

Anti-JAK1 Antibody

Catalog # ABO10942

Specification

Anti-JAK1 Antibody - Product Information

ApplicationWBPrimary AccessionP23458HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Tyrosine-protein kinase JAK1(JAK1) detection. Tested with WB inHuman;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 r°Constitution, 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:16239216, PubMed:28111307, PubMed: 32750333, PubMed:7615558, PubMed:8232552). Kinase partner for the interleukin (IL)-2 receptor (PubMed: 11909529) as well as interleukin (IL)-10 receptor (PubMed:12133952). Kinase partner for the type I interferon receptor IFNAR2 (PubMed:16239216, PubMed:28111307, PubMed:32750333, PubMed:7615558, PubMed:8232552). In response to interferon-binding to IFNAR1-IFNAR2 heterodimer, phosphorylates and activates its binding partner IFNAR2, creating docking sites for STAT proteins (PubMed:7759950). Directly phosphorylates STAT proteins but also activates STAT signaling through the transactivation of other JAK kinases associated with signaling receptors (PubMed:16239216, PubMed:32750333, PubMed:8232552).

Cellular Location

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

Tissue Location

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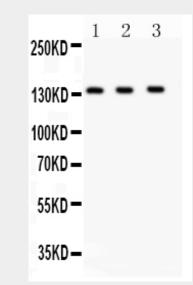
Anti-JAK1 Antibody - Protocols



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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-JAK1 Antibody - Images



Anti- JAK1 antibody, ABO10942, Western blottingAll lanes: Anti JAK1 (ABO10942) at 0.5ug/mlLane 1: U87 Whole Cell Lysate at 40ugLane 2: MM231 Whole Cell Lysate at 40ugLane 3: SW620 Whole Cell Lysate at 40ugPredicted bind size: 133KDObserved 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.