Datasheet for ABIN3093015

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

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Overview

Quantity:	250 µg
Target:	IFIH1
Protein Characteristics:	AA 1-1025
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This IFIH1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MSNGYSTDEN FRYLISCFRA RVKMYIQVEP VLDYLTFLPA EVKEQIQRTV ATSGNMQAVE LLLSTLEKGV WHLGWTREFV EALRRTGSPL AARYMNPELT DLPSPSFENA HDEYLQLLNL LQPTLVDKLL VRDVLDKCME EELLTIEDRN RIAAAENNGN ESGVRELLKR IVQKENWFSA FLNVLRQTGN NELVQELTGS DCSESNAEIE NLSQVDGPQV EEQLLSTTVQ PNLEKEVWGM ENNSSESSFA DSSVVSESDT SLAEGSVSCL DESLGHNSNM GSDSGTMGSD SDEENVAARA SPEPELQLRP YQMEVAQPAL EGKNIIICLP TGSGKTRVAV YIAKDHLDKK KKASEPGKVI VLVNKVLLVE QLFRKEFQPF LKKWYRVIGL SGDTQLKISF PEVVKSCDII ISTAQILENS LLNLENGEDA GVQLSDFSLI IIDECHHTNK EAVYNNIMRH YLMQKLKNNR LKKENKPVIP LPQILGLTAS PGVGGATKQA KAEEHILKLC ANLDAFTIKT VKENLDQLKN QIQEPCKKFA IADATREDPF KEKLLEIMTR IQTYCQMSPM SDFGTQPYEQ WAIQMEKKAA KEGNRKERVC AEHLRKYNEA LQINDTIRMI DAYTHLETFY NEEKDKKFAV IEDDSDEGGD DEYCDGDEDE

DDLKKPLKLD ETDRFLMTLF FENNKMLKRL AENPEYENEK LTKLRNTIME QYTRTEESAR GIIFTKTRQS AYALSQWITE NEKFAEVGVK AHHLIGAGHS SEFKPMTQNE QKEVISKFRT GKINLLIATT VAEEGLDIKE CNIVIRYGLV TNEIAMVQAR GRARADESTY VLVAHSGSGV IEHETVNDFR EKMMYKAIHC VQNMKPEEYA HKILELQMQS IMEKKMKTKR NIAKHYKNNP SLITFLCKNC SVLACSGEDI HVIEKMHHVN MTPEFKELYI VRENKALQKK CADYQINGEI ICKCGQAWGT MMVHKGLDLP CLKIRNFVVV FKNNSTKKQY KKWVELPITF PNLDYSECCL FSDED

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!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.

Product Details

- 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:	IFIH1
Alternative Name:	IFIH1 (IFIH1 Products)
Background:	Interferon-induced helicase C domain-containing protein 1 (EC 3.6.4.13) (Clinically amyopathic dermatomyositis autoantigen 140 kDa) (CADM-140 autoantigen) (Helicase with 2 CARD domains) (Helicard) (Interferon-induced with helicase C domain protein 1) (Melanoma differentiation-associated protein 5) (MDA-5) (Murabutide down-regulated protein) (RIG-I-like receptor 2) (RLR-2) (RNA helicase-DEAD box protein 116),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 (PubMed:32169843, PubMed:33727702, PubMed:28594402). Its ligands include mRNA lacking 2'-O-methylation at their 5' cap and long-dsRNA (>1 kb in length) (PubMed:22160685). 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 rhinovirus (PubMed:28606988). Detects coronavirus SARS-CoV-2 (PubMed:33440148, PubMed:33514628). 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 enhancing natural killer cell function and may be involved in growth inhibition and apoptosis in several tumor cell lines.

Target Details

	{ECO:0000269|PubMed:14645903, ECO:0000269|PubMed:19211564, ECO:0000269|PubMed:19656871, ECO:0000269|PubMed:21217758, ECO:0000269|PubMed:21742966, ECO:0000269|PubMed:22160685, ECO:0000269|PubMed:28594402, ECO:0000269|PubMed:28606988, ECO:0000269|PubMed:29117565, ECO:0000269|PubMed:33440148, ECO:0000269|PubMed:33514628, ECO:0000269|PubMed:33727702}.
Molecular Weight:	116.7 kDa
UniProt:	Q9BYX4
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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

Handling

Storage Comment:	Store at -80°C.
Expiry Date:	12 months