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APOBEC3G Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13299b

Specification

APOBEC3G Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q9HC16
Other Accession	NP_068594.1, NP_001006667.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**46408**
Antigen Region	**231-260**

APOBEC3G Antibody (C-term) - Additional Information

Gene ID 60489

Other Names
DNA dC->dU-editing enzyme APOBEC-3G, 354-, APOBEC-related cytidine deaminase, APOBEC-related protein, ARCD, APOBEC-related protein 9, ARP-9, CEM-15, CEM15, Deoxycytidine deaminase, A3G, APOBEC3G

Target/Specificity
This APOBEC3G antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 231-260 amino acids from the C-terminal region of human APOBEC3G.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
APOBEC3G Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

APOBEC3G Antibody (C-term) - Protein Information

Name APOBEC3G {ECO:0000303|PubMed:14557625, ECO:0000312|HGNC:HGNC:17357}

Function DNA deaminase (cytidine deaminase) which acts as an inhibitor of retrovirus replication and retrotransposon mobility via deaminase- dependent and -independent mechanisms (PubMed:12808465, PubMed:16527742, PubMed:17121840, PubMed:18288108, PubMed:18849968, PubMed:19153609, PubMed:21123384, PubMed:22791714, PubMed:25542899). Exhibits potent antiviral activity against Vif-deficient HIV-1 (PubMed:12167863, PubMed:12859895, PubMed:14557625, PubMed:20219927, PubMed:21835787, PubMed:22807680, PubMed:22915799, PubMed:23097438, PubMed:23152537, PubMed:31397674). After the penetration of retroviral nucleocapsids into target cells of infection and the initiation of reverse transcription, it can induce the conversion of cytosine to uracil in the minus-sense single-strand viral DNA, leading to G-to-A hypermutations in the subsequent plus-strand viral DNA (PubMed:12808465, PubMed:12808466, PubMed:12809610, PubMed:12970355, PubMed:14528300, PubMed:22807680). The resultant detrimental levels of mutations in the proviral genome, along with a deamination-independent mechanism that works prior to the proviral integration, together exert efficient antiretroviral effects in infected target cells (PubMed:12808465, PubMed:12808466, PubMed:12809610, PubMed:12970355, PubMed:14528300). Selectively targets single-stranded DNA and does not deaminate double-stranded DNA or single- or double-stranded RNA (PubMed:12808465, PubMed:12809610, PubMed:12970355, PubMed:14528300). Exhibits antiviral activity also against simian immunodeficiency viruses (SIVs), hepatitis B virus (HBV), equine infectious anemia virus (EIAV), xenotropic MuLV-related virus (XMRV) and simian foamy virus (SFV) (PubMed:15031497, PubMed:16378963, PubMed:18448976, PubMed:19458006, PubMed:20335265). May inhibit the mobility of LTR and non-LTR retrotransposons (PubMed:16527742).

Cellular Location
Cytoplasm. Nucleus Cytoplasm, P-body. Note=Mainly cytoplasmic (PubMed:16527742, PubMed:16699599, PubMed:21835787). Small amount are found in the nucleus (PubMed:18667511). During HIV-1 infection, virion-encapsidated in absence of HIV-1 Vif (PubMed:12859895)

Tissue Location
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 Exists only in the LMM form in peripheral blood-derived resting CD4 T- cells and monocytes, both of which are refractory to HIV-1 infection LMM is converted to a HMM complex when resting CD4 T-cells are activated or when monocytes are induced to differentiate into macrophages. This change correlates with increased susceptibility of these cells to HIV-1 infection.

APOBEC3G Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

APOBEC3G Antibody (C-term) - Images

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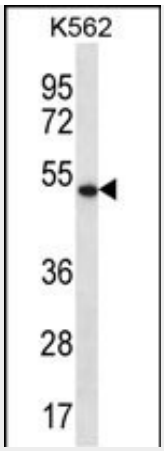

APOBEC3G Antibody (C-term) (Cat. #AP13299b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the APOBEC3G antibody detected the APOBEC3G protein (arrow).

APOBEC3G Antibody (C-term) - Background

This gene is a member of the cytidine deaminase gene family. It is one of seven related genes or pseudogenes found in a cluster, thought to result from gene duplication, on chromosome 22. Members of the cluster encode proteins that are structurally and functionally related to the C to U RNA-editing cytidine deaminase APOBEC1. It is thought that the proteins may be RNA editing enzymes and have roles in growth or cell cycle control. Alternatively spliced transcript variants encoding different isoforms have been identified.

APOBEC3G Antibody (C-term) - References

Hu, C., et al. J. Virol. 84(22):11981-11993(2010)
Miyagi, E., et al. J. Virol. 84(21):11067-11075(2010)
Albin, J.S., et al. J. Virol. 84(19):10209-10219(2010)
Lassen, K.G., et al. J. Biol. Chem. 285(38):29326-29335(2010)
Dang, Y., et al. J. Virol. 84(17):8561-8570(2010)