

Anti-JAK1 Antibody
Catalog # ABO10942**Specification**

Anti-JAK1 Antibody - Product Information

Application	WB
Primary Accession	P23458
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Tyrosine-protein kinase JAK1(JAK1) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-JAK1 Antibody - Additional Information

Gene ID 3716

Other Names

Tyrosine-protein kinase JAK1, 2.7.10.2, Janus kinase 1, JAK-1, JAK1, JAK1A, JAK1B

Calculated MW

133277 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Endomembrane system; Peripheral membrane protein. Wholly intracellular, possibly membrane associated.

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. .

Protein Name

Tyrosine-protein kinase JAK1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human JAK1(970-984aa KNKNKINLKQQLKYA), identical to the related mouse and rat sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. JAK subfamily.

Anti-JAK1 Antibody - Protein Information**Name** JAK1**Synonyms** JAK1A, JAK1B**Function**

Tyrosine kinase of the non-receptor type, involved in the IFN-alpha/beta/gamma signal pathway (PubMed: [8232552](http://www.uniprot.org/citations/8232552), PubMed: [7615558](http://www.uniprot.org/citations/7615558), PubMed: [28111307](http://www.uniprot.org/citations/28111307), PubMed: [32750333](http://www.uniprot.org/citations/32750333), PubMed: [16239216](http://www.uniprot.org/citations/16239216)). Kinase partner for the interleukin (IL)-2 receptor (PubMed: [11909529](http://www.uniprot.org/citations/11909529)) as well as interleukin (IL)-10 receptor (PubMed: [12133952](http://www.uniprot.org/citations/12133952)). Kinase partner for the type I interferon receptor IFNAR2 (PubMed: [8232552](http://www.uniprot.org/citations/8232552), PubMed: [7615558](http://www.uniprot.org/citations/7615558), PubMed: [28111307](http://www.uniprot.org/citations/28111307), PubMed: [32750333](http://www.uniprot.org/citations/32750333), PubMed: [16239216](http://www.uniprot.org/citations/16239216)). In response to interferon-binding to IFNAR1-IFNAR2 heterodimer, phosphorylates and activates its binding partner IFNAR2, creating docking sites for STAT proteins (PubMed: [7759950](http://www.uniprot.org/citations/7759950)). Directly phosphorylates STAT proteins but also activates STAT signaling through the transactivation of other JAK kinases associated with signaling receptors (PubMed: [8232552](http://www.uniprot.org/citations/8232552), PubMed: [16239216](http://www.uniprot.org/citations/16239216), PubMed: [32750333](http://www.uniprot.org/citations/32750333)).

Cellular Location

Endomembrane system; Peripheral membrane protein. Note=Wholly intracellular, possibly membrane associated

Tissue Location

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Anti-JAK1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-JAK1 Antibody - Images



Anti- JAK1 antibody, ABO10942, Western blotting All lanes: Anti JAK1 (ABO10942) at 0.5ug/ml
Lane 1: U87 Whole Cell Lysate at 40ug
Lane 2: MM231 Whole Cell Lysate at 40ug
Lane 3: SW620 Whole Cell Lysate at 40ug
Predicted bind size: 133KD
Observed bind size: 133KD

Anti-JAK1 Antibody - Background

JAK1(JANUS KINASE 1) is a human tyrosine kinase protein essential for signaling for certain type I and type II cytokines. JAK1 is a member of a new class of PTKs that are a large family of proteins characterized by the presence of a second phosphotransferase-related domain immediately N-terminal to the PTK domain--hence the name Janus. The JAK1 gene is mapped to 1p31.3. JAK1 is also important for transducing a signal by type I(IFN-alpha/beta) and type II(IFN-gamma) interferons, and members of the IL-10 family via type II cytokine receptors. Jak1 plays a critical role in initiating responses to multiple major cytokine receptor families. Loss of Jak1 is lethal in neonatal mice, possibly due to difficulties suckling. Expression of JAK1 in cancer cells enables individual cells to contract, potentially allowing them to escape their tumor and metastasize to other parts of the body.