

Datasheet for ABIN729688
anti-JAK2 antibody (AA 601-700)



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2 Images

Overview

Quantity:	100 µL
Target:	JAK2
Binding Specificity:	AA 601-700
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This JAK2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human JAK2
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Dog,Cow,Pig,Chicken
Purification:	Purified by Protein A.

Target Details

Target:	JAK2
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Target Details

Alternative Name: [JAK2 \(JAK2 Products\)](#)

Background: Synonyms: JTK1, THCYT3, Tyrosine-protein kinase JAK2, Janus kinase 2, JAK-2, JAK2
Background: Non-receptor tyrosine kinase involved in various processes such as cell growth, development, differentiation or histone modifications. Mediates essential signaling events in both innate and adaptive immunity. In the cytoplasm, plays a pivotal role in signal transduction via its association with type I receptors such as growth hormone (GHR), prolactin (PRLR), leptin (LEPR), erythropoietin (EPOR), thrombopoietin (THPO), or type II receptors including IFN-alpha, IFN-beta, IFN-gamma and multiple interleukins. Following ligand-binding to cell surface receptors, phosphorylates specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins. Subsequently, phosphorylates the STATs proteins once they are recruited to the receptor. Phosphorylated STATs then form homodimer or heterodimers and translocate to the nucleus to activate gene transcription. For example, cell stimulation with erythropoietin (EPO) during erythropoiesis leads to JAK2 autophosphorylation, activation, and its association with erythropoietin receptor (EPOR) that becomes phosphorylated in its cytoplasmic domain. Then, STAT5 (STAT5A or STAT5B) is recruited, phosphorylated and activated by JAK2. Once activated, dimerized STAT5 translocates into the nucleus and promotes the transcription of several essential genes involved in the modulation of erythropoiesis. In addition, JAK2 mediates angiotensin-2-induced ARHGEF1 phosphorylation. Plays a role in cell cycle by phosphorylating CDKN1B. Cooperates with TEC through reciprocal phosphorylation to mediate cytokine-driven activation of FOS transcription. 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.

Gene ID: 3717

UniProt: [O60674](#)

Pathways: [JAK-STAT Signaling](#), [RTK Signaling](#), [Interferon-gamma Pathway](#), [Positive Regulation of Peptide Hormone Secretion](#), [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Response to Growth Hormone Stimulus](#), [Positive Regulation of Endopeptidase Activity](#), [Protein targeting to Nucleus](#), [CXCR4-mediated Signaling Events](#), [Platelet-derived growth Factor Receptor Signaling](#), [Unfolded Protein Response](#)

Application Details

Application Notes: WB 1:300-5000
ELISA 1:500-1000
FCM 1:20-100

Application Details

IHC-P 1:200-400
IHC-F 1:100-500
IF(IHC-P) 1:50-200
IF(IHC-F) 1:50-200
IF(ICC) 1:50-200

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

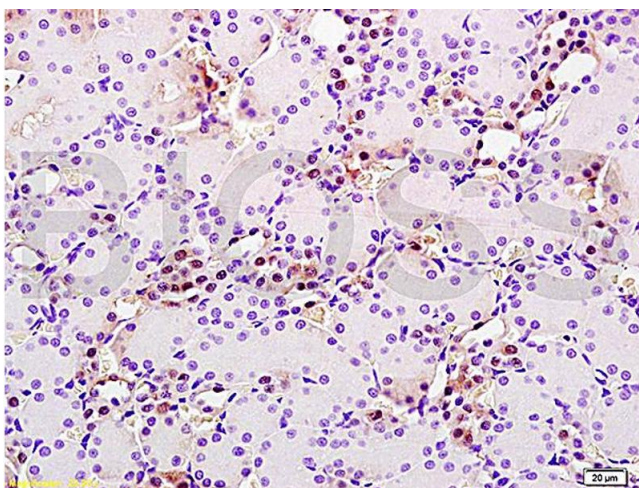
Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

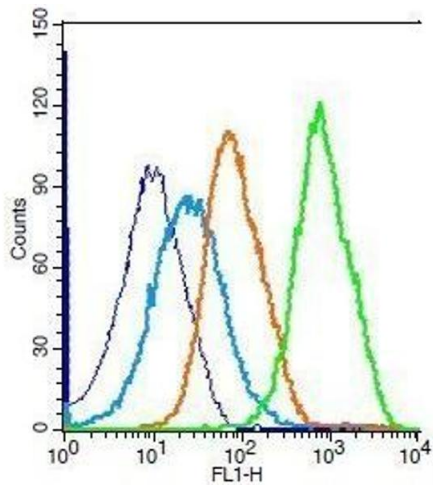
Expiry Date: 12 months

Images



Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded rat kidney tissue with labeled Anti-JAK2 Polyclonal Antibody, unconjugated (ABIN729688) at 1: 200, followed by incubation with conjugated secondary antibody and DAB staining



Flow Cytometry

Image 2. Mouse splenocytes probed with Rabbit Anti-JAK2 Polyclonal Antibody, Unconjugated .