

## Product datasheet for **RC226931**

### 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:	Myc-DDK
Symbol:	Amyloid Precursor Protein
Synonyms:	AAA; ABETA; ABPP; AD1; alpha-sAPP; APPI; CTFgamma; CVAP; PN-II; PN2; preA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC226931 representing NM\_001136130  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCTGCCCGTTTGGCACTGCTCCTGCTGGCCGCTGGACGGCTCGGGCGCTGGAGGTCTACCCTGAAC  
TGCAGATACCAATGTGGTAGAAGCCAACCAACAGTGACCATCCAGAAGTGGTGAAGCGGGCCGCAA  
GCAGTGCAAGACCCATCCCCACTTTGTGATTCCCTACCGCTGCTTAGTTGGTGAGTTTGTAAAGTATGCC  
CTTCTCGTTCTGACAAGTGCAAATTTACACCAGGAGAGGATGGATGTTTGCAGAACTCATCTTCACT  
GGCACACCGTCGCCAAAGAGACATGCAGTGAGAAGAGTACCAACTTGCATGACTACGGCATGTTGCTGCC  
CTGCGGAATTGACAAGTCCGAGGGGTAGAGTTTGTGTGTGCCACTGGCTGAAGAAAGTGACAATGTG  
GATTCTGCTGATGCGGAGGAGGATGACTCGGATGTCTGGTGGGGCGGAGCAGACACAGACTATGCAGATG  
GGAGTGAAGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAGTGGCTGAGGTGGAAGAAGAAGCCGA  
TGATGACGAGGACGATGAGGATGGTATGAGGTAGAGGAAGAGGCTGAGGAACCTACGAAGAAGCCACA  
GAGAGAACCACAGCATTGCCACCACCACCACCACCACAGAGTCTGTGGAAGAGGTGGTTCGAGAGG  
TGTGCTCTGAACAAGCCGAGACGGGGCCGTGCCGAGCAATGATCTCCCGCTGGTACTTTGATGTGACTGA  
AGGGAAGTGTGCCCATTTTACGGCGGATGTGGCGCAACCGGAACAACCTTTGACACAGAAGAGTAC  
TGCATGGCCGTGTGTGGCAGCGCCATGTCCCAAAGTTTACTCAAGACTACCCAGGAACCTTTGCCCGAG  
ATCCTGTAAACTTCTACAACAGCAGCCAGTACCCTGATGCCGTTGACAAGTATCTCGAGACACCTGG  
GGATGAGAATGAACATGCCCATTTCCAGAAAGCCAAGAGAGGCTTGAGGCCAAGCACCGAGAGAGAATG  
TCCCAGGTCATGAGAGAATGGGAAGAGGCAGAAGTCAAGCAAAGAACTGCCTAAAGCTGATAAGAAGG  
CAGTTATCCAGCATTCCAGGAGAAAGTGAATCTTTGGAACAGGAAGCAGCCAACGAGAGACAGCAGT  
GGTGGAGACACACATGGCCAGAGTGGAAGCCATGCTCAATGACCGCCCGCCCTGGCCCTGGAGAAGTAC  
ATCACCGCTCTGCAGGCTGTTCTCTCGGCTCGTCACGTGTTCAATATGCTAAAGAAGTATGTCCGCG  
CAGAACAGAAGGACAGACAGCACACCCTAAAGCATTTCGAGCATGTGCGCATGGTGGATCCCAAGAAAGC  
CGCTCAGATCCGGTCCCAGGTTATGACACACCTCCGTGTGATTTATGAGCGCATGAATCAGTCTCTCTCC  
CTGCTCTACAACGTGCCTGCAGTGGCCGAGGAGATTGAGGATGAAGTTGATGAGCTGCTTCAGAAAGAGC  
AAAATTTAGATGACGTCTTGGCCAACATGATTAGTGAACCAAGGATCAGTTACGAAACGATGCTCT  
CATGCCATTTTGACGAAACGAAAACCACCGTGGAGCTCCTTCCCGTGAATGGAGAGTTCAGCCTGGAC  
GATCTCCAGCCGTGGCATTCTTTGGGGCTGACTCTGTGCCAGCCAACACAGAAAACGAAGTTGAGCCTG  
TTGATGCCCGCCCTGCTGCCGACCGAGGACTGACCACTCGACCAGGTTCTGGGTTGACAAATATCAAGAC  
GGAGGAGATCTCTGAAGTGAAGATGGATGCAGAATTCGACATGACTCAGGATATGAAGTTCATCATCAA  
AAATTTGGTGTCTTTGCAGAAGATGTGGGTTCAAACAAAGGTGCAATCATTGGACTCATGGTGGGCGGTG  
TTGTATAGCGACAGTATCGTCATCACCTGGTATGCTGAAGAAGAAACAGTACACATCCATTATCA  
TGGTGTGGTGGAGGTTGACGCCGCTGTACCCAGAGGAGCGCCACCTGTCCAAGATGCAGCAGAACGGC  
TACGAAAATCCAACCTACAAGTTCTTTGAGCAGATGCAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC226931 representing NM\_001136130  
 Red=Cloning site Green=Tags(s)

MLPGLALLLLAAWTARALEVYPELQITNVVEANQPVTIQNWCKRGRKQCKTHPHFVIPYRCLVGEFVSDA  
 LLVPDKCKFLHQERMDVCETHLHWHTVAKETCSEKSTNLHDYGMLLPCGIDKFRGVEFVCCPLAEESDNV  
 DSADAEEDSDVWGGADTDYADGSEDKVVEVAEEEEVAEEEEADDEDEDEDGDEVEEEAEPEEAT  
 ERTTTSIATTTTTTTSVEEVVREVCSEQAETGPCRAMISRWFYFDVTEGKCAPFFYGGCGGNRNNFDTEEY  
 CMAVCGSAMSQSLKTTQEPLARDPVKLPPTAASTPDAVDKYLETPGDENEHAHFQKAKERLEAKHRERM  
 SQVMREWEAERQAKNLPKADKKAIVIQHFQEKVESLEQEAANERQQLVETHMARVEAMLNDRRRLALENY  
 ITALQAVPPRPRHVFNMLKKYVRAEQKDRQHTLKHFEHVVMVDPKAAQIRSQVMTHLRVIYERMNQSLS  
 LLYNVPAAVEEQDEVDLLEKQEQNSDDVLANMISEPRI SYGNDALMPSLTETKTTVELLPVNGEFLSD  
 DLQPWHSFGADSVANTENEVVDARPAADRGLTTRPGSGLTNIKTEEISEVKMDAEFRHDSGYEVHHQ  
 KLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITLVMLKKKQYTSIHHGVVEVDAAVTPEERHLSKMQQNG  
 YENPTYKFFEQMQN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001136130

**ORF Size:** 2142 bp

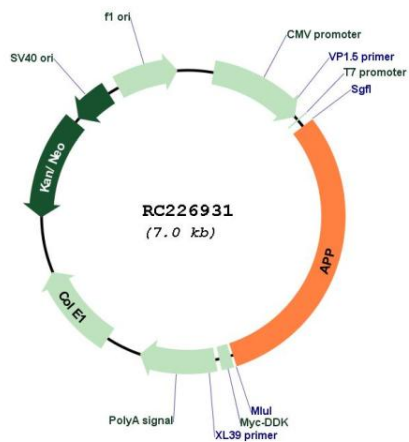
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001136130.3</a>
<b>RefSeq Size:</b>	3480 bp
<b>RefSeq ORF:</b>	2145 bp
<b>Locus ID:</b>	351
<b>UniProt ID:</b>	<a href="#">P05067</a>
<b>Cytogenetics:</b>	21q21.3
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Alzheimer's disease
<b>MW:</b>	80.8 kDa
<b>Gene Summary:</b>	<p>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]</p>

Product images:



Circular map for RC226931