Datasheet for 600-401-EA9

RNAse H2A Antibody

Overview

Description:	Anti-RNAse H2A (RABBIT) Antibody - 600-401-EA9
Item No.:	600-401-EA9
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Ribonucleases (RNAses) H are enzymes that hydrolyze the RNA strands of RNA/DNA hybrids. The major role of these enzymes is to remove the RNA strand from the RNA/DNA hybrids that form during DNA replication and repair. RNAse H2 is made up of three subunits; all three are required for RNAse activity. Recent evidence has demonstrated that mutations in RNAse H2A or any of the other subunits result in Aicardi-Goutieres syndrome (AGS), a neurological disorder with similar symptoms to viral brain infections including high levels of IFN-alpha in the cerebral spinal fluid. Similar conditions are observed with mutations in TREX1, a single-stranded DNA exonuclease, suggesting that RNAse H2 and TREX1 may have similar roles, and that mutations in any of these genes lead to an accumulation of intracellular nucleic acids, triggering an inflammatory response through activation of the innate immune system.
Synonyms:	RNAse H2A Antibody, AGS4, JUNB, RNHL, RNHIA, RNASEHI, Ribonuclease H2 subunit A, Aicardi-Goutieres syndrome 4 protein, RNase H2 subunit A
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	RNASEH2A
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-RNAse H2A antibody was prepared from whole rabbit serum produced by repeated immunizations with a 17 amino acid synthetic peptide near the internal region of human RNAse H2A.
Purity/Specificity:	Anti-RNAse H2A Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with RNAse H2A from other sources has not been determined.
Relevant Links:	• UniProtKB - O75792 • GeneID - 10535 • NCBI - O75792

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-RNAse H2A Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 33 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
IF:	4 µg/mL
WB:	1 µg/mL

Formulation

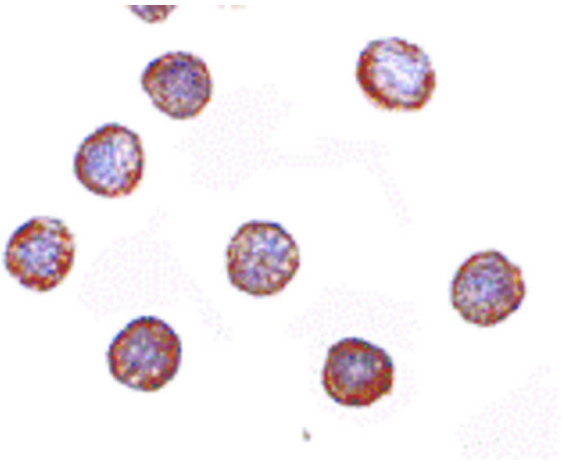
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

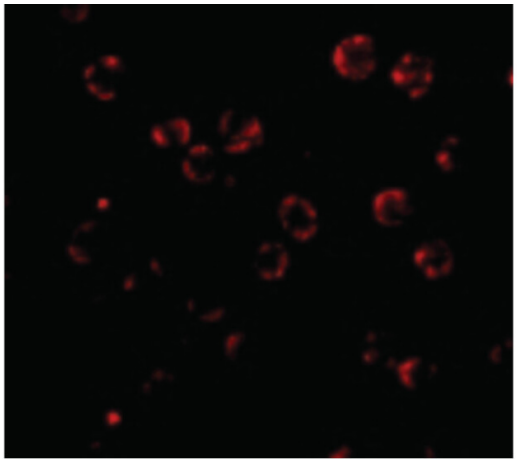
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

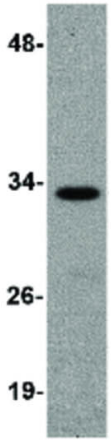
Images



Immunocytochemistry
Immunocytochemistry of RNAase H2A antibody. Tissue: HeLa cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: RNAse H2A antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: RNAse H2A is nuclear and occasionally cytoplasmic. Staining: RNAse H2A as a precipitated brown signal with hematoxylin purple counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of RNAse H2A antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: RNAse H2A antibody at 4.75 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: RNAse H2A as red fluorescent signal.



Western Blot

Western Blot of RNAse H2A antibody. Lane A: HeLa cell lysate at 1 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 33.3 kDa, ~33 kDa for RNAse H2A.

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