

Rabbit JAK2/3 Polyclonal Antibody | anti-JAK2/3 antibody

Phospho-JAK2/3 (Tyr966/Tyr939) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329725	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

JAK2/3; Polyclonal Antibody; Phospho-JAK2/3 (Tyr966/Tyr939) Antibody; JAK 2; JAK-2; JAK2; JAK2_HUMAN; Janus Activating Kinase 2; Janus kinase 2 (a protein tyrosine kinase); Janus kinase 2; JTK 10; JTK10; kinase Jak2; OTTHUMP00000043260; THCYT3; Tyrosine protein kinase JAK2; Tyrosine-protein kinase JAK2; EC 2.7.10.2; JAK 3; JAK L; JAK-3; Jak3; JAK3 HUMAN; JAK3_HUMAN; JAKL; Janus kinase 3 (a protein tyrosine kinase; leukocyte); Janus kinase 3; Janus Kinase3; L JAK; L-JAK; Leukocyte janus kinase; LJAK; Protein tyrosine kinase leukocyte; Tyrosine protein kinase JAK3; Tyrosine-protein kinase JAK3; anti-JAK2/3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-JAK2/3 (Tyr966/Tyr939) Antibody detects endogenous levels of JAK2/3 only when phosphorylated at Tyr966/939. Tissue Specificity: In NK cells and an NK-like cell line but not in resting T-cells or in other tissues. The S-form is more commonly seen in hematopoietic lines, whereas the B-form is detected in cells both of hematopoietic and epithelial origins.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-JAK2/3 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human JAK2/3 around the phosphorylation site of Tyr966/939.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Tyrosine phosphorylated in response to IL-2 and IL-4. Dephosphorylation of Tyr-980 and Tyr-981 by PTPN2 negatively regulates cytokine-mediated signaling (Probable).
Subunit Structure	Interacts with STAM2 and MYO18A (By similarity). Interacts with SHB.
Similarity	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. Belongs to the protein kinase superfamily. Tyr protein kinase family. JAK subfamily.
Subcellular Location	Endomembrane system>Peripheral membrane protein. Cytoplasm.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
At 1/200 staining Human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/200 staining Mouse kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
Staining Rat ganstric tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of JAK2/3 (Phospho-Tyr966/939) using EGF treated HepG2 whole cell lysates. +/- means absence or presence of N peptide/non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-JAK2/3 antibody	Non-receptor tyrosine kinase involved in various processes such as cell growth, development, or differentiation. Mediates essential signaling events in both innate and adaptive immunity and plays a crucial role in hematopoiesis during T-cells development. In the cytoplasm, plays a pivotal role in signal transduction via its association with type I receptors sharing the common subunit gamma such as IL2R, IL4R, IL7R, IL9R, IL15R and IL21R. 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, upon IL2R activation by IL2, JAK1 and JAK3 molecules bind to IL2R beta (IL2RB) and gamma chain (IL2RG) subunits inducing the tyrosine phosphorylation of both receptor subunits on their cytoplasmic domain. Then, STAT5A AND STAT5B are recruited, phosphorylated and activated by JAK1 and JAK3. Once activated, dimerized STAT5 translocates to the nucleus and promotes the transcription of specific target genes in a cytokine-specific fashion.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4826776
NCBI GeneID	3717
NCBI Accession #	NP_004963.1
NCBI GenBank Nucleotide #	NM_004972.3
UniProt Accession #	O60674; P52333
Molecular Weight	130,674 Da
NCBI Official Full Name	tyrosine-protein kinase JAK2
NCBI Official Synonym Full Names	Janus kinase 2
NCBI Official Symbol	JAK2
NCBI Official Synonym Symbols	JTK10; THCYT3
NCBI Protein Information	tyrosine-protein kinase JAK2; JAK-2; Janus kinase 2 (a protein tyrosine kinase)
UniProt Protein Name	Tyrosine-protein kinase JAK2
UniProt Gene Name	JAK2

UniProt Synonym Gene Names	JAK-2
UniProt Entry Name	JAK2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/jak2-3-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329725>