

Product datasheet for **RC209575**

Amyloid Precursor Protein (APP) (NM_201413) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Amyloid Precursor Protein (APP) (NM_201413) 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:

>RC209575 representing NM_201413
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGCCCGTTTGGCACTGCTCTGCTGGCCGCTGGACGGCTCGGGCGCTGGAGGTACCCACTGATG
 GTAATGCTGGCCCTGCTGGCTGAACCCAGATTGCCATGTTCTGTGGCAGACTGAACATGCACATGAATGT
 CCAGAATGGGAAGTGGGATTAGATCCATCAGGGACAAAACCTGCATTGATACCAAGGAAGGCATCCTG
 CAGTATTGCCAAGAAGTCTACCCTGAACTGCAGATCACCATGTGGTAGAAGCCAACCAACCAGTGACCA
 TCCAGAAGTGGTCAAGCGGGCCGCAAGCAGTGAAGACCCATCCCACCTTTGTGATCCCTACCCTG
 CTTAGTTGGTGGTTTGAAGTGTGCCCTTCTCGTTCTGACAAGTGCAAATCTTACACCAGGAGAGG
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 ACTTGCATGACTACGGCATGTTGCTGCCCTGCGGAATTGACAAGTCCGAGGGGTAGAGTTTGTGTGTTG
 CCCACTGGCTGAAGAAAGTGACAATGTGGATTCTGCTGATGCGGAGGAGGATGACTCGGATGTCTGGTGG
 GCGGAGCAGACAGACTATGCAGATGGGAGTGAAGACAAAGTAGTAGAAGTAGCAGAGGAGGAAGAAG
 TGCTGAGGTGGAAGAAGAAGAACCCGATGATGACGAGGACGATGAGGATGGTGTGAGGTAGAGGAAGA
 GGCTGAGGAACCTACGAAGAAGCCACAGAGAGAACCACCAGCATTGCCACCACCACCACCACCACACA
 GAGTCTGTGGAAGAGGTGGTTCGAGAGGTGTGCTCTGAACAAGCCGAGACGGGGCCGTGCCGAGCAATGA
 TCTCCCGTGGTACTTTGATGTGACTGAAGGGAAGTGTGCCCCATTTTACGGCGGATGTGGCGGCAA
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 AGTACCCTGATGCCGTTGACAAGTATCTCGAGACACCTGGGGATGAGAATGAACATGCCATTTCCAGA
 AAGCCAAAGAGAGGCTTGAGGCCAAGCACCAGAGAGAATGTCCAGGTCATGAGAGAATGGGAAGAGGC
 AGAACGTCAAGCAAAGAACTTGCCCTAAAGCTGATAAGAAGGCAGTTATCCAGCATTTCCAGGAGAAAGTG
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 AAGCATTTGAGCATGTGCGCATGGTGGATCCCAAGAAAGCCGCTCAGATCCGGTCCCAGGTTATGACAC
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 GGAGATTCAGGATGAAGTTGATGAGCTGCTTCAGAAAGAGCAAACTATTCAGATGACGTCTTGGCCAAC
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 CCGTGGAGCTCCTCCCGTGAATGGAGAGTTCAGCCTGGACGATCTCCAGCCGTGGCATTCTTTTGGGGC
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 CTGACCACTCGACCAGGTTCTGGGTTGACAAATATCAAGACGGAGGAGATCTCTGAAGTGAAGATGGATG
 CAGAATCCGACATGACTCAGGATATGAAGTTCATCATCAAAAATGGTGTCTTTGCGAGAAGATGTGGG
 TTCAAACAAGGTGCAATCATTGGACTCATGGTGGCGGTGTTGTATAGCGACAGTGTGTCATCACC
 TTGGTGTGCTGAAGAAGAAACAGTACACATCCATTTCATGTTGTTGGTGGAGGTTGACGCGCTGTCA
 CCCAGAGGAGCGCCACCTGTCCAAGATGCAGCAGAACGGCTACGAAAATCCAACCTACAAGTCTTTGA
 GCAGATGCAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209575 representing NM_201413
 Red=Cloning site Green=Tags(s)

MLPGLALLLLAAWTARALEVPTDGNAGLLAEPQIAMFCGRLNMHMNVQNGKWDSDPSGKTKCIDTKEGIL
 QYCQEVPELQITNVVEANQPVTIQNWCKRGRKQCKTHPHFVIPYRCLVGEFVSDALLVPDKCKFLHQR
 MDVCETHLHWHTVAKETCSEKSTNLHDYGMLPCGIDKFRGVEFVCCPLAEEEDNVDSADAEEDSDVWV
 GGADTDYADGSEDKVVEVAEEEEVAEEEEADDEDEDEGDEVEEEAEEPYEEATERTTSIATTTTTTTT
 ESVEEVREVCSEQAETGPCRAMISRWFYFDVTEGKCAPFFYGGCGGNRNNFDTEEYCMVCGSAIPTTAA
 STPDAVDKYLETPGDENEHAHFQKAKERLEAKHRERMSQVMREWEAERQAKNLPKADKKAIVQHFQEKV
 ESLEQEAANERQQLVETHMARVEAMLNDRRRLALENYITALQAVPPRPRHVFNMLKKYVRAEQKDRQHTL
 KHFEHVRMVPKKAQIRSQVMTHLRVIYERMNQLSLLYNVPAVAEEIQDEVELLQKEQNYSDVLAN
 MISEPRISYGNLMPSLTETKTTVELLPVNGEFLDDLQPWHSFGADSVANTENEVVDARPAADR
 LTTRPGSGLTNIKTEEISEVKMDAEFRHDSGYEVHHQKLVFFAEDVGSNGAIIGLMVGGVVIATVIVIT
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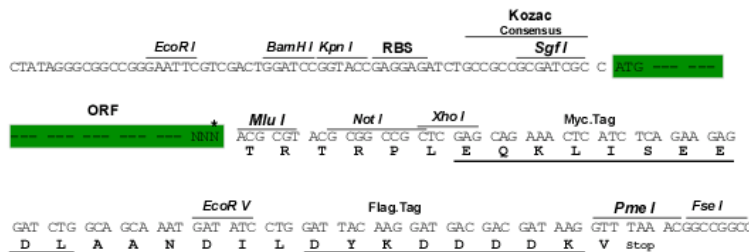
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3276_g09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_201413

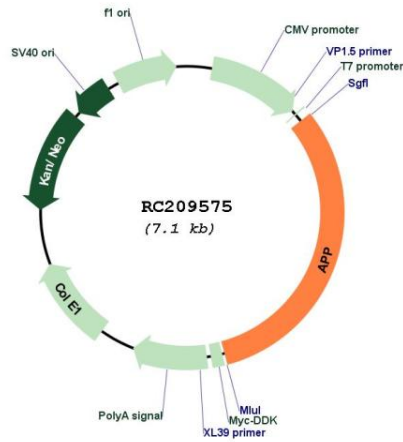
ORF Size: 2253 bp

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](#)

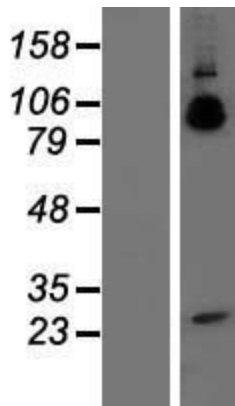
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
RefSeq:	NM_201413.3
RefSeq Size:	3584 bp
RefSeq ORF:	2256 bp
Locus ID:	351
UniProt ID:	P05067
Cytogenetics:	21q21.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease
MW:	83 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>

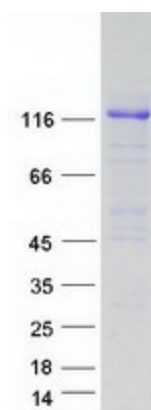
Product images:



Circular map for RC209575



Western blot validation of overexpression lysate (Cat# [LY404408]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209575 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified APP protein (Cat# [TP309575]). The protein was produced from HEK293T cells transfected with APP cDNA clone (Cat# RC209575) using MegaTran 2.0 (Cat# [TT210002]).