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THOC1 Antibody (N-term)
Mouse Monoclonal Antibody (Mab)
Catalog # AM1950b

Specification

THOC1 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q96FV9
Other Accession	Q8R3N6, NP_005122.2
Reactivity	**Human**
Predicted	**Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG3,k**
Calculated MW	**75666**
Antigen Region	**257-285**

THOC1 Antibody (N-term) - Additional Information

Gene ID 9984

Other Names
THO complex subunit 1, Tho1, Nuclear matrix protein p84, p84N5, hTREX84, THOC1, HPR1

Target/Specificity
This THOC1 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 257-285 amino acids from the N-terminal region of human THOC1.

Dilution
WB~~1:500~1000
E~~Use at an assay dependent concentration.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
THOC1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

THOC1 Antibody (N-term) - Protein Information

Name THOC1

Synonyms HPR1

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, PubMed:15998806, PubMed:17190602). Required for efficient export of polyadenylated RNA (PubMed:23222130). The THOC1-THOC2-THOC3 core complex alone is sufficient to bind export factor NXF1-NXT1 and promote ATPase activity of DDX39B/UAP56 (PubMed: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, PubMed:15998806, PubMed:17190602). Regulates transcriptional elongation of a subset of genes (PubMed:22144908). Involved in genome stability by preventing co-transcriptional R-loop formation (By similarity). May play a role in hair cell formation, hence may be involved in hearing (By similarity).

Cellular Location
[Isoform 1]: Nucleus speckle. Nucleus, nucleoplasm. Nucleus matrix. Cytoplasm. Note=Can shuttle between the nucleus and cytoplasm. Nuclear localization is required for induction of apoptotic cell death. Translocates to the cytoplasm during the early phase of apoptosis execution

Tissue Location
Ubiquitous. Expressed in various cancer cell lines. Expressed at very low levels in normal breast epithelial cells and highly expressed in breast tumors. Expression is strongly associated with an aggressive phenotype of breast tumors and expression correlates with tumor size and the metastatic state of the tumor progression

THOC1 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

THOC1 Antibody (N-term) - Images

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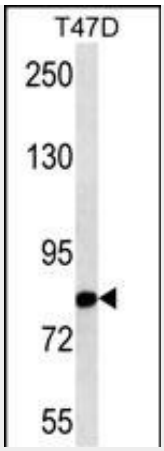

THOC1 Antibody (N-term) (Cat. #AM1950b) western blot analysis in T47D cell line lysates (35µg/lane).This demonstrates the THOC1 antibody detected the THOC1 protein (arrow).

THOC1 Antibody (N-term) - Background

HPR1 is part of the TREX (transcription/export) complex, which includes TEX1 (MIM 606929), THO2 (MIM 300395), ALY (MIM 604171), and UAP56 (MIM 142560).

THOC1 Antibody (N-term) - References

Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Liu, Y., et al. Mol. Psychiatry (2010) In press :
Boyne, J.R., et al. PLoS Pathog. 4 (10), E1000194 (2008) :
Ferreira, M.A., et al. Nat. Genet. 40(9):1056-1058(2008)
Yang, J., et al. Ann. Clin. Lab. Sci. 38(2):105-112(2008)