis of Raji (human Burkitt's lymphoma B lymphocyte) cells labelling STAT6 with ab32108 at 10 µg/mL. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) was used as a secondary antibody at 2 µg/mL. Cells were counterstained with ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) at 1/200 dilution (red). Nuclear DNA was labelled with DAPI (blue).



Flow Cytometry (Intracellular) - Anti-STAT6 antibody [E265] - BSA and Azide free (ab247230)

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

This data was developed using ab32108, the same antibody clone in a different buffer formulation. Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling STAT6 with purified ab32108 at 1/100 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cells without incubation with primary antibody and secondary antibody (Blue).

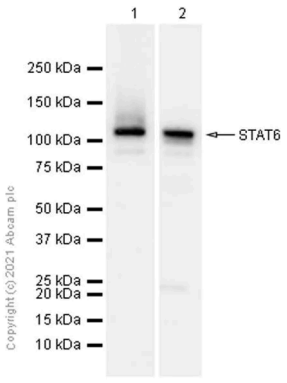


Immunoprecipitation - Anti-STAT6 antibody [E265] - BSA and Azide free (ab247230)

This data was developed using ab32108, the same antibody clone in a different buffer formulation. Purified ab32108 at 1/50 dilution (2µg) immunoprecipitating STAT6 in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab32108 + HeLa whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab32108 in HeLa whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (ab131366) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 100 kDa
All lanes:
Immunoprecipitation - Anti-STAT6 antibody [E265] (ab32108)

Predicted band size: 94 kDa



Western blot - Anti-STAT6 antibody [E265] - BSA and Azide free (ab247230)

STAT6 Western blot staining using rabbit Anti-STAT6 antibody

This data was developed using ab32108, the same antibody clone in a different buffer formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure time: Lane 1. 7 seconds ; Lane 2. 3 seconds

This antibody recognizes three isoforms of STAT6, isoform 1 (110kDa), isoform 3 (81kDa), which is consistent with the Uniprot annotation.

All lanes:
Western blot - Anti-STAT6 antibody [E265] (ab32108) at 1/10000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 15 µg

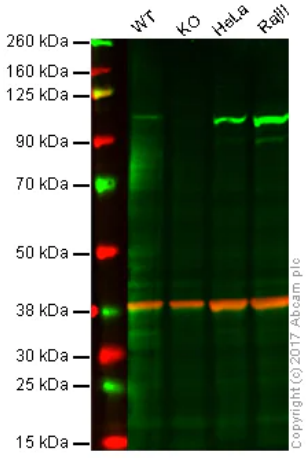
Lane 2:
Raji (Human Burkitt's lymphoma B lymphocyte) whole cell lysate at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 94 kDa

Observed band size: 110 kDa, 81 kDa



Western blot - Anti-STAT6 antibody [E265] - BSA and Azide free (ab247230)

STAT6 Western blot staining using rabbit Anti-STAT6 antibody

This data was developed using ab32108, the same antibody clone in a different buffer formulation.
Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: STAT6 knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: Raji whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab32108 observed at 94 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab32108 was shown to specifically react with STAT6 in wild-type HAP1 cells as signal was lost in STAT6 knockout cells. Wild-type and STAT6 knockout samples were subjected to SDS-PAGE.

ab32108 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.
All lanes:
Western blot - Anti-STAT6 antibody [E265] (ab32108)

Predicted band size: 94 kDa

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