

Product datasheet for **RG226994**

Amyloid Precursor Protein (APP) (NM_001136131) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_001136131) 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:

>RG226994 representing NM_001136131
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTCTGTGGCAGACTGAACATGCACATGAATGTCCAGAATGGGAAGTGGGATTCAGATCCATCAGGGA
 CAAAACCTGCATTGATACCAAGGAAGGCATCCTGCAGTATTGCCAAGAAGTCTACCCTGAACTGCAGAT
 CACCAATGTGGTAGAAGCCAACCAACCAGTGACCATCCAGAACTGGTGCAAGCGGGCCGCAAGCAGTGC
 AAGACCCATCCCCACTTTGTGATTCCCTACCGCTGCTTAGTTGGTGTGTTGTAAGTGTGCCCTTCTCG
 TTCCTGACAAGTGCAAATTTTACACCAGGAGAGGATGGATGTTTGCAAAATCATCTTCACTGGCACAC
 CGTCGCCAAAGAGACATGCAGTGAGAAGAGTACCAACTTGCATGACTACGGCATGTTGCTGCCCTGCGGA
 ATTGACAAAGTCCGAGGGGTAGAGTTTGTGTGTTGCCACTGGCTGAAGAAAGTACAATGTGGATTCTG
 CTGATCGGAGGAGGATGACTCGGATGTCTGGTGGGCGGAGCAGACACAGACTATGCAGATGGGAGTGA
 AGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAGTGGCTGAGGTGGAAGAAGAAGCCGATGATGAC
 GAGGACGATGAGGATGGTGTAGAGTAGAGGAAGAGGCTGAGGAACCCACGAAGAAGCCACAGAGAGAA
 CCACCAGCATTGCCACCACCACCACCACCACAGAGTCTGTGGAAGAGGTGGTTCGAGTTCCTACAAC
 AGCAGCCAGTACCCTGATGCCGTTGACAAGTATCTCGAGACACCTGGGGATGAGAATGAACATGCCCAT
 TTCCAGAAAGCCAAGAGAGGGCTTGAGGCCAAGCACCGAGAGAGAATGTCCCAGGTCATGAGAGAATGGG
 AAGAGGCAGAACGTCAAGCAAAGAACTTGCCATAAAGCTGATAAGAAGGCAGTTATCCAGCATTTCAGGA
 GAAAGTGAATCTTTGGAACAGGAAGCAGCCAACGAGAGACAGCAGCTGGTGGAGACACACATGGCCAGA
 GTGGAAGCCATGCTCAATGACCGCCGCCCTGGCCCTGGAGAATACATCACCGCTCTGCAGGCTGTTT
 CTCCTCGGCCTCGTCACGTGTTCAATATGCTAAAGAAGTATGTCCGCGCAGAACAAGGACAGACAGCA
 CACCCTAAAGCATTTTCGAGCATGTGCGCATGGTGGATCCCAAGAAAGCCGCTCAGATCCGGTCCCAGGTT
 ATGACACACCTCCGTGTGATTTATGAGCGCATGAATCAGTCTCTCTCCCTGCTCTACAACGTGCCTGCAG
 TGGCCGAGGAGATTCAGGATGAAGTTGATGAGCTGCTTCAGAAAGAGCAAACTATTCAGATGACGTCTT
 GGCCAACATGATTAGTGAACCAAGGATCAGTTACGGAAACGATGCTCTCATGCCATCTTTGACCGAAACG
 AAAACCACCGTGGAGCTCCTTCCCGTGAATGGAGAGTTCAGCCTGGACGATCTCCAGCCGTGGCATTCTT
 TTGGGGCTGACTCTGTGCCAGCCAACACAGAAAACGAAGTTGAGCCTGTTGATGCCCGCCCTGCTGCCGA
 CCGAGGACTGACCACTCGACCAGGTTCTGGGTTGACAAAATCAAGACGGAGGAGATCTCTGAAGTGAAG
 ATGGATGCAGAATTCCGACATGACTCAGGATATGAAGTTCATCATCAAAAATTGGTGTCTTTGCAGAAG
 ATGTGGGTTCAAACAAAGGTGCAATCATTGGACTCATGGTGGGCGGTGTTGTATAGCGACAGTATCGT
 CATCACCTTGGTGTGCTGAAGAAGAAACAGTACACATCCATTATCATGGTGTGGTGGAGGTTGACGCC
 GCTGTACCCAGAGGAGCGCCACCTGTCCAAGATGCAGCAGAACGGCTACGAAAATCCAACCTACAAGT
 TCTTTGAGCAGATGCAGAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG226994 representing NM_001136131
 Red=Cloning site Green=Tags(s)

MFCGRLLNMHMNVQNGKWDSDPSGKTKCIDTKEGILQYCQEVYPELQITNVVEANQPVTIQNWCKRGRKQC
 KTHPHFVIPYRCLVGEFVSDALLVPDKCKFLHQERMDVCETHLHWHTVAKETCSEKSTNLHDYGMLLPCG
 IDKFRGVEFVCCPLAEESDNVDSADAEEEDSDVWVGADTDYADGSEDKVVEVAEEEEVAEEEEADDD
 EDDEDGDEVEEEEEAEPEYEATERTTTSIATTTTTTTSVEEVVVRVPTTAASTPDAVDKYLETPGDENEHAH
 FQKAKERLEAKHRERMSQVMREWEAEERQAKNLPKADKKAVIQHFQEKVESLEQEAANERQQLVETHMAR
 VEAMLNDRRRLALENYITALQAVPPRPRHVFNMLKKYVRAEQKDRQHTLKHFEHVRMVDPKKAAQIRSQV
 MTHLRVIYERMNQSLSLLYNVPVAEEIQDEVDELLQKEQNYSDDLANMISEPRI SYGNDALMPSLTET
 KTTVELLPVNGEFLSDDLQPWHSFGADSV PANTENEVEPVDARPAADRGLTTRPGSGLTNIKTEEISEVK
 MDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIIGLMVGGVVIATVIVITLVMLKKKQYTSIIHHGVVEVDA
 AVTPEERHLSKMQQNGYENPTYKFFEQMQN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001136131

ORF Size: 1980 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_001136131.2](#)

RefSeq Size: 3309 bp

RefSeq ORF: 1983 bp

Locus ID: 351

UniProt ID: [P05067](#)

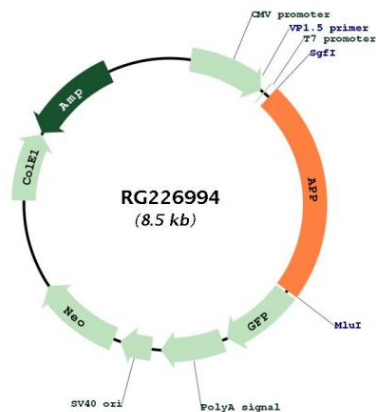
Cytogenetics: 21q21.3

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 RG226994