abcam

Product datasheet

Anti-ADAR1 antibody [EPR7033] - BSA and Azide free ab240029

KO VALIDATED Recombinant RabMAb

4 Images

Overview

Product name	Anti-ADAR1 antibody [EPR7033] - BSA and Azide free
Description	Rabbit monoclonal [EPR7033] to ADAR1 - BSA and Azide free
Host species	Rabbit
Specificity	The immunogen is designed to detect the p150 isoform and not the p110.
Tested applications	**Suitable for:** IHC-P, WB, Flow Cyt (Intra) **Unsuitable for:** ICC/IF or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab240029 is the carrier-free version of **ab126745**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7033
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab240029 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		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 136 kDa.
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

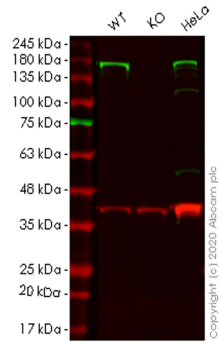
Application notes Is unsuitable for ICC/IF or IP.

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

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



Western blot - Anti-ADAR1 antibody [EPR7033] - BSA and Azide free (ab240029)

All lanes : Anti-ADAR1 antibody [EPR7033] (**ab126745**) at 1/1000 dilution

Lane 1 : Wild-type HEK293T cell lysate
Lane 2 : ADAR knockout HEK293T cell lysate
Lane 3 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

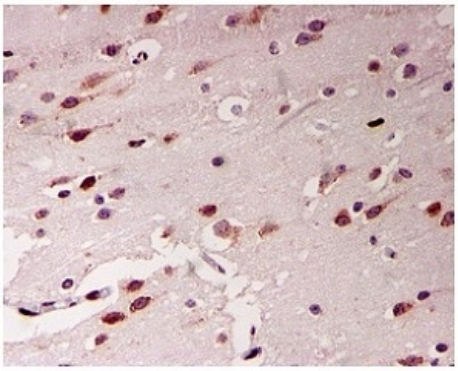
Predicted band size: 136 kDa
Observed band size: 130 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab126745**).

Lanes 1-3: Merged signal (red and green). Green - **ab126745** observed at 130 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab126745 Anti-ADAR1 antibody [EPR7033] was shown to specifically react with ADAR1 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line **ab266846** (knockout cell lysate **ab257131**) was used. Wild-type and ADAR1 knockout samples were subjected to SDS-PAGE. **ab126745** and Anti-

GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

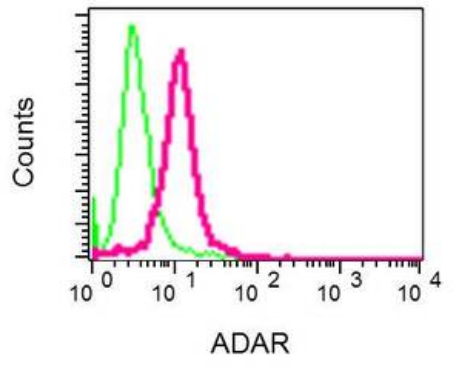


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ADAR1 antibody [EPR7033] - BSA and Azide free (ab240029)

ab126745, at 1/50 dilution, staining ADAR1 in paraffin-embedded Human brain tissue by Immunohistochemistry.

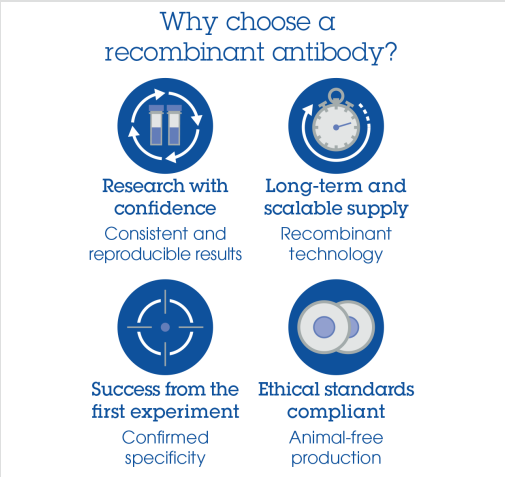
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab126745**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-ADAR1 antibody [EPR7033] - BSA and Azide free (ab240029)

Intracellular flow cytometric analysis of permeabilized Ramos cells, staining ADAR1 (red) with **ab126745**. $1x10^6$ cells were collected and washed with blocking buffer. Cells were fixed with 2% paraformaldehyde, permeabilized with 1X FACS permeabilizing solution and blocked with blocking buffer for 30 minutes at room temperature. Cells were incubated with primary antibody (1/10) for 30 minutes at room temperature before a Fluorescently-conjugated secondary antibody or 30 min at room temperature. A rabbit IgG was used as a negative control (green). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab126745**).



Anti-ADAR1 antibody [EPR7033] - BSA and Azide free (ab240029)

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