abcam

Product datasheet

Anti-STAT3 antibody [9D8] ab119352

★★★★☆ **11 Abreviews**　　**181 References**　　11 图像

概述

产品名称	Anti-STAT3抗体[9D8]
描述	小鼠单克隆抗体[9D8] to STAT3
宿主	Mouse
特异性	Detects STAT3 from Human, murine, monkey and rat samples.
经测试应用	**适用于:** Flow Cyt, ICC/IF, WB, IP, IHC-P
种属反应性	**与反应:** Mouse, Rat, Human, African green monkey
免疫原	Recombinant fragment, corresponding to amino acids 665-770 of Human STAT3.
阳性对照	HepG2, HeLa, PC-12, A549, 293T, Jurkat, A431, U2OS, MCF7, A549, K562, NIH3T3, C2C12, and NRK whole cell lysates; U2OS lysate from STAT3 SMART pool siRNA transfected; Mouse lung tissue lysate; HeLa cells; Human pancreas, brain tumour, colon cancer and stomach cancer tissues Flow Cyt: HeLa cells.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.1% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	9D8
同种型	IgG

应用

| 应用	Ab评论	说明
Flow Cyt		Use 0.1µg for 10^6 cells.
ICC/IF		1/100.
WB	★★★★★ (2)	1/5000. Detects a band of approximately 88 kDa (predicted molecular weight: 88 kDa).
IP		Use at 2 µg/mg of lysate.
IHC-P	★★★★☆ (5)	1/1600. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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 transctivating 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

细胞定位	residues by PTPN2 negatively regulates IL6/interleukin-6 signaling.
	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 [9D8] (ab119352)
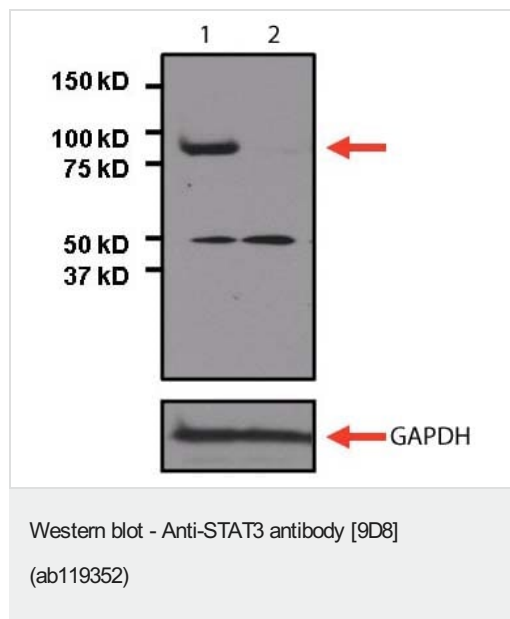
All lanes : Anti-STAT3 antibody [9D8] (ab119352) at 1/1000 dilution

Lane 1 : U2OS lysate from non-targeting control

Lane 2 : U2OS lysate from STAT3 SMART pool siRNA transfected
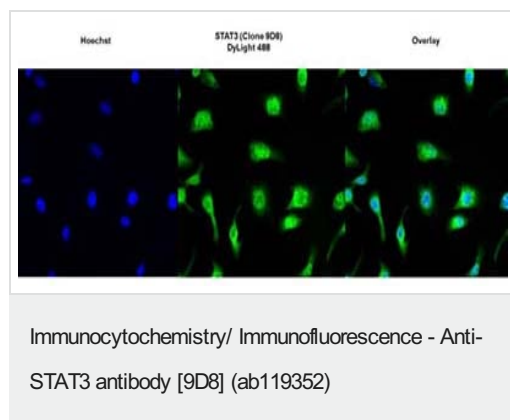
Lysates/proteins at 25 µg per lane.

Secondary

**All lanes :** goat anti-mouse-HRP at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 88 kDa

4-20% Tris-HCl polyacrylamide gel

Immunocytochemistry/ Immunofluorescence - Anti-STAT3 antibody [9D8] (ab119352)

Immunofluorescent analysis of STAT3 using **ab119352** at 1/100 dilution (shown in green) in HeLa cells (formalin fixed cells permeabilized with 0.1% Triton X-100) using a DyLight 488 goat-anti-mouse secondary antibody (**ab96879**) at 1/400 dilution. Nuclei (blue) were stained with Hoechst 33342 dye.
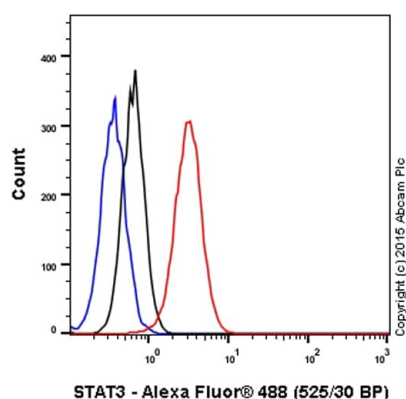
Flow Cytometry - Anti-STAT3 antibody [9D8]
(ab119352)

Overlay histogram showing HeLa cells stained with ab119352 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween 20 for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab119352, 0.1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (**ab150113**) at 1/2000 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG (**ab37355**, 0.1µg/1x106 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.
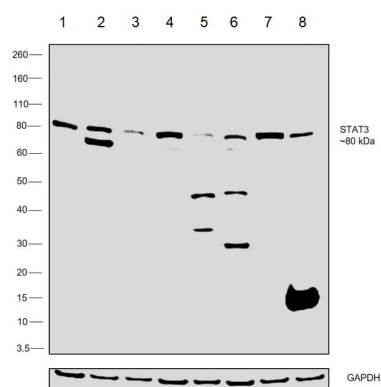
Western blot - Anti-STAT3 antibody [9D8]
(ab119352)

All lanes : Anti-STAT3 antibody [9D8] (ab119352) at 1/5000 dilution

Lane 1 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Lane 2 : A-431 (Human epidermoid carcinoma cell line) whole cell lysate

Lane 3 : Hep G2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lane 4 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 5 : PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate

Lane 6 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate
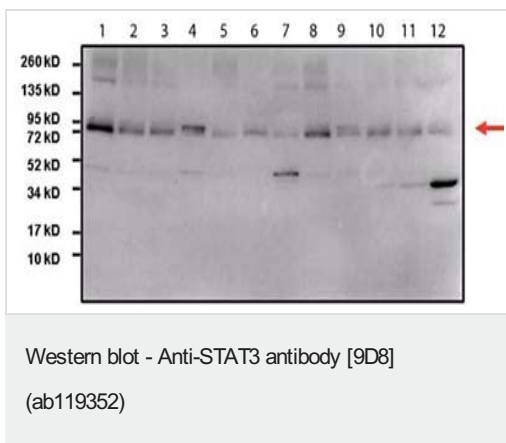
Lane 7 : A549 (Human lung carcinoma cell line) whole cell lysate

Lane 8 : Mouse lung tissue lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 88 kDa
Observed band size: 80 kDa

Western blot - Anti-STAT3 antibody [9D8] (ab119352)

All lanes : Anti-STAT3 antibody [9D8] (ab119352) at 1/5000 dilution

Lane 1 : HepG2 cell lysate

Lane 2 : 293T cell lysate

Lane 3 : Jurkat cell lysate

Lane 4 : A431 cell lysate

Lane 5 : U2OS cell lysate

Lane 6 : MCF7 cell lysate

Lane 7 : A549 cell lysate

Lane 8 : K562 cell lysate

Lane 9 : COS7 cell lysate

Lane 10 : NIH3T3 cell lysate

Lane 11 : C2C12 cell lysate

Lane 12 : NRK cell lysate
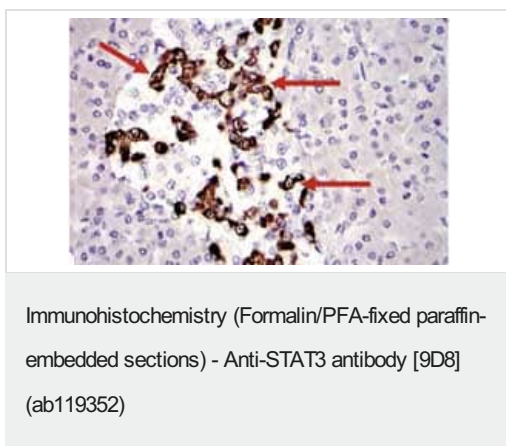
Lysates/proteins at 25 µg per lane.

Secondary

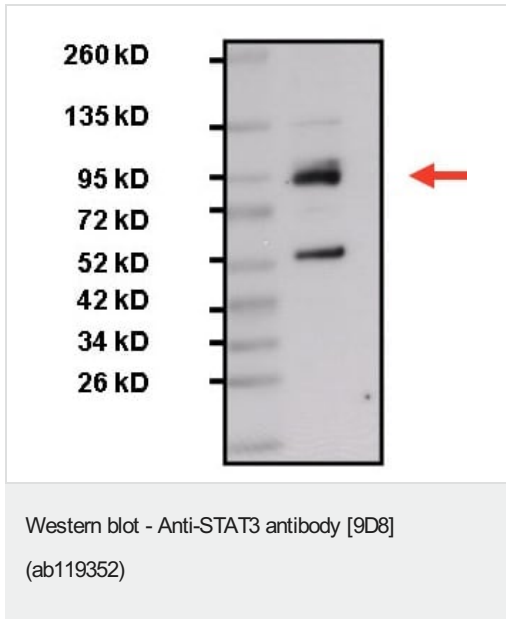**All lanes :** goat anti-mouse-HRP at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 88 kDa

4-20% Tris-HCl polyacrylamide gel

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT3 antibody [9D8] (ab119352)

ab119352, at 1/1600 dilution, staining STAT3 in Human pancreas tissue by Immunohistochemistry. Detection was performed using a goat anti-mouse HRP secondary antibody followed by colorimetric detection using DAB substrate. Tissues were counterstained with hematoxylin.

Western blot - Anti-STAT3 antibody [9D8] (ab119352)

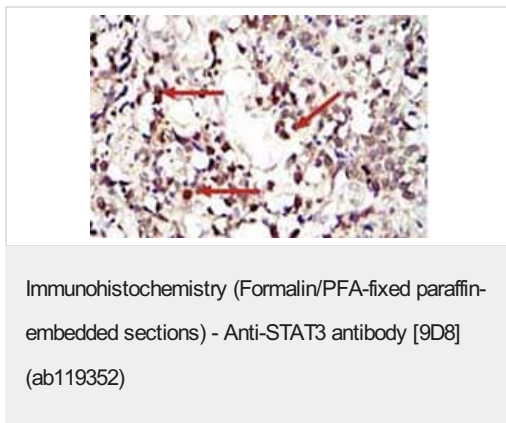Anti-STAT3 antibody [9D8] (ab119352) at 1/1000 dilution + HepG2 total lysate at 25 µg

Secondary

goat anti-mouse-HRP at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 88 kDa
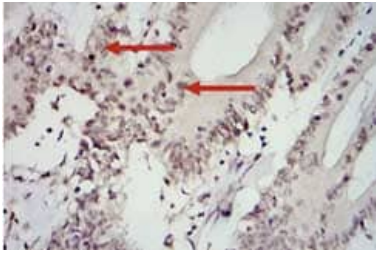
4-20% Tris-HCl polyacrylamide gel

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT3 antibody [9D8] (ab119352)

ab119352, at 1/1600 dilution, staining STAT3 in Human brain tumor tissue by Immunohistochemistry. Detection was performed using a goat anti-mouse HRP secondary antibody followed by colorimetric detection using DAB substrate. Tissues were counterstained with hematoxylin.

Immunoprecipitation - Anti-STAT3 antibody [9D8] (ab119352)
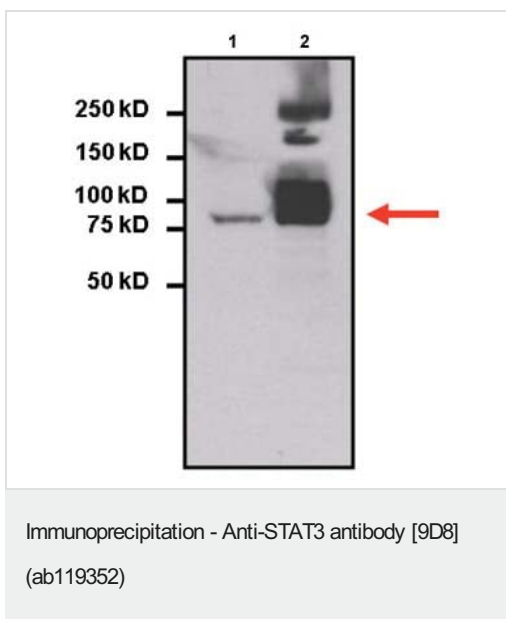
Immunoprecipitation of STAT3 was performed on HepG2 cells. The antigen:antibody complex was formed by incubating 750µg whole cell lysate with 2µg of ab119352 overnight at 4°C. The immune-complex was captured, washed extensively and proteins eluted with 5X Reducing Sample Loading Dye. Samples were resolved on a 4-20% Tris-HCl polyacrylamide gel. Proteins were transferred to PVDF membrane and blocked with 5% Milk/TBS-0.1% Tween for at least 1 hour. Membranes were then probed with ab119352 at a dilution of 1/5000 overnight at 4°C. Membranes were washed in TBST and probed with IP detection reagent at a dilution of 1/2000 for at least one hour. Membranes were washed and chemiluminescent detection was performed.

ab119352, at 1/1600 dilution, staining STAT3 in Human colon cancer tissue by Immunohistochemistry. Detection was performed using a goat anti-mouse HRP secondary antibody followed by colorimetric detection using DAB substrate. Tissues were counterstained with hematoxylin.
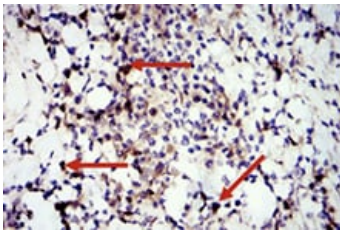
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT3 antibody [9D8] (ab119352)

ab119352, at 1/1600 dilution, staining STAT3 in Human stomach cancer tissue by Immunohistochemistry. Detection was performed using a goat anti-mouse HRP secondary antibody followed by colorimetric detection using DAB substrate. Tissues were counterstained with hematoxylin.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STAT3 antibody [9D8] (ab119352)

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