

JAK1 recombinant protein

Recombinant JAK1 (866-1154) protein

CATALOG # AAA60241	HOST Baculovirus
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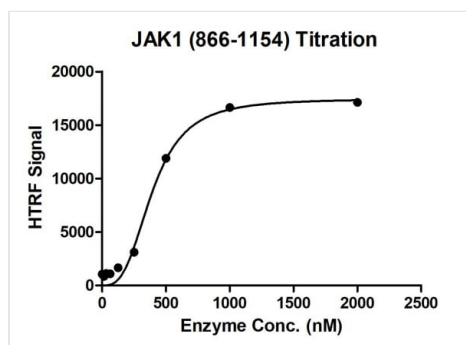
PRODUCT SYNONYMS

JAK1; Recombinant JAK1 (866-1154) protein; Janus Kinase 1; JAK1 recombinant protein

PRODUCT SPECIFICATIONS

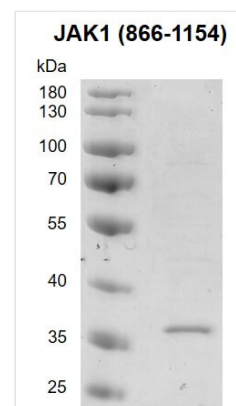
Host	Baculovirus
Form/Format	Recombinant JAK1 (866-1154) protein is supplied in 25mM HEPESNaOH pH7.5, 300mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Protein Details	Recombinant JAK1 (866-1154) protein that includes amino acids 866-1154 of human JAK1 protein (accession number NP_001307852.1) 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 JAK1 (866-1154) activity 1 uM TK substrate was incubated with different concentrations of JAK1 (866-1154) protein in a 10 ul reaction system containing 1xEnzymatic Buffer, 5 mM MgCl₂, 1 mM MnCl₂, 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.



SDS-PAGE

Recombinant JAK1 (866-1154) protein 10% SDS-PAGE gel with Coomassie blue staining
MW: 34.2 kDa Purity: >95%

ADDITIONAL INFORMATION

Related Product Information for JAK1 recombinant protein	Background: JAK1 (Janus Kinase 1) is a non-receptor tyrosine kinase which is a member of a class of protein-tyrosine kinases (PTK) characterized by the presence of a second phosphotransferase-related domain immediately N-terminal to the PTK domain. JAK1 phosphorylates STAT proteins (signal transducers and activators of transcription) and plays a key role in interferon-alpha/beta, interferon-gamma, and cytokine signal transduction. It plays a crucial role in effecting the expression of genes that mediate inflammation, epithelial remodeling, and metastatic cancer progression It is a key component of the interleukin-6 (IL-6)/JAK1/STAT3 immune and inflammation response and a therapeutic target for alleviating cytokine storms. The kinase activity of this gene is directly inhibited by the suppressor of cytokine signalling 1 (SOCS1) protein. Diseases associated with JAK1 include Autoinflammation, Immune Dysregulation, And Eosinophilia and Autosomal Recessive Mendelian Susceptibility To Mycobacterial Diseases Due To Partial Jak1 Deficiency.
Product Categories/Family for JAK1 recombinant protein	Recombinant Proteins; Kinase

NCBI AND UNIPROT INFORMATION

NCBI GI #	1004007314
NCBI GeneID	3716
NCBI Accession #	NP_001307852.1
NCBI GenBank Nucleotide #	NM_001320923.1
UniProt Accession #	P23458; Q59GQ2; Q9UD26
Molecular Weight	133,277 Da
NCBI Official Full Name	tyrosine-protein kinase JAK1 isoform 1
NCBI Official Synonym Full Names	Janus kinase 1
NCBI Official Symbol	JAK1
NCBI Official Synonym Symbols	JTK3; JAK1A; JAK1B
NCBI Protein Information	tyrosine-protein kinase JAK1
UniProt Protein Name	Tyrosine-protein kinase JAK1
UniProt Gene Name	JAK1
UniProt Synonym Gene Names	JAK1A; JAK1B; JAK-1
UniProt Entry Name	JAK1_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.