

# Anti-STAT3 (phospho Y705) antibody [EP2147Y] - BSA and Azide free ab171358

**重组 RabMAb**

★★★★★ **1 Abreviews** 7 图像

### 概述

<b>产品名称</b>	Anti-STAT3 (phospho Y705)抗体[EP2147Y] - BSA and Azide free
<b>描述</b>	兔单克隆抗体[EP2147Y] to STAT3 (phospho Y705) - BSA and Azide free
<b>宿主</b>	Rabbit
<b>经测试应用</b>	<b>适用于:</b> ICC/IF, IP, IHC-P, WB, ELISA, Dot blot, Flow Cyt (Intra)
<b>种属反应性</b>	<b>与反应:</b> Mouse, Human <b>预测可用于:</b> Rat 
<b>免疫原</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>阳性对照</b>	WB: HeLa cell lysate treated with alpha-interferon. IHC-P: Rat colon tissue, mouse colon tissue, mouse spleen tissue and human thyroid carcinoma tissue. ICC/IF: HeLa cells treated with alpha-interferon; U251 cells. IP: A431 cells treated with EGF. Flow Cyt (intra): A431 cells.
<b>常规说明</b>	<p>ab171358 is the carrier-free version of <a href="#">ab76315</a>.</p> <p>Our <b>carrier-free</b> 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.</p> <p>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.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p>

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> 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	Constituent: PBS
无载体	是
纯度	Protein A purified
克隆	单克隆
克隆编号	EP2147Y
同种型	IgG

## 应用

**The Abpromise guarantee**      **Abpromise<sup>™</sup>承诺保证使用ab171358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
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocols</a> .
WB		Use at an assay dependent concentration. Predicted molecular weight: 88 kDa. Stimulation may be required to allow detection of the phosphorylated protein. Please see images below for recommended treatment conditions and positive controls.
ELISA		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.

## 靶标

**功能**      Signal transducer and transcription activator that mediates cellular responses to interleukins, KITLG/SCF, LEP and other growth factors. Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target gene (PubMed:17344214). May mediate cellular

responses to activated FGFR1, FGFR2, FGFR3 and FGFR4. Binds to the interleukin-6 (IL-6)-responsive elements identified in the promoters of various acute-phase protein genes. Activated by IL31 through IL31RA. Involved in cell cycle regulation by inducing the expression of key genes for the progression from G1 to S phase, such as CCND1 (PubMed:17344214). Mediates the effects of LEP on melanocortin production, body energy homeostasis and lactation (By similarity). May play an apoptotic role by transactivating BIRC5 expression under LEP activation (PubMed:18242580). Cytoplasmic STAT3 represses macroautophagy by inhibiting EIF2AK2/PKR activity.

**组织特异性**

Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.

**疾病相关**

Hyperimmunoglobulin E recurrent infection syndrome, autosomal dominant Autoimmune disease, multisystem, infantile-onset

**序列相似性**

Belongs to the transcription factor STAT family.  
Contains 1 SH2 domain.

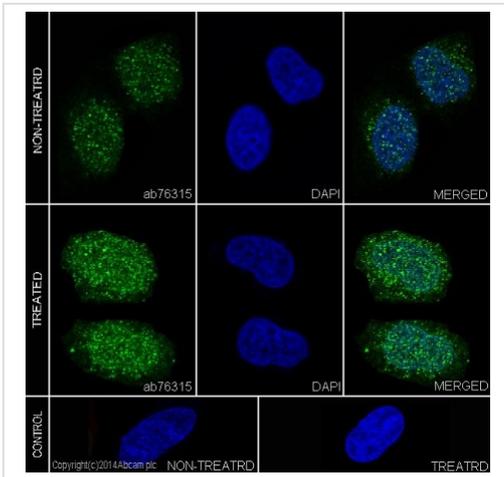
**翻译后修饰**

Tyrosine phosphorylated upon stimulation with EGF. Tyrosine phosphorylated in response to constitutively activated FGFR1, FGFR2, FGFR3 and FGFR4 (By similarity). Activated through tyrosine phosphorylation by BMX. Tyrosine phosphorylated in response to IL6, IL11, LIF, CNTF, KITLG/SCF, CSF1, EGF, PDGF, IFN-alpha, LEP and OSM. Activated KIT promotes phosphorylation on tyrosine residues and subsequent translocation to the nucleus. Phosphorylated on serine upon DNA damage, probably by ATM or ATR. Serine phosphorylation is important for the formation of stable DNA-binding STAT3 homodimers and maximal transcriptional activity. ARL2BP may participate in keeping the phosphorylated state of STAT3 within the nucleus. Upon LPS challenge, phosphorylated within the nucleus by IRAK1. Upon erythropoietin treatment, phosphorylated on Ser-727 by RPS6KA5. Phosphorylation at Tyr-705 by PTK6 or FER leads to an increase of its transcriptional activity. Dephosphorylation on tyrosine residues by PTPN2 negatively regulates IL6/interleukin-6 signaling.

**细胞定位**

Cytoplasm. Nucleus. Shuttles between the nucleus and the cytoplasm. Translocated into the nucleus upon tyrosine phosphorylation and dimerization, in response to signaling by activated FGFR1, FGFR2, FGFR3 or FGFR4. Constitutive nuclear presence is independent of tyrosine phosphorylation. Predominantly present in the cytoplasm without stimuli. Upon leukemia inhibitory factor (LIF) stimulation, accumulates in the nucleus. The complex composed of BART and ARL2 plays an important role in the nuclear translocation and retention of STAT3. Identified in a complex with LYN and PAG1.

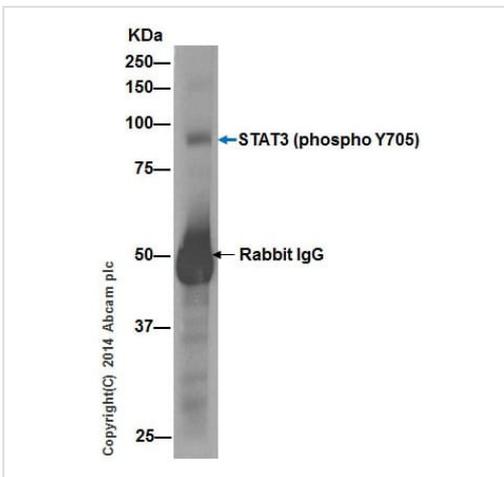
**图片**



Immunocytochemistry/ Immunofluorescence - Anti-STAT3 (phospho Y705) antibody [EP2147Y] - BSA and Azide free (ab171358)

This ICC/IF data was generated using the same anti-phospho STAT3 Y705 antibody clone, EP2147Y, in a different buffer formulation (cat# [ab76315](#)).

Immunocytochemistry/Immunofluorescence analysis of HeLa +/- IFN- $\alpha$  (50ng/mL, 5 minutes) cells labelling STAT3 (phospho Y705) with [ab76315](#) at 1/500 (4.3  $\mu$ g/mL). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. [ab150077](#), Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit IgG (1/1500) was used as the secondary antibody. DAPI (blue) was used as a nuclear counterstain.

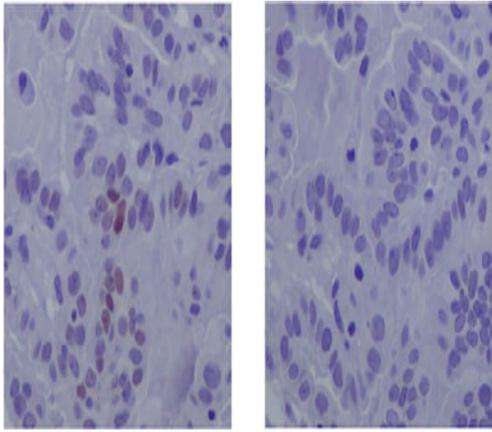


Immunoprecipitation - Anti-STAT3 (phospho Y705) antibody [EP2147Y] - BSA and Azide free (ab171358)

[ab76315](#) (purified) at 1/30 immunoprecipitating STAT3 (phospho Y705) in A431 (Human epidermoid carcinoma cell line) cell lysate treated with EGF. For western blotting, a peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/1000).

Blocking/Dilution buffer: 5% NFDm/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab76315](#)).



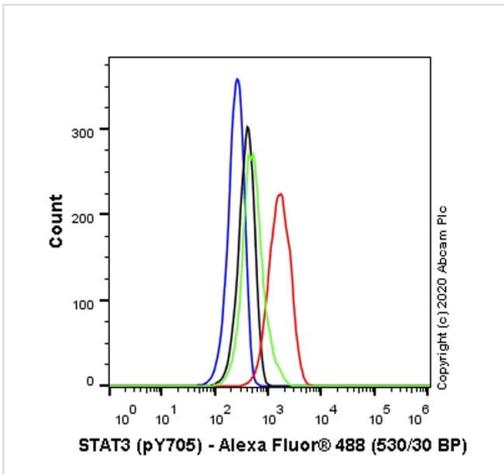
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT3 (phospho Y705) antibody [EP2147Y] - BSA and Azide free (ab171358)

Immunohistochemical analysis of paraffin-embedded human thyroid carcinoma tissue using untreated (left) or alkaline phosphatase-treated (right) labeling STAT3 (phospho Y705) with **ab76315** at 1/500 dilution, followed by Goat Anti-Rabbit IgG H& L (HRP) (**ab97051**) at 1/500 dilution.

Counter stained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76315**).

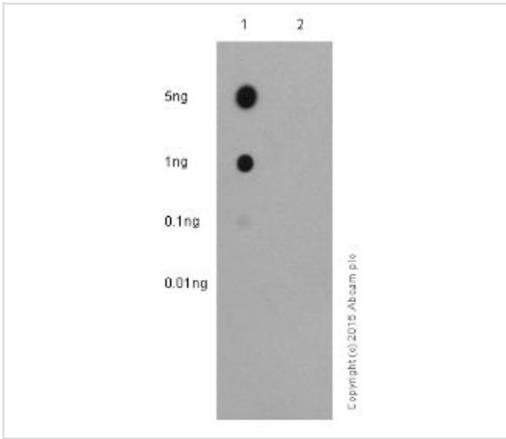
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-STAT3 (phospho Y705) antibody [EP2147Y] - BSA and Azide free (ab171358)

This data was developed using **ab76315**, the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized A431 (Human epidermoid carcinoma epithelial cell) treated with 100ng/mL EGF for 10min (Red) / Untreated control (Green) cells labelling STAT3 with **ab76315** at 1/500 dilution (0.1µg) (Red) and Green compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Dot Blot - Anti-STAT3 (phospho Y705) antibody [EP2147Y] - BSA and Azide free (ab171358)

Dot blot analysis of STAT3 single phospho peptide pY705 (lane 1) and STAT3 non-phospho peptide (lane 2) with **ab76315** at 1/1000. Blocking and dilution buffer was 5% NFDM/TBST. The secondary antibody used was **ab97051** peroxidase conjugated Goat Anti-Rabbit IgG, (H+L) at 1/100,000.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76315**).

Tissue Microarray (TMA) data for ab76315

Normal tissue samples		Malignant tissue samples	
Human cardiac muscle	x	Human placenta	x
Human cerebrum	x	Human skeletal muscle	x
Human colon	x	Human skin	x
Human endometrium	x	Human spleen	x
Human kidney	x	Human stomach	x
Human liver	x	Human testis	x
Human lung	x	Human thyroid	x
Human mammary gland	x	Human tonsil	x
Human pancreas	x		
		Clear cell carcinoma of human kidney	x
		Human bladder cancer	x
		Human breast carcinoma	x
		Human cervical carcinoma	x
		Human chronic tonsil	x
		Human colon carcinoma	x
		Human endometrial carcinoma	x
		Human gastric adenocarcinoma	x
		Human glioma	x
		Human hepatocellular carcinoma	x
		Human lung carcinoma	x
		Human ovarian carcinoma	x
		Human pancreatic carcinoma	x
		Human prostatic hyperplasia	x
		Human thyroid carcinoma	✓

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT3 (phospho Y705) antibody [EP2147Y] - BSA and Azide free (ab171358)

Tissue Microarrays stained for " Anti-STAT3 (phospho Y705) antibody [EP2147Y]" using "**ab76315**" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using **ab97051** (Tris/EDTA buffer, pH 9.0). The sections were incubated with **ab76315** at +4°C overnight followed by Goat Anti-Rabbit IgG H&L (HRP) **ab97051** at 1/500.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-STAT3 (phospho Y705) antibody [EP2147Y] -  
BSA and Azide free (ab171358)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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