

## Product datasheet for **RC232052**

### APH1A (NM\_001243771) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** APH1A (NM\_001243771) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** APH1A  
**Synonyms:** 6530402N02Rik; APH-1; APH-1A; CGI-78  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC232052 representing NM\_001243771  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGGGGCTCGGGTGTTCGCGCTGCACTTTCGTCGCGTTCGGCCCGCCTTCGCGCTTTCTTGATCA  
CTGTGGCTGGGACCCGCTTCGCGTTATCATCCTGGTCGCAGGGAAGGCAGATGAGGGGTAGCATCGT  
GAGTGAGGACGGAAGATCACCCATCTCCATCCGCCAGATGGCCTATGTTTCTGGTCTCTCCTTCGGTATC  
ATCAGTGGTGTCTCTCTGTTATCAATATTTGGCTGATGCACTTGGGCCAGGTGTGGTTGGGATCCATG  
GAGACTCACCTATTACTTCTGACTTCAGCCTTCTGACAGCAGCCATTATCCTGCTCCATACCTTTTG  
GGGAGTTGTGTTCTTTGATGCCTGTGAGAGGAGACGGTACTGGGCTTTGGGCCTGGTGGTTGGGAGTCA  
CTACTGACATCGGGACTGACATTCCTGAACCCCTGGTATGAGGCCAGCCTGCTGCCATCTATGCAGTCA  
CTGTTTCCATGGGGCTCTGGCCCTCATCACAGCTGGAGGGTCCCTCCGAAGTATTCAGCGCAGCCTCTT  
GTGTAAGGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC232052 representing NM\_001243771  
Red=Cloning site Green=Tags(s)

MGAAVFFGCTFVAFGPAFALFLITVAGDPLRVIIIVAGKADEGLASLSEDRSPISIRQMAYVSGLSFGI  
ISGVFSVINILADALGPGVVIHGDSPYYFLTSAFLTAAIILLHTFWGVVFFDACERRRYWALGLVVGSH  
LLTSGLTFLNPWYEASLLPIYAVTVSMGLWAFITAGGSLRSIQRSLLCKD

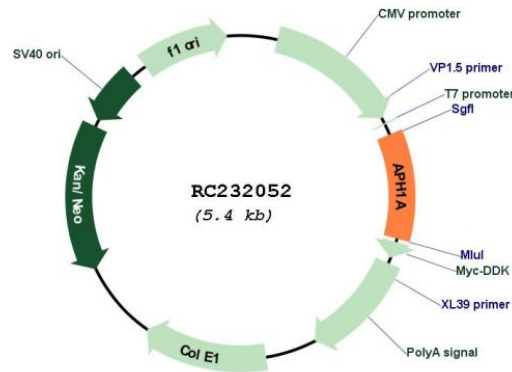
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001243771

**ORF Size:** 570 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\\_001243771.1](#), [NP\\_001230700.1](#)

**RefSeq Size:** 2119 bp

**RefSeq ORF:** 573 bp

**Locus ID:** 51107

**UniProt ID:** [Q96BI3](#)

**Cytogenetics:** 1q21.2

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Alzheimer's disease, Notch signaling pathway

**MW:** 20.7 kDa

**Gene Summary:** 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]