

Anti-THOC4 Antibody

Rabbit polyclonal antibody to THOC4

Catalog # AP61391

Product Information

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

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

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](#)).

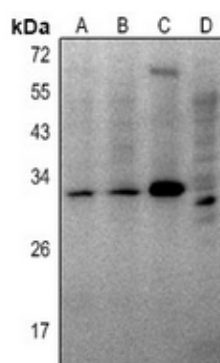
Tissue Location

Expressed in a wide variety of cancer types.

Background

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

Images



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

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