

**Product Name: JAK3 (3T5) Rabbit Monoclonal Antibody**  
**Catalog #: AMRe12821**



## Summary

|                        |                                       |
|------------------------|---------------------------------------|
| <b>Production Name</b> | JAK3 (3T5) Rabbit Monoclonal Antibody |
| <b>Description</b>     | Rabbit Monoclonal Antibody            |
| <b>Host</b>            | Rabbit                                |
| <b>Application</b>     | WB,IHC-P,ICC/IF,FC,IP                 |
| <b>Reactivity</b>      | Human                                 |

## Performance

|                     |                                                                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Conjugation</b>  | Unconjugated                                                                                                                                                                                 |
| <b>Modification</b> | Unmodified                                                                                                                                                                                   |
| <b>Isotype</b>      | IgG                                                                                                                                                                                          |
| <b>Clonality</b>    | Monoclonal                                                                                                                                                                                   |
| <b>Form</b>         | Liquid                                                                                                                                                                                       |
| <b>Storage</b>      | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.                                                                                                     |
| <b>Buffer</b>       | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |
| <b>Purification</b> | Affinity purification                                                                                                                                                                        |

## Immunogen

|                          |                                                                                                                                                    |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | JAK3                                                                                                                                               |
| <b>Alternative Names</b> | JAK 3; JAK L; JAKL; Janus kinase 3 (a protein tyrosine kinase, leukocyte); L JAK; Leukocyte janus kinase; LJAK; Protein tyrosine kinase leukocyte; |
| <b>Gene ID</b>           | 3718.0                                                                                                                                             |
| <b>SwissProt ID</b>      | P52333.                                                                                                                                            |

## Application

|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1000, IHC-P/IF-P 1:200-1:2000, ICC/IF 1:100-1:200, FCM 1:100, IP 1:50 |
| <b>Molecular Weight</b> | 125kDa                                                                     |

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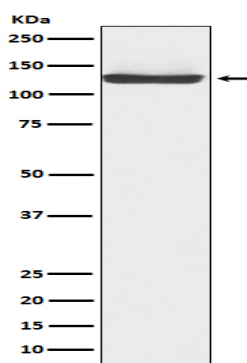


## Background

Tyrosine kinase of the non-receptor type, involved in the interleukin-2 and interleukin-4 signaling pathway. Phosphorylates STAT6, IRS1, IRS2 and PI3K. 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.

## Research Area

## Image Data



Western blot analysis of JAK3 expression in TF-1 cell lysate.

## Note

For research use only.