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Mouse Jak3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14261a

Product Information

Application	WB, E
Primary Accession	Q62137
Other Accession	NP_034719.2, NP_001177759.1
Reactivity	Human, Mouse
Predicted	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34799
Calculated MW	122641
Antigen Region	133-161

Additional Information

Gene ID	16453
Other Names	Tyrosine-protein kinase JAK3, Janus kinase 3, JAK-3, Jak3
Target/Specificity	This Mouse Jak3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 133-161 amino acids from the N-terminal region of mouse Jak3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Jak3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Jak3 {ECO:0000312|MGI:MGI:99928}
Function	Non-receptor tyrosine kinase involved in various processes such as cell growth, development, or differentiation (PubMed:20696842). 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 contrast with the ubiquitous expression of the other JAKs, JAK3 is predominantly expressed in hematopoietic tissues

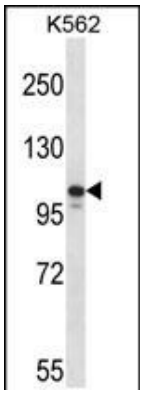
Background

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

References

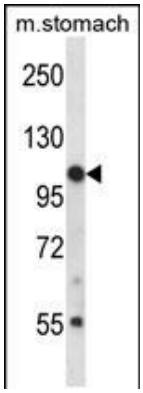
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Chang, B.Y., et al. J. Immunol. 183(3):2183-2192(2009)
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Images



Mouse Jak3 Antibody (N-term) (Cat. #AP14261a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the Jak3 antibody detected the Jak3 protein (arrow).

Mouse Jak3 Antibody (N-term) (Cat. #AP14261a) western blot analysis in mouse stomach tissue lysates (35ug/lane).This demonstrates the Jak3 antibody detected the Jak3 protein (arrow).



Citations

- MSX3 Switches Microglia Polarization and Protects from Inflammation-Induced Demyelination.

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