

Datasheet for ABIN3095858

THO Complex 2 Protein (THOC2) (AA 1-1593) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	THO Complex 2 (THOC2)
Protein Characteristics:	AA 1-1593
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This THO Complex 2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MAAAVVVPA EWIKNWEKSG RGEFLHLCRI LSENKSHDSS TYRDFQQALY ELSYHVIKGN</p> <p>LKHEQASNVL SDISEFREDM PSILADVFCI LDIETNCLEE KSKRDYFTQL VLACLYLVSD</p> <p>TVLKERLDPE TLESGLIKQ SQQFNQKSVK IKTKLFYKQQ KFNLLREENE GYAKLIAELG</p> <p>QDLGSITS LILENIKSLI GCFNLDPNRV LDVILEVFEC RPEHDDFFIS LLESYMSMCE</p> <p>PQTLCHILGF KFKFYQEPNG ETPSSLYRVA AVLLQFNLI LDDLYVHLLP ADNCIMDEHK</p> <p>REIAEAKQIV RKLTMMVLSS EKMDEREKEK EKEEEKVEKP PDNQKLGLLE ALLKIGDWQH</p> <p>AQNIMDQMPP YYAASHKLI LAICKLIHIT IEPLYRRVG PVKGAKGSPVN ALQNKRAPKQ</p> <p>AESFEDLRD VFNMF CYLGP HLSHDPILFA KVVRIKGSFM KEFQSDGSKQ EDKEKTEVIL</p> <p>SCLLSITDQV LLPSLSLMDC NACMSEELWG MFKTFPYQHR YRLYGQWKNE TYN SHPLL VK</p> <p>VKAQTIDRAK YIMKRLTKEN VKPSGRQIGK LSHSNPTILF DYILSQIQKY DNLITPVVDS</p> <p>LKYLTS LNYD VLAYCIEAL ANPEKERMKH DDTTISSWLQ SLASFCGAVF RKYPIDLAGL</p> <p>LQYVANQLKA GKSFDLLILK EVVQKMAGIE ITEEMTMEQL EAMTGGEQLK AEGGYFGQIR</p>
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NTKKSSQRLK DALLDHDAL PLCLLMAQQR NGVIFQEGGE KHLKLVGKLY DQCHDTLVQF
GGFLASNLST EDYIKRVPSI DVL CNEFHTP HDAFFLSRP MYAHHISSKY DELKKSEKGS
KQQHKVHKYI TSCMV MAPV HEAVVSLHVS KVVDDISPQF YATFWSLTMY DLAVPHTSYE
REVNKLKVQM KAIDDNQEMP PNKKKKEKER CTALQDKLLE EEKQMEHVQ RVLQRLKLEK
DNWLLAKSTK NETITKFLQL CIFPRCIFSA IDAVYCARFV ELVHQKQTPN FSTLLCYDRV
FSDIITVAS CTENEASRYG RFLCCMLETV TRWHSDRATY EKECGNYPGF LTILRATGFD
GGNKADQLDY ENFRHVHVKW HYKLT KASVH CLETGEYTHI RNILIVLTKI LPWYPKVLNL
GQALERRVHK ICQEEKEKRP DLYALAMGYS GQLKSRKSYM IPENEFHHKD PPPRNAVASV
QNGPGGGPSS SSIGSASKSD ESSTEETDKS RERSQCGVKA VNKASSTTPK GNSSNGNSGS
NSNKAVKEND KEGKKEKEKE KKEKTPATTP EARVLGKDGK EKPKEERPNK DEKARETKER
TPKSDKEKEK FKKEEKAKDE KFKTTVPNAE SKSTQERERE KEPSRERDIA KEMKSKENVK
GGEKTPVSGS LKSPVPRSDI PEPEREQRR KIDTHPSPSH SSTVKDSLIE LKESSAKLYI
NHTPPPLSKS KEREMDKDL DKSRRSRER EKKDEKDRKE RKR DHSNNDR EVPPDLTKRR
KEENGTMGVS KHKSESPCES PYPNEKDKEK NKS KSSGKEK GSDSFKSEKM DKISSGGKKE
SRHDKEKIEK KEKRDSSGGK EEKHHHKSSD KHR

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®): 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:	THO Complex 2 (THOC2)
Alternative Name:	THOC2 (THOC2 Products)
Background:	THO complex subunit 2 (Tho2) (hTREX120),FUNCTION: Required for efficient export of polyadenylated RNA and spliced mRNA. Acts as a 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

Target Details

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. THOC2 (and probably the THO complex) is involved in releasing mRNA from nuclear speckle domains. Required for NXF1 localization to the nuclear rim. Plays a role for proper neuronal development. {ECO:0000269|PubMed:11979277, ECO:0000269|PubMed:15833825, ECO:0000269|PubMed:15998806, ECO:0000269|PubMed:17190602, ECO:0000269|PubMed:18974867, ECO:0000269|PubMed:22893130, ECO:0000269|PubMed:23222130, ECO:0000269|PubMed:26166480}.

Molecular Weight: 182.8 kDa

UniProt: [Q8NI27](#)

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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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.

Handling

Storage:	-80 °C
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