

JAK3 recombinant protein

Recombinant JAK3 (781-1124) protein

CATALOG # AAA60244	HOST Baculovirus
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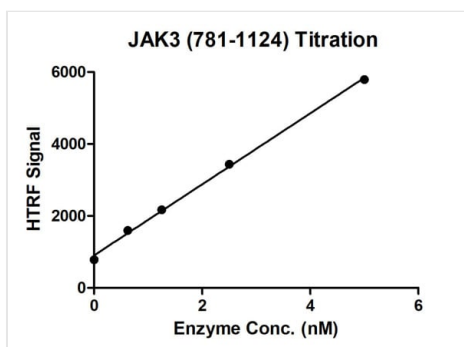
PRODUCT SYNONYMS

JAK3; Recombinant JAK3 (781-1124) protein; Janus Kinase 1; JAK3 recombinant protein

PRODUCT SPECIFICATIONS

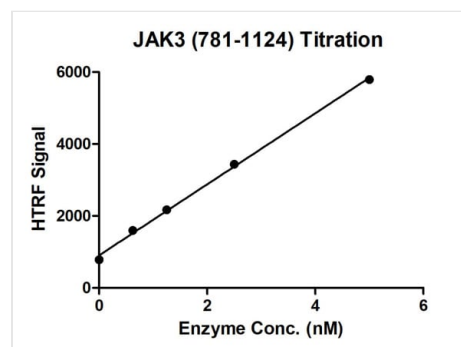
Host	Baculovirus
Form/Format	Recombinant JAK3 (781-1124) protein is supplied in 25mM HEPESNaOH pH7.5, 500mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Protein Details	Recombinant JAK3 (781-1124) protein that includes amino acids 781-1124 of human JAK3 protein (accession number NP_000206.2) was expressed in a baculovirus expression system, and contains an N-terminal DYKDDDDK tag.
Notes	This product was manufactured as described in Protein Details. Where possible, We has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



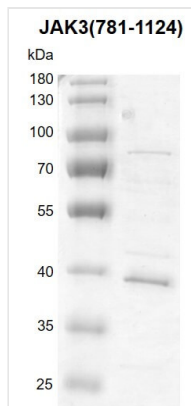
Application Data

HTRF assay for JAK3 (781-1124) activity 1 uM TK substrate was incubated with different concentrations of JAK3 (781-1124) protein in a 10 ul reaction system containing 1xEnzymatic Buffer, 5 mM MgCl₂, 1 mM DTT, and 100 uM ATP for 1 hour. Then 10 ul detection reagents containing TK antibody (1:2) and SA-XL665 (1:100) diluted with 1x Detection Buffer were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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SDS-PAGE

Recombinant JAK3 (781-1124) protein 10% SDS-PAGE gel with Coomassie blue staining
MW: 39.8 kDa Purity: >80%.

ADDITIONAL INFORMATION

Related Product Information for JAK3 recombinant protein	Background: JAK3 (Janus Kinase 3) a non-receptor tyrosine kinase involved in various processes such as cell growth, development, or differentiation and mediates essential signaling events in both innate and adaptive immunity and plays a crucial role in hematopoiesis during T-cells development. In the cytoplasm, JAK3 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, JAK3 phosphorylates specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins. Subsequently, JAK3 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. Diseases associated with JAK3 include Severe Combined Immunodeficiency, Autosomal Recessive, T Cell-Negative, B Cell-Positive, Nk Cell-Negative and Nk-Cell Enteropathy
Product Categories/Family for JAK3 recombinant protein	Recombinant Proteins; Kinase

NCBI AND UNIPROT INFORMATION

NCBI GI #	47157315
NCBI GeneID	3718
NCBI Accession #	NP_000206.2
NCBI GenBank Nucleotide #	NM_000215.3
UniProt Accession #	P52333; Q13259; Q13260; Q13611; Q99699; Q9Y6S2
Molecular Weight	125,099 Da
NCBI Official Full Name	tyrosine-protein kinase JAK3
NCBI Official Synonym Full Names	Janus kinase 3
NCBI Official Symbol	JAK3
NCBI Official Synonym Symbols	JAKL; LJAK; JAK-3; L-JAK; JAK3_HUMAN
NCBI Protein Information	tyrosine-protein kinase JAK3; leukocyte Janus kinase; Janus kinase 3 (a protein tyrosine kinase, leukocyte)
UniProt Protein Name	Tyrosine-protein kinase JAK3
UniProt Gene Name	JAK3

UniProt Synonym Gene Names	JAK-3; L-JAK
UniProt Entry Name	JAK3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/jak3-recombinant-protein-baculovirus/60244>