abcam

Product datasheet

Anti-APOBEC3G/A3G antibody ab172694

1 References 1 Image

Overview

Product name Anti-APOBEC3G/A3G antibody

Description Mouse polyclonal to APOBEC3G/A3G

Host species Mouse

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Predicted to work with: Chimpanzee, Gorilla, Orangutan

Immunogen Recombinant full length protein within Human APOBEC3G/A3G aa 1 to the C-terminus. The exact

immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please

contact our Scientific Support team to discuss your requirements. (AAH24268.1)

Database link: **Q9HC16**

Run BLAST with
Run BLAST with

Positive control APOBEC3G/A3G -transfected 293T 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: 7.4

Constituent: 100% PBS

Purity Protein A purified

Clonality Polyclonal

Isotype IgG

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Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab172694 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
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 46 kDa.

Target

Function

DNA deaminase (cytidine deaminase) that mediates a form of innate resistance to retroviral infections (at least to HIV-1 infection) by triggering G-to-A hypermutation in the newly synthesized viral DNA. The replacements C-to-U in the minus strand DNA of HIV-1 during reverse transcription, leads to G-to-A transitions in the plus strand. The inhibition of viral replication is either due to the degradation of the minus strand before its integration or to the lethality of the hypermutations. Modification of both DNA strands is not excluded. This antiviral activity is neutralized by the virion infectivity factor (VIF), that prevents the incorporation of APOBEC3G into progeny HIV-1 virions by both inhibiting its translation and/or by inducing its ubiquitination and subsequent degradation by the 26S proteasome. APOBEC3G binds a variety of RNAs, but does not display detectable APOB, NF1 and NAT1 mRNA editing.

Tissue specificity

Expressed in spleen, testes, ovary and peripheral blood leukocytes and CD4+ lymphocytes. Also expressed in non-permissive peripheral blood mononuclear cells, and several tumor cell lines; no expression detected in permissive lymphoid and non-lymphoid cell lines.

Sequence similarities

Belongs to the cytidine and deoxycytidylate deaminase family.

Post-translational modifications

 $\label{thm:linear_problem} \mbox{Ubiquitinated in the presence of HIV-1 VIF. Association with VIF targets the protein for proteolysis}$

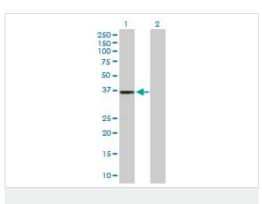
by the ubiquitin-dependent proteasome pathway.

Cellular localization

 $\label{thm:cytoplasm:cyt$

infection, virion-encapsidated in absence of HIV-1 VIF.

Images



Western blot - Anti-APOBEC3G/A3G antibody (ab172694)

All lanes: Anti-APOBEC3G/A3G antibody (ab172694) at 1 µg/ml

Lane 1: APOBEC3G -transfected 293T cell lysate

Lane 2: Non-transfected 293T cell lysate

Lysates/proteins at 15 µl per lane.

Developed using the ECL technique.

Predicted band size: 46 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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