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Mouse Jak3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14261a

Specification

Mouse Jak3 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q62137
Other Accession	NP_034719.2, NP_001177759.1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**133-161**

Mouse Jak3 Antibody (N-term) - 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.

Mouse Jak3 Antibody (N-term) - 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

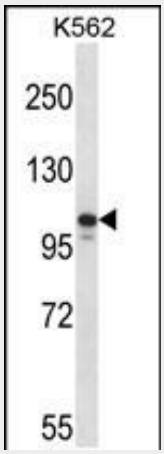
Tissue Location
In contrast with the ubiquitous expression of the other JAKs, JAK3 is predominantly expressed in hematopoietic tissues

Mouse Jak3 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Jak3 Antibody (N-term) - 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).

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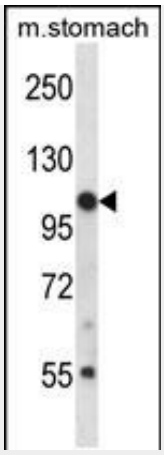

Mouse Jak3 Antibody (N-term) (Cat. #AP14261a) western blot analysis in mouse stomach tissue lysates (35ug/lane).This demonstrates the Jak3 antibody detected the Jak3 protein (arrow).

Mouse Jak3 Antibody (N-term) - Background

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

Mouse Jak3 Antibody (N-term) - References

Martin, P., et al. Mol. Cell. Biol. 30(20):4877-4889(2010)
Lange, C., et al. J. Neurochem. 113(5):1210-1220(2010)
Shi, M., et al. J. Immunol. 183(7):4493-4501(2009)
Chang, B.Y., et al. J. Immunol. 183(3):2183-2192(2009)
Rivas-Caicedo, A., et al. PLoS ONE 4 (9), E7066 (2009) :

Mouse Jak3 Antibody (N-term) - Citations

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