

Product datasheet for **RG221339**

Amyloid Precursor Protein (APP) (NM_000484) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_000484) 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:

>RG221339 representing NM_000484
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGCCCGTTTGGCACTGCTCCTGCTGGCCGCTGGACGGCTCGGGCCTGGAGGTACCCACTGATG
 GTAATGCTGGCCTGCTGGCTGAACCCAGATTGCCATGTTCTGTGGCAGACTGAACATGCACATGAATGT
 CCAGAATGGGAAGTGGGATTCCAGATCCATCAGGGACAAAACCTGCATTGATACCAAGGAAGGCATCCTG
 CAGTATTGCCAAGAAGTCTACCCTGAACTGCAGATCACCAATGTGGTAGAAGCCAACCAACCAGTGACCA
 TCCAGAAGTGGTCAAGCGGGCCGCAAGCAGTGAAGACCCATCCCACCTTTGTGATCCCTACCCTG
 CTTAGTTGGTGGTGGTAAAGTGTGCCCTTCTCGTTCCTGACAAGTGCAAATCTTACACCAGGAGAGG
 ATGGATGTTTGCAAAATCATCTTCACTGGCACACCGTCGCCAAAGAGACATGCAGTGAGAAGGTACCA
 ACTTGCATGACTACGGCATGTTGCTGCCCTGCGGAATTGACAAGTCCGAGGGGTAGAGTTTGTGTGTTG
 CCCACTGGCTGAAGAAAGTGACAATGTGGATTCTGCTGATGCGGAGGAGGATGACTCGGATGTCTGGTGG
 GCGCGAGCAGACACAGACTATGCAGATGGGAGTGAAGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAG
 TGCTGAGGTGGAAGAAGAAGACCGATGATGACGAGGACGATGAGGATGGTGTGAGGTAGAGGAAGA
 GGCTGAGGAACCTACGAAGAAGCCACAGAGAGAACACCAGCATTGCCACCACCACCACCACCACACA
 GAGTCTGTGGAAGAGGTGGTTCGAGAGGTGTGCTCTGAACAAGCCGAGACGGGGCCGTGCCGAGCAATGA
 TCTCCCGTGGTACTTTGATGTGACTGAAGGGAAGTGTGCCCCATTTTACGGCGGATGTGGCGGCAA
 CCGGAACAACCTTTGACACAGAAGTACTGCATGGCCGTGTGGCAGCGCCATGCCAAAAGTTTACTC
 AAGACTACCCAGGAACCTTTGCCCGAGATCCTGTTAACTTCTACAACAGCAGCCAGTACCCCTGATG
 CCGTTGACAAGTATCTCGAGACACCTGGGGATGAGAATGAACATGCCATTTCCAGAAAGCCAAAGAGAG
 GCTTGAGGCCAAGCACCGAGAGAGAATGTCCAGGTCATGAGAGAATGGGAAGAGGCAGAACGTCAGCA
 AAGAACTTGCCTAAAGCTGATAAGAAGGCAATTATCCAGATTTCCAGGAGAAAGTGAATCTTTGGAAC
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 CCGCCCGCCTGGCCCTGGAGAATACATCACCGCTCTGCAGGCTGTTCTCCTCGGCCTCGTACAGTG
 TTCAATATGCTAAAGAAGTATGTCCGCGCAGAACAGAAGGACAGACAGCACACCCTAAAGCATTTCGAGC
 ATGTGCGCATGGTGGATCCCAAGAAAGCCGCTCAGATCCGGTCCCAGGTTATGACACACCTCCGTGTGAT
 TTATGAGCGCATGAATCAGTCTCTCCTGCTCTACAACGTGCCTGCAGTGGCCGAGGAGATTCAGGAT
 GAAGTTGATGAGCTGCTCAGAAAGAGCAAACTATTCAGATGACGTCTTGGCCAACATGATTAGTGAAC
 CAAGGATCAGTTACGGAAACGATGCTCTCATGCCATCTTTGACCGAAACGAAAACCACCGTGGAGCTCCT
 TCCCGTGAATGGAGAGTTAGCCTGGACGATCTCCAGCCGTGGCATTCTTTTGGGGCTGACTCTGTGCCA
 GCCAACACAGAAAACGAAGTTGAGCCTGTTGATGCCCGCCCTGCTGCCGACCGAGGACTGACCACTCGAC
 CAGGTTCTGGGTTGACAAATATCAAGACGGAGGAGATCTCTGAAGTGAAGATGGATGCAGAATTCGACAC
 TGACTCAGGATATGAAGTTCATCATCAAAAATGGTGTCTTTGCAGAAGATGTGGGTTCAAACAAGGT
 GCAATCATTGGACTCATGGTGGGCGGTGTGTGATAGCGACAGTATCGTCATCACCTTGGTGTGCTGA
 AGAAGAAACAGTACACATCCATTCATCATGGTGTGGTGGAGGTTGACCCCGCTGTACCCAGAGGAGCG
 CCACCTGTCCAAGATGCAGCAGAACGGCTACGAAAATCCAACCTACAAGTTCTTTGAGCAGATGCAGAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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 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.

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_000484.4](#)

RefSeq Size: 3641 bp

RefSeq ORF: 2313 bp

Locus ID: 351

UniProt ID: [P05067](#)

Cytogenetics: 21q21.3

Domains: Beta-APP, KU, A4_EXTRA

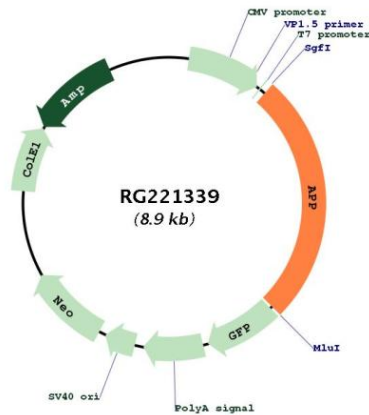
Protein Families: Druggable Genome, Transmembrane

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 RG221339