

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

JAK1 Antibody (C-term) Blocking Peptide - Product InformationPrimary 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:8232552, PubMed:7615558, PubMed:28111307, PubMed:32750333, PubMed: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). Directly phosphorylates STAT proteins but also activates STAT signaling through the transactivation of other JAK kinases associated with signaling receptors (PubMed:8232552, PubMed:16239216, PubMed:32750333).

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).