

Anti-STAT1 antibody [EPRR21057-168] ab210524

重组 RabMAb

★★★★★ [1 Abreviews](#) [1 References](#) [8 图像](#)

概述

产品名称	Anti-STAT1抗体[EPRR21057-168]
描述	兔单克隆抗体[EPRR21057-168] to STAT1
宿主	Rabbit
经测试应用	适用于: Flow Cyt (Intra), WB, IHC-P, IP
种属反应性	与反应: Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HEK-293T, HT-29, HeLa and MCF7 whole cell lysate; Human breast cancer and colon cancer lysate. IHC-P: Human tonsil, kidney and paired human endometrial cancer and non-tumor endometrium tissue. Flow: HeLa and MCF7 cells. IP: MCF7 whole cell lysate.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EPRR21057-168

同种型

IgG

应用

The Abpromise guarantee

Abpromise™ 承诺保证使用 ab210524 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
Flow Cyt (Intra)		1/500.
WB		1/1000. Predicted molecular weight: 87 kDa.
IHC-P	★★★★★ (1)	1/5000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.

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.

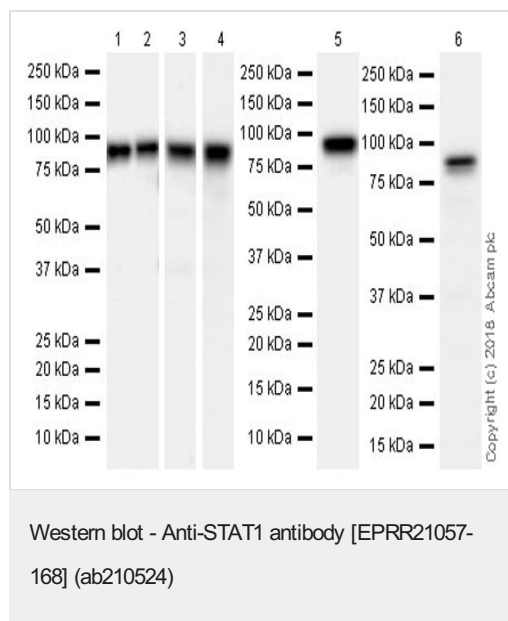
Sumoylated by SUMO1, SUMO2 and SUMO3. Sumoylation is enhanced by IFN-gamma-induced phosphorylation on Ser-727, and by interaction with PIAS proteins. Enhances the transactivation activity.

ISGylated.

细胞定位

Cytoplasm. Nucleus. Translocated into the nucleus in response to IFN-gamma-induced tyrosine phosphorylation and dimerization.

图片



All lanes : Anti-STAT1 antibody [EPRR21057-168] (ab210524) at 1/1000 dilution

Lane 1 : HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate at 20 μ g

Lane 2 : HT-29 (Human colorectal adenocarcinoma cell line) whole cell lysate at 20 μ g

Lane 3 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 μ g

Lane 4 : MCF7 (Human breast adenocarcinoma cell line) whole cell lysate at 20 μ g

Lane 5 : Human breast cancer lysate at 10 μ g

Lane 6 : Human colon cancer lysate at 10 μ g

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

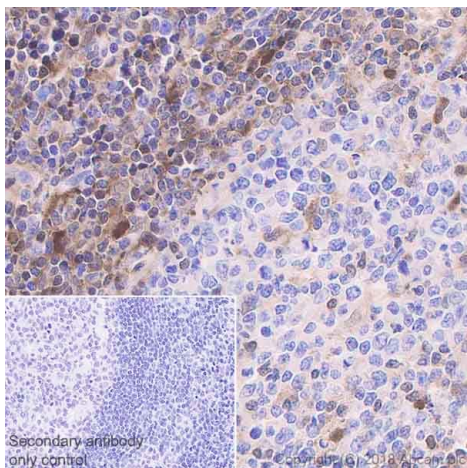
Developed using the ECL technique.

Predicted band size: 87 kDa

Blocking/diluting buffer and concentration: 5% NFD/MTBST.

Exposure times: Lane 1, 2 and 5: 3 minutes; Lane 3: 84 seconds; Lane 4 and 6: 32 seconds.

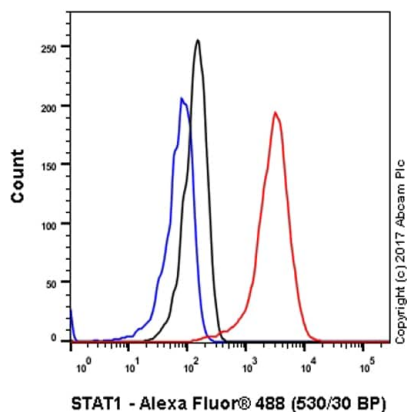
The doublet observed in some lanes likely represent the α and β isoforms of STAT1 (PMID: 8647800).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT1 antibody [EPRR21057-168] (ab210524)

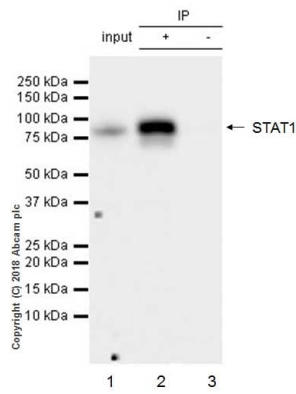
Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling STAT1 with ab210524 at 1/5000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining mainly on interfollicular cells of human tonsil (PMID: 25336386; PMID: 25921060) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Flow Cytometry (Intracellular) - Anti-STAT1 antibody [EPRR21057-168] (ab210524)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized MCF7 (Human breast adenocarcinoma cell line) cell line labeling STAT1 with ab210524 at 1/500 (red) compared with a Rabbit monoclonal IgG (**ab172730**) (black) and an unlabeled control (cells incubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**), at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-STAT1 antibody
[EPRR21057-168] (ab210524)

STAT1 was immunoprecipitated from 0.35 mg MCF7 (Human breast adenocarcinoma cell line) whole cell lysate with ab210524 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab210524 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/5000 dilution.

Lane 1: MCF7 whole cell lysate 10 µg (Input).

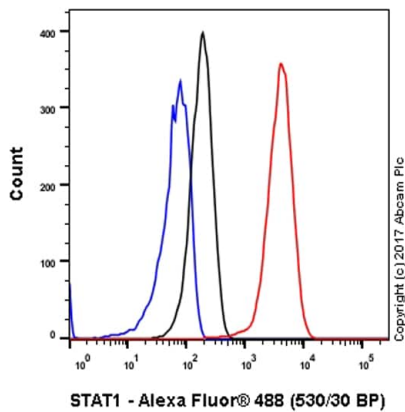
Lane 2: ab210524 IP in MCF7 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab210524 in MCF7 whole cell lysate (-).

Blocking/Dilution buffer: 5% NFDm/TBST.

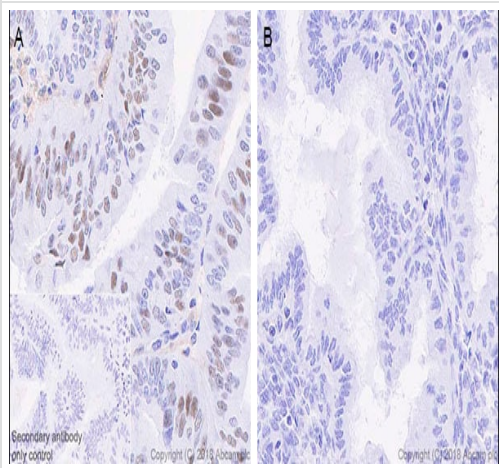
Exposure time: 15 seconds.

The doublet observed in some lanes likely represent the α and β isoforms of STAT1 (PMID: 8647800).



Flow Cytometry (Intracellular) - Anti-STAT1 antibody
[EPRR21057-168] (ab210524)

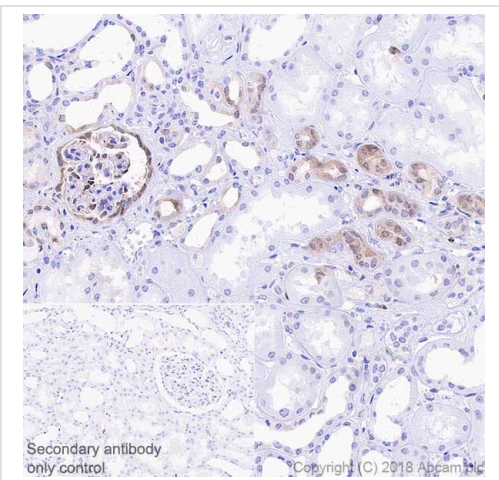
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cell line labeling STAT1 with ab210524 at 1/500 (red) compared with a Rabbit monoclonal IgG ([ab172730](#)) (black) and an unlabeled control (cells incubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluor[®] 488, [ab150077](#)), at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT1 antibody [EPRR21057-168] (ab210524)

Immunohistochemical analysis of paraffin-embedded paired human endometrial cancer and non-tumor endometrium tissue labeling STAT1 with ab210524 at 1/5000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Much higher staining intensity of endometrial cancer (Panel A) than its paired non-tumor endometrium (Panel B) (PMID: 25267067) is observed. Counter stained with hematoxylin.





Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT1 antibody [EPRR21057-168] (ab210524)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling STAT1 with ab210524 at 1/5000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining on glomerulus and some renal tubules of human kidney (PMID: 26678048) is observed. Counter stained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

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