

## Product datasheet for RC237409

### Apolipoprotein E (APOE) (NM\_001302690) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Apolipoprotein E (APOE) (NM_001302690) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Apolipoprotein E
Synonyms:	AD2; APO-E; ApoE4; LDLCQ5; LPG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC237409 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGAAGGTTCTGTGGGCTGCGTTGCTGGTCACATTCCTGGCAGGATGCCAGGCCAAGGTGGAGCAAGCGG  
TGGAGACAGAGCCGAGCCGAGCTGCGCCAGCAGACCGAGTGGCAGAGCGGCCAGCGCTGGGAAGTGGC  
ACTGGGTCGCTTTGGGATTACCTGCGCTGGGTGCAGACTGTCTGAGCAGGTGCAGGAGGAGCTGCTC  
AGCTCCCAGGTCACCCAGGAAGTGAAGGAGTGAAGGCCTACAAT  
CGGAAGTGGAGGAACAAGTGAAGGAGTGAAGGCCTACAAT  
GGCAGGAGCCGAGTGGGCGCGGACATGGAGGAGTGTGCGGCCCGCTGGTGCAGTACCGCGCGAGGTTG  
CAGGCCATGCTCGGCCAGAGCACCGAGGAGTGCAGGAGTGCAGGAGTGCAGGAGTGCAGGAGTGCAGG  
AGCGGCTCCTCCGCGATGCCGATGACCTGCAGAAGCGCCTGGCAGTGTACCAGGCCGGGGCCCGCGAGGG  
CGCCGAGCGCGGCTCAGCGCCATCCGCGAGCGCCTGGGGCCCTGGTGGAAACAGGGCCGCGTGCAGG  
GCCACTGTGGGCTCCCTGGCCGGCCAGCCGCTACAGGAGCGGGCCAGGCTGGGGCGAGCGGCTGCGCG  
CGCGGATGGAGGAGTGGCAGCCGACCCGCGACCGCTGGACGAGGTGAAGGAGCAGGTGGCGGAGGT  
GCGGCCAAGCTGGAGGAGCAGGCCAGCAGATACGCTGCAGGCCGAGGCTTCCAGGCCCGCCTCAAG  
AGCTGGTTCGAGCCCTGGTGAAGACATGCAGCGCCAGTGGGCCGGGCTGGTGGAGAAGGTGCAGGCTG  
CCGTGGGACACGCGCCGCCCTGTGCCAGCGACAATCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC237409 protein sequence  
Red=Cloning site Green=Tags(s)

MKVLWAALLVTFLAGCQAKVEQAVETEPEPEL RQQTEWQSGQRWELALGRFWDYLRWVQTLSEQVQEELL  
 SSQVTQELRALMDETMKELKAYKSELEEQLTPVAEETRARLSKELQAAQARLGADMEDVCGRLVQYRGEV  
 QAMLGQSTEELRVRLASHLRKLRKLLRDADDLQKRLAVYQAGAREGAERGLSAIRERLGPLVEQGRVRA  
 ATVGLAGQPLQERAQAWGERLRARMEEMGSRTRDRLDEVKEQVAEVRAKLEEQAQQIRLQAEAFQARLK  
 SWFEPLVEDMQRWAGLVEKVQAAVGTSAAPVPSDNH

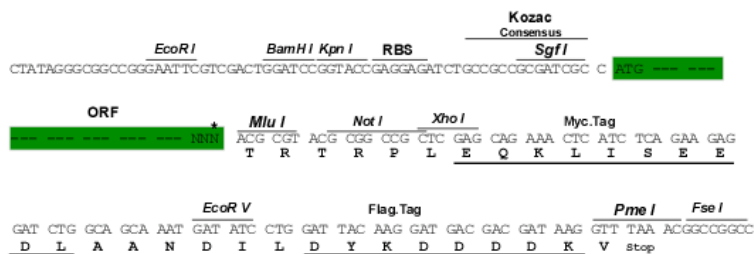
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6267\\_a06.zip](https://cdn.origene.com/chromatograms/mk6267_a06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001302690

**ORF Size:** 951 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.

**RefSeq:** [NM\\_001302690.1](#), [NP\\_001289619.1](#)

**RefSeq Size:** 1265 bp

**RefSeq ORF:** 954 bp

**Locus ID:** 348

**UniProt ID:** [P02649](#)

**Cytogenetics:** 19q13.32

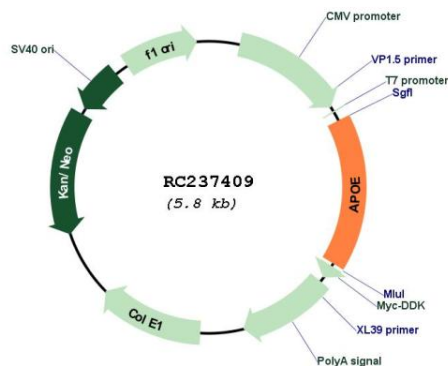
**Protein Families:** Adult stem cells, Druggable Genome, Secreted Protein, Stem cell - Pluripotency

**Protein Pathways:** Alzheimer's disease

**MW:** 36.2 kDa

**Gene Summary:** The protein encoded by this gene is a major apoprotein of the chylomicron. It binds to a specific liver and peripheral cell receptor, and is essential for the normal catabolism of triglyceride-rich lipoprotein constituents. This gene maps to chromosome 19 in a cluster with the related apolipoprotein C1 and C2 genes. Mutations in this gene result in familial dysbetalipoproteinemia, or type III hyperlipoproteinemia (HLP III), in which increased plasma cholesterol and triglycerides are the consequence of impaired clearance of chylomicron and VLDL remnants. [provided by RefSeq, Jun 2016]

### Product images:



Circular map for RC237409