

**Anti-JAK1 Picoband Antibody**  
**Catalog # ABO10058****Specification**

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**Anti-JAK1 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P23458</a>
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 Picoband 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<br>

**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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human JAK1 (78-115aa FALYDENTKLWYAPNRTITVDDKMSLRLLHYRMRFYFTN), different from the related mouse sequence by three amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After r<sup>o</sup>Constitution, at 4°C for one month. It<sup>o</sup>Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Anti-JAK1 Picoband 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:<a href="http://www.uniprot.org/citations/16239216" target="\_blank">16239216</a>, PubMed:<a href="http://www.uniprot.org/citations/28111307" target="\_blank">28111307</a>, PubMed:<a href="http://www.uniprot.org/citations/32750333" target="\_blank">32750333</a>, PubMed:<a href="http://www.uniprot.org/citations/7615558" target="\_blank">7615558</a>, PubMed:<a href="http://www.uniprot.org/citations/8232552" target="\_blank">8232552</a>). Kinase partner for the interleukin (IL)-2 receptor (PubMed:<a href="http://www.uniprot.org/citations/11909529" target="\_blank">11909529</a>) as well as interleukin (IL)-10 receptor (PubMed:<a href="http://www.uniprot.org/citations/12133952" target="\_blank">12133952</a>). Kinase partner for the type I interferon receptor IFNAR2 (PubMed:<a href="http://www.uniprot.org/citations/16239216" target="\_blank">16239216</a>, PubMed:<a href="http://www.uniprot.org/citations/28111307" target="\_blank">28111307</a>, PubMed:<a href="http://www.uniprot.org/citations/32750333" target="\_blank">32750333</a>, PubMed:<a href="http://www.uniprot.org/citations/7615558" target="\_blank">7615558</a>, PubMed:<a href="http://www.uniprot.org/citations/8232552" target="\_blank">8232552</a>). In response to interferon-binding to IFNAR1-IFNAR2 heterodimer, phosphorylates and activates its binding partner IFNAR2, creating docking sites for STAT proteins (PubMed:<a href="http://www.uniprot.org/citations/7759950" target="\_blank">7759950</a>). Directly phosphorylates STAT proteins but also activates STAT signaling through the transactivation of other JAK kinases associated with signaling receptors (PubMed:<a href="http://www.uniprot.org/citations/16239216" target="\_blank">16239216</a>, PubMed:<a href="http://www.uniprot.org/citations/32750333" target="\_blank">32750333</a>, PubMed:<a href="http://www.uniprot.org/citations/8232552" target="\_blank">8232552</a>).

**Cellular Location**

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

**Tissue Location**

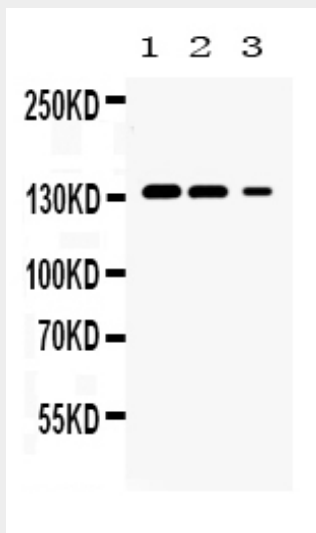
Expressed at higher levels in primary colon tumors than in normal colon tissue. The expression level in metastatic colon tumors is comparable to the expression level in normal colon tissue

**Anti-JAK1 Picoband 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 Picoband Antibody - Images



Western blot analysis of JAK1 expression in rat kidney extract (lane 1), mouse kidney extract (lane 2) and HELA whole cell lysates (lane 3). JAK1 at 133KD was detected using rabbit anti- JAK1 Antigen Affinity purified polyclonal antibody (Catalog #ABO10058) at 0.5  $\mu$ g/mL. The blot was developed using chemiluminescence (ECL) method .

#### Anti-JAK1 Picoband Antibody - Background

JAK1 (JANUS KINASE 1) is a human tyrosine kinase protein essential for signaling for certain type I and type II cytokines. It 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. Additionally, 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.