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Product datasheet for RC220995

APOBEC3A (NM_145699) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APOBEC3A (NM_145699) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	APOBEC3A
Synonyms:	A3A; ARP3; bK150C2.1; PHRBN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC220995 representing NM_145699
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAGCCAGCCCAGCATCCGGGCCCAGACACTTGATGGATCCACACATATTCACTTCCAACTTTAACA
ATGGCATTGGAAGGCATAAGACCTACCTGTGCTACGAAGTGGAGCGCCTGGACAATGGCACCTCGGTCAA
GATGGACCAGCACAGGGGCTTTCTACACAACCAGGCTAAGAATCTTCTCTGTGGCTTTTACGGCCGCCAT
GCGGAGCTGCGCTTCTTGGACCTGGTTCCTTCTTTGCAGTTGGACCCGGCCCAGATCTACAGGGTCACTT
GGTTCATCTCCTGGAGCCCCTGCTTCTCCTGGGGCTGTGCCGGGGAAGTGCGTGCGTTCCTTCAGGAGAA
CACACACGTGAGACTGCGCATCTTCGCTGCCCGCATCTATGATTACGACCCCCTATATAAGGAGGCGCTG
CAAATGCTGCGGGATGCTGGGGCCCAAGTCTCCATCATGACCTACGATGAATTTAAGCACTGCTGGGACA
CCTTTGTGGACCACCAGGGATGTCCCTTCCAGCCCTGGGATGGACTAGATGAGCACAGCCAAGCCCTGAG
TGGGAGGCTGCGGGCCATTCTCCAGAATCAGGGAAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220995 representing NM_145699
Red=Cloning site Green=Tags(s)

MEASPASGPRHLMDPHIFTSNFNNGIGRHKTYLCYEVERLDNGTSVKMDQHRGFLHNQAKNLLCGFYGRH
AELRFLDLVPSLQLDPAQIYRVTWFISWSPCFSWGCAGEVRAFLQENTHVRLRIFAARIYDYDPLYKEAL
QMLRDAGAQVSIMTYDEFKHCWDTFVDHQGCPFQPWDGLDEHSQALSGRLRAILQNQGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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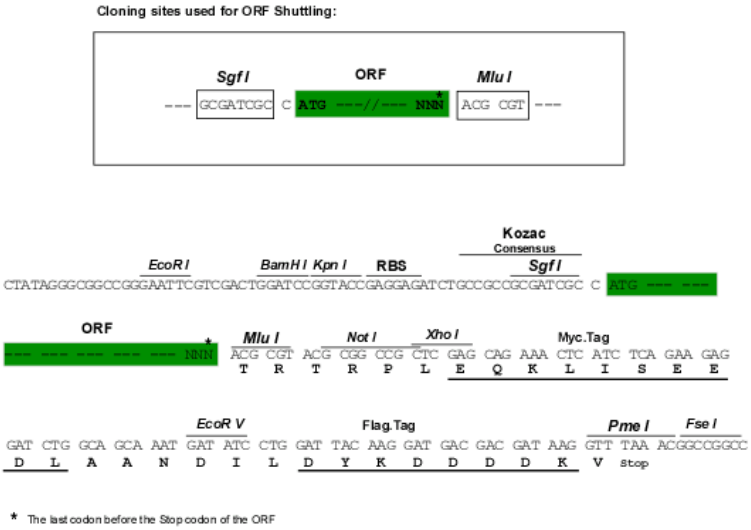
Chromatograms: https://cdn.origene.com/chromatograms/mk8043_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_145699

ORF Size: 597 bp

OTI Disclaimer: 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.

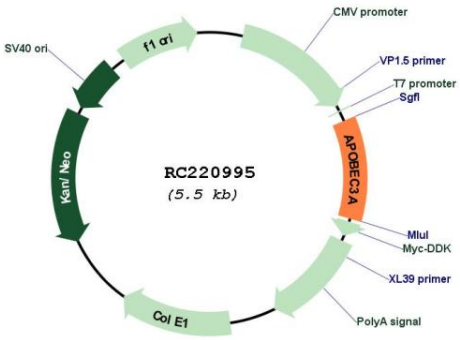
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_145699.2, NP_663745.1

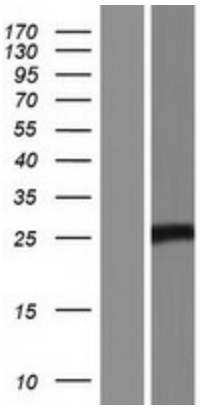
RefSeq Size: 1349 bp

RefSeq ORF:	600 bp
Locus ID:	200315
UniProt ID:	P31941
Cytogenetics:	22q13.1
MW:	22.8 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]

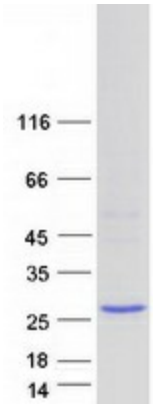
Product images:



Circular map for RC220995



Western blot validation of overexpression lysate (Cat# [LY407901]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220995 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified APOBEC3A protein (Cat# [TP320995]). The protein was produced from HEK293T cells transfected with APOBEC3A cDNA clone (Cat# RC220995) using MegaTran 2.0 (Cat# [TT210002]).