10320 Camino Santa Fe, Suite G
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Anti-THOC4 Antibody
Rabbit polyclonal antibody to THOC4
Catalog # AP61391

Specification

Anti-THOC4 Antibody - Product Information

Application	**WB**
Primary Accession	Q86V81
Other Accession	O08583
Reactivity	**Human, Mouse, Rat, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**26888**

Anti-THOC4 Antibody - Additional Information

Gene ID 10189

Other Names
ALY; BEF; THOC4; THO complex subunit 4; Tho4; Ally of AML-1 and LEF-1; Aly/REF export factor; Transcriptional coactivator Aly/REF; bZIP-enhancing factor BEF

Target/Specificity
Recognizes endogenous levels of THOC4 protein.

Dilution
WB~~WB (1/500 - 1/1000)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-THOC4 Antibody - Protein Information

Name ALYREF

Synonyms ALY, BEF, THOC4

Function
Functions as an mRNA export adapter; component of the transcription/export (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 (PubMed:15833825, PubMed:15998806, PubMed:17190602). 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). Involved in the nuclear export of intronless mRNA; proposed to be recruited to intronless mRNA by ATP-bound DDX39B (PubMed:17984224). Plays a key role in mRNP recognition and mRNA packaging by bridging the mRNP-bound EJC and the TREX core complex (PubMed:37020021). TREX recruitment occurs via an interaction between ALYREF/THOC4 and the cap- binding protein NCBP1 (PubMed:15833825, PubMed:15998806, PubMed:17190602, PubMed:37020021). Required for TREX complex assembly and for linking DDX39B to the cap-binding complex (CBC) (PubMed:15998806, PubMed:17984224, PubMed:37020021). Binds mRNA which is thought to be transferred to the NXF1-NXT1 heterodimer for export (TAP/NXF1 pathway) (PubMed:11675789, PubMed:11707413, PubMed:11979277, PubMed:15833825, PubMed:15998806, PubMed:17190602, PubMed:18364396, PubMed:22144908, PubMed:22893130, PubMed:23222130, PubMed:25662211). 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 (PubMed:19165146). Involved in mRNA export of C5-methylcytosine (m5C)-containing mRNAs: specifically recognizes and binds m5C mRNAs and mediates their nucleo-cytoplasmic shuttling (PubMed:28418038). Acts as a chaperone and promotes the dimerization of transcription factors containing basic leucine zipper (bZIP) domains and thereby promotes transcriptional activation (PubMed:10488337). Involved in transcription elongation and genome stability (PubMed:12438613).

Cellular Location
Nucleus. Nucleus speckle Cytoplasm Note=Colocalizes with the core EJC, NXF1 and DDX39B in the nucleus and nuclear speckles. Travels to the cytoplasm as part of the exon junction complex (EJC) bound to mRNA (PubMed:19324961). Localizes to regions surrounding nuclear speckles known as perispeckles in which TREX complex assembly seems to occur (PubMed:23826332)

Tissue Location
Expressed in a wide variety of cancer types.

Anti-THOC4 Antibody - Protocols

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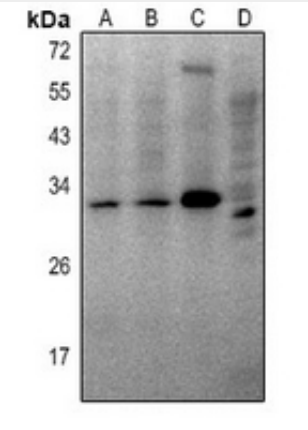
Provided below are standard protocols that you may find useful for product applications.

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

Anti-THOC4 Antibody - Images



Western blot analysis of THOC4 expression in SP20 (A), C6 (B), mouse kidney (C), rat brain (D) whole cell lysates.

Anti-THOC4 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human THOC4. The exact sequence is proprietary.