

Anti-JAK3 Rabbit Monoclonal Antibody

Catalog # ABO15195

Product Information

Application	WB, IF, ICC
Primary Accession	P52333
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-JAK3 Rabbit Monoclonal Antibody . Tested in WB, ICC/IF applications. This antibody reacts with Human.

Additional Information

Gene ID	3718
Other Names	Tyrosine-protein kinase JAK3, 2.7.10.2, Janus kinase 3, JAK-3, Leukocyte janus kinase, L-JAK, JAK3 (HGNC:6193)
Calculated MW	125099
Application Details	WB 1:500-1:2000 ICC/IF 1:50-1:200
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 17J71
Immunogen	A synthesized peptide derived from human JAK3
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	JAK3 (HGNC:6193)
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.

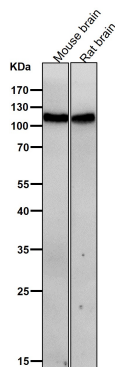
Cellular Location

Endomembrane system; Peripheral membrane protein. Cytoplasm

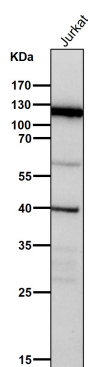
Tissue Location

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.

Images

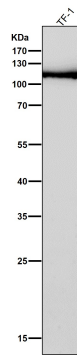


All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.

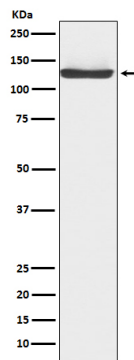


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Western blot analysis of JAK3 expression in TF-1 cell lysate.



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