Datasheet for ABIN3134024

STAT1 Protein (AA 2-749) (His tag)

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Overview

Quantity:	1 mg
Target:	STAT1
Protein Characteristics:	AA 2-749
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This STAT1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	SQWFELQQLD SKFLEQVHQL YDDSFPMEIR QYLAQWLEKQ DWEHAAYDVS FATIRFHDLL SQLDDQYSRF SLENNFLLQH NIRKSKRNLQ DNFQEDPVQM SMIIYNCLKE ERKILENAQR FNQAQEGNIQ NTVMLDKQKE LDSKVRNVKD QVMCIEQEIK TLEELQDEYD FKCKTSQNRE GEANGVAKSD QKQEQLLLHK MFLMLDNKRK EIIHKIRELL NSIELTQNTL INDELVEWKR RQQSACIGGP PNACLDQLQT WFTIVAETLQ QIRQQLKKLE ELEQKFTYEP DPITKNKQVL SDRTFLLFQQ LIQSSFVVER QPCMPTHPQR PLVLKTGVQF TVKSRLLVKL QESNLLTKVK CHFDKDVNEK NTVKGFRKFN ILGTHTKVMN MEESTNGSLA AELRHLQLKE QKNAGNRTNE GPLIVTEELH SLSFETQLCQ PGLVIDLETT SLPVVVISNV SQLPSGWASI LWYNMLVTEP RNLSFFLNPP CAWWSQLSEV LSWQFSSVTK RGLNADQLSM LGEKLLGPNA GPDGLIPWTR FCKENINDKN FSFWPWIDTI LELIKNDLLC LWNDGCIMGF ISKERERALL KDQQPGTFLL RFSESSREGA ITFTWVERSQ NGGEPDFHAV EPYTKKELSA VTFPDIIRNY KVMAAENIPE NPLKYLYPNI DKDHAFGKYY SRPKEAPEPM ELDDPKRTGY IKTELISVSE VHPSRLQTTD

Product Details

	NLLPMSPEEF DEMSRIVGPE FDSMMSTV **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Stat1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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 will ensure that you receive a correctly folded 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.

Product Details

Grade:	Crystallography grade

Target Details

Target:	STAT1
Alternative Name:	Stat1 (STAT1 Products)
Background:	Signal transducer and transcription activator that mediates cellular responses to interferons (IFNs), cytokine KITLG/SCF and other cytokines and other growth factors. Following type I IFN (IFN-alpha and IFN-beta) binding to cell surface receptors, signaling via protein kinases leads to activation of Jak kinases (TYK2 and JAK1) and to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize and associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus. ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of IFN-stimulated genes (ISG), which drive the cell in an antiviral state. In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-phosphorylated. It then forms a homodimer termed IFN-gamma-activated factor (GAF), migrates into the nucleus and binds to the IFN gamma activated sequence (GAS) to drive the expression of the target genes, inducing a cellular antiviral state. Becomes activated in response to KITLG/SCF and KIT signaling. May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4. {ECO:0000269|PubMed:11294897, ECO:0000269|PubMed:19088846, ECO:0000269|PubMed:22065572, ECO:0000269|PubMed:9344858}.
Molecular Weight:	88.0 kDa Including tag.
UniProt:	P42225
Pathways:	JAK-STAT Signaling, RTK Signaling, Interferon-gamma Pathway, Response to Growth Hormone Stimulus, Cellular Response to Molecule of Bacterial Origin, Positive Regulation of Endopeptidase Activity, Hepatitis C, CXCR4-mediated Signaling Events

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 gurantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible

Application Details

	options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)