abcam

Product datasheet

Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free ab215820

重组 RabMAb

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概述

产品名称	Anti-STAT1 (phospho S727)抗体[EPR3146] - BSA and Azide free
描述	兔单克隆抗体[EPR3146] to STAT1 (phospho S727) - BSA and Azide free
宿主	Rabbit
特异性	A phospho specific peptide corresponding to residues surrounding Serine 727 of human Stat-1 was used as an immunogen. This antibody only detects Stat-1 phosphorylated at Serine 727.
经测试应用	**适用于:** ChIC/CUT&RUN-seq, Dot blot, WB, IHC-P **不适用于:** ICC/IF
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HeLa cell lysate. Rat and mouse brain lysate. IHC-P: Rat and mouse colon tissue. Human breast carcinoma and stomach adenocarcinoma tissue. ChIC/CUT&RUN-Seq: HeLa cells.
常规说明	ab215820 is the carrier-free version of **ab109461**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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**.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
存储溶液	pH: 7.20 Constituent: PBS
无载体	是
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR3146
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab215820于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ChIC/CUT&RUN-seq		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 91 kDa (predicted molecular weight: 87 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Heat up to 98 °C, below boiling, and then let cool for 10-20 minutes.

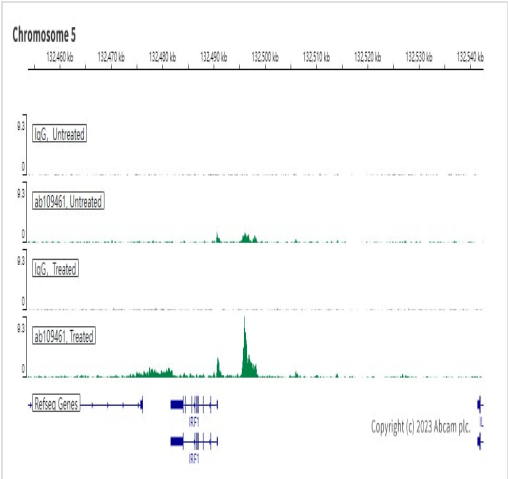
应用说明 Is unsuitable for ICC/IF.

靶标

功能 Signal transducer and activator of transcription that mediates signaling by interferons (IFNs). Following type I IFN (IFN-alpha and IFN-beta) 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. In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-

	phosphorylated. It then forms a homodimer termed IFN-gamma-activated factor (GAF), migrates into the nucleus and binds to the IFN gamma activated sequence (GAS) to drive the expression of the target genes, inducing a cellular antiviral state.
疾病相关	Note=STAT1 deficiency results in impaired immune response leading to severe mycobacterial and viral diseases. In the case of complete deficiency, patients can die of viral disease. Defects in STAT1 are a cause of mendelian susceptibility to mycobacterial disease (MSMD) [MIM:209950]; also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections, with the exception of Salmonella which infects less than 50% of these individuals. The pathogenic mechanism underlying MSMD is the impairment of interferon-gamma mediated immunity whose severity determines the clinical outcome. Some patients die of overwhelming mycobacterial disease with lepromatous-like lesions in early childhood, whereas others develop, later in life, disseminated but curable infections with tuberculoid granulomas. MSMD is a genetically heterogeneous disease with autosomal recessive, autosomal dominant or X-linked inheritance.
序列相似性	Belongs to the transcription factor STAT family. Contains 1 SH2 domain.
翻译后修饰	Phosphorylated on tyrosine and serine residues in response to IFN-alpha, IFN-gamma, PDGF and EGF. Phosphorylation on Tyr-701 (lacking in beta form) by JAK promotes dimerization and subsequent translocation to the nucleus. Phosphorylation on Ser-727 by several kinases including MAPK14, ERK1/2 and CAMKII on IFN-gamma stimulation, regulates STAT1 transcriptional activity. Phosphorylation on Ser-727 promotes sumoylation though increasing interaction with PIAS. Phosphorylation on Ser-727 by PKCdelta induces apoptosis in response to DNA-damaging agents. Sumoylated by SUMO1, SUMO2 and SUMO3. Sumoylation is enhanced by IFN-gamma-induced phosphorylation on Ser-727, and by interaction with PIAS proteins. Enhances the transactivation activity. ISGylated.
细胞定位	Cytoplasm. Nucleus. Translocated into the nucleus in response to IFN-gamma-induced tyrosine phosphorylation and dimerization.

图片



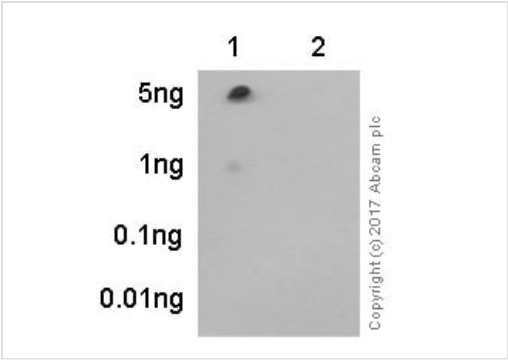
ChIC/CUT&RUN sequencing - Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free (ab215820)

ChIC/CUT&RUN was performed using a pAG-MNAse at a final concentration of 700 ng/mL, 2 x 10^5 HeLa (Human cervix adenocarcinoma epithelial cell line) treated with IFN gamma (50ng/ml 1h) cells and 5µg of **ab109461** [EPR3146]. 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 downloaded **here**.

The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.

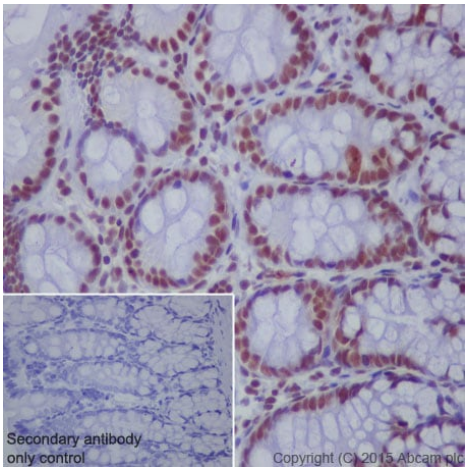
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109461**).



Dot Blot - Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free (ab215820)

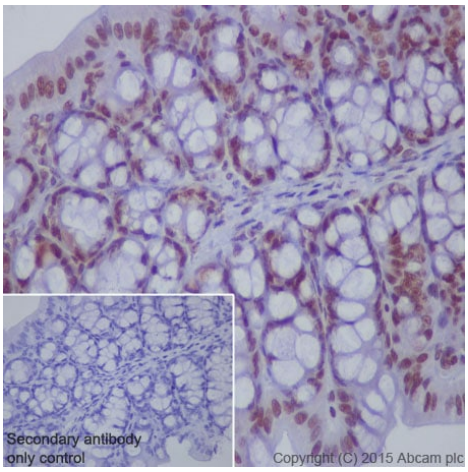
Dot Blot analysis of Lane 1: STAT1 (pS727) phospho peptide and Lane 2: STAT1 non-phospho peptide, labeling STAT1 (phospho S727) with **ab109461** at 1/1000 dilution. 5% NFDM/TBST was used as the blocking and diluting buffer. **ab97051**, a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated secondary antibody was used at 1/100000 dilution. Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109461**).



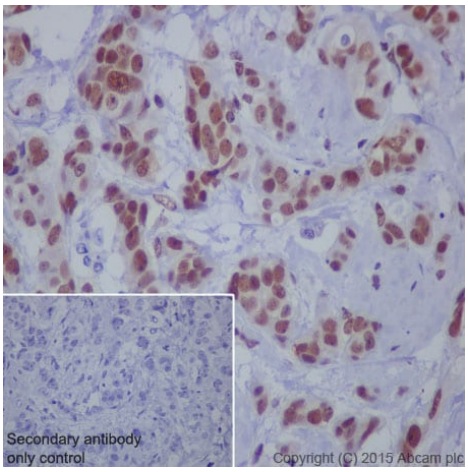
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free (ab215820)

Immunohistochemical staining of paraffin embedded rat colon with purified **ab109461** at a working dilution of 1/200. The secondary antibody used is **ab97051**, a goat anti-rabbit IgG (H&L) at a dilution of 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 (**ab109461**).



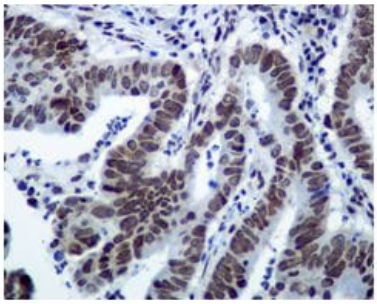
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free (ab215820)

Immunohistochemical staining of paraffin embedded mouse colon with purified **ab109461** at a working dilution of 1/200. The secondary antibody used is **ab97051**, a goat anti-rabbit IgG (H&L) at a dilution of 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 (**ab109461**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free (ab215820)

Immunohistochemical staining of paraffin embedded human breast carcinoma with purified **ab109461** at a working dilution of 1/200. The secondary antibody used is **ab97051**, a goat anti-rabbit IgG (H&L) at a dilution of 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 (**ab109461**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free (ab215820)

Unpurified **ab109461**, at a 1/100 dilution, staining STAT1 (phospho S727) in paraffin embedded Human stomach adenocarcinoma tissue by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109461**).

Anti-STAT1 (phospho S727) antibody [EPR3146] - BSA and Azide free (ab215820)

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