10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

THOC7 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9905b

Product Information

Application	WB, FC, E
Primary Accession	Q6I9Y2
Other Accession	Q7TMY4, Q3SZ60
Reactivity	Human, Mouse
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	23743
Antigen Region	138-166

Additional Information

Gene ID	80145
Other Names	THO complex subunit 7 homolog, Functional spliceosome-associated protein 24, fSAP24, Ngg1-interacting factor 3-like protein 1-binding protein 1, NIF3L1-binding protein 1, hTREX30, THOC7, NIF3L1BP1
Target/Specificity	This THOC7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 138-166 amino acids from the C-terminal region of human THOC7.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	THOC7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

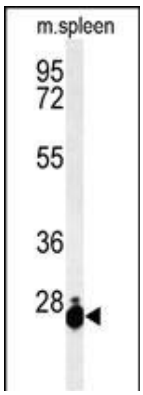
Name	THOC7
Synonyms	NIF3L1BP1

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). Plays a key structural role in the oligomerization of the THO-DDX39B complex (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).
Cellular Location	Cytoplasm. Nucleus. Nucleus speckle. Note=Interaction with THOC5 is required for nuclear localization.

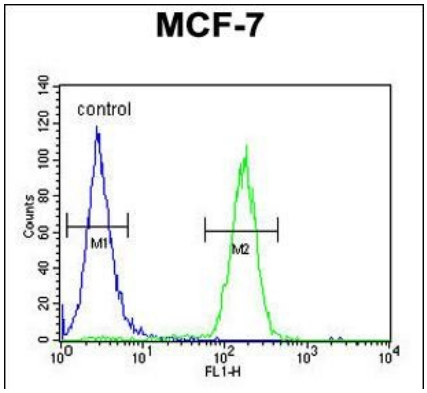
References

El Bounkari, O., et al. FEBS Lett. 583(1):13-18(2009)
Boyne, J.R., et al. PLoS Pathog. 4 (10), E1000194 (2008)
Cheng, H., et al. Cell 127(7):1389-1400(2006)
Masuda, S., et al. Genes Dev. 19(13):1512-1517(2005)

Images



Western blot analysis of THOC7 Antibody (C-term) (Cat. #AP9905b) in mouse spleen tissue lysates (35ug/lane). THOC7 (arrow) was detected using the purified Pab.



THOC7 Antibody (C-term) (Cat. #AP9905b) flow cytometric analysis of MCF-7 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- An ataxia-telangiectasia-mutated (ATM) kinase mediated response to DNA damage down-regulates the mRNA-binding potential of THOC5.
- Human corneal endothelial cells employ phosphorylation of p27(Kip1) at both Ser10 and Thr187 sites for

FGF-2-mediated cell proliferation via PI 3-kinase.