

# Datasheet for ABIN7556064 YTHDC1 Protein (AA 1-727) (His tag)



# Overview

Quantity:	1 mg
Target:	YTHDC1
Protein Characteristics:	AA 1-727
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This YTHDC1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

# **Product Details**

Product Details	
Purpose:	Custom-made recombinat YTHDC1 Protein expressed in mammalien cells.
Sequence:	MAADSREEKD GELNVLDDIL TEVPEQDDEL YNPESEQDKN EKKGSKRKSD RMESTDTKRQ
	KPSVHSRQLV SKPLSSSVSN NKRIVSTKGK SATEYKNEEY QRSERNKRLD ADRKIRLSSS
	ASREPYKNQP EKTCVRKRDP ERRAKSPTPD GSERIGLEVD RRASRSSQSS KEEVNSEEYG
	SDHETGSSGS SDEQGNNTEN EEEGVEEDVE EDEEVEEDAE EDEEVDEDGE EEEEEEEEE
	EEEEEEEEY 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 ERGRYRR Sequence without tag. The proposed Purification-Tag is based on experiences 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 to order protein from design to production by highly experienced protein experts.
- Protein expressed in mammalien cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

#### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

#### Grade:

custom-made

# **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 m6Acontaining mRNAs via interaction with SRSF3: interaction with SRSF3 facilitates m6Acontaining 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 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.

Restrictions:

For Research Use only

### Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

# Handling

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