

APOBEC3F Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP9176a

Specification

APOBEC3F Antibody (N-term) - Product Information

Application Primary Accession Reactivity	FC, IHC-P, WB,E <u>08IUX4</u> Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	45020
Antigen Region	22-48

APOBEC3F Antibody (N-term) - Additional Information

Gene ID 200316

Other Names DNA dC->dU-editing enzyme APOBEC-3F, 354-, Apolipoprotein B mRNA-editing enzyme catalytic polypeptide-like 3F, A3F, APOBEC3F

Target/Specificity

This APOBEC3F antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 22-48 amino acids from the N-terminal region of human APOBEC3F.

Dilution FC~~1:10~50 IHC-P~~1:50~100 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

APOBEC3F Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

APOBEC3F Antibody (N-term) - Protein Information

Name APOBEC3F {ECO:0000303|PubMed:15141007, ECO:0000312|HGNC:HGNC:17356}



Function DNA deaminase (cytidine deaminase) which acts as an inhibitor of retrovirus replication and retrotransposon mobility via deaminase- dependent and -independent mechanisms (PubMed:15141007, PubMed:20062055, PubMed:22915799, PubMed:34774569). Exhibits antiviral activity against viruse such as HIV-1 or HIV-2 (PubMed:15141007, PubMed:15152192, PubMed:20219927, PubMed:21835787, PubMed:22807680, PubMed:23001005, PubMed:23097438, PubMed:23152537, PubMed:34774569). 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: 15141007). 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: 15141007). Selectively targets single-stranded DNA and does not deaminate double-stranded DNA or single- or double-stranded RNA (PubMed: 15141007). Exhibits antiviral activity also against hepatitis B virus (HBV), equine infectious anemia virus (EIAV), xenotropic MuLV- related virus (XMRV) and simian foamy virus (SFV) and may inhibit the mobility of LTR and non-LTR retrotransposons (PubMed: 16378963, PubMed: 16527742, PubMed: <u>19458006</u>, PubMed: <u>20062055</u>, PubMed: <u>20335265</u>). May also play a role in the epigenetic regulation of gene expression through the process of active DNA demethylation (PubMed:21496894).

Cellular Location Cytoplasm. Cytoplasm, P-body

Tissue Location Widely expressed. Highly expressed in ovary.

APOBEC3F Antibody (N-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
- <u>Cell Culture</u>

APOBEC3F Antibody (N-term) - Images



Western blot analysis of APOBEC3F Antibody (N-term) (Cat. #AP9176a) in K562 cell line lysates (35ug/lane). APOBEC3F (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain tissue reacted with APOBEC3F Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



APOBEC3F Antibody (N-term) (Cat. #AP9176a) flow cytometry analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

APOBEC3F Antibody (N-term) - Background

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This protein 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.

APOBEC3F Antibody (N-term) - References

Khatua,A.K., et.al., Virology 400 (1), 68-75 (2010) Koning,F.A., et.al., J. Virol. 83 (18), 9474-9485 (2009)