abcam

Product datasheet

Anti-STAT2 antibody [Y141] ab32367

敲除验证 重组 RabMAb

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概述

产品名称	Anti-STAT2抗体[Y141]
描述	兔单克隆抗体[Y141] to STAT2
宿主	Rabbit
特异性	This antibody detects both long and short forms of STAT2.
经测试应用	**适用于:** WB, Flow Cyt (Intra), ICC/IF, IHC-P
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide within Human STAT2 (N terminal). The exact sequence is proprietary.
阳性对照	WB: A549, K562, HAP1, Ramos, HeLa and THP1 cell lysates; Mouse and Rat brain tissue lysates ICC/IF: THP-1 cells IHC-P: Human hepatocellular carcinoma and thyroid cancer tissue, Mouse and Rat liver Tissue Flow Cyt (intra): Ramos cells
常规说明	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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆

克隆编号	Y141
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab32367于以下的经测试应用**

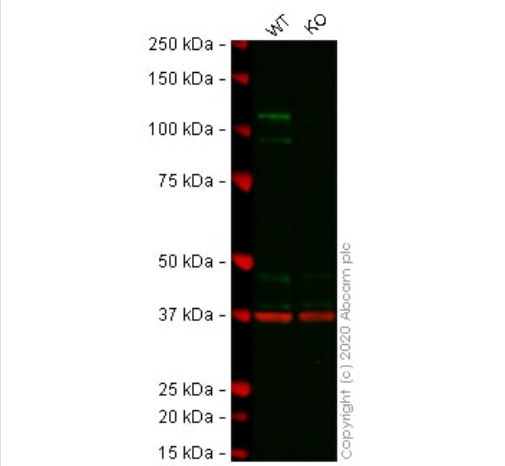
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (1)	1/5000 - 1/10000. Detects a band of approximately 98 kDa (predicted molecular weight: 98 kDa).
Flow Cyt (Intra)		1/60.
ICC/IF		1/50.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

靶标

功能	Signal transducer and activator of transcription that mediates signaling by type I IFNs (IFN-alpha and IFN-beta). Following type I IFN 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.
序列相似性	Belongs to the transcription factor STAT family. Contains 1 SH2 domain.
翻译后修饰	Tyrosine phosphorylated in response to IFN-alpha.
细胞定位	Cytoplasm. Nucleus. Translocated into the nucleus upon activation by IFN-alpha/beta.

图片



Western blot - Anti-STAT2 antibody [Y141] (ab32367)

All lanes : Anti-STAT2 antibody [Y141] (ab32367) at 1/5000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : STAT2 knockout A549 cell lysate

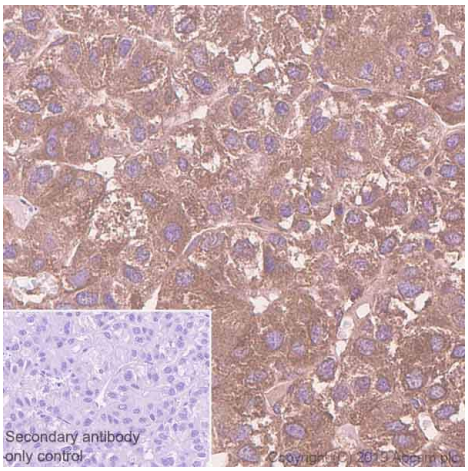
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 98 kDa
Observed band size: 97 kDa

Lanes 1 - 2: Merged signal (red and green). Green - ab32367 observed at 97 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

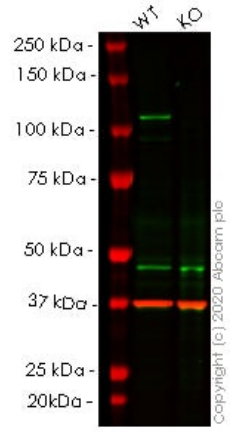
ab32367 was shown to react with STAT2 in A549 wild-type cells in western blot with loss of signal observed in STAT2 knockout cell line **ab267004** (STAT2 knockout cell lysate **ab257183**). Wild-type and STAT2 knockout A549 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% Milk before incubation with ab32367 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were incubated 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 in 20000 dilution for 1 h at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT2 antibody [Y141] (ab32367)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular carcinoma tissue sections labeling STAT2 with purified ab32367 at 1/100 dilution (6.22 µg/mL). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Western blot - Anti-STAT2 antibody [Y141] (ab32367)

All lanes : Anti-STAT2 antibody [Y141] (ab32367) at 1/5000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : STAT2 knockout A549 cell lysate

Lysates/proteins at 20 µg per lane.

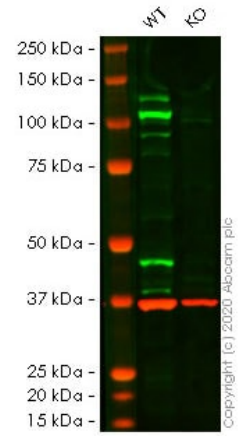
Performed under reducing conditions.

Predicted band size: 98 kDa
Observed band size: 97 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab32367 observed at 97 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab32367 was shown to react with STAT2 in wild-type A549 cells in western blot. Loss of signal was observed when knockout cell line **ab267005** (knockout cell lysate **ab257184**) was used. Wild-type A549 and STAT2 knockout A549 cell lysates were subjected to

SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab32367 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-STAT2 antibody [Y141] (ab32367)

All lanes : Anti-STAT2 antibody [Y141] (ab32367) at 1/5000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : STAT2 knockout HeLa cell lysate

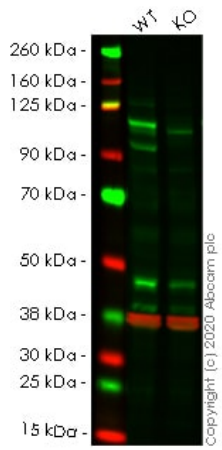
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 98 kDa
Observed band size: 97 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab32367 observed at 97 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab32367 was shown to react with STAT2 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab261819** (knockout cell lysate **ab257182**) was used. Wild-type HeLa and STAT2 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab32367 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-STAT2 antibody [Y141] (ab32367)

All lanes : Anti-STAT2 antibody [Y141] (ab32367) at 1/5000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : STAT2 knockout A549 cell lysate

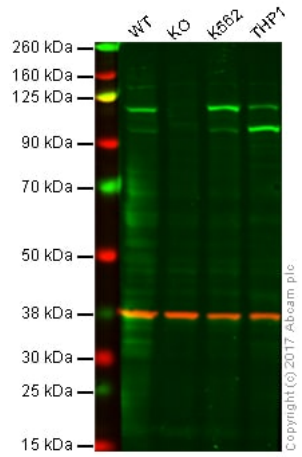
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 98 kDa
Observed band size: 97 kDa

Lanes 1-2: Merged signal (red and green). Green - ab32367 observed at 97 kDa. Red - loading control **ab8245** observed at 37 kDa.

ab32367 Anti-STAT2 antibody [Y141] was shown to specifically react with STAT2 in wild-type A549 cells. Loss of signal was observed when knockout cell line **ab267006** (knockout cell lysate **ab257185**) was used. Wild-type and STAT2 knockout samples were subjected to SDS-PAGE. ab32367 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-STAT2 antibody [Y141] (ab32367)

All lanes : Anti-STAT2 antibody [Y141] (ab32367)

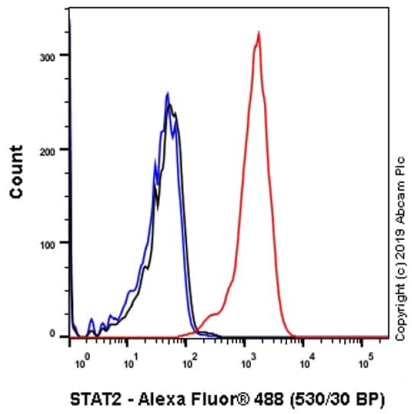
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : STAT2 knockout HAP1 whole cell lysate
Lane 3 : K562 whole cell lysate
Lane 4 : THP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 98 kDa

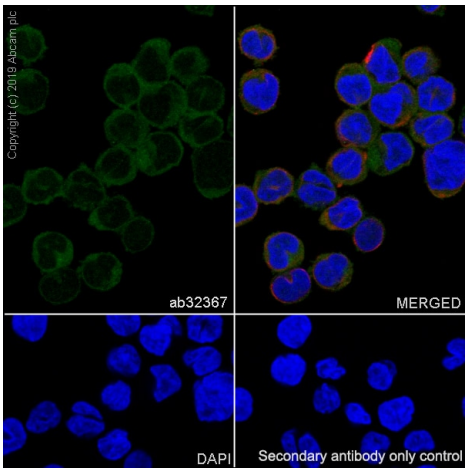
Lanes 1 - 4: Merged signal (red and green). Green - ab32367 (unpurified) observed at 97 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab32367 was shown to recognize STAT2 in wild-type HAP1 cells as signal was lost at the expected MW in STAT2 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and STAT2 knockout samples were subjected to SDS-PAGE. Ab32367 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 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 1/20000 dilution for 1 hour at room temperature before imaging.



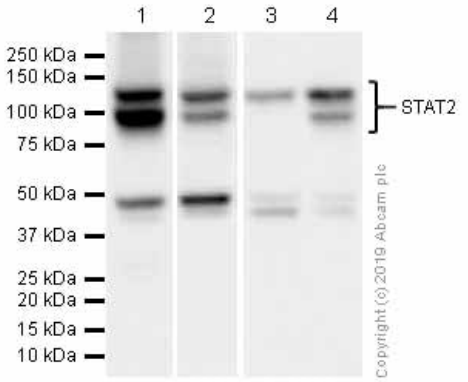
Flow Cytometry (Intracellular) - Anti-STAT2 antibody [Y141] (ab32367)

Intracellular Flow Cytometry analysis of Ramos (Human Burkitt's lymphoma B lymphocyte) cells labeling STAT2 with purified ab32367 at 1/60 dilution (10µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-STAT2 antibody [Y141] (ab32367)

Immunocytochemistry/ Immunofluorescence analysis of THP-1 (human monocytic leukemia monocyte) cells labeling STAT2 with purified ab32367 at 1/50 dilution (10 µg/mL). Cells were fixed in 100% Methanol and permeabilized with None. 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. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL) was used as the secondary antibody only control.



Western blot - Anti-STAT2 antibody [Y141] (ab32367)

All lanes : Anti-STAT2 antibody [Y141] (ab32367) at 1/1000 dilution (Purified)

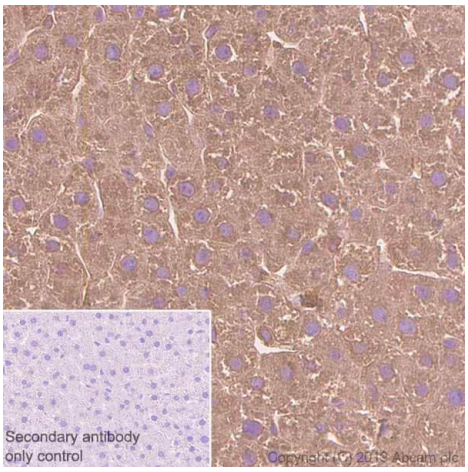
Lane 1 : Ramos (Human Burkitt's lymphoma B lymphocyte) whole cell lysates
Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 3 : Mouse brain lysates
Lane 4 : Rat brain lysates

Lysates/proteins at 20 µg per lane.

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

Predicted band size: 98 kDa
Observed band size: 113,97 kDa

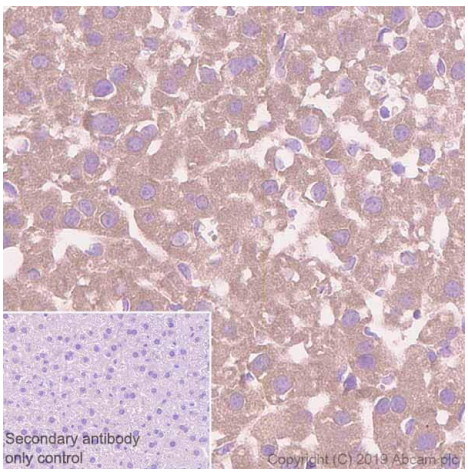
Blocking/Diluting Buffer and concentration: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT2 antibody [Y141] (ab32367)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling STAT2 with purified ab32367 at 1/100 dilution (6.22 µg/mL). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

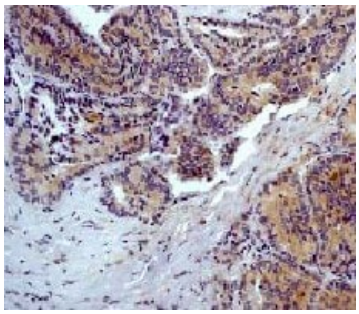
The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT2 antibody [Y141] (ab32367)

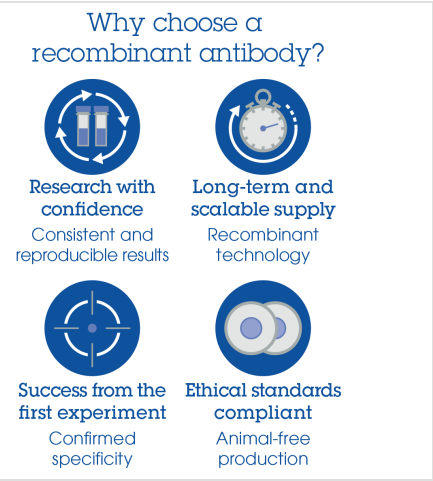
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling STAT2 with purified ab32367 at 1/100 dilution (6.22 µg/mL). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT2 antibody [Y141] (ab32367)

Immunohistochemical analysis of paraffin-embedded human thyroid cancer using ab32367 (unpurified). Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Anti-STAT2 antibody [Y141] (ab32367)

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