

**JAK1 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP1124b****Specification**

---

**JAK1 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P23458](#)**JAK1 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 3716**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP1124b](/product/products/AP1124b) was selected from the C-term region of human JAK1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**JAK1 Antibody (C-term) Blocking Peptide - 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:<a href="http://www.uniprot.org/citations/8232552" target="\_blank">8232552</a>, PubMed:<a href="http://www.uniprot.org/citations/7615558" target="\_blank">7615558</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/16239216" target="\_blank">16239216</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/8232552" target="\_blank">8232552</a>, 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>).

### **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

## **JAK1 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

## **JAK1 Antibody (C-term) Blocking Peptide - Images**

## **JAK1 Antibody (C-term) Blocking Peptide - Background**

Janus kinase 1 (JAK1), is a member of a new class of protein-tyrosine kinases (PTK) characterized by the presence of a second phosphotransferase-related domain immediately N-terminal to the PTK domain. The second phosphotransferase domain bears all the hallmarks of a protein kinase, although its structure differs significantly from that of the PTK and threonine/serine kinase family members. JAK1 is a large, widely expressed membrane-associated phosphoprotein. JAK1 is involved in the interferon-alpha/beta and -gamma signal transduction pathways. The reciprocal interdependence between JAK1 and TYK2 activities in the interferon-alpha pathway, and between JAK1 and JAK2 in the interferon-gamma pathway, may reflect a requirement for these kinases in the correct assembly of interferon receptor complexes. These kinases couple cytokine ligand binding to tyrosine phosphorylation of various known signaling proteins and of a unique family of transcription factors termed the signal transducers and activators of transcription, or STATs.

## **JAK1 Antibody (C-term) Blocking Peptide - References**

Yokota, S., et al., Virology 306(1):135-146 (2003).Usacheva, A., et al., J. Biol. Chem. 277(50):48220-48226 (2002).Radtke, S., et al., J. Biol. Chem. 277(13):11297-11305 (2002).Muller, M., et al., Nature 366(6451):129-135 (1993).Howard, O.M., et al., Oncogene 7(5):895-900 (1992).