

Product datasheet for **RC210762**

Apolipoprotein A I (APOA1) (NM_000039) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Apolipoprotein A I (APOA1) (NM_000039) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Apolipoprotein A I
Synonyms:	apo(a); HPALP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210762 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAAGCTGCGGTGCTGACCTTGCCGTGCTCTTCTGACGGGGAGCCAGGCTCGGCATTTCTGGCAGC
AAGATGAACCCCCCAGAGCCCCGGGATCGAGTGAAGGACCTGGCCACTGTGTACGTGGATGTGCTCAA
AGACAGCGGCAGAGACTATGTGTCCCAGTTTGAAGGCTCCGCCTTGGGAAAACAGCTAAACCTAAAGCTC
CTTGACAACCTGGGACAGCGTGACCTCCACCTTCAGCAAGCTGCGCAACAGCTCGGCCCTGTGACCCAGG
AGTTCTGGGATAACCTGGAAAAGGAGACAGAGGGCCTGAGGCAGGAGATGAGCAAGGATCTGGAGGAGGT
GAAGGCCAAGGTGCAGCCCTACCTGGACGACTTCCAGAAGAAGTGGCAGGAGGAGATGGAGCTCTACCGC
CAGAAGGTGGAGCCGCTGCGCGCAGAGCTCCAAGAGGGCGCGCCAGAAGCTGCACGAGCTGCAAGAGA
AGCTGAGCCCACTGGGCGAGGAGATGCGCGACCGCGCGCGCCCATGTGGACGCGCTGCGCACGCATCT
GGCCCCCTACAGCGACGAGCTGCGCCAGCGCTTGCCCGCGCGCTTGAGGCTCTCAAGGAGAACGGCGGC
GCCAGACTGGCCGAGTACCACGCCAAGGCCACCGAGCATCTGAGCACGCTCAGCGAGAAGGCCAAGCCCG
CGCTCGAGGACCTCCGCCAAGGCCTGCTGCCGTGCTGGAGAGCTTCAAGGTCAGCTTCTGAGCGCTCT
CGAGGAGTACACTAAGAAGCTCAACACCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210762 protein sequence
 Red=Cloning site Green=Tags(s)

MKAAVLTLAVLFLTGSQARHFVQDPEPPQSPWDRVKDLATVYVDVLKDSGRDYVSQFEQSALGKQLNLKL
 LDNWDVSTSTFSKLRQLGPVTQEFWDNLEKETEGLRQEMSKDLEEVKAKVQPYLDDFQKKWQEEMEL YR
 QKVEPLRAELQEGARQKLHELQEKLSPLGEEMDRARAHVDALRTHLAPYSDELQRRLAARLEALKENGG
 ARLAEYHAKATEHLSTLSEKAKPALEDLRQGLLPVLESFKVSFLSALEEYTKKLNTQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6003_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000039

ORF Size: 801 bp

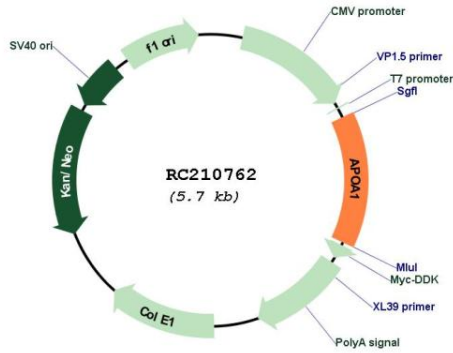
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

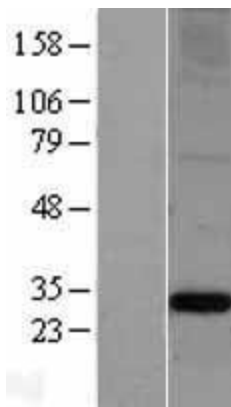
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_000039.3
RefSeq Size:	897 bp
RefSeq ORF:	804 bp
Locus ID:	335
UniProt ID:	P02647
Cytogenetics:	11q23.3
Domains:	Apolipoprotein
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	PPAR signaling pathway
MW:	30.8 kDa
Gene Summary:	<p>This gene encodes apolipoprotein A-I, which is the major protein component of high density lipoprotein (HDL) in plasma. The encoded preprotein is proteolytically processed to generate the mature protein, which promotes cholesterol efflux from tissues to the liver for excretion, and is a cofactor for lecithin cholesterolacyltransferase (LCAT), an enzyme responsible for the formation of most plasma cholesteryl esters. This gene is closely linked with two other apolipoprotein genes on chromosome 11. Defects in this gene are associated with HDL deficiencies, including Tangier disease, and with systemic non-neuropathic amyloidosis. Alternative splicing results in multiple transcript variants, at least one of which encodes a preprotein. [provided by RefSeq, Dec 2015]</p>

Product images:



Circular map for RC210762



Western blot validation of overexpression lysate (Cat# [LY400009]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210762 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified APOA1 protein (Cat# [TP310762]). The protein was produced from HEK293T cells transfected with APOA1 cDNA clone (Cat# RC210762) using MegaTran 2.0 (Cat# [TT210002]).