


### Anti-STAT3 antibody [E121-21] ab32500

KO 評価済 リコンビナント RabMAb

★★★★★ 3 Abreviews 28 References 画像数 6

#### 製品の概要

製品名	Anti-STAT3 antibody [E121-21]
製品の詳細	Rabbit monoclonal [E121-21] to STAT3
由来種	Rabbit
特異性	This antibody only detects Stat3 without phosphorylation on Serine 727. It does not detect S727-phosphorylated Stat3.
アプリケーション	<b>適用あり:</b> WB, ICC/IF, IP, Flow Cyt (Intra) <b>適用なし:</b> IHC-P
種交差性	<b>交差種:</b> Human <b>交差が予測される動物種:</b> Horse, Cow 
免疫原	Synthetic peptide corresponding to Human STAT3. A synthetic peptide corresponding to residues surrounding Ser727 of human Stat3.
ポジティブ・コントロール	HAP1, A431 cell lysate ICC/IF: HeLa cells Flow Cyt (intra): HeLa cells. IP: HeLa cells.
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <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> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> . Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	E121-21
アイソタイプ	IgG

## アプリケーション

**The Abpromise guarantee** **Abpromise保証は、次のテスト済みアプリケーションにおけるab32500の使用に適用されず**  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000. Detects a band of approximately 92 kDa (predicted molecular weight: 88 kDa).
ICC/IF	★☆☆☆☆ (2)	1/50. For unpurified use at 1/250 dilution
IP		1/20.
Flow Cyt (Intra)		1/20. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/100 dilution

**追加情報** Is unsuitable for IHC-P.

## ターゲット情報

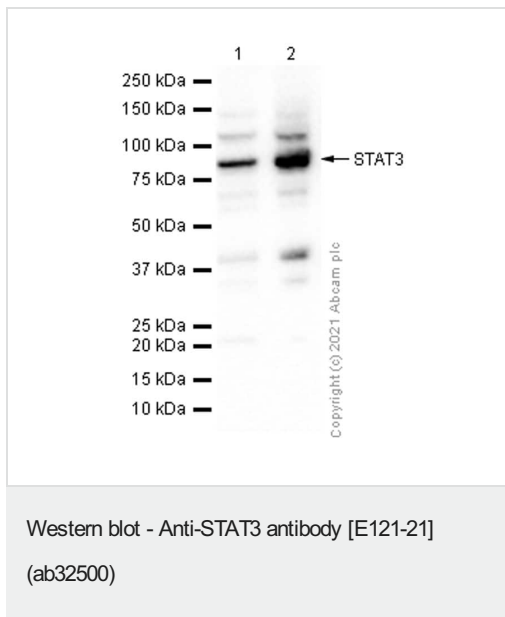
<b>機能</b>	Signal transducer and transcription activator that mediates cellular responses to interleukins, KITLG/SCF, LEP and other growth factors. Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target gene (PubMed:17344214). May mediate cellular responses 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>組織特異性</b>	Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.
<b>関連疾患</b>	Hyperimmunoglobulin E recurrent infection syndrome, autosomal dominant Autoimmune disease, multisystem, infantile-onset
<b>配列類似性</b>	Belongs to the transcription factor STAT family. Contains 1 SH2 domain.
<b>翻訳後修飾</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.

## 細胞内局在

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.

## 画像



**All lanes** : Anti-STAT3 antibody [E121-21] (ab32500) at 1/1000 dilution (Purified)

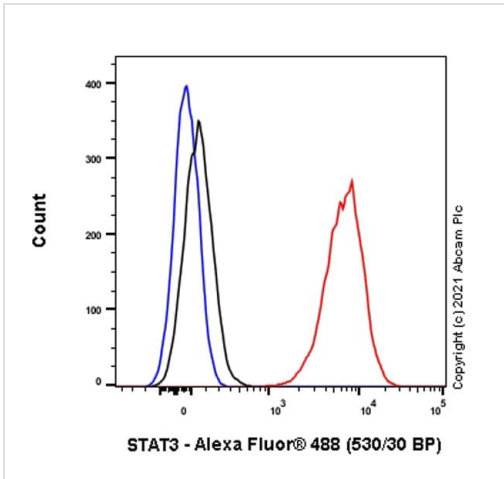
**Lane 1** : A431 (Human epidermoid carcinoma epithelial cell) whole cell lysate

**Lane 2** : HaCaT (Human skin keratinocyte) whole cell lysate

### Secondary

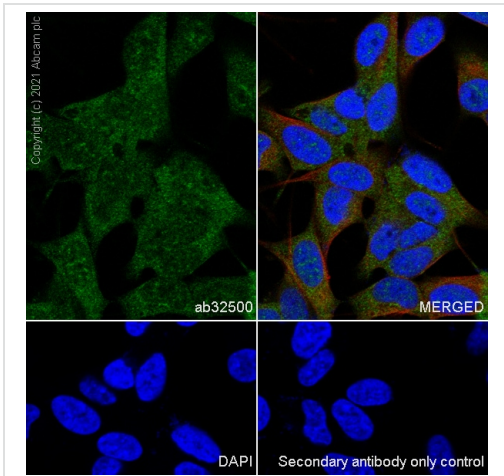
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 88 kDa



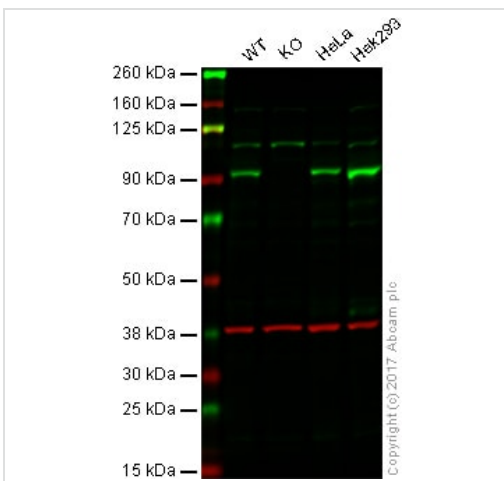
Flow Cytometry (Intracellular) - Anti-STAT3 antibody [E121-21] (ab32500)

Flow Cytometry analysis of A431 (Human epidermoid carcinoma epithelial cell) cells labelling STAT3 with Purified ab32500 at 1:20 dilution (5 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150081**) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-STAT3 antibody [E121-21] (ab32500)

Immunocytochemistry analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling STAT3 with Purified ab32500 at 1:50 dilution (2.1 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-STAT3 antibody [E121-21] (ab32500)

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

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

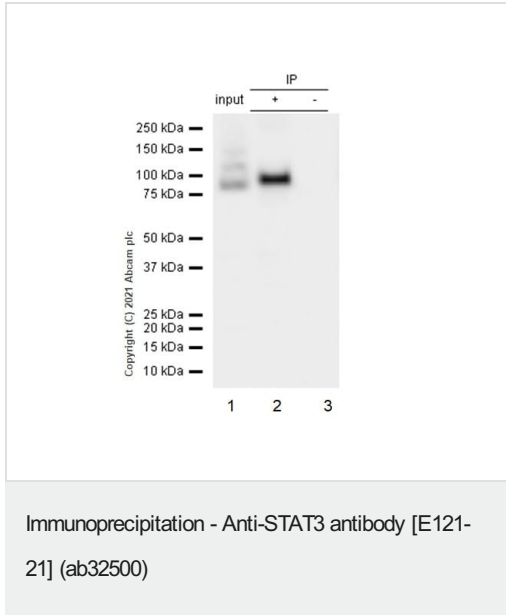
Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: HEK293 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab32500 observed at 92 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

Ab32500 detected the expected band for STAT3 in wild-type cells along with additional cross-reactive bands. The band was not seen in STAT3 knockout HAP1 cells. Wild-type and STAT3 knockout samples were subjected to SDS-PAGE. Ab32500 and **ab8245**

(Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution 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.



ab32500 at 1/20 dilution (0.5 µg) immunoprecipitating STAT3 in HeLa whole cell lysate.

Lane 1 (input): HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg





Lane 2 (+): ab32500 & HeLa whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab32500 in HeLa whole cell lysate

For western blotting, ab32500 at 1/1000 and VeriBlot for IP secondary antibody (HRP) (**ab131366**) was used at 1/5000 dilution.

Blocking and diluting buffer: 5% NFDm /TBST.

Why choose a recombinant antibody?

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

Anti-STAT3 antibody [E121-21] (ab32500)

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

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