Datasheet for ABIN3137548

STAT2 Protein (AA 1-923) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	STAT2
Protein Characteristics:	AA 1-923
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This STAT2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MAQWEMLQNL DSPFLDQLHQ VYSQSFLPMD FRQHLASWIE DQNWREAALE SDDAKANMLY FSILDQLNQW DHYSSDPKSL LLQHNLRKFS RDIQPFPNGP SQLAEMIFNL LLEEQRILIQ AQRAQEVQPP PAPEAVVESQ QLEIENRIQG LHVDIEFLVR SIRQLKDEQD VFSFRYTVFS LKKTSSSDPH QSQQAHVVQA TANKVDRMRK EVLDISKGLV GRLTTLVDLL LPKLDEWKVQ QQKSCIGAPP PVKSAAEQLE QWLTAGAKFL FHLRQLLKQL KEMSCLRYQG DMFAKGVDLR NAQVMELLQR LLQRSFVVET QPCMPQTLHR PLILKTGNKF TVRTRLLVRL QEGSESLKAE VSVDRNSDLP GFRKFNILTS NQKTLTPEKG QRQGLIWDFG FLTLVEQRAV GAGKGNNKGP LAVTEELHVI SFVVEYTYQG LKMKLQTDTL PVVIISNMNQ LSFAWASILW FNMLSPNPKN QQFFCQAPKA PWSLLGPVLS WQFSSYVARG LDSEQLGMLR TKLFGKSCKM EDALLSWVDF CKRESPPGKI PFWTWLDKIL ELVHDHLKDL WKDGRIMGFV SRNQERRLLK KMLSGTFLLR FSETSEGGIT CSWVEHQDDH KVEIYSVQPY TKEVLQSLPL TEIIRHYQVL AEENIPENPL RFLYPRIPRD EAFGCYYQEK VNLEEQEEYL KHKLIVISNR QVDELQQPLE LKQDSESLEV

NAELLLAHDQ ELPLMMQTGL VLGTELKVDP ILSTAPQVLL EPAPQVLLEP APQVLLEPAP QVLLEPAPQV LLEPAPQVLL EPAPQVLLEP APQVQLEPAP QVLLELAPQV LLEPAPQVLL ELAPQVQLEP AHLLQQPSES DLPEDLQQIS VEDLKKLSNP STEYITTNEN PMLAGESSGD ETSIPYHSHF DADGLLGWTL DTF

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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!

Concentration:

- 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.

Product Details

- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	STAT2
Alternative Name:	Stat2 (STAT2 Products)
Background:	Signal transducer and activator of transcription 2,FUNCTION: Signal transducer and activator of transcription that mediates signaling by type I interferons (IFN-alpha and IFN-beta). Following type I IFN binding to cell surface receptors, Jak kinases (TYK2 and JAK1) are activated, leading to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize, associate with IRF9/ISGF3G 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 interferon stimulated genes, which drive the cell in an antiviral state. In addition, has also a negative feedback regulatory role in the type I interferon signaling by recruiting USP18 to the type I IFN receptor subunit IFNAR2 thereby mitigating the response to type I IFNs. Acts as a regulator of mitochondrial fission by modulating the phosphorylation of DNM1L at 'Ser-616' and 'Ser-637' which activate and inactivate the GTPase activity of DNM1L respectively. {ECO:0000250|UniProtKB:P52630}.
Molecular Weight:	105.4 kDa
UniProt:	Q9WVL2
Pathways:	JAK-STAT Signaling, 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 guarantee though.
Comment:	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!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)