

## Product datasheet for **RG234696**

### Amyloid Precursor Protein (APP) (NM\_001204303) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_001204303) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Amyloid Precursor Protein
Synonyms:	AAA; ABETA; ABPP; AD1; alpha-sAPP; APPI; CTFgamma; CVAP; PN-II; PN2; preA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234696 representing NM\_001204303  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTGCCCGTTTGGCACTGCTCCTGCTGGCCGCTGGACGGCTCGGGCGCTGGAGGTACCCACTGATG  
 GTAATGCTGGCCTGCTGGCTGAACCCAGATTGCCATGTTCTGTGGCAGACTGAACATGCACATGAATGT  
 CCAGAATGGGAAGTGGGATTCCAGATCCATCAGGGACAAAACCTGCATTGATACCAAGGAAGGCATCCTG  
 CAGTATTGCCAAGAAGTCTACCCTGAACTGCAGATCACCAATGTGGTAGAAGCCAACCAACCAAGTACCA  
 TCCAGAAGTGGTCAAGCGGGCCGCAAGCAGTGAAGACCCATCCCACCTTTGTGATTCCCTACCGCTG  
 CTTAGTTGGTGGTGGTAAAGTATGATGCCCTTCTCGTTCCTGACAAGTGCAAATCTTACACCAGGAGAGG  
 ATGGATGTTTGCAAAATCATCTTCACTGGCACACCGTCGCCAAAGAGACATGCAGTGAAGAGTACCA  
 ACTTGCATGACTACGGCATGTTGCTGCCCTGCGGAATTGACAAGTCCGAGGGGTAGAGTTTGTGTGTTG  
 CCCACTGGCTGAAGAAAGTGACAATGTGGATTCTGCTGATGCGGAGGAGGATGACTCGGATGTCTGGTGG  
 GCGGAGCAGACACAGACTATGCAGATGGGAGTGAAGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAG  
 TGCTGAGGTGGAAGAAGAAGACCGATGATGACGAGGACGATGAGGATGGTGTGAGGTGAGGAAGA  
 GGCTGAGGAACCTACGAAGAAGCCACAGAGAGAACACCAGCATTGCCACCACCACCACCACCACACA  
 GAGTCTGTGGAAGAGGTGGTTCGAGTTCCTACAACAGCAGCCAGTACCCCTGATGCCGTTGACAAGTATC  
 TCGAGACACCTGGGGATGAGAATGAACATGCCATTTCCAGAAAGCCAAAGAGAGGCTTGAGGCCAAGCA  
 CCGAGAGAGAATGTCAGGTCATGAGAGAATGGGAAGAGGCAGAACGTCAAGCAAGAAGTGCCTAAA  
 GCTGATAAGAAGGCAGTTATCCAGCATTCCAGGAGAAAGTGAATCTTTGGAACAGGAAGCAGCCAACG  
 AGAGACAGCAGCTGGTGGAGACACATGGCCAGAGTGAAGCCATGCTCAATGACCGCCGCCCTGGC  
 CCTGGAGAACTACATCACCGCTCTGCAGGCTGTTCCCTCCTCGGCCTCGTCACGTGTTCAATATGCTAAAG  
 AAGTATGTCCGCGCAGAACAGAAGGACAGACAGCACACCCATAAGCATTTCGAGCATGTGCGCATGGTGG  
 ATCCCAAGAAAGCCGCTCAGATCCGGTCCAGGTTATGACACACCTCCGTGTGATTTATGAGCGCATGAA  
 TCAGTCTCTCCTGCTCTACAACGTGCCTGCAGTGGCCGAGGAGATTCAGGATGAAGTTGATGAGCTG  
 CTTCAGAAAGAGCAAACTATTCCAGATGACGTCTTGCCCAACATGATTAGTGAACCAAGGATCAGTTACG  
 GAAACGATGCTCTCATGCCATCTTTGACCGAAACGAAAACCACCGTGGAGCTCCTCCCGTGAATGGAGA  
 GTTCAGCCTGGACGATCTCCAGCCGTGGCATTCTTTGGGGCTGACTCTGTGCCAGCCAACAGAAAAC  
 GAAGTTCTGGGTTGACAAATATCAAGACGGAGGAGATCTCTGAAGTGAAGATGGATGCAGAATTCGGAC  
 ATGACTCAGGATATGAAGTTCATCATCAAAAATGGTGTCTTTGCGAAGATGTGGGTTCAACAAAGG  
 TGCAATCATTGGACTCATGGTGGCGGTGTTGTATAGCGACAGTGCATGCATCACCTTGGTGTGCTG  
 AAGAAGAAACAGTACACATCCATTATCATATGGTGTGGTGGAGGTTGACGCCGCTGTACCCAGAGGAGC  
 GCCACCTGTCCAAGATGCAGCAGAACGGCTACGAAAATCCAACCTACAAGTTCTTTGAGCAGATGCAGAA  
 C

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG234696 representing NM\_001204303  
 Red=Cloning site Green=Tags(s)

MLPGLALLLLAAWTARALEVPTDGNAGLLAEPQIAMFCGRLNMHMNVQNGKWDSDPSGKTKCIDTKEGIL  
 QYQVEVPELQITNVVEANQPVTIQNWCKRGRKQCKTHPHFVIPYRCLVGEFVSDALLVPDKCKFLHQR  
 MDVCETHLHWHTVAKETCSEKSTNLHDYGMLLPCGIDKFRGVEFVCCPLAEESDNVDSADAEDSDVWW  
 GGADTDYADGSEDKVVEVAEEEEVAEVEEEEADDEDEDEGDEVEEEEAEPEYEEATERTTSIATTTTTTT  
 ESVEEVVRVPTTAASTPDAVDKYLETPGDENEHAHFQKAKERLEAKHRERMSQVMREWEAEERQAKNLPK  
 ADKKAVIQHFQEKVESLEQEAANERQQLVETHMARVEAMLNDRRLALENYITALQAVPPRPRHVFNMLK  
 KYVRAEQKDRQHTLKHFEHVRMVDPKKAAQIRSQVMTHLRVIYERMNQLSLLYNVPAVAEEIQDEVDEL  
 LQKEQNYSDVLANMISEPRI SYGNDALMPSL TETKTTVELLPVNGEFLDLDLQPWHSFGADSV PANTEN  
 EGSGLTNIKTEEISEVKMDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITLVM  
 KKKQYTSIHGGVVEVDAAVTPEERHLSKMQQNGYENPTYKFFEQMQN

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001204303

**ORF Size:** 2031 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\\_001204303.2](#)

**RefSeq Size:** 3369 bp

**RefSeq ORF:** 2034 bp

**Locus ID:** 351

**UniProt ID:** [P05067](#)

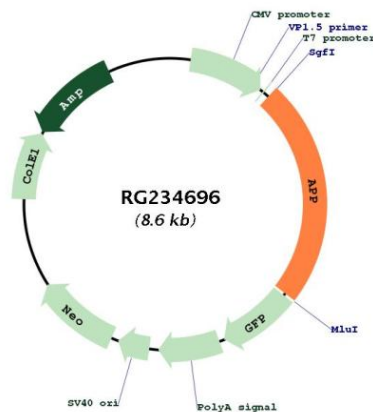
**Cytogenetics:** 21q21.3

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Alzheimer's disease

**Gene Summary:** This gene encodes a cell surface receptor and transmembrane precursor protein that is cleaved by secretases to form a number of peptides. Some of these peptides are secreted and can bind to the acetyltransferase complex APBB1/TIP60 to promote transcriptional activation, while others form the protein basis of the amyloid plaques found in the brains of patients with Alzheimer disease. In addition, two of the peptides are antimicrobial peptides, having been shown to have bacteriocidal and antifungal activities. Mutations in this gene have been implicated in autosomal dominant Alzheimer disease and cerebroarterial amyloidosis (cerebral amyloid angiopathy). Multiple transcript variants encoding several different isoforms have been found for this gene. [provided by RefSeq, Aug 2014]

### Product images:



Circular map for RG234696