

Product datasheet for **SC331152**

APOBEC3A_B (NM_001193289) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APOBEC3A_B (NM_001193289) Human Untagged Clone
Tag:	Tag Free
Symbol:	APOBEC3A_B
Synonyms:	A3A; APOBEC3A
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001193289, the custom clone sequence may differ by one or more nucleotides

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ATGGAAGCCAGCCAGCATCCGGGCCAGACACTTGATGGATCCACACATATTCACCTCCAACCTTAACA  
ATGGCATTGGAAGGCATAAGACCTACCTGTGCTACGAAGTGGAGCGCCTGGACAATGGCACCTCGGTCAA  
GATGGACCAGCACAGGGGCTTTCTACACAACCAGGCTAAGAATCTTCTCTGTGGCTTTTACGGCCGCCAT  
GCGGAGCTGCGCTTCTTGACCTGGTTCCTTCTTGCAGTTGGACCCGGCCAGATCTACAGGGTCACTT  
GGTTCATCTCCTGGAGCCCCTGCTTCTCCTGGGGCTGTGCCGGGAAGTGCCTGCGTTTCCTCAGGAGAA  
CACACACGTGAGACTGCGTATCTTCGCTGCCCGCATCTATGATTACGACCCCTATATAAGGAGGCACTG  
CAAATGCTGCGGGATGCTGGGGCCAAGTCTCCATCATGACCTACGATGAATTTAAGCACTGCTGGGACA  
CCTTTGTGGACCACCAGGGATGTCCCTTCCAGCCCTGGGATGGACTAGATGAGCACAGCCAAGCCCTGAG  
TGGGAGGCTGCGGGCCATTCTCCAGAATCAGGGAAACTGA
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Restriction Sites:	Sgfl-MluI
ACCN:	NM_001193289



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OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001193289.1](#), [NP_001180218.1](#)

RefSeq Size: 1103 bp

RefSeq ORF: 600 bp

Locus ID: 100913187

UniProt ID: [P31941](#)

Cytogenetics: 22q13 alternate reference locus

Gene Summary:

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. The protein encoded by this gene lacks the zinc binding activity of other family members. The protein plays a role in immunity, by restricting transmission of foreign DNA such as viruses. One mechanism of foreign DNA restriction is deamination of foreign double-stranded DNA cytidines to uridines, which leads to DNA degradation. However, other mechanisms are also thought to be involved, as anti-viral effect is not dependent on deaminase activity. The protein encoded by this gene is the same as that encoded by APOBEC3A; however, this gene is a hybrid gene that results from the deletion of approximately 29.5 kb of sequence between the APOBEC3A gene and the adjacent gene APOBEC3B. The breakpoints of the deletion are within the two genes, so the deletion hybrid is predicted to have the promoter and coding region of APOBEC3A, but the 3' UTR of APOBEC3B. [provided by RefSeq, Jul 2012]