Datasheet for ABIN3136684

IFIH1 Protein (AA 1-1025) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	IFIH1
Protein Characteristics:	AA 1-1025
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This IFIH1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Sequence:	MSIVCSAEDS FRNLILFFRP RLKMYIQVEP VLDHLIFLSA ETKEQILKKI NTCGNTSAAE LLLSTLEQGQ WPLGWTQMFV EALEHSGNPL AARYVKPTLT DLPSPSSETA HDECLHLLTL LQPTLVDKLL INDVLDTCFE KGLLTVEDRN RISAAGNSGN ESGVRELLRR IVQKENWFST FLDVLRQTGN DALFQELTGG GCPEDNTDLA NSSHRDGPAA NECLLPAVDE SSLETEAWNV DDILPEASCT DSSVTTESDT SLAEGSVSCF DESLGHNSNM GRDSGTMGSD SDESVIQTKR VSPEPELQLR PYQMEVAQPA LDGKNIIICL PTGSGKTRVA VYITKDHLDK KKQASESGKV IVLVNKVMLA EQLFRKEFNP YLKKWYRIIG LSGDTQLKIS FPEVVKSYDV IISTAQILEN SLLNLESGDD DGVQLSDFSL IIIDECHHTN KEAVYNNIMR RYLKQKLRNN DLKKQNKPAI PLPQILGLTA SPGVGAAKKQ SEAEKHILNI CANLDAFTIK TVKENLGQLK HQIKEPCKKF VIADDTRENP FKEKLLEIMA SIQTYCQKSP MSDFGTQHYE QWAIQMEKKA AKDGNRKDRV CAEHLRKYNE ALQINDTIRM IDAYSHLETF YTDEKEKKFA VLNDSDKSDD EASSCNDQLK GDVKKSLKLD ETDEFLMNLF FDNKKMLKKL AENPKYENEK LIKLRNTILE QFTRSEESSR

GIIFTKTRQS TYALSQWIME NAKFAEVGVK AHHLIGAGHS SEVKPMTQTE QKEVISKFRT GEINLLIATT VAEEGLDIKE CNIVIRYGLV TNEIAMVQAR GRARADESTY VLVTSSGSGV TEREIVNDFR EKMMYKAINR VQNMKPEEYA HKILELQVQS ILEKKMKVKR SIAKQYNDNP SLITLLCKNC SMLVCSGENI HVIEKMHHVN MTPEFKGLYI VRENKALQKK FADYQTNGEI ICKCGQAWGT MMVHKGLDLP CLKIRNFVVN FKNNSPKKQY KKWVELPIRF PDLDYSEYCL YSDED

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.

Product Details

- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- 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:	IFIH1
Alternative Name:	Ifih1 (IFIH1 Products)
Background:	Interferon-induced helicase C domain-containing protein 1 (EC 3.6.4.13) (Helicase with 2 CARD domains) (Helicard) (Interferon induced with helicase C domain protein 1) (Melanoma differentiation-associated protein 5) (MDA-5) (RIG-I-like receptor 2) (RLR-2),FUNCTION: Innate immune receptor which acts as a cytoplasmic sensor of viral nucleic acids and plays a major role in sensing viral infection and in the activation of a cascade of antiviral responses including the induction of type I interferons and pro-inflammatory cytokines. Its ligands include mRNA lacking 2'-O-methylation at their 5' cap and long-dsRNA (>1 kb in length). Upon ligand binding it associates with mitochondria antiviral signaling protein (MAVS/IPS1) which activates the IKK-related kinases: TBK1 and IKBKE which phosphorylate interferon regulatory factors: IRF3 and IRF7 which in turn activate transcription of antiviral immunological genes, including interferons (IFNs), IFN-alpha and IFN-beta. Responsible for detecting the Picornaviridae family members such as encephalomyocarditis virus (EMCV), mengo encephalomyocarditis virus (ENMG), and theiler's murine encephalomyelitis virus (TMEV). Can also detect other viruses such as dengue virus (DENV), west Nile virus (WNV), and reovirus. Also involved in antiviral signaling in response to viruses containing a dsDNA genome, such as vaccinia virus. Plays an important role in amplifying innate immune signaling through recognition of RNA metabolites that are produced during virus infection by ribonuclease L (RNase L). May play an important role in

Target Details

	enhancing natural killer cell function and may be involved in growth inhibition and apoptosis in several tumor cell lines. {ECO:0000269|PubMed:12015121, ECO:0000269|PubMed:16625202, ECO:0000269|PubMed:17942531, ECO:0000269|PubMed:19656871, ECO:0000269|PubMed:21217758}.
Molecular Weight:	116.0 kDa
UniProt:	Q8R5F7
Pathways:	Activation of Innate immune 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.
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.

Handling

Expiry Date:	Unlimited (if stored properly)

