

Recombinant Mouse JAK3 Protein (818-1100 aa), His-tagged

Cat. No. JAK3-1672M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse JAK3 Protein (818-1100 aa) is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Protein Description: Partial.
Species	Mouse
Source	Yeast
ProteinLength	818-1100 aa
Description	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 domain 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,

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	dimerized STAT5 translocates to the nucleus and promotes the transcription of specific target genes in a cytokine-specific fashion.
Form	Tris-based buffer, 50% glycerol
Molecular Mass	34.2 kDa
AA Sequence	LKYISLLGKGNFGSVELCRYDPLGDNTGPLVAVKQLQHSGPDQQRDFQREIQILKAL HSDFIVKYRGVSYGPGRQSLRLVMEYLPSCGLRDFLQRHRARLHTDRLLLFAWQIC KGMEYLGARRCVHRDLAARNILVESEAHVKIADFGGLAKLLPLGKDYYVVREPGQSPI FWYAPESLSDNIFSRQSDVWSFGVVLYELFTYCDKSCSPSAEFLRMMGPREGPPL CRLLELLAEGRRLLPPPPTCPTEVQELMQLCWAPSPHDPAPFGTLSPQLDALWRGR PG
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA with reconstitution instruction is sent along with the products.

GENE INFORMATION

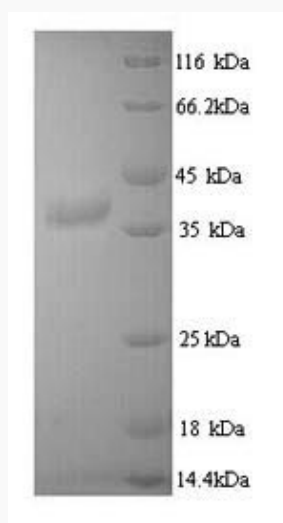
Gene Name	Jak3 Janus kinase 3 [<i>Mus musculus</i>]
Official Symbol	JAK3

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Synonyms	JAK3; Janus kinase 3; tyrosine-protein kinase JAK3; fae; wil;
Gene ID	16453
mRNA Refseq	NM_001190830
Protein Refseq	NP_001177759
UniProt ID	Q62137



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.