

THO Complex Subunit 1 Rabbit mAb

Catalog # AP75825

Product Information

Application WB. ICC 096FV9 **Primary Accession** Reactivity Human Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 75666

Additional Information

Gene ID 9984

Other Names THOC1

Dilution WB~~1/500-1/1000 ICC~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

Protein Information

THOC1 Name

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.

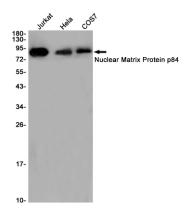
Cytoplasm. Note=Can shuttle between the nucleus and cytoplasm. Nuclear

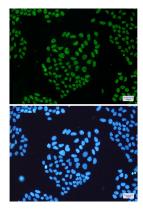
localization is required for induction of apoptotic cell death. Translocates to the cytoplasm during the early phase of apoptosis execution

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

Images





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