Datasheet for ABIN3092156

DHX58 Protein (AA 1-678) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	DHX58
Protein Characteristics:	AA 1-678
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DHX58 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MELRSYQWEV IMPALEGKNI IIWLPTGAGK TRAAAYVAKR HLETVDGAKV VVLVNRVHLV TQHGEEFRRM LDGRWTVTTL SGDMGPRAGF GHLARCHDLL ICTAELLQMA LTSPEEEEHV ELTVFSLIVV DECHHTHKDT VYNVIMSQYL ELKLQRAQPL PQVLGLTASP GTGGASKLDG AINHVLQLCA NLDTWCIMSP QNCCPQLQEH SQQPCKQYNL CHRRSQDPFG DLLKKLMDQI HDHLEMPELS RKFGTQMYEQ QVVKLSEAAA LAGLQEQRVY ALHLRRYNDA LLIHDTVRAV DALAALQDFY HREHVTKTQI LCAERRLLAL FDDRKNELAH LATHGPENPK LEMLEKILQR QFSSSNSPRG IIFTRTRQSA HSLLLWLQQQ QGLQTVDIRA QLLIGAGNSS QSTHMTQRDQ QEVIQKFQDG TLNLLVATSV AEEGLDIPHC NVVVRYGLLT NEISMVQARG RARADQSVYA FVATEGSREL KRELINEALE TLMEQAVAAV QKMDQAEYQA KIRDLQQAAL TKRAAQAAQR ENQRQQFPVE HVQLLCINCM VAVGHGSDLR KVEGTHHVNV NPNFSNYYNV SRDPVVINKV FKDWKPGGVI SCRNCGEVWG LQMIYKSVKL PVLKVRSMLL ETPQGRIQAK KWSRVPFSVP DFDFLQHCAE NLSDLSLD

	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. • 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®):

Product Details

	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)
Grade:	Crystallography grade

Target Details

Target:	DHX58
Alternative Name:	DHX58 (DHX58 Products)
Background:	ATP-dependent RNA helicase DHX58 (EC 3.6.4.13) (ATP-dependent helicase LGP2) (Protein D11Lgp2 homolog) (RIG-I-like receptor 3) (RLR-3) (RIG-I-like receptor LGP2) (RLR),FUNCTION: Acts as a regulator of RIGI and IFIH1/MDA5 mediated antiviral signaling. Cannot initiate antiviral signaling as it lacks the CARD domain required for activating MAVS/IPS1-dependent signaling events. Can have both negative and positive regulatory functions related to RIGI and IFIH1/MDA5 signaling and this role in regulating signaling may be complex and could probably depend on characteristics of the infecting virus or target cells, or both. Its inhibitory action on RIG-I signaling may involve the following mechanisms: competition with RIGI for binding to the viral RNA, binding to RIGI and inhibiting its dimerization and interaction with MAVS/IPS1, competing with IKBKE in its binding to MAVS/IPS1 thereby inhibiting activation of interferon regulatory factor 3 (IRF3). Its positive regulatory role may involve unwinding or stripping nucleoproteins of viral RNA thereby facilitating their recognition by RIGI and IFIH1/MDA5. Involved in the innate immune response to various RNA viruses and some DNA viruses such as poxviruses and coronavirus SARS-CoV-2, and also to the bacterial pathogen Listeria monocytogenes (PubMed:31256877). Can bind both ssRNA and dsRNA, with a higher affinity for dsRNA. Shows a preference to 5'-triphosphorylated RNA, although it can recognize RNA lacking a 5'-triphosphate. {ECO:0000269|PubMed:16116171, ECO:0000269|PubMed:17020950, ECO:0000269|PubMed:17190814, ECO:0000269|PubMed:18411269, ECO:0000269|PubMed:19208642, ECO:0000269|PubMed:19211564, ECO:0000269|PubMed:19278996, ECO:0000269|PubMed:19380577, ECO:0000269|PubMed:21187438, ECO:0000269|PubMed:21525357, ECO:0000269|PubMed:31256877}.

Target Details

Molecular Weight:	76.6 kDa
UniProt:	Q96C10

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)

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process