

## Product datasheet for **RC203645**

### APH1A (NM\_016022) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	APH1A (NM_016022) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	APH1A
Synonyms:	6530402N02Rik; APH-1; APH-1A; CGI-78
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203645 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGGCTGCGGTGTTTTTCGGCTGCACTTTCGTCGCGTTCGGCCCGCCTTCGCGTTTTCTTGATCA  
CTGTGGCTGGGACCCGCTTCGCGTTATCATCCTGGTCGCAGGGGCATTTTTCTGGCTGGTCTCCCTGCT  
CCTGGCCTCTGTGGTCTGGTTCATCTTGGTCCATGTGACCGACCGGTGAGATGCCCGGCTCCAGTACGGC  
CTCCTGATTTTTGGTGTCTGTCTCTGTCTTCTACAGGAGGTGTTCCGCTTTCCTACTACAAGCTGC  
TTAAGAAGGCAGATGAGGGGTTAGCATCGCTGAGTGAGGACGGAAGATCACCCATCTCCATCCGCCAGAT  
GGCCTATGTTTCTGGTCTCTCCTTCGGTATCATCAGTGGTGTCTTCTCTGTTATCAATATTTGGCTGAT  
GCACTTGGGCCAGGTGTGGTTGGGATCCATGGAGACTCACCTATTACTTCTGACTTCAGCCTTTCTGA  
CAGCAGCCATTATCCTGCTCCATACCTTTGGGGAGTTGTGTTCTTTGATGCCTGTGAGAGGAGACGGTA  
CTGGGCTTTGGGCTGGTGGTTGGGAGTCACTACTGACATCGGGACTGACATTCCTGAACCCCTGGTAT  
GAGGCCAGCCTGCTGCCATCTATGCAGTCACTGTTCCATGGGGCTCTGGGCTTCATCACAGCTGGAG  
GGTCCCTCCGAAGTATTCAGCGCAGCCTTTGTGTAAGGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203645 protein sequence  
Red=Cloning site Green=Tags(s)

MGAAVFFGCTFVAFGPAFALFLITVAGDPLRVIIIVAGAFFWLVSLLASVWVWILVHVTDTRSDARLQYG  
 LLIFGAAVSVLLQEVFRFAYYKLLKKADEGLASLSEDRSPISIRQMAYVSGLSFGIISGVFVSVINILAD  
 ALGPGVVGIIHGDSPIYFLTSAFLTAAIILLHTFWGVVFFDACERRRYWALGLVVGSHLLTSGLTFLNPWY  
 EASLLPIYAVTVSMGLWAFITAGGSLRSIQRSLLCKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6056\\_a09.zip](https://cdn.origene.com/chromatograms/mk6056_a09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_016022

**ORF Size:** 741 bp

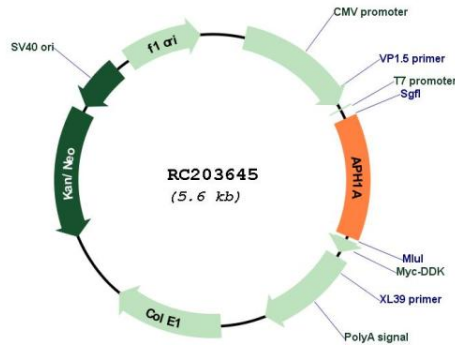
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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](#)

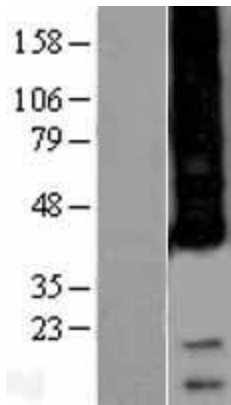
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_016022.3</u>
<b>RefSeq Size:</b>	2290 bp
<b>RefSeq ORF:</b>	744 bp
<b>Locus ID:</b>	51107
<b>UniProt ID:</b>	<u>Q96BI3</u>
<b>Cytogenetics:</b>	1q21.2
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	Alzheimer's disease, Notch signaling pathway
<b>MW:</b>	26.8 kDa
<b>Gene Summary:</b>	<p>This gene encodes a component of the gamma secretase complex that cleaves integral membrane proteins such as Notch receptors and beta-amyloid precursor protein. The gamma secretase complex contains this gene product, or the paralogous anterior pharynx defective 1 homolog B (APH1B), along with the presenilin, nicastrin, and presenilin enhancer-2 proteins. The precise function of this seven-transmembrane-domain protein is unknown though it is suspected of facilitating the association of nicastrin and presenilin in the gamma secretase complex as well as interacting with substrates of the gamma secretase complex prior to their proteolytic processing. Polymorphisms in a promoter region of this gene have been associated with an increased risk for developing sporadic Alzheimer's disease. Alternative splicing results in multiple protein-coding and non-protein-coding transcript variants. [provided by RefSeq, Aug 2011]</p>

Product images:



Circular map for RC203645



Western blot validation of overexpression lysate (Cat# [LY402487]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203645 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).