abcam

Product datasheet

Anti-STAT3 (phospho S727) antibody ab86430

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製品の概要

製品名 Anti-STAT3 (phospho S727) antibody

製品の詳細 Rabbit polyclonal to STAT3 (phospho S727)

由来種 Rabbit

特異性 The antibody is blocked in Western blot by STAT3 phospho S727 peptide and partially blocked

by unmodified STAT3 peptide (there is <30% cross reactivity with unmodified STAT3 as

determined by ELISA).

アプリケーション 適用あり: ICC/IF, WB

種交差性 交差種: Mouse, Human

交差が予測される動物種: Rat, Chicken, Cow, Pig 🔷

免疫原 Synthetic peptide corresponding to Human STAT3 aa 700 to the C-terminus (phospho S727)

conjugated to keyhole limpet haemocyanin.

Database link: P40763

特記事項

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

製品の特性

製品の状態 Liquid

保存方法 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.

バッファー pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

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 精製度 Immunogen affinity purified

ポリ/モノ ポリクローナル

アイソタイプ lqG

アプリケーション

Abpromise保証は、次のテスト済みアプリケーションにおけるab86430の使用に適用されます The Abpromise quarantee 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
ICC/IF		Use a concentration of 1 µg/ml.
WB	****(1)	1/250. Detects a band of approximately 88 kDa (predicted molecular weight: 88 kDa).

ターゲット情報

機能

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.

組織特異性

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

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

Belongs to the transcription factor STAT family.

Contains 1 SH2 domain.

翻訳後修飾

配列類似性

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.

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



Western blot - Anti-STAT3 (phospho S727) antibody (ab86430)

All lanes : Anti-STAT3 (phospho S727) antibody (ab86430) at 1 $\mu g/ml$

Lane 1: A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2: A431 (Human epithelial carcinoma cell line) EGF Stimulated Whole Cell Lysate

Lane 3: NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 4: A431 (Human epithelial carcinoma cell line) Whole Cell Lysate with Immunising Peptide at 1/250 dilution

Lane 5: A431 (Human epithelial carcinoma cell line) EGF Stimulated Whole Cell Lysate with Immunising Peptide at 1/250 dilution

Lane 6: NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate with Immunising Peptide at 1/250 dilution

Lane 7: A431 (Human epithelial carcinoma cell line) Whole Cell Lysate with Non-Modified Control Peptide at 1/250 dilution

Lane 8: A431 (Human epithelial carcinoma cell line) EGF Stimulated Whole Cell Lysate with Non-Modified Control Peptide at 1/250 dilution

Lane 9: NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate with Non-Modified Control Peptide at 1/250 dilution

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) preadsorbed at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 88 kDa

Observed band size: 88 kDa

Exposure time: 8 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab86430 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.

1 250 kDa — 150 kDa — 100 kDa — 75 kDa — 37 kDa — 37 kDa — 20 kDa — 25 kDa — 25 kDa — 15 kDa — 15 kDa — 15 kDa — 10 kDa

Western blot - Anti-STAT3 (phospho S727) antibody

(ab86430)

Anti-STAT3 (phospho S727) antibody (ab86430) at 1 μ g/ml + NlH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate at 10 μ g

Secondary

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

Developed using the ECL technique.

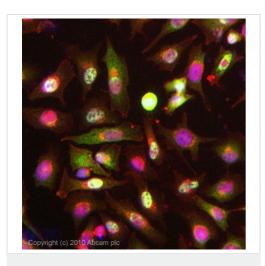
Performed under reducing conditions.

Predicted band size: 88 kDa **Observed band size:** 88 kDa

Additional bands at: 180 kDa, 40 kDa, 70 kDa. We are unsure as

to the identity of these extra bands.

Exposure time: 4 minutes



Immunocytochemistry/ Immunofluorescence - Anti-STAT3 (phospho S727) antibody (ab86430)

ICC/IF image of ab86430 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 ab86430 at 1µg/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. This antibody also gave a positive result in Hek293, HepG2, and MCF-7 formaldehyde (4%, 10min) fixed cells at 1ug/ml, and also in HeLa, Hek293, HepG2, and MCF-7 Methanol (100%, 5min) fixed cells at 1ug/ml.

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