abcam

Product datasheet

Anti-ADAR1 antibody ab226188

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Overview

Product name Anti-ADAR1 antibody

Description Rabbit polyclonal to ADAR1

Host species Rabbit

Tested applications Suitable for: IHC-P, WB, IP

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

Immunogen Synthetic peptide within Human ADAR1 aa 950-1000. The exact sequence is proprietary.

(NP_001102.2).

Database link: P55265

Positive control IHC-P: Human ovarian carcinoma tissue. WB: HEK-293T, HeLa and Jurkat whole cell lysate

(ab7899). IP: HEK-293T whole cell lysate.

General notesThe Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7

Preservative: 0.09% Sodium azide Constituent: Tris citrate/phosphate

pH 7 to 8

Purity Immunogen affinity purified

Purification notes ab226188 was affinity purified using an epitope specific to ADAR1 immobilized on solid support.

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Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our Abpromise quarantee covers the use of ab226188 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/1000 - 1/5000. Predicted molecular weight: 136 kDa.
IP		Use at 2-10 μg/mg of lysate.

Target

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

Tissue specificity

Ubiquitously expressed, highest levels were found in brain and lung.

interference. Binds to ILF3/NF90 and up-regulates ILF3-mediated gene expression.

Involvement in 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.

Sequence similarities

Contains 1 A to I editase domain.
Contains 2 DRADA repeats.

Contains 3 DRBM (double-stranded RNA-binding) domains.

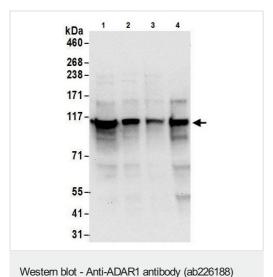
Post-translational modifications

Sumoylation reduces RNA-editing activity.

Cellular localization

Cytoplasm. Nucleus > nucleolus. Isoform 1 is found predominantly in cytoplasm but appears to shuttle between the cytoplasm and nucleus. Isoform 5 is found exclusively in the nucleolus.

Images



All lanes: Anti-ADAR1 antibody (ab226188) at 0.4 µg/ml

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate at 50 μg

 $\textbf{Lane 2:} \ \ \text{HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate at 15 <math>\mu g$

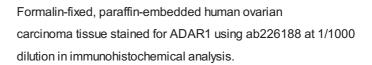
Lane 3: HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 μg

Lane 4 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate at 50 µg

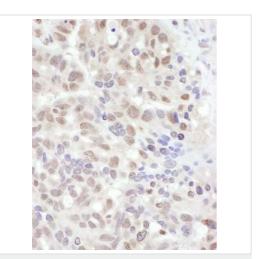
Developed using the ECL technique.

Predicted band size: 136 kDa

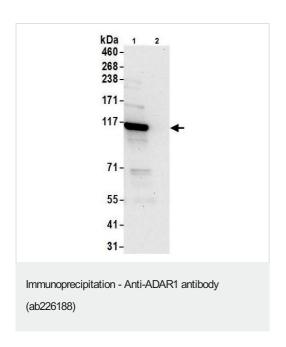
Exposure time: 10 seconds



Detection: DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-ADAR1 antibody (ab226188)



ADAR1 was immunoprecipitated from HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate (1 mg for IP, 20% of IP loaded) with ab226188 at 6 µg/mg lysate. Western blot was performed from the immunoprecipitate using ab226188 at 1 µg/ml.

Lane 1: ab226188 IP in HEK-293T whole cell lysate.

Lane 2: Control IgG IP in HEK-293T whole cell lysate.

Detection: Chemiluminescence with exposure time of 30 seconds.

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