Recombinant mouse Tyrosine-protein kinase JAK3

Catalog No: #AP73073

Package Size: #AP73073-1 20ug #AP73073-2 100ug #AP73073-3 1mg

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Recombinant mouse Tyrosine-protein kinase JAK3
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:818-1100aaSequence Info:Partial
Other Names	Janus kinase 3 ;JAK-3
Accession No.	Q62137
Uniprot	Q62137
GeneID	16453;
Calculated MW	34.2 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	LKYISLLGKGNFGSVELCRYDPLGDNTGPLVAVKQLQHSGPDQQRDFQREIQILKALHSDFIVKYRGVSYGPG RQSLRLVMEYLPSGCLRDFLQRHRARLHTDRLLLFAWQICKGMEYLGARRCVHRDLAARNILVESEAHVKIAD FGLAKLLPLGKDYYVVREPGQSPIFWYAPESLSDNIFSRQSDVWSFGVVLYELFTYCDKSCSPSAEFLRMMGP EREGPPLCRLLELLAEGRRLPPPPTCPTEVQELMQLCWAPSPHDRPAFGTLSPQLDALWRGRPG
Formulation	Tris-based buffer50% glycerol
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°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

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 hatopoiesis 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, dimerized STAT5 translocates to the nucleus and promotes the transcription of specific target genes in a cytokine-specific fashion.

References

Defects in B lymphocyte maturation and T lymphocyte activation in mice lacking Jak3.Thomis D.C., Gurniak C.B., Tivol E., Sharpe A.H., Berg L.J.Science 270:794-797(1995)Research Topic:Others

Note: This product is for in vitro research use only