

Product datasheet for **RC215147**

Amyloid Precursor Protein (APP) (NM_201414) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_201414) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RC215147 representing NM_201414
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGCCCGTTTGGCACTGCTCCTGCTGGCCGCTGGACGGCTCGGGCGCTGGAGGTACCCACTGATG
 GTAATGCTGGCCTGCTGGCTGAACCCAGATTGCCATGTTCTGTGGCAGACTGAACATGCACATGAATGT
 CCAGAATGGGAAGTGGGATTCCAGATCCATCAGGGACAAAACCTGCATTGATACCAAGGAAGGCATCCTG
 CAGTATTGCCAAGAAGTCTACCCTGAACTGCAGATCACCAATGTGGTAGAAGCCAACCAACCAAGTACCA
 TCCAGAAGTGGTCAAGCGGGCCGCAAGCAGTGAAGACCCATCCCCTTTGTGATCCCTACCCTGCTG
 CTTAGTTGGTGGTGGTAAAGTATGCTTCTCGTTCCTGACAAGTGCATTTCTACACCAGGAGAGG
 ATGGATGTTTGCAGAACTCATCTTCACTGGCACACCGTCGCCAAGAGACATGCAGTGAAGAGTACCA
 ACTTGCATGACTACGGCATGTTGCTGCCCTGCGGAATTGACAAGTCCGAGGGGTAGAGTTTGTGTGTTG
 CCCACTGGCTGAAGAAAGTGACAATGTGGATTCTGCTGATGCGGAGGAGGATGACTCGGATGTCTGGTGG
 GCGGAGCAGACAGACTATGCAGATGGGAGTGAAGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAG
 TGCTGAGGTGGAAGAAGAAGACCGATGATGACGAGGACGATGAGGATGGTGTGAGGTAGAGGAAGA
 GGCTGAGGAACCTACGAAGAAGCCACAGAGAGAACACCAGCATTGCCACCACCACCACCACCACACA
 GAGTCTGTGGAAGAGGTGGTTCGAGTTCCTACAACAGCAGCCAGTACCCCTGATGCCGTTGACAAGTATC
 TCGAGACACCTGGGGATGAGAATGAACATGCCATTTCCAGAAAGCCAAAGAGAGGCTTGAGGCCAAGCA
 CCGAGAGAGAATGTTCCAGGTCATGAGAGAATGGGAAGAGGCAGAACGTCAAGCAAGAAGTGCCTAAA
 GCTGATAAGAAGGCAGTTATCCAGCATTCCAGGAGAAAGTGAATCTTTGGAACAGGAAGCAGCCAACG
 AGAGACAGCAGCTGGTGGAGACACATGGCCAGAGTGAAGCCATGCTCAATGACCGCCGCCCTGGC
 CCTGGAGAACTACATCACCGCTCTGCAGGCTGTTCCCTCCTCGGCCTCGTCACGTGTTCAATATGCTAAAG
 AAGTATGTCCGCGCAGAACAGAAGGACAGACAGCACACCCATAAGCATTTCGAGCATGTGCGCATGGTGG
 ATCCCAAGAAAGCCGCTCAGATCCGGTCCAGGTTATGACACACCTCCGTGTGATTTATGAGCGCATGAA
 TCAGTCTCTCCTGCTCTACAACGTGCCTGCAGTGGCCGAGGAGATTCAGGATGAAGTTGATGAGCTG
 CTTCAGAAAGAGCAAACTATTCAGATGACGTCTTGCCCAACATGATTAGTGAACCAAGGATCAGTTACG
 GAAACGATGCTCTCATGCCATCTTTGACCGAAACGAAAACCACCGTGGAGCTCCTCCCGTGAATGGAGA
 GTTCAGCCTGGACGATCTCCAGCCGTGGCATTCTTTGGGGCTGACTCTGTGCCAGCCAACAGAAAAC
 GAAGTTGAGCCTGTTGATGCCCCCCTGCTGCCGACCGAGGACTGACCACTCGACCAGGTTCTGGGTTGA
 CAAATATCAAGACGGAGGAGATCTCTGAAGTGAAGATGGATGCAGAATTCGACATGACTCAGGATATGA
 AGTTCATCATCAAAAATTGGTGTCTTTGCAGAAGATGTGGGTTCAAACAAGGTGCAATATTGGACTC
 ATGGTGGGCGGTGTTGTCATAGCGACAGTATCGTCATCACCTTGGTGTGCTGAAGAAGAAACAGTACA
 CATCCATTATCATGGTGTGGTGGAGGTTGACGCCGCTGTACCCAGAGGAGCGCCACCTGTCCAAGAT
 GCAGCAGAACGGCTACGAAAATCCAACCTACAAGTTCTTTGAGCAGATGCAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC215147 representing NM_201414
Red=Cloning site Green=Tags(s)

MLPGLALLLLAAWTARALEVPTDGNAGLLAEPQIAMFCGRLNMHMNVQNGKWDSDPSGKTKCIDTKEGIL
 QYCQEVPELQITNVVEANQPVTIQNWCKRGRKQCKTHPHFVIPYRCLVGEFVSDALLVPDKCKFLHQR
 MDVCETHLHWHTVAKETCSEKSTNLHDYGMLPCGIDKFRGVEFVCCPLAEEEDNVDSADAEEEDSDVWW
 GGADTDYADGSEDKVVEVAEEEEVAEVEEEEADDEDEDEGDEVVEEAEEPYEEATERTTTSIATTTTTTT
 ESVEEVVRVPTTAASTPDAVDKYLETPGDENEHAHFQKAKERLEAKHRERMSQVMREWEEAERQAKNLPK
 ADKKAVIQHFQEKVESLEQEAANERQQLVETHMARVEAMLNDRRLALENYITALQAVPPRPRHVFNMLK
 KYVRAEQDRQHTLKHFEHVRMVDPKAAQIRSQVMTHLRVIYERMNQSLSLLYNPAVAEEIQDEVDL
 LQKEQNYSDDLANMISEPRI SYGNDALMPSL TETKTTVELLPVNGEFLDDLQPWHSFGADSV PANTEN
 EVEPVDARPAADRGL TTRPGSGL TNIKTEEI SEVKMDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGL
 MVGGVVIATVIVITL VMLKKKQYTSIHHGVVEVDAAVTPEERHL SKMQQNGYENPTYKFFEQMQN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6261_f07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_201414

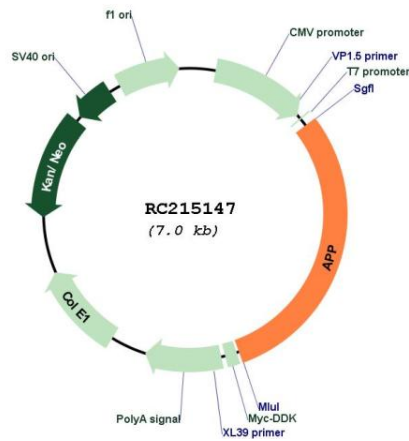
ORF Size: 2085 bp

OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
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:	<ol style="list-style-type: none"> 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_201414.3
RefSeq Size:	3416 bp
RefSeq ORF:	2088 bp
Locus ID:	351
UniProt ID:	P05067
Cytogenetics:	21q21.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease
MW:	76.9 kDa

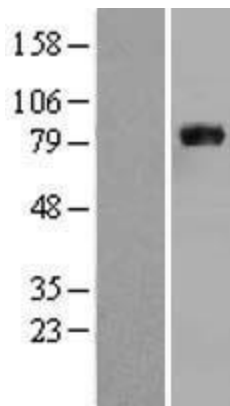
Gene Summary:

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]

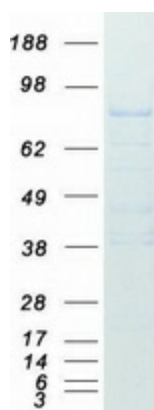
Product images:



Circular map for RC215147



Western blot validation of overexpression lysate (Cat# [LY404409]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215147 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified APP protein (Cat# [TP315147]). The protein was produced from HEK293T cells transfected with APP cDNA clone (Cat# RC215147) using MegaTran 2.0 (Cat# [TT210002]).