Datasheet for ABIN3096425

YTHDC1 Protein (AA 1-727) (Strep Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	YTHDC1
Protein Characteristics:	AA 1-727
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This YTHDC1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MAADSREEKD GELNVLDDIL TEVPEQDDEL YNPESEQDKN EKKGSKRKSD RMESTDTKRQ KPSVHSRQLV SKPLSSSVSN NKRIVSTKGK SATEYKNEEY QRSERNKRLD ADRKIRLSSS ASREPYKNQP EKTCVRKRDP ERRAKSPTPD GSERIGLEVD RRASRSSQSS KEEVNSEEYG SDHETGSSGS SDEQGNNTEN EEEGVEEDVE EDEEVEEDAE EDEEVDEDGE EEEEEEEEEE EEEEEEEEEY EQDERDQKEE GNDYDTRSEA SDSGSESVSF TDGSVRSGSG TDGSDEKKKE RKRARGISPI VFDRSGSSAS ESYAGSEKKH EKLSSSVRAV RKDQTSKLKY VLQDARFFLI KSNNHENVSL AKAKGVWSTL PVNEKKLNLA FRSARSVILI FSVRESGKFQ GFARLSSESH HGGSPIHWVL PAGMSAKMLG GVFKIDWICR RELPFTKSAH LTNPWNEHKP VKIGRDGQEI ELECGTQLCL LFPPDESIDL YQVIHKMRHK RRMHSQPRSR GRPSRREPVR DVGRRRPEDY DIHNSRKKPR IDYPPEFHQR PGYLKDPRYQ EVDRRFSGVR RDVFLNGSYN DYVREFHNMG PPPPWQGMPP YPGMEQPPHH PYYQHHAPPP QAHPPYSGHH PVPHEARYRD KRVHDYDMRV DDFLRRTQAV VSGRRSRPRE RDRERERDRP RDNRRDRERD RGRDRERERE RLCDRDRDRG

Product Details

	ERGRYRR **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

Product Details

	(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:	YTHDC1
Alternative Name:	YTHDC1 (YTHDC1 Products)
Background:	YTH domain-containing protein 1 (Splicing factor YT521) (YT521-B),FUNCTION: Regulator of alternative splicing that specifically recognizes and binds N6-methyladenosine (m6A)-containing RNAs (PubMed:25242552, PubMed:26318451, PubMed:26876937, PubMed:28984244). M6A is a modification present at internal sites of mRNAs and some non-coding RNAs and plays a role in the efficiency of mRNA splicing, processing and stability (PubMed:25242552, PubMed:26318451). Acts as a key regulator of exon-inclusion or exon-skipping during alternative splicing via interaction with mRNA splicing factors SRSF3 and SRSF10 (PubMed:26876937). Specifically binds m6A-containing mRNAs and promotes recruitment of SRSF3 to its mRNA-binding elements adjacent to m6A sites, leading to exon-inclusion during alternative splicing (PubMed:26876937). In contrast, interaction with SRSF3 prevents interaction with SRSF10, a splicing factor that promotes exon skipping: this prevents SRSF10 from binding to its mRNA-binding sites close to m6A-containing regions, leading to inhibit exon skipping during alternative splicing (PubMed:26876937). May also regulate alternative splice site selection (PubMed:20167602). Also involved in nuclear export of m6A-containing mRNAs via interaction with SRSF3: interaction with SRSF3 facilitates m6A-containing mRNA-binding to both SRSF3 and NXF1, promoting mRNA nuclear export (PubMed:28984244). Involved in S-adenosyl-L-methionine homeostasis by regulating expression of MAT2A transcripts, probably by binding m6A-containing MAT2A mRNAs (By similarity). Also recognizes and binds m6A on other RNA molecules (PubMed:27602518). Involved in random X inactivation mediated by Xist RNA: recognizes and binds m6A-containing Xist and promotes transcription repression activity of Xist (PubMed:27602518). Also recognizes

Target Details

	and binds m6A-containing single-stranded DNA (PubMed:32663306). Involved in germline development: required for spermatogonial development in males and oocyte growth and maturation in females, probably via its role in alternative splicing (By similarity). {ECO:0000250|UniProtKB:E9Q5K9, ECO:0000269|PubMed:20167602, ECO:0000269|PubMed:25242552, ECO:0000269|PubMed:26318451, ECO:0000269|PubMed:26876937, ECO:0000269|PubMed:27602518, ECO:0000269|PubMed:28984244, ECO:0000269|PubMed:32663306}.
Molecular Weight:	84.7 kDa
UniProt:	Q96MU7

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

Handling

Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

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