

## Product datasheet for SC111589

### Amyloid Precursor Protein (APP) (NM\_000484) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_000484) Human Untagged Clone
Tag:	Tag Free
Symbol:	Amyloid Precursor Protein
Synonyms:	AAA; ABETA; ABPP; AD1; alpha-sAPP; APPI; CTFgamma; CVAP; PN-II; PN2; preA4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_000484 edited  
CTCTGAGCCCCGCGCCGCTCGGGCTCCGTCAGTTTCTCGGCAGCGGTAGGCGAGAG  
CACGCGGAGGAGCGTGC CGGGGCCCCCGGAGACGGCGCGGTGGCGGCGGGCAGAG  
CAAGGACGCGGGGATCCCACTCGCACAGCAGCGCACTCGGTGCCCGCGCAGGGTCGCG  
ATGCTGCCGGTTTGGCACTGCTCCTGCTGGCCCTGGACGGCTCGGGCGCTGGAGGTA  
CCCCTGATGGTAATGCTGGCCTGCTGGCTGAACCCAGATTGCCATGTTCTGTGGCAGA  
CTGAACATGCACATGAATGTCCAGAATGGGAAGTGGGATTCAGATCCATCAGGGACAAA  
ACCTGCATTGATACCAAGGAAGGCATCCTGCAGTATTGCCAAGAAGTCTACCTGAACTG  
CAGATCACCAATGTGGTAGAAGCCAACCAACCAGTGACCATCCAGAACTGGTGAAGCGG  
GGCCGCAAGCAGTCAAGACCCATCCCCACTTTGTGATTCCCTACCGCTGCTTAGTTGGT  
GAGTTTGAAGTATGCCCTTCTCGTTCCTGACAAGTGCAAATCTTACACCAGGAGAGG  
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AAGAGTACCAACTGCATGACTACGGCATGTTGCTGCCCTGCGGAATTGACAAGTTCCGA  
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GCGGAGGAGGATGACTCGGATGTCTGGTGGGGCGGAGCAGACACAGACTATGCAGATGGG  
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TACGGCGGATGTGGCGGAACCGAACAACCTTTGACACAGAAGAGTACTGCATGGCCGTG  
TGTGGCAGCGCCATGTCCCAAAGTTTACTCAAGACTACCCAGGAACCTCTTGCCCGAGAT  
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GTGGAAGCCATGCTCAATGACCGCCGCCCTGGCCCTGGAGAACTACATCACCGCTCTG
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GGCATTGAGACTTCAAGCTTTTTTTTTTTGTCCACGTATCTTTGGGCTTTTGATAAAGA
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GTCTTCAATTACCAAGAATTTCTCCAAAACAATTTTCTGCAGGATGATTGTACAGAATCAT
TGCTTATGACATGATCGCTTTTACTACTGTATTACATAAATAAATAAATAAATAAATAA
AAAAAAAAAAAAA
    
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**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_000484 unedited
TACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCTCTGAGCCCCGCCGCCGCGC
TCGGGCTCCGTCAAGTTTCTCGGCAGCGGTAGGCGAGAGCACGCGGAGGAGCGTGCAGCG
GGGCCCCGGGAGACGGCGCGGTGGCGGCGGGCAGAGCAAGGACGCGGCGGATCCAC
TCGCACAGCAGCGCACTCGGTGCCCGCGCAGGGTCGCGATGCTGCCCGTTTGGCACTG
CTCCTGCTGGCCGCTGGACGGCTCGGGCGCTGGAGGTACCCACTGATGGTAATGCTGGC
CTGCTGGCTGAACCCAGATTGCCATGTTCTGTGGCAGACTGAACATGCACATGAATGTC
CAGAATGGGAAGTGGGATTTCAGATCCATCAGGGACCAAAACCTGCATTGATACCAAGGAA
GGCATCTGCAAGTATTGCCAAGAAGTCTACCCTGAACTGCAGATCAACATGTGGTAGAA
GCCAACCAACAGTGACCATCCAGAAGTGGTGAAGCGGNGCCGAAGCAGTGAAGACC
CATCCCCACTTTGTGATTCCTACCGCTGCTTAGTTGGTGAAGTTGTAAGTATGACCTT
CTGTTCTCTGACAAGTGCAAATCTTACACCAGGAGAGGATGGGATGTNTNGCAAACCTC
ACTACGGCATGTTGCTGCCCTGCGGNATTGACAGTNCCGAGGTGACAGTCTGGGCGCCT
GCCCTGCCTGNAGAAAAGCGACATGCGGCTCCCGCTGTGCGGCACGAGATGCCACGCA
CCTGCCGCCCCGCTACTCTCCCTTACCCGTTCTCTCCCCCTCCCCCCCCCTCTCCC
GCCCCCCCGCTTTTATTACGCGTCTCTCTCTCCCTGCATCGTCGTTCTGGCTGT
ACCCCCCATCTCACCACTTCGGCCTTCTCCG
    
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<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_000484 unedited            CCATCGNGANNGATGGCAACTTCCCAGGTTCCAGGAAAGCACTGGGGCAGGGTCACAGGGC            TGCCACCCGGGTTCTGTTCCAGGAAAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGT            TTTTTTTTTTTTTTTTTATTTTATTTAATTTATTTATGTAATACAGTGTAGAAAGCGATC            ATGTCATAAGCAATGATTCTGTACAATCATCCTGCAAAAAATTGTTTTGGAGAATTCTTG            GTAATTGAAGACCAGCAGAGCACCCCTCCCACCCGCCCGTAAAAGTGCTTACAATGAA            CAGGGATTCTTTTCTTTATCAAAGACCCAAAGATACGTGGACAAAAAAGAAAAGCTTGA            AGTCTCAATGCCTAATGTGTGCACATAAAACAGGCACGAAGAAACAAACGTGTGTATCCT            CTTAATTCCTATATCACAAATATAGCAGAAGCAGCAATCTGTACAGTAAAATGCAGTCAT            GGAAAAAAATCTCTCTAAAGCATCTGAAATACTTAAAAATGTTTAACTTTAAAAATGCAT            AGTGATCAGGAAAGGAATACTTAGGCAAGAGAAGCAGCTGAACCTCCACGTTCCACATGAA            GCATCCCCATCGATTCTTAAAGCATATGTAAAGTAAGACTTAATTGGGTCACACACCAC            AAGAATAATACAACCTGGCTAAGGGGCTATGTGATAAATAATCAGGAAAGAATCCTTTC            CTGCCCTAGTTTGATACAGCTAAATTCTTACGGTCACCAAACCTTTTTTTATTGTTTT            TTGAGCCCAATTGTAAGGGGGGGTGAATCCCTTCCGGGTGTGTGTTCCATTACAGGTT            AGCTTTTTTTTGTCTTACTCCCTCTGCCATGGCGNTTTTGTGTAACCTAAAAAGGGC            GTTTTCTCCCTTTTTCTTTGAGGGCCAAAGA</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000484
<b>Insert Size:</b>	3600 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_000484.2.
<b>Components:</b>	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>

RefSeq:	<a href="#">NM_000484.2</a> , <a href="#">NP_000475.1</a>
RefSeq Size:	3641 bp
RefSeq ORF:	2313 bp
Locus ID:	351
UniProt ID:	<a href="#">P05067</a>
Cytogenetics:	21q21.3
Domains:	Beta-APP, KU, A4_EXTRA
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease
Gene Summary:	<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> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a, also known as PreA4 770).</p>