Product Name: ADAR1 Rabbit Polyclonal Antibody
Catalog #: APRab06604

Summary

Production Name	ADAR1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ADAR
Alternative Names	ADAR; ADAR1; DSRAD; G1P1; IFI4; Double-stranded RNA-specific adenosine deaminase; DRADA; 136 kDa double-stranded RNA-binding protein; p136; Interferon-inducible protein 4; IFI-4; K88DSRBP
Gene ID	103.0
SwissProt ID	P55265.The antiserum was produced against synthesized peptide derived from human ADAR1. AA range:1172-1221

Application

Dilution Ratio	IHC 1:100-1:300 ELISA: 1:20000
Molecular Weight	135kD

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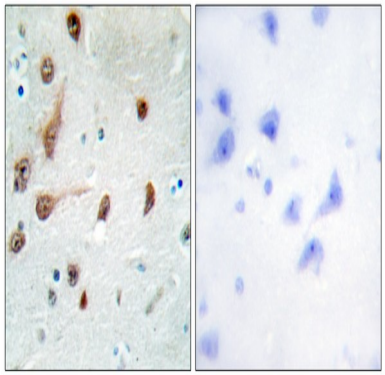
Background

adenosine deaminase, RNA specific(ADAR) Homo sapiens This gene encodes the enzyme responsible for RNA editing by site-specific deamination of adenosines. This enzyme destabilizes double-stranded RNA through conversion of adenosine to inosine. Mutations in this gene have been associated with dyschromatosis symmetrica hereditaria. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2010],caution:The N-terminus of isoform 4 has been derived from EST and genomic sequences.,disease:Defects in ADAR are a cause of dyschromatosis symmetrical hereditaria (DSH) [MIM:127400]; also known as reticulate acropigmentation of Dohi. DSH is a pigmentary genodermatosis of autosomal dominant inheritance characterized by a mixture of hyperpigmented and hypopigmented macules distributed on the dorsal parts of the hands and feet.,function:Converts multiple adenosines to inosines and creates I/U mismatched base pairs in double-helical RNA substrates without apparent sequence specificity. Has been found to modify more frequently adenosines in AU-rich regions, probably due to the relative ease of melting A/U base pairs as compared to G/C pairs. Functions to modify viral RNA genomes and may be responsible for hypermutation of certain negative-stranded viruses. Edits the messenger RNAs for glutamate receptor (GLUR) subunits by site-selective adenosine deamination. Produces low-level editing at the GLUR-B Q/R site, but edits efficiently at the R/G site and HOTSPOT1. Binds to short interfering RNAs (siRNA) without editing them and suppresses siRNA-mediated RNA interference. Binds to ILF3/NF90 and up-regulates ILF3-mediated gene expression.,induction:Isoform 1 is induced by interferon alpha. Isoform 5 is constitutively expressed.,PTM:Sumoylation reduces RNA-editing activity.,similarity:Contains 1 A to I editase domain.,similarity:Contains 2 DRADA repeats.,similarity:Contains 3 DRBM (double-stranded RNA-binding) domains.,subcellular location:Isoform 1 is found predominantly in cytoplasm but appears to shuttle between the cytoplasm and nucleus. Isoform 5 is found exclusively in the nucleolus.,subunit:Homodimer. Isoform 1 interacts with ILF2/NF45 and ILF3/NF90.,tissue specificity:Ubiquitously expressed, highest levels were found in brain and lung.,

Research Area

Cytosolic DNA-sensing pathway;

Image Data



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using ADAR1 Antibody. The picture on the right is

blocked with the synthesized peptide.

Note

For research use only.