

Product datasheet

Anti-JAK2 (phospho Y1007 + Y1008) antibody ab68268

★★★★★ 2 Abreviews 6 References 3 图像

概述

产品名称	Anti-JAK2 (phospho Y1007 + Y1008)抗体
描述	兔多克隆抗体to JAK2 (phospho Y1007 + Y1008)
宿主	Rabbit
特异性	This antibody recognizes JAK2 with dual phosphorylated sites of Tyr1007/1008. It does not crossreact with non-phosphospecific peptide.
经测试应用	适用于: ICC/IF, Dot blot, WB, IP, Indirect ELISA
种属反应性	与反应: Mouse, Rat, Human
免疫原	A synthetic peptide surrounding to the epitope -EYYK- with dual phosphorylation sites at Tyr1008 and Tyr1009 of JAK2 from human, mouse and rat origins.
阳性对照	GH stimulated mouse liver tissue lysate

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	Preservative: None Constituents: Tris buffered saline, pH 7.2 containing antibody stabilizer
纯度	Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

Our [Abpromise guarantee](#) covers the use of **ab68268** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
ICC/IF	★★★★★	1/100.

应用	Ab评论	说明
Dot blot		Use at an assay dependent dilution.
WB		Use a concentration of 0.1 - 1 µg/ml. Detects a band of approximately 125, 140 kDa (predicted molecular weight: 130 kDa).
IP		Use a concentration of 2 - 5 µg/ml.
Indirect ELISA		Use a concentration of 0.01 - 0.1 µg/ml.

靶标

功能

Non-receptor tyrosine kinase involved in various processes such as cell cycle progression, apoptosis, mitotic recombination, genetic instability and histone modifications. In the cytoplasm, plays a pivotal role in signal transduction via its association with cytokine receptors, which constitutes an initiating step in signaling for many members of the cytokine receptor superfamily including the receptors for growth hormone (GHR), prolactin (PRLR), leptin (LEPR), erythropoietin (EPOR), granulocyte-macrophage colony-stimulating factor (CSF2), thrombopoietin (THPO) and multiple interleukins. Following stimulation with erythropoietin (EPO) during erythropoiesis, it is autophosphorylated and activated, leading to its association with erythropoietin receptor (EPOR) and tyrosine phosphorylation of residues in the EPOR cytoplasmic domain. Also involved in promoting the localization of EPOR to the plasma membrane. Also acts downstream of some G-protein coupled receptors. Plays a role in the control of body weight (By similarity). Mediates angiotensin-2-induced ARHGEF1 phosphorylation. In the nucleus, plays a key role in chromatin by specifically mediating phosphorylation of 'Tyr-41' of histone H3 (H3Y41ph), a specific tag that promotes exclusion of CBX5 (HP1 alpha) from chromatin.

组织特异性

Expressed in blood, bone marrow and lymph node.

疾病相关

Note=Chromosomal aberrations involving JAK2 are found in both chronic and acute forms of eosinophilic, lymphoblastic and myeloid leukemia. Translocation t(8;9)(p22;p24) with PCM1 links the protein kinase domain of JAK2 to the major portion of PCM1. Translocation t(9;12)(p24;p13) with ETV6.

Defects in JAK2 are a cause of susceptibility to Budd-Chiari syndrome (BCS) [MIM:600880]. It is a syndrome caused by obstruction of hepatic venous outflow involving either the hepatic veins or the terminal segment of the inferior vena cava. Obstructions are generally caused by thrombosis and lead to hepatic congestion and ischemic necrosis. Clinical manifestations observed in the majority of patients include hepatomegaly, right upper quadrant pain and abdominal ascites. Budd-Chiari syndrome is associated with a combination of disease states including primary myeloproliferative syndromes and thrombophilia due to factor V Leiden, protein C deficiency and antithrombin III deficiency. Budd-Chiari syndrome is a rare but typical complication in patients with polycythemia vera.

Defects in JAK2 are a cause of polycythemia vera (PV) [MIM:263300]. A myeloproliferative disorder characterized by abnormal proliferation of all hematopoietic bone marrow elements, erythroid hyperplasia, an absolute increase in total blood volume, but also by myeloid leukocytosis, thrombocytosis and splenomegaly.

Defects in JAK2 gene may be a cause of essential thrombocythemia (ET) [MIM:187950]. ET is characterized by elevated platelet levels due to sustained proliferation of megakaryocytes, and frequently lead to thrombotic and haemorrhagic complications.

Defects in JAK2 are a cause of myelofibrosis (MYELOF) [MIM:254450]. Myelofibrosis is a disorder characterized by replacement of the bone marrow by fibrous tissue, occurring in association with a myeloproliferative disorder. Clinical manifestations may include anemia, pallor, splenomegaly, hypermetabolic state, petechiae, ecchymosis, bleeding, lymphadenopathy, hepatomegaly, portal hypertension.

Defects in JAK2 are a cause of acute myelogenous leukemia (AML) [MIM:601626]. AML is a malignant disease in which hematopoietic precursors are arrested in an early stage of development.

序列相似性

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.

结构域

Possesses 2 protein kinase domains. The second one probably contains the catalytic domain, while the presence of slight differences suggest a different role for protein kinase 1.

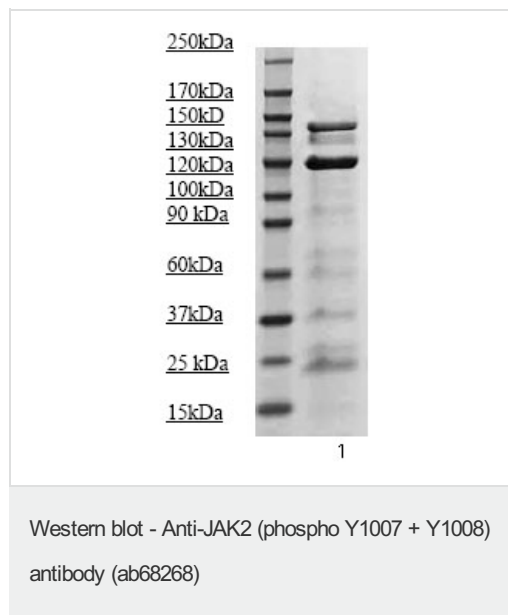
翻译后修饰

Autophosphorylated, leading to regulate its activity. Leptin promotes phosphorylation on tyrosine residues, including phosphorylation on Tyr-813. Autophosphorylation on Tyr-119 in response to EPO down-regulates its kinase activity. Autophosphorylation on Tyr-868, Tyr-966 and Tyr-972 in response to growth hormone (GH) are required for maximal kinase activity.

细胞定位

Endomembrane system. Nucleus.

图片

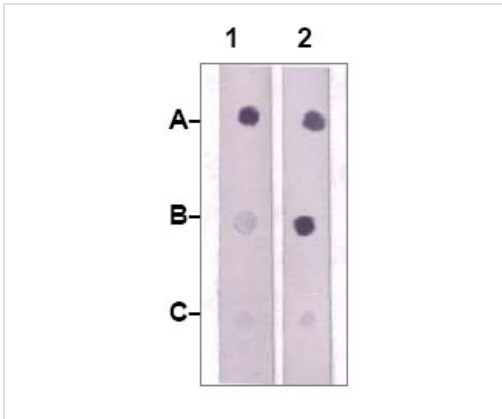


Anti-JAK2 (phospho Y1007 + Y1008) antibody (ab68268) at 1/500 dilution + GH stimulated mouse liver tissue lysate

Predicted band size: 130 kDa

Observed band size: 125 kDa

Additional bands at: 140 kDa. We are unsure as to the identity of these extra bands.



Dot Blot - Anti-JAK2 (phospho Y1007 + Y1008) antibody (ab68268)

1µg peptide was blot onto NC membrane.

A: JAK2 (pY1008, pY1009).

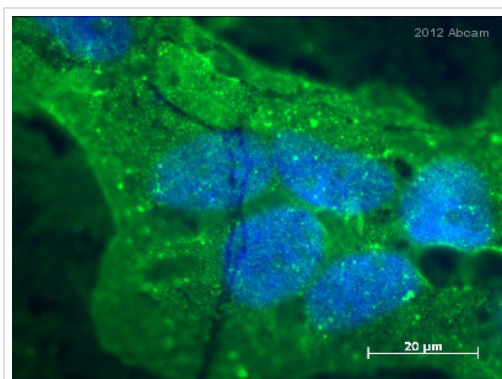
B: JAK2 (Non-phosphospecific).

C: Non-related Phosphopeptide.

were blotted at a 1:2000 dilution by:

1: ab68268.

2: Rabbit anti-JAK2 (Non-phospho specific).



Immunocytochemistry/ Immunofluorescence - Anti-JAK2 (phospho Y1007 + Y1008) antibody (ab68268)
This image is courtesy of an anonymous Abreview

Immunofluorescence analysis of U2-OS cells, staining JAK2 (phospho Y1007 + Y1008) with [ab43635](#).

Cells were fixed with paraformaldehyde, permeabilized with 0.2% Triton X-100 and blocked with 2% serum for 2 hours at 20°C.

Samples were incubated with primary antibody (1/100 in diluent) for 2 hours at 37°C.

An AlexaFluor®488-conjugated chicken anti-mouse polyclonal IgG (1/1000) was used as the secondary antibody.

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