

Datasheet for ABIN3095871

THO Complex 4 Protein (THOC4) (AA 2-257) (His tag, Strep Tag)[Go to Product page](#)**4** Images

Overview

Quantity:	1 mg
Target:	THO Complex 4 (THOC4)
Protein Characteristics:	AA 2-257
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This THO Complex 4 protein is labelled with His tag, Strep Tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence: **WSHPQFEK GSSGENLYFQGS**ADKMDMSLDD IIKLNRSQRG GRGGGRGRGR AGSQGGRRGGG
 AQAAARVNRG GGPIRNRPAI ARGAGGGGR NRPAPYSRPK QLPDKWQHDL FDSGFGGGAG
 VETGGKLLVS NLDFGVSDAD IQELFAEFGT LKKAHVHYDR SGRSLGTADV HFERKADALK
 AMKQYNGVPL DGRPMNIQLV TSQIDAQRRP AQSVNRGGMT RNRGAGGFGG GGGTRRGTRG
 GARGRGRGAG RNSKQQLSAE ELDAQLDAYN ARMDT**SHHHHHH**

N-terminal-Strep tag with TEV cleavage site; C-terminal His-tag

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Human ALYREF Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.
 - 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.

Product Details

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:	<p>The protein is purified from the cleared cell lysate using EDTA and DTT resistant His-tag capture materials. Eluate fractions are analyzed by SDS-PAGE.</p> <p>Protein containing fractions are subjected to a second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.</p>
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Endotoxin has not been removed. Please contact us if you require endotoxin removal.
Grade:	Crystallography grade

Target Details

Target:	THO Complex 4 (THOC4)
Alternative Name:	ALYREF (THOC4 Products)
Background:	<p>Export adapter involved in nuclear export of spliced and unspliced mRNA. Binds mRNA which is thought to be transferred to the NXF1-NXT1 heterodimer for export (TAP/NXF1 pathway).</p> <p>Component of the TREX complex which is thought to couple mRNA transcription, processing and nuclear export, and 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-</p>

Target Details

dependent manner to a region near the 5' end of the mRNA where it functions in mRNA export to the cytoplasm. TREX recruitment occurs via an interaction between ALYREF/THOC4 and the cap-binding protein NCBP1. The TREX complex is essential for the export of Kaposi's sarcoma-associated herpesvirus (KSHV) intronless mRNAs and infectious virus production, ALYREF/THOC4 mediates the recruitment of the TREX complex to the intronless viral mRNA. Required for TREX complex assembly and for linking DDX39B to the cap-binding complex (CBC). In conjunction with THOC5 functions in NXF1-NXT1 mediated nuclear export of HSP70 mRNA, both proteins enhance the RNA binding activity of NXF1 and are required for NXF1 localization to the nuclear rim. Involved in the nuclear export of intronless mRNA, proposed to be recruited to intronless mRNA by ATP-bound DDX39B. Involved in transcription elongation and genome stability. {ECO:0000269|PubMed:25662211}., Acts as chaperone and promotes the dimerization of transcription factors containing basic leucine zipper (bZIP) domains and thereby promotes transcriptional activation.

Molecular Weight:	27.7 kDa Including tag.
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UniProt:	Q86V81
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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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Restrictions:	For Research Use only
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Handling

Format:	Liquid
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Buffer:	in solution (50 mM Hepes, pH 7.5, 150 mM NaCl)
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Handling Advice:	Avoid repeated freeze-thaw cycles.
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Storage:	-80 °C
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Storage Comment:	Store at -80°C.
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Expiry Date:	Unlimited (if stored properly)
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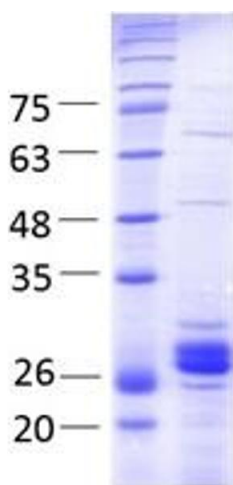
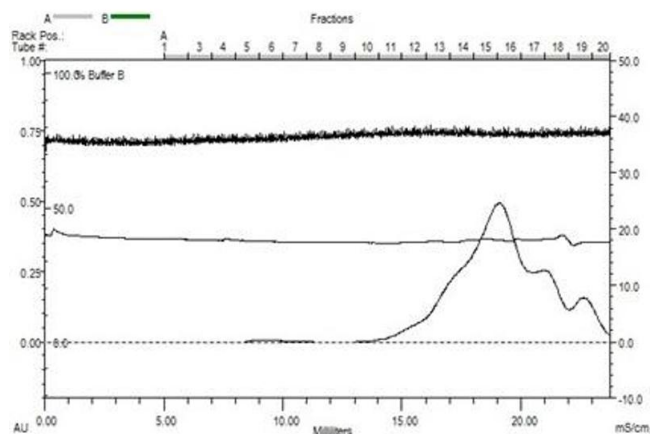


Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process

SDS-PAGE

Image 2. THO Complex 4 (THOC) (AA 2- 257), fraction 15 - 16



Size-exclusion chromatography-High Pressure Liquid Chromatography

Image 3. THO Complex 4 (THOC) (AA 2- 257), gel filtration Superose 6 fraction 15 - 16

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN3095871.