

Recombinant Human Janus Kinase 2, His-tagged

Cat. No. JAK2-532H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human JAK2 was expressed by baculovirus in <i>Sf9</i> insect cells using an N-terminal His tag. MW=42.5kDa.
Species	Human
Source	Sf9 Cells
Description	JAK2 is a member of intracellular non-receptor tyrosine kinases that transduce cytokine-mediated signals via the JAK-STAT pathway. JAK2 has two near-identical phosphate-transferring domains. One domain exhibits the kinase activity while the other stabilizes the JAK conformational structure. JAK2 is the predominant JAK kinase activated in response to several growth factors and cytokines such as IL-3, GM-CSF and erythropoietin. JAK2 has been found to be constitutively associated with the prolactin receptor and is required for responses to gamma interferon.
Purity	>90%.
Specific Activity	118 pmol/min/μg, Assay conditions: 50 mM HEPES (pH7.5), 10 mM MgCl ₂ , 1 mM EGTA, 200 μM ATP, 0.01% Brij-35, and 2 μM substrate (Tyr 4, Invitrogen) at room temperature for 1 hour. Developer solution was added to reaction and reaction was stopped after 1h of incubation at RT.
Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 10% glycerol, and 1 mM

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DTT.

Stability >6 months at -80°C.

GENE INFORMATION

Gene Name [JAK2 Janus kinase 2 \[Homo sapiens \]](#)

Synonyms JAK2; Janus kinase 2; JTK10; tyrosine-protein kinase JAK2; Janus kinase 2 (a protein tyrosine kinase); EC 2.7.10.2; JAK-2; OTTHUMP00000021024; OTTHUMP00000043260

Gene ID [3717](#)

mRNA Refseq [NM_004972](#)

Protein Refseq [NP_004963](#)

MIM [147796](#)

UniProt ID [O60674](#)

Chromosome Location 9p24

Pathway Adipocytokine signaling pathway; Chemokine signaling pathway; Jak-STAT signaling pathway

Function ATP binding; Janus kinase activity; SH2 domain binding; acetylcholine receptor binding; growth hormone receptor binding; insulin receptor substrate binding; interleukin-12 receptor binding; non-membrane spanning protein tyrosine kinase

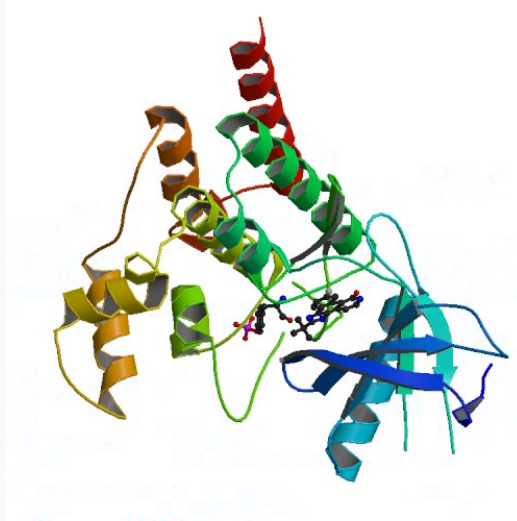
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activity; nucleotide binding; peptide hormone receptor binding; phosphoinositide 3-kinase binding; transferase activity

PDB rendering based
on 2b7a.



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