

Product datasheet for **RC233382**

APOBEC3A (NM_001270406) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: APOBEC3A (NM_001270406) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: APOBEC3A
Synonyms: A3A; ARP3; bK150C2.1; PHRBN
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC233382 representing NM_001270406
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAAGCCAGCCAGCATCCGGGCCAGGCATAAGACCTACCTGTGCTACGAAGTGGAGCGCCTGGACA
ATGGCACCTCGGTCAAGATGGACCAGCACAGGGCTTTCTACACAACCAGGCTAAGAATCTTCTGTGG
CTTTTACGGCCGCATGCGGAGCTGCGCTTCTTGACCTGGTTCCTTCTTGCAGTTGGACCCGGCCAG
ATCTACAGGGTCACTTGGTTCATCTCCTGGAGCCCTGCTTCTCCTGGGGCTGTGCCGGGAAGTGCCTG
CGTTCTTCAGGAGAACACACAGTGAAGTGCATCTTCGCTGCCCGCATCTATGATTACGACCCCT
ATATAAGGAGGCACTGCAAATGCTGCGGGATGCTGGGGCCCAAGTCTCCATCATGACCTACGATGAATTT
AAGCACTGCTGGGACACCTTTGTGGACCACAGGGATGTCCTTCCAGCCCTGGGATGGACTAGATGAGC
ACAGCCAAGCCCTGAGTGGGAGGCTGCGGGCCATTCTCCAGAATCAGGGAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC233382 representing NM_001270406
Red=Cloning site Green=Tags(s)

MEASPASGPRHKTYLCYEVERLDNGTSVKMDQHRGFLHNQAKNLLCGFYGRHAELRFLDLVPSLQLDPAQ
IYRVTFISWSPCFSWGAGVRAFLQENTHVRLRIFAARIYDYDPLYKEALQMLRDAGAQVSIMTYDEF
KHCWDTFVDHQGPFQPWDGLDEHSQALSGRLRAILQNQGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

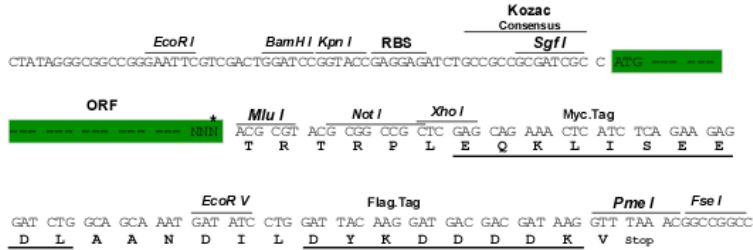
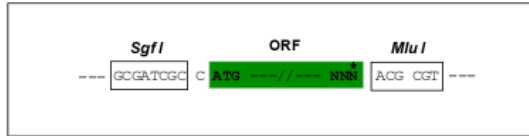
Restriction Sites: SgfI-MluI



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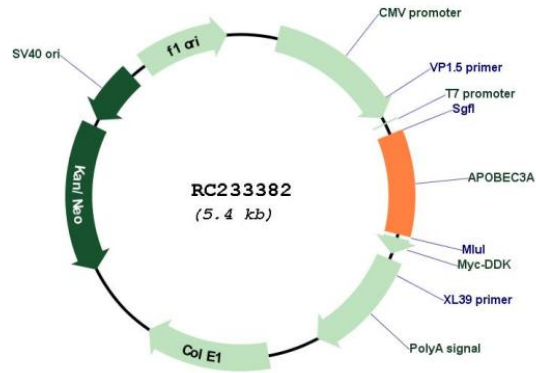
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001270406
 ORF Size: 543 bp

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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001270406.2](#)

RefSeq Size: 1390 bp

RefSeq ORF: 546 bp

Locus ID: 200315

Cytogenetics: 22q13.1

MW: 21.4 kDa

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. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2012]