Datasheet for ABIN3137276

DDX21 Protein (AA 1-851) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	DDX21
Protein Characteristics:	AA 1-851
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DDX21 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MPGKLRSGAK LGSDGAEESM ETLPKPSEKK TRKEKTKSKT EEATEGMEEA VSSKAKKTNK KGPSEDDVDP PKSRKAKKQE EEPQDDTAST SKTSKKKKEP LEKQADSETK EIITEEPSEE EADMPKPKKM KKGKEANGDA GEKSPKLKNG LSQPSEEEAD IPKPKKMKKG KEANGDAGEK SPKLKNGLSQ PSEEEVDIPK PKKMKKGKEA SGDAGEKSPR LKDGLSQPSE PKSNSSDAPG EESSSETEKE IPVEQKEGAF SNFPISEETV KLLKARGVNF LFPIQAKTFH HVYSGKDLIA QARTGTGKTF SFAIPLIEKL QGGLQERKRG RAPQVLVLAP TRELANQVSK DFSDITKKLS VACFYGGTPY GGQIERMRSG IDILVGTPGR IKDHLQNGKL DLTKLKHVVL DEVDQMLDMG FADQVEEILC VAYKKDSEDN PQTLLFSATC PHWVFNVAKK YMKSTYEQVD LIGKKTQKAA ITVEHLAIKC HWTERAAVIG DVIRVYSGHQ GRTIIFCETK KDAQELSQNT CIKQDAQSLH GDIPQKQREI TLKGFRNGNF GVLVATNVAA RGLDIPEVDL VVQSCPPKDV ESYIHRSGRT GRAGRTGVCI CFYQNKEEYQ LAQVEQKAGI KFKRIGVPSA TEIIKASSKD AIRLLDSVPP TAISHFKQSA EKLIEEKGAV EALAAALAHI SGATSVDQRS LINSQAGFVT MILRCSIEMP

NISYAWKELK EQLGESIDAK VKGMVFLKGK LGVCFDVRTE AVTEIQEKWH DSRRWQLTVA TEQPELEGPP DGYRGRMGQR DGSRGAFRGQ RGGSRNFRGQ GQRGGSRNFR GQRPGGGNRG QKRSFSKAFG Q

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.

Product Details

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)
Grade:	Crystallography grade

Target Details

Target:	DDX21
Alternative Name:	Ddx21 (DDX21 Products)
Background:	Nucleolar RNA helicase 2 (EC 3.6.4.13) (DEAD box protein 21) (Gu-alpha) (Nucleolar RNA helicase Gu) (Nucleolar RNA helicase II) (RH II/Gu),FUNCTION: RNA helicase that acts as a sensor of the transcriptional status of both RNA polymerase (Pol) I and II: promotes ribosomal RNA (rRNA) processing and transcription from polymerase II (Pol II) (By similarity). Binds various RNAs, such as rRNAs, snoRNAs, 7SK and, at lower extent, mRNAs (By similarity). In the nucleolus, localizes to rDNA locus, where it directly binds rRNAs and snoRNAs, and promotes rRNA transcription, processing and modification (By similarity). Required for rRNA 2'-O-methylation, possibly by promoting the recruitment of late-acting snoRNAs SNORD56 and SNORD58 with pre-ribosomal complexes (By similarity). In the nucleoplasm, binds 7SK RNA and is recruited to the promoters of Pol II-transcribed genes: acts by facilitating the release of P-TEFb from inhibitory 7SK snRNP in a manner that is dependent on its helicase activity, thereby promoting transcription of its target genes (By similarity). Functions as cofactor for JUN-activated transcription: required for phosphorylation of JUN at 'Ser-77' (By similarity). Can unwind double-stranded RNA (helicase) and can fold or introduce a secondary structure to a single-stranded RNA (foldase) (By similarity). Together with SIRT7, required to prevent R-loop-associated DNA damage and transcription-associated genomic instability: deacetylation by SIRT7 activates the helicase activity, thereby overcoming R-loop-mediated stalling of RNA polymerases (By similarity). Involved in rRNA processing. May bind to specific miRNA hairpins (By similarity). Component of a multi-helicase-TICAM1 complex that acts as a cytoplasmic sensor of viral double-stranded RNA (dsRNA) and plays a role in the activation of a cascade of

Target Details

	antiviral responses including the induction of pro-inflammatory cytokines via the adapter molecule TICAM1 (PubMed:21703541). {ECO:0000250|UniProtKB:Q9NR30, ECO:0000269|PubMed:21703541}.
Molecular Weight:	93.6 kDa
UniProt:	Q9JIK5
Pathways:	SARS-CoV-2 Protein Interactome

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)

