

Product datasheet for **RG226931**

Amyloid Precursor Protein (APP) (NM_001136130) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_001136130) 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:

>RG226931 representing NM_001136130
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGCCCGTTTGGCACTGCTCCTGCTGGCCGCTGGACGGCTCGGGCGCTGGAGGTCTACCCTGAAC
 TGCAGATACCAATGTGGTAGAAGCCAACCAACAGTGACCATCCAGAAGTGGTGAAGCGGGCCGCAA
 GCAGTGCAAGACCCATCCCCACTTTGTGATTCCCTACCGCTGCTTAGTTGGTGAGTTTGAAGTGATGCC
 CTTCTCGTTCTGACAAGTGCAAATTTACACCAGGAGAGGATGGATGTTTGCAGAACTCATCTTCACT
 GGCACACCGTCGCCAAAGAGACATGCAGTGAGAAGAGTACCAACTTGCATGACTACGGCATGTTGCTGCC
 CTGCGGAATTGACAAGTCCGAGGGGTAGAGTTTGTGTGGCCACTGGCTGAAGAAAGTGACAATGTG
 GATTCTGCTGATGCGGAGGAGGATGACTCGGATGTCTGGTGGGGCGGAGCAGACACAGACTATGCAGATG
 GGAGTGAAGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAGTGGCTGAGGTGGAAGAAGAAGCCGA
 TGATGACGAGGACGATGAGGATGGTGTGAGGTAGAGGAAGAGGCTGAGGAACCTACGAAGAAGCCACA
 GAGAGAACCACAGCATTGCCACCACCACCACCACCACAGAGTCTGTGGAAGAGGTGGTTCGAGAGG
 TGTGCTCTGAACAAGCCGAGACGGGGCCGTGCCGAGCAATGATCTCCCGCTGGTACTTTGATGTGACTGA
 AGGGAAGTGTGCCCATTTCTTTACGGCGGATGTGGCGCAACCGGAACAACCTTTGACACAGAAGAGTAC
 TGCATGGCCGTGTGTGGCAGCGCCATGTCCCAAAGTTTACTCAAGACTACCCAGGAACCTTTGCCCGAG
 ATCCTGTAAACTTCTACAACAGCAGCCAGTACCCTGATGCCGTTGACAAGTATCTCGAGACACTGG
 GGATGAGAATGAACATGCCCATTTCCAGAAAGCCAAGAGAGGCTTGAGGCCAAGCACCGAGAGAGAATG
 TCCAGGTCATGAGAGAATGGGAAGAGGCAGAAGTCAAGCAAAGAACTGCCTAAAGCTGATAAGAAGG
 CAGTTATCCAGCATTTCAGGAGAAAGTGAATCTTTGGAACAGGAAGCAGCCAACGAGAGACAGCAGCT
 GGTGGAGACACACATGGCCAGAGTGGAAGCCATGCTCAATGACCGCCCGCCCTGGCCCTGGAGAATAC
 ATCACCCTCTGCAGGCTTCTCTCGGCTCGTCACGTGTTCAATATGCTAAAGAAGTATGTCCGCG
 CAGAACAGAAGGACAGACAGCACACCCTAAAGCATTTCGAGCATGTGCGCATGGTGGATCCCAAGAAAGC
 CGCTCAGATCCGGTCCCAGGTTATGACACACCTCCGTGTGATTTATGAGCGCATGAATCAGTCTCTCTCC
 CTGCTCTACAACGTGCCTGCAGTGGCCGAGGAGATTAGGATGAAGTTGATGAGCTGCTTCAGAAAGAGC
 AAACTATTGAGATGACGTCTTGGCCAACATGATTAGTGAACCAAGGATCAGTTACGAAACGATGCTCT
 CATGCCATCTTTGACCGAAACGAAAACCACCGTGGAGCTCCTTCCCGTGAATGGAGAGTTCAGCCTGGAC
 GATCTCCAGCCGTGGCATTCTTTGGGGCTGACTCTGTGCCAGCCAACACAGAAAACGAAGTTGAGCCTG
 TTGATGCCCGCCCTGCTGCCGACCGAGGACTGACCACTCGACCAGGTTCTGGGTTGACAAATATCAAGAC
 GGAGGAGATCTCTGAAGTGAAGATGGATGCAGAATTCGACATGACTCAGGATATGAAGTTCATCATCAA
 AAATTGGTGTCTTTGCAGAAGATGTGGGTTCAAACAAAGGTGCAATCATTGGACTCATGGTGGGCGGTG
 TTGTATAGCGACAGTATCGTCATCACCTGGTGTGCTGAAGAAGAAACAGTACACATCCATTATCA
 TGGTGTGGTGGAGGTTGACGCCGCTGTACCCAGAGGAGCGCCACCTGTCCAAGATGCAGCAGAACGGC
 TACGAAAATCCAACCTACAAGTTCTTTGAGCAGATGCAGAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG226931 representing NM_001136130
 Red=Cloning site Green=Tags(s)

MLPGLALLLLAAWTARALEVYPQLQITNVVEANQPVTIQNWCKRGRKQCKTHPHFVIPYRCLVGEFVSDA
 LLVDPDKCKFLHQERMDVCETHLHWHTVAKETCSEKSTNLHDYGMLLPCGIDKFRGVEFVCCPLAEESDNV
 DSADAEEDSDVWGGADTDYADGSEDKVVEVAEEEEVAEEEEADDEDEDEGDEVEEEAEEPVEEAT
 ERTTTSIATTTTTTTSVEEVVREVCSEQAETGPCRAMISRWFYFDVTEGKCAPFFYGGCGGNRNNFDTEEY
 CMAVCGSAMSQSLLKTTQEPLARDPVKLPPTTAASTPDAVDKYLETPGDENEHAHFQKAKERLEAKHREEM
 SQVMREWEAERQAKNLPKADKKAIVIQHFQEKVESLEQEAANERQQLVETHMARVEAMLNDRRRLALENY
 ITALQAVPPRPRHVNMLKKYVRAEQKDRQHTLKHFEHVRMVDPKKAAQIRSQVMTHLRVIYERMNQSLS
 LLYNVPAAVEEQDEVDLQKQYNSDDVLANMISEPRI SYGNDALMPSLTETKTTVELLPVNGEFLSD
 DLQPPWHSFGADSVANTENEVVDARPAADRGLTTRPGSGLTNIKTEEISEVKMDAEFRHDSGYEVVHHQ
 KLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITLVMLKKKQYTSIHHGVVEVDAAVTPEERHLSKMQQNG
 YENPTYKFFEQQMN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001136130

ORF Size: 2142 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_001136130.3](#)

RefSeq Size: 3480 bp

RefSeq ORF: 2145 bp

Locus ID: 351

UniProt ID: [P05067](#)

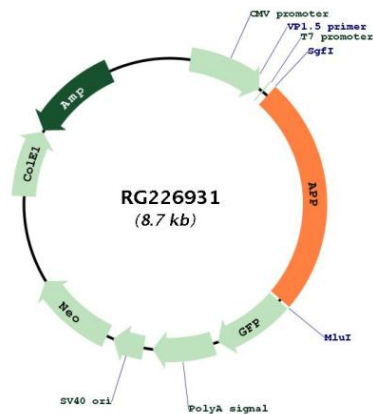
Cytogenetics: 21q21.3

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 RG226931