

## Product datasheet

# Anti-STAT3 antibody ab93446

2 Abreviews 4 图像

### 概述

<b>产品名称</b>	Anti-STAT3抗体
<b>描述</b>	兔多克隆抗体to STAT3
<b>宿主</b>	Rabbit
<b>经测试应用</b>	<b>适用于:</b> WB, ICC/IF
<b>种属反应性</b>	<b>与反应:</b> Human <b>预测可用于:</b> Mouse, Rat, Chicken, Cow, Zebrafish 
<b>免疫原</b>	Synthetic peptide corresponding to Human STAT3 aa 300-400 conjugated to Keyhole Limpet Haemocyanin (KLH). Database link: <a href="#">P40763</a> (Peptide available as <a href="#">ab102062</a> )
<b>阳性对照</b>	This antibody gave a positive signal in human kidney and human heart tissue lysates. ICC/IF: HeLa cells.

### 性能

<b>形式</b>	Liquid
<b>存放说明</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>存储溶液</b>	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>纯度</b>	Immunogen affinity purified
<b>克隆</b>	多克隆
<b>同种型</b>	IgG

### 应用

Our [Abpromise guarantee](#) covers the use of **ab93446** in the following tested applications.

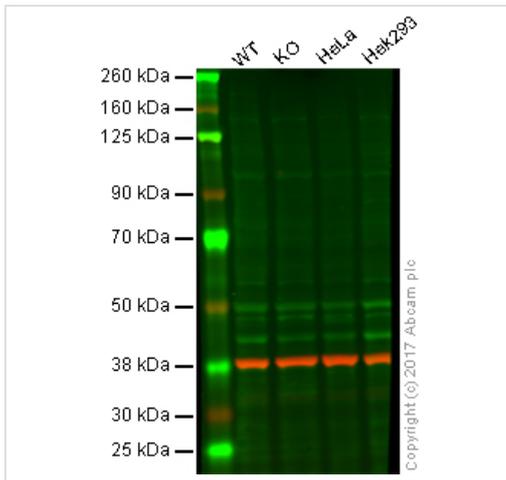
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 88 kDa (predicted molecular weight: 88 kDa).
ICC/IF		Use a concentration of 5 µg/ml.

## 靶标

<b>功能</b>	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.
<b>组织特异性</b>	Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.
<b>疾病相关</b>	Hyperimmunoglobulin E recurrent infection syndrome, autosomal dominant Autoimmune disease, multisystem, infantile-onset
<b>序列相似性</b>	Belongs to the transcription factor STAT family. Contains 1 SH2 domain.
<b>翻译后修饰</b>	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.
<b>细胞定位</b>	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



Western blot - Anti-STAT3 antibody (ab93446)

**Lane 1:** Wild type HAP1 whole cell lysate (20 µg)

**Lane 2:** STAT3 knockout HAP1 whole cell lysate (20 µg)

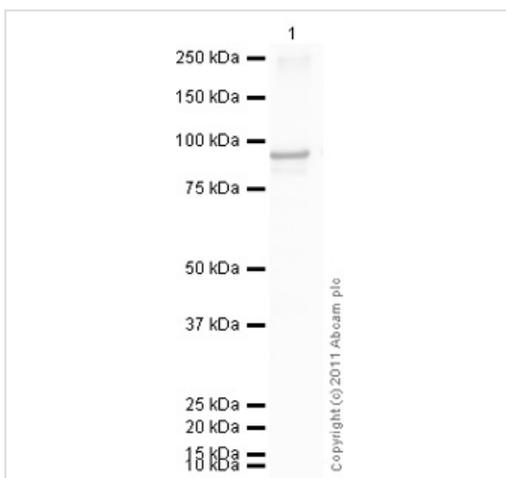
**Lane 3:** HeLa whole cell lysate (20 µg)

**Lane 4:** HEK293 whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green).

Green - ab93446 observed at 90 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab93446 was shown not to specifically react with STAT3 when STAT3 knockout samples were used. Wild-type and STAT3 knockout samples were subjected to SDS-PAGE. ab93446 and ab8245 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml and 1/10000 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 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-STAT3 antibody (ab93446)

Anti-STAT3 antibody (ab93446) at 1/250 dilution + Recombinant Human STAT3 protein (ab82053) at 0.1 µg

### Secondary

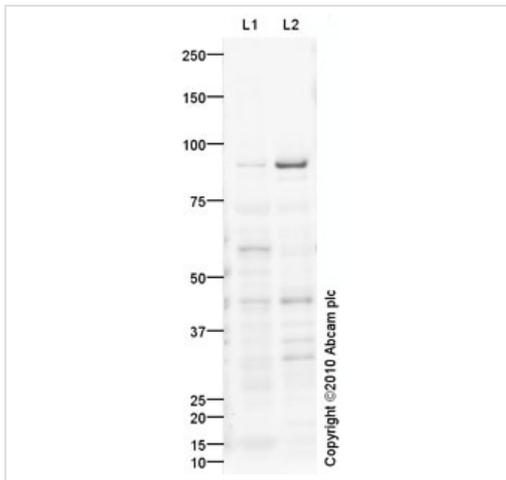
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 88 kDa

**Exposure time:** 1 minute



Western blot - Anti-STAT3 antibody (ab93446)

**All lanes :** Anti-STAT3 antibody (ab93446) at 1 µg/ml

**Lane 1 :** Human kidney tissue lysate - total protein (ab30203)

**Lane 2 :** Human heart tissue lysate - total protein (ab29431)

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

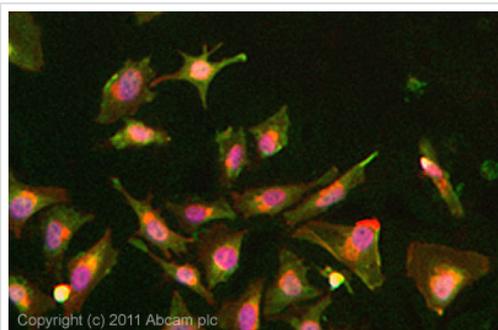
Performed under reducing conditions.

**Predicted band size:** 88 kDa

**Observed band size:** 88 kDa

**Additional bands at:** 30 kDa, 45 kDa, 60 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 12 minutes



Immunocytochemistry/ Immunofluorescence - Anti-STAT3 antibody (ab93446)

ICC/IF image of ab93446 stained HeLa cells.

The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab93446 at 5µg/ml overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti- rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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