

Recombinant Human Janus kinase 1 Protein, His-tagged

Cat. No. JAK1-07H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human JAK1 (janus kinase 1), encompassing amino acids 561-852 that correspond to the JH2 pseudokinase domain). This construct contains an N-terminal 6×His. This protein was affinity purified.
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Species	Human
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Source	Sf9 Cells
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ProteinLength	561-852
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Description	Janus kinases (JAKs) are a family of intracellular non-receptor tyrosine kinases, including JAK1, JAK2, JAK3 and TYK2 (tyrosine kinase 2), important in the modulation of inflammatory processes. JAKs contain a catalytically inactive pseudokinase regulatory domain (JH2), that acts as a negative regulator, as well as an active kinase domain (JH1). Most of the mutations in JAK proteins that link to hematological and immune-related diseases occur in the JH2 domain, resulting in increased JAK2 activity or decreased cytokine-induced signaling. Most inhibitors developed so far target the JH1 domain and seem unable to fully treat the disease, while generating significant side effects by suppressing normal cytokine signaling. Recent reports demonstrate that the pseudokinase domain of JH2 could provide an ideal site for selective inhibitor development and support the treatment of diseases like myeloproliferative neoplasms (MNPs), while generating minimal side effects. The development of such inhibitors will open new avenues in cancer therapy.
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Tag	N-6×His
Form	Aqueous buffer solution
Molecular Mass	35 kDa
Purity	≥90%
Applications	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Notes	Avoid freeze/thaw cycles
Usage	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Storage	At least 6 months at -80 centigrade.
Storage Buffer	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 0.04% Tween-20, and 20% glycerol
Shipping	At -80 centigrade

GENE INFORMATION

Gene Name	JAK1 Janus kinase 1 [Homo sapiens (human)]
Official Symbol	JAK1
Synonyms	JAK1; Janus kinase 1; JTK3; AIIDE; JAK1A; JAK1B; tyrosine-protein kinase JAK1; EC 2.7.10.2

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Gene ID 3716

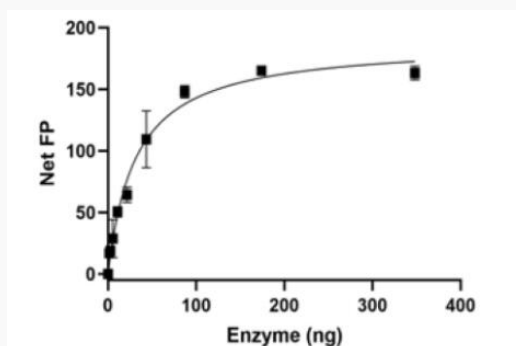
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Protein Refseq NP_002218

MIM 147795

UniProt ID P23458

Activity



SDS-PAGE



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