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

RNASET2 Antibody
Catalog # ASC11454

Specification

RNASET2 Antibody - Product Information

Application	**WB, IF, ICC, E**
Primary Accession	O00584
Other Accession	NP_003721, 5231228
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**RNASET2 antibody can be used for detection of FOXRED2 by Western blot at 1 µg/mL.**

RNASET2 Antibody - Additional Information

Gene ID **8635**

Target/Specificity
RNASET2;

Reconstitution & Storage
RNASET2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
RNASET2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

RNASET2 Antibody - 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.

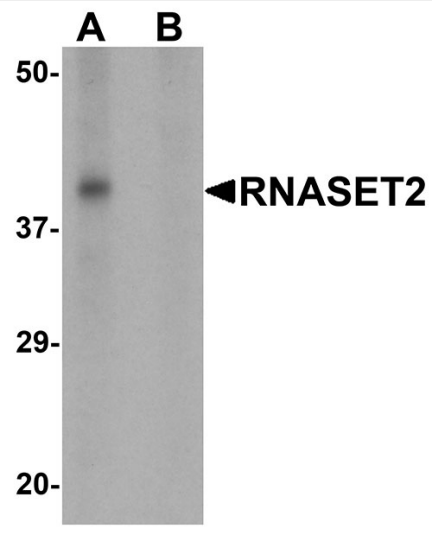
Tissue Location
Ubiquitous. Higher expression levels observed in the temporal lobe and fetal brain.

RNASET2 Antibody - Protocols

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

RNASET2 Antibody - Images



Western blot analysis of RNASET2 in SW480 cell lysate with RNASET2 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.

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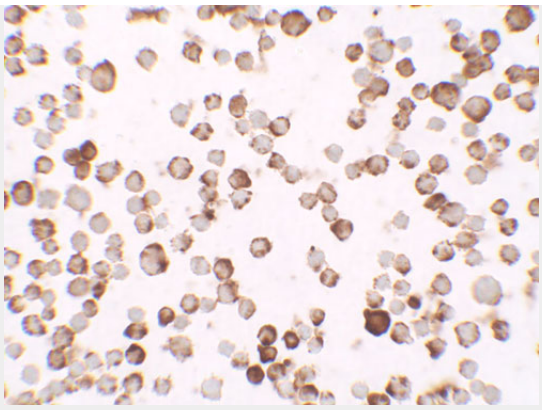
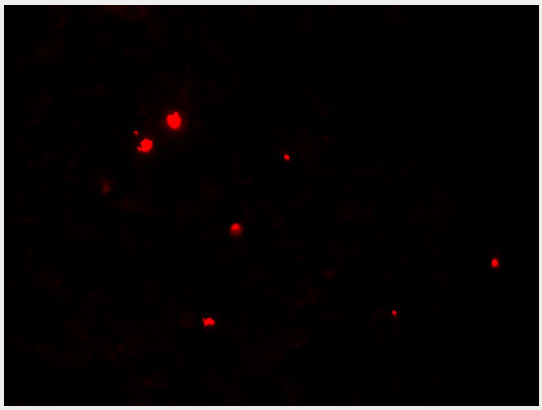


Immunocytochemistry of RNASET2 in SW480 cells with RNASET2 antibody at 2.5 µg/ml.



Immunofluorescence of RNASET2 in SW480 cells with RNASET2 antibody at 5 µg/ml.

RNASET2 Antibody - Background

RNASET2 Antibody: RNASET2 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, and has been suggested to function as a tumor suppressor protein. Its expression is suppressed in Human T-cell Leukemia Virus type 1 (HTLV-1) infected cells following the binding of the HTLV-1 Tax protein to the RNASET2 promoter. As Adult T-cell leukemia (ATL) is one of the primary diseases caused by HTLV-1 infection, a reduction in the level of RNASET2 by Tax may play a role in ATL development.

RNASET2 Antibody - References

Acquati F, Morelli C, Cinquetti R, et al. Cloning and characterization of a senescence inducing and class II tumor suppressor gene in ovarian carcinoma at chromosome region 6q27. Oncogene 2001; 20:980-8.
Campomenosi P, Salis S, Lingqvist C, et al. Characterization of RNASET2, the first human member of the Rh/T2/S family of glycoproteins. Arch. Biochm. Biophys. 2006; 449:17-26
Polakowski N, Han H, and Lemasson I. Direct inhibition of RNase T2 expression by the HLTV-1 viral protein Tax. Viruses 2011; 3:1485-500.