

Active Recombinant Human JAK2 Protein, Flag tagged

Cat. No. JAK2-04H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant JAK2 (532-1132) protein that includes amino acids 532-1132 of human JAK2 protein (accession number NP_004963.1) was expressed in a baculovirus expression system and contains an N-terminal FLAG-Tag.

Species Human

Source Insect Cells

ProteinLength 532-1132 aa

Description

JAK2 (Janus Kinase 2), also known as Tyrosine-Protein Kinase JAK2 or JTK10, is a non-receptor tyrosine kinase involved in various processes such as cell growth, development, differentiation or histone modifications. In the cytoplasm, JAK2 plays a pivotal role in signal transduction via its association with type I receptors such as growth hormone (GHR), prolactin (PRLR), leptin (LEPR), erythropoietin (EPOR), thrombopoietin (THPO); or type II receptors including IFN-alpha, IFN-beta, IFN-gamma and multiple interleukins. Following ligand-binding to cell surface receptors, JAK2 can phosphorylate specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins. Then it can subsequently phosphorylate 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. JAK2 signaling is implicated in diverse biological processes such as cell cycle progression, apoptosis, mitotic recombination, genetic instability and alteration of heterochromatin.

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Form	Recombinant JAK2 (532-1132) protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100 and 0.5 mM TCEP.
Molecular Mass	71 kDa
Purity	>90%
Applications	Recombinant JAK2 (532-1132) protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 centigrade to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Concentration	0.2 µg/µL

GENE INFORMATION

Gene Name	JAK2 Janus kinase 2 [Homo sapiens (human)]
Official Symbol	JAK2
Synonyms	JAK2; Janus kinase 2; tyrosine-protein kinase JAK2; JTK10; JAK-2; Janus kinase 2 (a protein tyrosine kinase); THCYT3
Gene ID	3717
mRNA Refseq	NM_004972
Protein Refseq	NP_004963

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MIM	147796
UniProt ID	O60674

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