

Datasheet for ABIN3095926

**THO Complex 5 Protein (THOC5) (AA 2-683) (His tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	THO Complex 5 (THOC5)
Protein Characteristics:	AA 2-683
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This THO Complex 5 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

## Product Details

Sequence:	<p>SSESSKKRKP KVIKSDGAPA EGKRNRSDE QEGKYYSEEA EVDLRDPGRD YELYKYTCQE LQRLMAEIQD LKSRGGKDVA IEIEERRIQS CVHFMTLKKL NRLAHIRLKK GRDQTHEAKQ KVDAYHLQLQ NLLYEVMLHQ KEITKCLEFK SKHEEIDLVS LEEFYKEAPP DISKAEVTMG DPHQQTARL DWELEQRKRL AEKYRECLSN KEKILKEIEV KKEYLSSLQP RLNSIMQASL PVQEYLFMPF DQAHKQYETA RHLPPPLYVL FVQATAYGQA CDKTLSSVAIE GSVDEAKALF KPPEDSQDDE SDSDAEEEQT TKRRRPTLGV QLDDKRKEML KRHPLSVMLD LKCKDDSVLH LTFYYLMNLN IMTVKAKVTT AMELITPISA GDLLSPDSVL SCLYPGDHGK KTPNPANQYQ FDKVGILTLS DYVLELGHYPY LWVQKLGLH FPKEQPQQT V IADHSLSASH METTMKLLKT RVQSRLALHK QFASLEHGIV PVTSDCQYLF PAKVVSRLVK WVTVAHEDYM ELHFTKDVID AGLAGDTNLY YMALIERGTA KLQAAVVLNP GYSSIPPFVQ LCLNWKGEKT NSNDDNIRAM EGEVNVCYKE LCGPWPSHQL LTNQLQRLCV LLDVYLETES HDDSVEGPKE FPQEKMLRL FRGPRMKPF KYNHPQGFFS HR</p>
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**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human THOC5 Protein (raised in Insect Cells) 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.

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:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

### Sterility:

0.22 µm filtered

### Endotoxin Level:

Protein is endotoxin free.

### Grade:

Crystallography grade

## Target Details

Target:	THO Complex 5 (THOC5)
Alternative Name:	THOC5 ( <a href="#">THOC5 Products</a> )
Background:	<p>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. THOC5 in conjunction with ALYREF/THOC4 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 transcription elongation and genome stability. Involved in alternative polyadenylation site choice by recruiting CPSF6 to 5' region of target genes, probably mediates association of the TREX and CFIm complexes., Regulates the expression of myeloid transcription factors CEBPA, CEBPB and GAB2 by enhancing the levels of phosphatidylinositol 3,4,5-trisphosphate. May be involved in the differentiation of granulocytes and adipocytes. Essential for hematopoietic primitive cell survival and plays an integral role in monocytic development.</p>
Molecular Weight:	79.3 kDa Including tag.
UniProt:	<a href="#">Q13769</a>

## 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:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
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## Handling

Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
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