10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

APOBEC3B Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1353a

Product Information

Application	WB, E
Primary Accession	Q9UH17
Other Accession	P31941
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1748
Calculated MW	45924
Antigen Region	299-330

Additional Information

Gene ID	9582
Other Names	DNA dC->dU-editing enzyme APOBEC-3B, A3B, 354-, Phorbolin-1-related protein, Phorbolin-2/3, APOBEC3B
Target/Specificity	This APOBEC3B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 299-330 amino acids from the C-terminal region of human APOBEC3B.
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	APOBEC3B Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	APOBEC3B
Function	DNA deaminase (cytidine deaminase) which acts as an inhibitor of retrovirus replication and retrotransposon mobility via deaminase-dependent and -independent mechanisms. 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. 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. Selectively targets single-stranded DNA and does not deaminate double-stranded DNA or single- or double-stranded RNA. Exhibits antiviral activity against simian immunodeficiency virus (SIV), hepatitis B virus (HBV) and human T-cell leukemia virus type 1 (HTLV-1) and may inhibit the mobility of LTR and non-LTR retrotransposons.
Cellular Location	Nucleus
Tissue Location	Expressed at high and moderate levels in peripheral blood leukocytes, spleen, testes, heart, thymus, prostate and ovary Also expressed at low levels in several other tissues

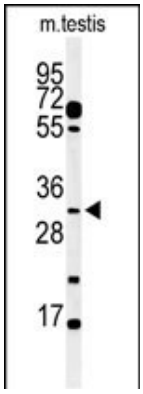
Background

PHO3 is a member of the cytidine deaminase gene family. The PHO3 gene 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.

References

Wedekind, J.E., et al., Trends Genet. 19(4):207-216 (2003).
Jarmuz, A., et al., Genomics 79(3):285-296 (2002).
Madsen, P., et al., J. Invest. Dermatol. 113(2):162-169 (1999).

Images



Western blot analysis of hPHO3-D314 (Cat. #AP1353a) in mouse testis tissue lysates (35ug/lane). PHO3 (arrow) was detected using the purified Pab.

Citations

- APOBEC3B: A Potential Factor Suppressing Growth of Human Hepatocellular Carcinoma Cells.