

Product datasheet for **RC226848**

Amyloid Precursor Protein (APP) (NM_001136129) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_001136129) 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:

>RC226848 representing NM_001136129
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCCGGTTTGGCACTGCTCCTGCTGGCCGCTGGACGGCTCGGGCGCTGGAGGTCTACCCTGAAC
 TGCAGATACCAATGTGGTAGAAGCCAACCAACAGTGACCATCCAGAAGTGGTGAAGCGGGCCGCAA
 GCAGTGCAAGACCCATCCCCACTTTGTGATTCCCTACCGCTGCTTAGTTGGTGAGTTTGTAAAGTGATGCC
 CTTCTCGTTCTGACAAGTGCAAATCTTACACCAGGAGAGGATGGATGTTTGCAGAACTCATCTTCACT
 GGCACACCGTCGCCAAAGAGACATGCAGTGAGAAGAGTACCAACTTGCATGACTACGGCATGTTGCTGCC
 CTGCGGAATTGACAAGTCCGAGGGGTAGAGTTTGTGTGTGCCACTGGCTGAAGAAAGTGACAATGTG
 GATTCTGCTGATGCGGAGGAGGATGACTCGGATGTCTGGTGGGGCGGAGCAGACACAGACTATGCAGATG
 GGAGTGAAGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAGTGGCTGAGGTGGAAGAAGAAGCCGA
 TGATGACGAGGACGATGAGGATGGTGTGAGGTAGAGGAAGAGGCTGAGGAACCTACGAAGAAGCCACA
 GAGAGAACCACAGCATTGCCACCACCACCACCACCACAGAGTCTGTGGAAGAGGTGGTTCCAGTTC
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 TGCCCATTTCCAGAAAGCCAAAGAGAGGCTTGAGGCCAAGCACCGAGAGAGAATGTCCCAGGTGATGAGA
 GAATGGGAAGAGGCAGAACGTCAGCAAGAAGTGCCTAAAGCTGATAAGAAGGCAGTTATCCAGCATT
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 GGCCAGAGTGAAGCCATGCTCAATGACCGCCGCCCTGGCCCTGGAGAACTACATCACCGCTCTGCAG
 GCTGTTCTCTCGGCCCTCGTCACGTGTTCAATATGCTAAAGAAGTATGTCCGCGCAGAACAGAAGGACA
 GACAGCACACCCTAAAGCATTTCGAGCATGTGCGCATGGTGGATCCCAAGAAAGCCGCTCAGATCCGGTC
 CCAGGTTATGACACACCTCCGTGTGATTTATGAGCGCATGAATCAGTCTCTCTCCCTGCTCTACAACGTG
 CCTGCAGTGGCCGAGGAGATTGAGGATGAAGTTGATGAGCTGCTTCAGAAAGAGCAAACTATTCAGATG
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 CGAAACGAAAACCACCGTGGAGCTCCTTCCCGTGAATGGAGAGTTCAGCCTGGACGATCTCCAGCCGTGG
 CATTCTTTGGGGCTGACTCTGTGCCAGCCAACAGAAAACGAAGTTGAGCCTGTTGATGCCCGCCCTG
 CTGCCGACCGAGGACTGACCACTCGACCAGTTCTGGGTTGACAAATATCAAGACGGAGGAGATCTCTGA
 AGTGAAGATGGATGCAGAATCCGACATGACTCAGGATATGAAGTTCATCATCAAAAATTGGTGTCTTT
 GCAGAAGATGTGGTTCAAACAAAGGTGCAATCATTGGACTCATGGTGGGCGGTGTGTGCATAGCGACAG
 TGATCGTCATCACCTTGGTGTGCTGAAGAAGAAACAGTACACATCCATTTCATCATGGTGTGGTGGAGGT
 TGACGCCGCTGTACCCAGAGGAGCGCCACCTGTCCAAGATGCAGCAGAACGGCTACGAAAATCCAACC
 TACAAGTTCTTTGAGCAGATGCAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC226848 representing NM_001136129
Red=Cloning site Green=Tags(s)

MLPGLALLLLAAWTARALEVYPQLITNVVEANQPVTIQNWCKRGRKQCKTHPHFVIPYRCLVGEFVSDA
 LLVPDKCKFLHQERMDVCETHLHWHTVAKETCSEKSTNLHDYGMLPCGIDKFRGVEFVCCPLAEESDNV
 DSADAEEDSDVWGGADTDYADGSEDKVVEVAEEEEVAEEEEADDEDEDEDGDEVEEEAEPEYEEAT
 ERTTSIATTTTTTTSVEEVVRVPTTAASTPDAVDKYLETPGDENEHAHFQKAKERLEAKHRERMSQVMR
 EWEEAERQAKNLPKADKKAVIQHFQEKVESLEQEAANERQQLVETHMARVEAMLNDRRLALENYITALQ
 AVPPRPRHVFNMLKKYVRAEQKDRQHTLKHFEHVRMVDPKKAAQIRSQVMTHLRVIYERMNQLSLLYNV
 PAVAEIQQDEVDLQEQNYSDVLANMISEPRI SYGNDALMPSLTETKTTVELLPVNGEFLDQLQPW
 HSFGADSV PANTENEV PVDARPAADRGLTTRPGSGLTNIKTEEI SEVKMDAEFRHDSGVEVHHQKLVFF
 AEDVGSNKGAIIGLMVGGVVIATVIVITLVMLKKKQYTSIHHGVVEVDAAVTPEERHL SKMQQNGYENPT
 YKFFEQMQN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8071_a04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001136129

ORF Size: 1917 bp

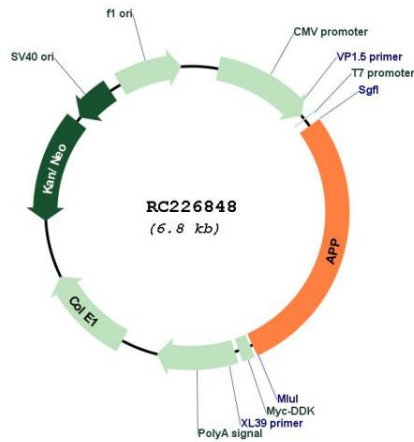
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

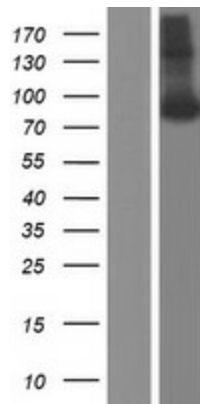
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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:	<u>NM_001136129.3</u>
RefSeq ORF:	1920 bp
Locus ID:	351
UniProt ID:	<u>P05067</u>
Cytogenetics:	21q21.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease
MW:	72.55 kDa
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>

Product images:



Circular map for RC226848



Western blot validation of overexpression lysate (Cat# [LY427815]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226848 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).