

Datasheet for ABIN3093202

JAK1 Protein (AA 1-1154) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	JAK1
Protein Characteristics:	AA 1-1154
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This JAK1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MQYLNKEDC NAMAFCAMR SSKKTEVNLE APEPGVEVIF YLSDREPLRL GSGEYTADEL</p> <p>CIRAAQACRI SPLCHNLFAL YDENTKLWYA PNRTITVDDK MSLRLHYRMR FYFTNWHGTN</p> <p>DNEQSVWRHS PKKQKNGYEK KIPDATPLL DASSLEYLFA QGQYDLVKCL APIRDPKTEQ</p> <p>DGHDINECL GMAVLAISHY AMMKKMLPE LPKDISYKRY IPETLNKSIR QRNLLTRMRI</p> <p>NNVFKDFLKE FNNKTICDSS VSTHDLKVYK LATLETCLKH YGAEIFETSM LLISSNEMN</p> <p>WFHSNDGGNV LYYEVMVTGN LGIQRHKKPN VVSVEKEKNK LKRKKLENKH KKDEEKNKIR</p> <p>EEWNNFSYFP EITHIVIKES VVSINKQDNK KMELKLSSHE EALSFVSLVD GYFRLTADAH</p> <p>HYLCTDVAPP LIVHNIQNGC HGPICTEYAI NKLRQEGSEE GMYVLRWSCT DFDNIMMTVT</p> <p>CFEKSEQVQG AQKQFKNFQI EVQKGRYSLH GSDRSFPSLG DLMSHLKKQI LRTDNISFML</p> <p>KRCCQPKPRE ISNLLVATKK AQEWQPVYPM SQLSFDRILK KDLVQGEHLG RGTRTHIYSG</p> <p>TLMDYKDDEG TSEEKKIKVI LKVLDPShRD ISLAFEEAAS MMRQVSHKHI VYLYGVCVRD</p>

VENIMVEEFV EGGPLDLFMH RKSDVLTTPW KFKVAKQLAS ALSYLEDKDL VHGNVCTKNL
LLAREGIDSE CGPFIKLSDP GIPITVLSRQ ECIERIPWIA PECVEDSKNL SVAADKWSFG
TTLWEICYNG EIPLKDKTLI EKERFYESRC RPYTPSCKEL ADLMTRCMNY DPNQRPFRA
IMRDINKLEE QNPDIVSEKK PATEVDPTHF EKRFLKRIRD LGEGHFGKVE LCRYDPEGDN
TGEQVAVKSL KPESGGNHIA DLKKEIEILR NLYHENIVKY KGICTEDGGN GIKLIMEFLP
SGSLKEYLPK NKNKINLKQQ LKYAVQICKG MDYLGSRQYV HRDLAARNVL VESEHQVKIG
DFGLTKAIET DKEYYTVKDD RDSPVFWYAP ECLMQSKFYI ASDVWSFGVT LHELLTYCDS
DSSPMALFLK MIGPTHGQMT VTRLVNTLKE GKRLPCPPNC PDEVYQLMRK CWEFQPSNRT
SFQNLIEGFE ALLK

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Product Details

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	JAK1
Alternative Name:	JAK1 (JAK1 Products)
Background:	<p>Tyrosine-protein kinase JAK1 (EC 2.7.10.2) (Janus kinase 1) (JAK-1),FUNCTION: Tyrosine kinase of the non-receptor type, involved in the IFN-alpha/beta/gamma signal pathway (PubMed:8232552, PubMed:7615558, PubMed:28111307, PubMed:32750333, PubMed:16239216). Kinase partner for the interleukin (IL)-2 receptor (PubMed:11909529) as well as interleukin (IL)-10 receptor (PubMed:12133952). Kinase partner for the type I interferon receptor IFNAR2 (PubMed:8232552, PubMed:7615558, PubMed:28111307, PubMed:32750333, PubMed:16239216). In response to interferon-binding to IFNAR1-IFNAR2 heterodimer, phosphorylates and activates its binding partner IFNAR2, creating docking sites for STAT proteins (PubMed:7759950). Directly phosphorylates STAT proteins but also activates STAT signaling through the transactivation of other JAK kinases associated with signaling receptors (PubMed:8232552, PubMed:16239216, PubMed:32750333). {ECO:0000269 PubMed:11909529, ECO:0000269 PubMed:12133952, ECO:0000269 PubMed:16239216, ECO:0000269 PubMed:28111307, ECO:0000269 PubMed:32750333, ECO:0000269 PubMed:7615558, ECO:0000269 PubMed:7657660, ECO:0000269 PubMed:8232552}.</p>
Molecular Weight:	133.3 kDa
UniProt:	P23458
Pathways:	JAK-STAT Signaling , RTK Signaling , Interferon-gamma Pathway , Hepatitis C , Toll-Like Receptors Cascades , Unfolded Protein Response

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months