abcam

Product datasheet

Anti-JAK1 antibody ab125051

★★★★★ **1 Abreviews**   **9 References**   4 Images

Overview

Product name	Anti-JAK1 antibody
Description	Rabbit polyclonal to JAK1
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P
Species reactivity	**Reacts with:** Rat, Human
	Predicted to work with: Mouse, Dog, Pig, Chimpanzee, Macaque monkey, Gorilla, Chinese hamster ⚠
Immunogen	Synthetic peptide corresponding to Human JAK1 aa 1100 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab140406**)
Positive control	ICC/IF: HCT116 cells. IHC-P: Human breast fibroadenocarcinoma tissue. WB : PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell lysate and HCT 116 (human colorectal carcinoma cell line) whole cell lysate.
General notes	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

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	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.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab125051 in the following tested applications.
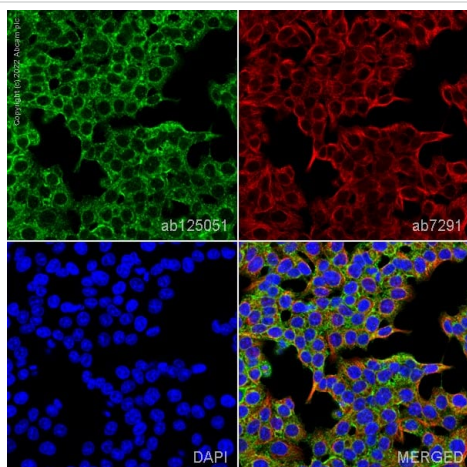
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 132 kDa (predicted molecular weight: 132 kDa).
IHC-P		Use a concentration of 10 µg/ml.

Target

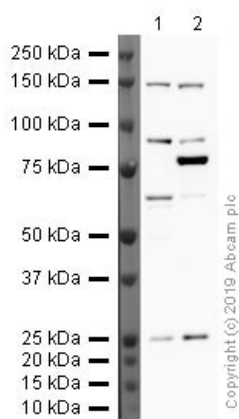|	
Function	Tyrosine kinase of the non-receptor type, involved in the IFN-alpha/beta/gamma signal pathway. Kinase partner for the interleukin (IL)-2 receptor.
Tissue specificity	Expressed at higher levels in primary colon tumors than in normal colon tissue. The expression level in metastatic colon tumors is comparable to the expression level in normal colon tissue.
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. JAK subfamily. Contains 1 FERM domain. Contains 1 protein kinase domain. Contains 1 SH2 domain.
Domain	Possesses two phosphotransferase domains. The second one probably contains the catalytic domain (By similarity), while the presence of slight differences suggest a different role for domain 1. The FERM domain mediates interaction with JAKMIP1.
Cellular localization	Endomembrane system. Wholly intracellular, possibly membrane associated.

Images

Immunocytochemistry/ Immunofluorescence - Anti-JAK1 antibody (ab125051)

ab125051 staining JAK1 in HCT116 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab125051 at 5µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.

Western blot - Anti-JAK1 antibody (ab125051)

All lanes : Anti-JAK1 antibody (ab125051) at 1 µg/ml

Lane 1 : PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell lysate

Lane 2 : HCT 116 (human colorectal carcinoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution

Predicted band size: 132 kDa
Observed band size: 140,60,80,90 kDa

Exposure time: 4 minutes

Gel type: MOPS

Blocking buffer: 1% milk block

Western blot - Anti-JAK1 antibody (ab125051)

Anti-JAK1 antibody (ab125051) at 1 µg/ml + PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate at 10 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: 132 kDa

Observed band size: 132 kDa

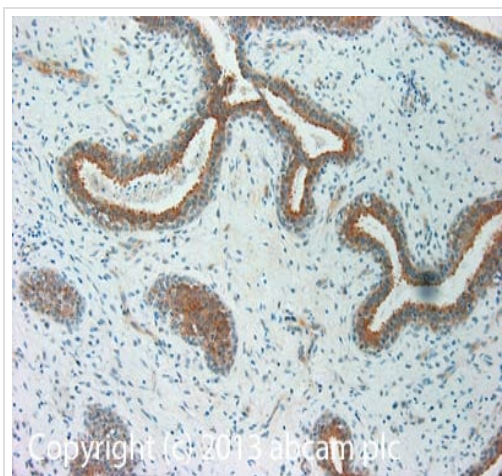**Additional bands at:** 43 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 8 minutes

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-JAK1 antibody (ab125051)

IHC image of JAK1 staining in Human breast fibroadenocarcinoma formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab125051, 10µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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