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

Apobec1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1352a

Product Information

Application	IHC-P, WB, E
Primary Accession	P41238
Other Accession	NP_001635
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1746
Calculated MW	28192
Antigen Region	7-36

Additional Information

Gene ID	339
Other Names	C->U-editing enzyme APOBEC-1, 354-, Apolipoprotein B mRNA-editing enzyme 1, HEPR, APOBEC1
Target/Specificity	This Apobec1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 7-36 amino acids from the N-terminal region of human Apobec1.
Dilution	IHC-P~~1:100~500 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	Apobec1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	APOBEC1 (HGNC:604)
Function	Cytidine deaminase catalyzing the cytidine to uridine postranscriptional editing of a variety of mRNAs (PubMed:30844405). Form complexes with cofactors that confer differential editing activity and selectivity. Responsible

	for the postranscriptional editing of a CAA codon for Gln to a UAA codon for stop in the apolipoprotein B mRNA (PubMed:24916387). Also involved in CGA (Arg) to UGA (Stop) editing in the NF1 mRNA (PubMed:11727199). May also play a role in the epigenetic regulation of gene expression by participating in DNA demethylation (By similarity).
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Expressed exclusively in the small intestine.

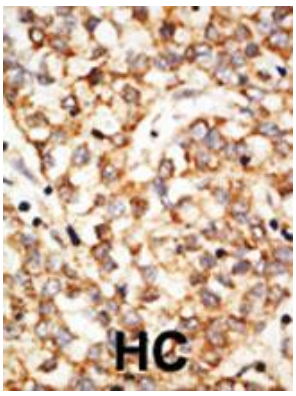
Background

APOBEC1 is involved in the production of apolipoprotein B (apoB)-48 from apoB-100. The gene spans 18 kb and contains five exons, all of which are translated. Alternative splicing produces a variant transcript that lacks exon 2 and encodes a novel 36-amino acid peptide. The exon 2-skipped transcript accounts for approximately 50% of APOBEC1 mRNA in the adult small intestine and up to 90% of APOBEC1 mRNA in the developing gut. Exon 2-skipping may thus be a quantitatively important mechanism for regulating the expression of this gene in the gastrointestinal tract.

References

Blanc, V., et al., J. Biol. Chem. 278(42):41198-41204 (2003).
Chester, A., et al., EMBO J. 22(15):3971-3982 (2003).
Wedekind, J.E., et al., Trends Genet. 19(4):207-216 (2003).
Mukhopadhyay, D., et al., Am. J. Hum. Genet. 70(1):38-50 (2002).
Dance, G.S., et al., J. Biol. Chem. 277(15):12703-12709 (2002).

Images



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, 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. BC = breast carcinoma; HC = hepatocarcinoma.