

RNT2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP10764a

Product Information

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|--------------------------|-----------------------------|
| Application | WB, IHC-P, E |
| Primary Accession | O00584 |
| Other Accession | NP_003721.2 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Clone Names | RB24925 |
| Calculated MW | 29481 |
| Antigen Region | 25-55 |

Additional Information

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|---------------------------|--|
| Gene ID | 8635 |
| Other Names | Ribonuclease T2, 3127-, Ribonuclease 6, RNASET2, RNASE6PL |
| Target/Specificity | This RNT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 25-55 amino acids from the N-terminal region of human RNT2. |
| Dilution | WB~~1:1000 IHC-P~~1:100~500 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 | RNT2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

| | |
|-----------------|---|
| Name | RNASET2 |
| Synonyms | RNASE6PL |
| Function | Ribonuclease that plays an essential role in innate immune response by recognizing and degrading RNAs from microbial pathogens that are |

subsequently sensed by TLR8 (PubMed:[31778653](#)). Cleaves preferentially single-stranded RNA molecules between purine and uridine residues, which critically contributes to the supply of catabolic uridine and the generation of purine-2',3'-cyclophosphate-terminated oligoribonucleotides (PubMed:[31778653](#), PubMed:[38697119](#)). In turn, RNase T2 degradation products promote the RNA-dependent activation of TLR8 (PubMed:[31778653](#)). In plasmacytoid dendritic cells, it cooperates with PLD3 or PLD4 5'→3' exonucleases to process RNA fragments and release 2',3'-cyclic guanosine monophosphate (2',3'-cGMP), a potent stimulatory ligand for TLR7 (PubMed:[38697119](#)). Also plays a key role in degradation of mitochondrial RNA and processing of non-coding RNA imported from the cytosol into mitochondria (PubMed:[28730546](#), PubMed:[30184494](#)). Participates as well in degradation of mitochondrion-associated cytosolic rRNAs (PubMed:[30385512](#)).

Cellular Location

Secreted. Lysosome lumen. Endoplasmic reticulum lumen. Mitochondrion intermembrane space. Note=Full-length RNASET2 is found in the endoplasmic reticulum while smaller RNASET2 proteolytic products are found in the lysosome fraction.

Tissue Location

Ubiquitous. Higher expression levels observed in the temporal lobe and fetal brain.

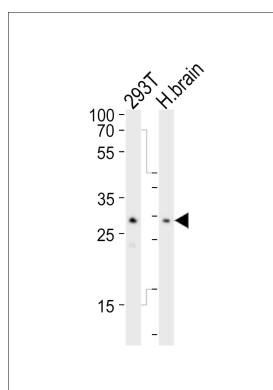
Background

This ribonuclease gene is a novel member of the Rh/T2/S-glycoprotein class of extracellular ribonucleases. It is a single copy gene that maps to 6q27, a region associated with human malignancies and chromosomal rearrangement.

References

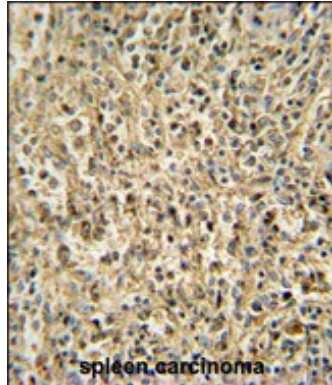
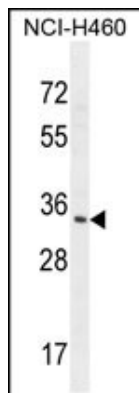
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 Quan, C., et al. Nat. Genet. 42(7):614-618(2010)
 Liu, J., et al. J. Cell. Mol. Med. 14(5):1146-1155(2010)
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Images



Western blot analysis of lysates from 293T cell line, human brain tissue lysate (from left to right), using RNT2 Antibody (N-term)(Cat. #AP10764a). AP10764a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

RNT2 Antibody (N-term) (Cat. #AP10764a) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the RNT2 antibody detected the RNT2 protein (arrow).



RNT2 antibody (N-term) (Cat. #AP10764a) immunohistochemistry analysis in formalin fixed and paraffin embedded human spleen carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the RNT2 antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- [Regulation of mitochondrion-associated cytosolic ribosomes by mammalian mitochondrial ribonuclease T2 \(RNASET2\).](#)

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