

Datasheet for ABIN3095898

THOC1 Protein (AA 1-657) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	THOC1
Protein Characteristics:	AA 1-657
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This THOC1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MSPTPLFSL PEARTRFTKS TREALNNKNI KPLLSTFSQV PGSENEKKCT LDQAFRGILE</p> <p>EEIINHSSCE NVLAIISLAI GGVTEGICTA STPFVLLGDV LDCLPLDQCD TIFTFVEKNV</p> <p>ATWKSNTFYS AGKNYLLRMC NDLLRRLSKS QNTVFCGRIQ LFLARLFPLS EKSGNLNLSQ</p> <p>FNLENTVFN TNEQUESTLGQ KHTEDREEGM DVEEGEMGDE EAPTTCSIPI DYNLYRKFW</p> <p>LQDYFRNPVQ CYEKISWKTF LKYSEEVLA VFKSYKLDDTQ ASRKKMEELK TGGEHVYFAK</p> <p>FLTSEKLMDL QLSDSNFRRH ILLQYLILFQ YLKGQVKFKS SNYVLTDEQS LWIEDTTKSV</p> <p>YQLLENPPD GERFSKMVEH ILNTEENWNS WKNEGCPSFV KERTSDTKPT RIIRKRTAPE</p> <p>DFLGKGPTKK ILMGNEELTR LWNLCPDNME ACKSETREHM PTLEEFFEEA IEQADPENMV</p> <p>ENEYKAVNNS NYGWRALRLL ARRSPHFFQP TNQQFKSLPE YLENMVIKLA KELPPPSEEI</p> <p>KTGEDEDEED NDALLKENES PDVRRDKPVT GEQIEVFANK LGEQWKILAP YLEMKDSEIR</p> <p>QIECDSEDMK MRAKQLLVAW QDQEGVHATP ENLINALNKS GLSDLAESLT NDNENNS</p>

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.
- 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).

Product Details

Grade: custom-made

Target Details

Target: THOC1

Alternative Name: THOC1 ([THOC1 Products](#))

Background: THO complex subunit 1 (Tho1) (Nuclear matrix protein p84) (p84N5) (hTREX84),FUNCTION: Required for efficient export of polyadenylated RNA. Acts as component of the THO subcomplex of the TREX complex which is thought to couple mRNA transcription, processing and nuclear export, and which specifically associates with spliced mRNA and not with unspliced pre-mRNA. TREX is recruited to spliced mRNAs by a transcription-independent mechanism, binds to mRNA upstream of the exon-junction complex (EJC) and is recruited in a splicing- and cap-dependent manner to a region near the 5' end of the mRNA where it functions in mRNA export to the cytoplasm via the TAP/NFX1 pathway. The TREX complex is essential for the export of Kaposi's sarcoma-associated herpesvirus (KSHV) intronless mRNAs and infectious virus production. Regulates transcriptional elongation of a subset of genes. Involved in genome stability by preventing co-transcriptional R-loop formation. May play a role in hair cell formation, hence may be involved in hearing (By similarity). {ECO:0000250|UniProtKB:Q7SYB2}., FUNCTION: Participates in an apoptotic pathway which is characterized by activation of caspase-6, increases in the expression of BAK1 and BCL2L1 and activation of NF-kappa-B. This pathway does not require p53/TP53, nor does the presence of p53/TP53 affect the efficiency of cell killing. Activates a G2/M cell cycle checkpoint prior to the onset of apoptosis. Apoptosis is inhibited by association with RB1.

Molecular Weight: 75.7 kDa

UniProt: [Q96FV9](#)

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.

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Application Details

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

Storage Comment: Store at -80°C.

Expiry Date: 12 months