

THOC2 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56339

Specification

THOC2 Polyclonal Antibody - Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q8NI27
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	175 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human THOC2
Epitope Specificity	101-200/1593
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
SIMILARITY	Belongs to the THOC2 family. Component of the THO complex, which is composed of THOC1, THOC2, THOC5, THOC6 and THOC7. Together with THOC3, ALYREF/THOC4 and DDX39B, THO forms the transcription/export (TREX) complex. Interacts with THOC1.
SUBUNIT	Component of the THO complex, which is composed of THOC1, THOC2, THOC5, THOC6 and THOC7. Together with THOC3, ALYREF/THOC4 and DDX39B, THO forms the transcription/export (TREX) complex. Interacts with THOC1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

THOC2 is a 1,478 amino acid nuclear protein that functions as a component of the heteromultimeric THO/TREX (transcription/export) complex, a multi-protein structure consisting of THOC1, THOC2, THOC3, BAT1 and ALY. The THO/TREX complex is recruited to transcribed genes and travels with RNA polymerase II (Pol II) during elongation, coupling elongating Pol II with RNA splicing and export factors. Defects in the protein components of the TREX structure can cause transcription impairment, mRNA export defects and transcription-associated recombination. THOC2, an important component of the TREX complex, exists as two isoforms that are produced by alternative splicing events.

THOC2 Polyclonal Antibody - Additional Information

Gene ID 57187

Other Names

THO complex subunit 2, Tho2, hTREX120, THOC2, CXorf3

Dilution

IHC-P ~ N/A
IHC-F ~ N/A
IF ~ 1:50 ~ 200
E ~ N/A

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

THOC2 Polyclonal Antibody - Protein Information

Name THOC2

Synonyms CXorf3

Function

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 (PubMed: [15833825](http://www.uniprot.org/citations/15833825), PubMed: [15998806](http://www.uniprot.org/citations/15998806), PubMed: [17190602](http://www.uniprot.org/citations/17190602)). Required for efficient export of polyadenylated RNA and spliced mRNA (PubMed: [23222130](http://www.uniprot.org/citations/23222130)). The THOC1-THOC2-THOC3 core complex alone is sufficient to bind export factor NXF1-NXT1 and promote ATPase activity of DDX39B; in the complex THOC2 is the only component that directly interacts with DDX39B (PubMed: [33191911](http://www.uniprot.org/citations/33191911)). 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/NXF1 pathway (PubMed: [15833825](http://www.uniprot.org/citations/15833825), PubMed: [15998806](http://www.uniprot.org/citations/15998806), PubMed: [17190602](http://www.uniprot.org/citations/17190602)). Required for NXF1 localization to the nuclear rim (PubMed: [22893130](http://www.uniprot.org/citations/22893130)). THOC2 (and probably the THO complex) is involved in releasing mRNA from nuclear speckle domains.

Cellular Location

Nucleus. Nucleus speckle. Cytoplasm

Tissue Location

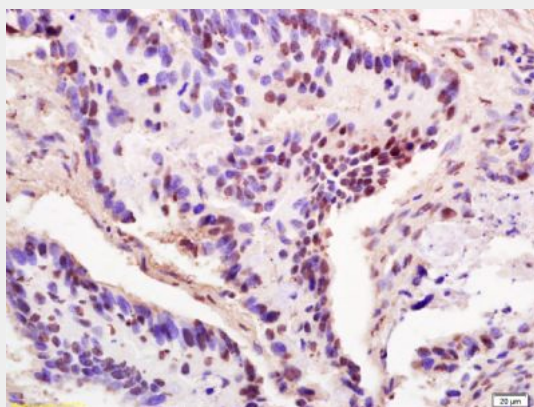
Expressed in the hippocampus and the cerebral cortex.

THOC2 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

THOC2 Polyclonal Antibody - Images



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-THOC2 Polyclonal Antibody, Unconjugated(bs-1663R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining