Rabbit anti-Human APOBEC3G Polyclonal Antibody | anti-APOBEC3G antibody

APOBEC3G Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326190	**Rabbit**	**Human**	**ELISA, Immunohistochemistry, Western Blot**

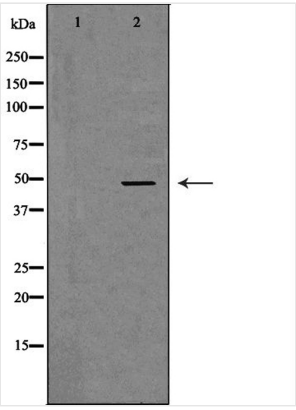
PRODUCT SYNONYMS

APOBEC3G; Polyclonal Antibody; APOBEC3G Antibody; A3G; ABC3G_HUMAN; APOBEC related cytidine deaminase; APOBEC related protein; APOBEC-related cytidine deaminase; APOBEC-related protein 9; APOBEC-related protein; Apolipoprotein B editing enzyme catalytic polypeptide like 3G; Apolipoprotein B mRNA editing enzyme catalytic polypeptide 3G; Apolipoprotein B mRNA editing enzyme catalytic polypeptide like 3G; Apolipoprotein B mRNA editing enzyme catalytic subunit 3G; apolipoprotein B mRNA editing enzyme cytidine deaminase; apolipoprotein B mRNA editing enzyme; catalytic polypeptide-like; ARCD; ARP-9; ARP9; bK150C2.7; CEM-15; CEM15; deoxycytidine deaminase; dJ494G10.1; DNA dC dU editing enzyme APOBEC 3G; DNA dC-> dU editing enzyme; DNA dC-> dU-editing enzyme APOBEC-3G; EC 3.5.4.; FLJ12740; MDS019; OTTHUMP00000028911; phorbolin-like protein; phorbolin-like protein MDS019; anti-APOBEC3G antibody

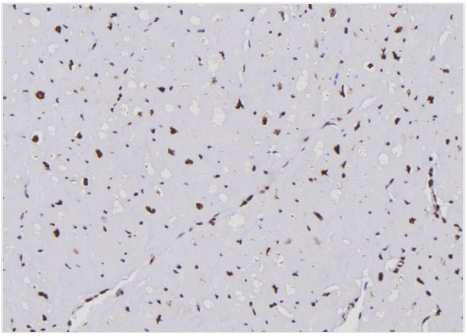
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	APOBEC3G antibody detects endogenous levels of total APOBEC3G
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	384
Applicable Applications for anti-APOBEC3G antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human APOBEC3G
Subcellular Location	Cytoplasm. Nucleus. Mainly cytoplasmic. Small amount are found in the nucleus. During HIV-1 infection, virion-encapsidated in absence of HIV-1 VIF.
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. 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.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of extracts of Jurkat, using APOBEC3G antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)
AAA326190 at 1/100 staining Human heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-APOBEC3G antibody	Description: 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. The protein encoded by this gene has been found to be a specific inhibitor of human immunodeficiency virus-1 (HIV-1) infectivity. [provided by RefSeq, Jul 2008] Function: DNA deaminase (cytidine deaminase) which acts as an inhibitor of retrovirus replication and retrotransposon mobility via deaminase-dependent and-independent mechanisms. Exhibits potent antiviral activity against vif-deficient HIV-1. 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 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). May inhibit the mobility of LTR and non-LTR retrotransposons. Subunit Structure: Homodimer. Homooligomer. Can bind RNA to form ribonucleoprotein complexes of high-molecular-mass (HMM) or low-molecular-mass (LMM). HMM is inactive and heterogeneous in protein composition because of binding nonselectively to cellular RNAs, which in turn are associated with variety of cellular proteins. The LMM form which is enzymatically active has few or no RNAs associated. Its ability to form homooligomer is distinct from its ability to assemble into HMM. Interacts with APOBEC3B, APOBEC3F, MOV10, AGO2, EIF4E, EIF4ENIF1, DCP2 and DDX6 in an RNA-dependent manner. Interacts with AGO1, AGO3 and PKA/PRKACA. Interacts with HIV-1 VIF and reverse transcriptase/ribonuclease H. Interacts with hepatitis B virus capsid protein. Post-translational Modifications: Ubiquitinated in the presence of HIV-1 VIF. Association with VIF targets the protein for proteolysis by the ubiquitin-dependent proteasome pathway. Phosphorylation at Thr-32 reduces its binding to HIV-1 VIF and subsequent ubiquitination and degradation thus promoting its antiviral activity. Similarity: The CMP/dCMP deaminase domain 1 mediates RNA binding, RNA-dependent oligomerization and virion incorporation whereas the CMP/dCMP deaminase domain 2 confers deoxycytidine deaminase activity and substrate sequence specificity. Belongs to the cytidine and deoxycytidylate deaminase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	13399304
NCBI GeneID	60489
NCBI Accession #	NP_068594.1
NCBI GenBank Nucleotide #	NM_021822.3

UniProt Accession #	Q9HC16; Q45F02; Q5TF77; Q7Z2N1; Q7Z2N4; Q9H9H8; B2RDR9
Molecular Weight	Observed: 46 kDa Predicted: 47 kDa
NCBI Official Full Name	DNA dC->dU-editing enzyme APOBEC-3G isoform 1
NCBI Official Synonym Full Names	apolipoprotein B mRNA editing enzyme catalytic subunit 3G
NCBI Official Symbol	APOBEC3G
NCBI Official Synonym Symbols	A3G; ARCD; ARP9; ARP-9; CEM15; CEM-15; MDS019; bK150C2.7; dJ494G10.1
NCBI Protein Information	DNA dC->dU-editing enzyme APOBEC-3G
UniProt Protein Name	DNA dC->dU-editing enzyme APOBEC-3G
UniProt Gene Name	**APOBEC3G**
UniProt Synonym Gene Names	APOBEC-related protein; ARCD; ARP-9; CEM15; A3G

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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