abcam

Product datasheet

Anti-STAT2 (phospho Y690) antibody [EPR18549-42] - ChIP Grade – BSA and Azide free ab277618

Recombinant RabMAb

5 Images

Overview

Product name	Anti-STAT2 (phospho Y690) antibody [EPR18549-42] - ChIP Grade – BSA and Azide free
Description	Rabbit monoclonal [EPR18549-42] to STAT2 (phospho Y690) - ChIP Grade – BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP, Dot blot, ChIP **Unsuitable for:** Flow Cyt,ICC or IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human STAT2 aa 650-750 (phospho Y690). The exact sequence is proprietary. Database link: P52630
Positive control	WB: A431 (starved overnight, then 10 ng/ml IFN-alpha treated for 30 minutes) whole cell lysate. IP: K562 (treated with 2500 U/ml IFN alpha for 30 mins) whole cell lysate. ChIP: Chromatin prepared from A431 cells (starved overnight, treated with IFN-alpha (10ng/ml 0.5 h).
General notes	ab277618 is the carrier-free version of ab191601. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. 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. ab277618 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* 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 production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18549-42
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab277618** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

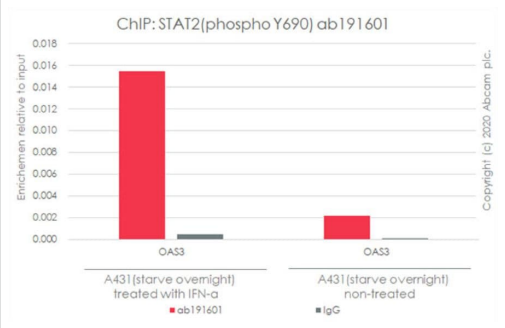
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 97, 113 kDa (predicted molecular weight: 97 kDa).
IP		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.
ChIP		Use at an assay dependent concentration.

Application notes	Is unsuitable for Flow Cyt,ICC or IHC-P.

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



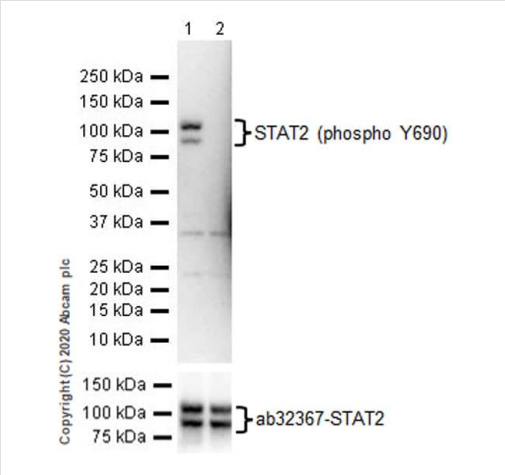
ChIP - Anti-STAT2 (phospho Y690) antibody [EPR18549-42] - BSA and Azide free (ab277618)

This data was developed using ab191601, the same antibody clone in a different buffer formulation.

Chromatin was prepared from A431(human epidermoid carcinoma cell line)(starved overnight, treated with IFN-α (10ng/ml 0.5 h)) and A431 (starved overnight) (non-treated) according to the Abcam Dual-X-ChIP protocol*. Cells were fixed with 1.5 mM EGS for 30mins and then formaldehyde for 10min.
The ChIP was performed with 25 µg of chromatin, 5 µg of ab191601 (Red), or 5 µg of rabbit normal IgG ab172730 (Gray) and 25 µl of Protein A/G Dynabeads. The immunoprecipitated DNA was quantified by real time PCR (Sybr green approach).

Primers are from paper PMID:30240626.

*https://www.abcam.com/resources?keywords=X%20ChIP%20protocol



Western blot - Anti-STAT2 (phospho Y690) antibody - BSA and Azide free (ab277618)

All lanes : Anti-STAT2 (phospho Y690) antibody [EPR18549-42] - ChIP Grade (ab191601) at 1/1000 dilution

Lane 1 : A431 (human epidermoid carcinoma epithelial cell) (starved overnight, then 10 ng/ml IFN-alpha treated for 30 minutes), whole cell lysate
Lane 2 : A431 (starved overnight), whole cell lysate

Lysates/proteins at 20 µg per lane.

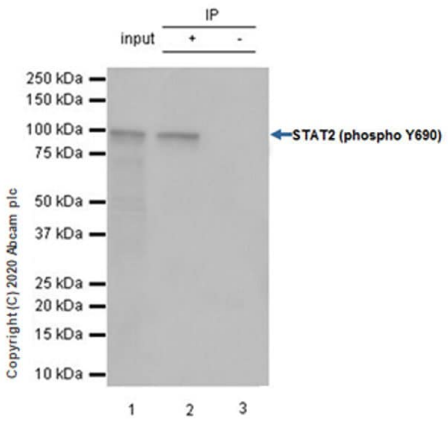
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 97 kDa
Observed band size: 113,97 kDa
why is the actual band size different from the predicted?

This data was developed using ab191601, the same antibody clone in a different buffer formulation.

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

Exposure time: 123 seconds.



Immunoprecipitation - Anti-STAT2 (phospho Y690) antibody [EPR18549-42] - BSA and Azide free (ab277618)

This data was developed using ab191601, the same antibody clone in a different buffer formulation.

STAT2 (phospho Y690) was immunoprecipitated from 0.35 mg K-562 (human chronic myelogenous leukemia) (treated with 2500 U/ml IFN alpha for 30 mins) whole cell lysate with ab191601 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab191601 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/1000 dilution.

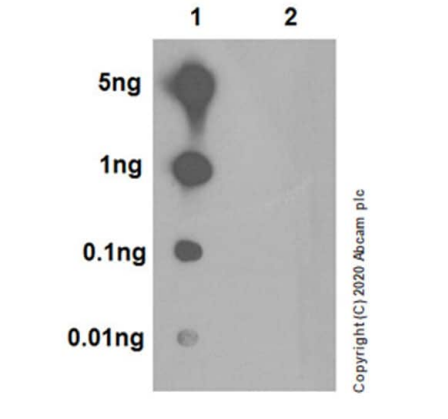
Lane 1: K-562 (human chronic myelogenous leukemia) (treated as above) whole cell lysate 10 ug

Lane 2: ab191601 IP in K-562 (treated as above) whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab191601 in K-562 whole cell lysate

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

Exposure time: 10 seconds.



Dot Blot - Anti-STAT2 (phospho Y690) antibody [EPR18549-42] - BSA and Azide free (ab277618)

This data was developed using ab191601, the same antibody clone in a different buffer formulation.

Dot blot analysis of STAT2 (phospho Y690) using ab191601 at 1/1000 dilution (1.4 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100,000 dilution.

Lane 1: STAT2 (phospho Y690) phospho peptide
Lane 2: STAT2 non-phospho peptide

Exposure time: 30 seconds.

Anti-STAT2 (phospho Y690) antibody [EPR18549-42] - ChIP Grade – BSA and Azide free (ab277618)

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