

# Anti-JAK3 (pY785) Antibody

Rabbit polyclonal antibody to JAK3 (pY785)

Catalog # AP61253

## Product Information

Application	WB, IHC
Primary Accession	<a href="#">P52333</a>
Other Accession	<a href="#">Q62137</a>
Reactivity	Human, Mouse, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	125099

## Additional Information

Gene ID	3718
Other Names	Tyrosine-protein kinase JAK3; Janus kinase 3; JAK-3; Leukocyte janus kinase; L-JAK
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human JAK3 (pY785). The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/50 - 1/200)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## Protein Information

Name	JAK3 ( <a href="#">HGNC:6193</a> )
Function	Non-receptor tyrosine kinase involved in various processes such as cell growth, development, or differentiation. Mediates essential signaling events in both innate and adaptive immunity and plays a crucial role in hematopoiesis during T-cells development. In the cytoplasm, plays a pivotal role in signal transduction via its association with type I receptors sharing the common subunit gamma such as IL2R, IL4R, IL7R, IL9R, IL15R and IL21R. Following ligand binding to cell surface receptors, phosphorylates specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins. Subsequently, phosphorylates the STATs proteins once they are recruited to the receptor. Phosphorylated STATs then form homodimer or heterodimers and translocate to the nucleus to activate gene transcription. For example, upon IL2R activation by IL2, JAK1 and JAK3

molecules bind to IL2R beta (IL2RB) and gamma chain (IL2RG) subunits inducing the tyrosine phosphorylation of both receptor subunits on their cytoplasmic domain. Then, STAT5A and STAT5B are recruited, phosphorylated and activated by JAK1 and JAK3. Once activated, dimerized STAT5 translocates to the nucleus and promotes the transcription of specific target genes in a cytokine-specific fashion.

**Cellular Location**

Endomembrane system; Peripheral membrane protein. Cytoplasm

**Tissue Location**

In NK cells and an NK-like cell line but not in resting T-cells or in other tissues. The S-form is more commonly seen in hematopoietic lines, whereas the B-form is detected in cells both of hematopoietic and epithelial origins.

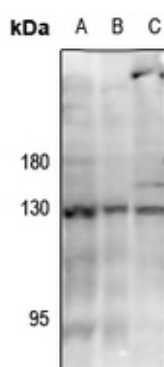
## Background

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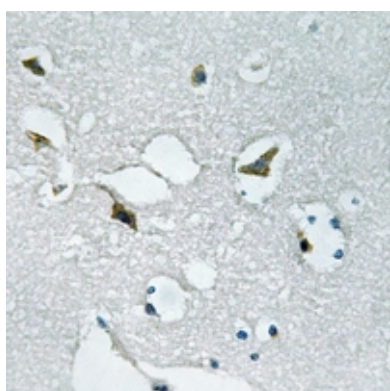
KLH-conjugated synthetic peptide encompassing a sequence within the center region of human JAK3 (pY785). The exact sequence is proprietary.

## Images

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Western blot analysis of JAK3 (pY785) expression in Myla2059 (A), K562 (B), Jurkat (C) whole cell lysates.



Immunohistochemical analysis of JAK3 (pY785) staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.