

## Product datasheet for **RG222494**

### **APLP2 (NM\_001642) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	APLP2 (NM_001642) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	APLP2
Synonyms:	APLP-2; APPH; APPL2; CDEBP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG222494 representing NM\_001642  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGCCACCGGGACCGCGGCCCGCGACGCCACGGGCAGGCTCCTGCTTCTGCTGCTGGTGGGGCTCA  
 CGGCGCCTGCCTTGGCGCTGGCCGGCTACATCGAGGCTCTTGCAGCCAATGCCGGAACAGGATTTGCTGT  
 TGCTGAGCCTCAAATCGCAATGTTTTGTGGGAAGTTAAATATGCATGTGAACATTCAGACTGGGAAATGG  
 GAACCTGATCCAACAGGCACCAAGAGCTGCTTTGAAACAAAAGAAGAAGTTCTTCAGTACTGTCAGGAGA  
 TGTATCCAGAGCTACAGATCACAAATGTGATGGAGGCAAACCAGCGGGTATGATTGACAACCTGGTGCCG  
 GAGGGACAAAAGCAATGCAAGAGTCGCTTTGTTACACCTTTCAAGTGTCTCGTGGGTGAATTTGTAAGT  
 GATGTCCTGCTAGTTCAGAAAAGTGCCAGTTTTTCCACAAGAGCGGATGGAGGTGTGTGAGAATCACC  
 AGCACTGGCACACGGTAGTCAAAGAGGCATGTCTGACTCAGGGAATGACCTTATATAGCTACGGCATGCT  
 GCTCCCATGTGGGTAGACCAGTTCATGGCACTGAATATGTGTGCTGCCCTCAGACAAAGATTATTGGA  
 TCTGTGTCAAAGAAGAGGAAGGGAAGATGAAGAGGAAGAGGAAGGAAGATGAAGAGGAAGACTATG  
 ATGTTTATAAAAGTGAATTTCTACTGAAGCAGATCTGGAAGACTTCACAGAAGCAGCTGTGGATGAGGA  
 TGATGAGGATGAGGAAGAAGGGGAGGAAGTGGTGGAGGACCGAGATTACTACTATGACACCTTCAAAGGA  
 GATGACTACAATGAGGAGAATCTACTGAACCCGGCAGCGACGGCACCATGTCAGACAAGGAAATTACTC  
 ATGATGTCAAAGCTGTCTGCTCCAGGAGGCGATGACGGGGCCCTGCCGGGCCGTGATGCCTCGTTGGTA  
 CTTGACCTCTCCAAGGAAAGTGCCTGCGCTTATATATGGTGGCTGCGGCGGCAACAGGAACAATTTT  
 GAGTCTGAGGATTATTGTATGGCTGTGTGTAAGCGATGATTCTCCAACCTCCTTGCCAACCAATGATG  
 TTGATGTGATTTTCGAGACCTCTGCAGATGATAATGAGCATGCTCGCTTCCAGAAGGCTAAGGAGCAGCT  
 GGAGATTCGGCACCGCAACCGAATGGACAGGGTAAAGAAGGAATGGGAAGAGGCAGAGCTTCAAGCTAAG  
 AACCTCCCAAAGCAGAGAGGCAGACTCTGATTACGCACTTCCAAGCCATGGTTAAAGCTTTAGAGAAGG  
 AAGCAGCCAGTGAGAAGCAGCAGCTGGTGGAGACCCACCTGGCCCGAGTGAAGCTATGCTGAATGACCG  
 CCGTGGATGGCTCTGGAGAACTACCTGGCTGCCTTGCAGTCTGACCCGCCACGGCCTCATCGCATTCTC  
 CAGGCCTTACGGCGTTATGTCCGTGCTGAGAACAAGATCGCTTACATACCATCCGTATTACCAGCATG  
 TGTTGGCTGTTGACCCAGAAAAGGCGGCCAGATGAAATCCCAGGTGATGACACATCTCCACGTGATTGA  
 AGAAAGGAGGAACCAAAGCCTCTCTGCTCTACAAAGTACCTTATGTAGCCCAAGAAATCAAGAGGAA  
 ATTGATGAGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCAGTGCCTCAATCTCAGAGACCCCTG  
 TGGACGTCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCACCGTTCACCCCTTCCACCCCTTCCAGC  
 CCTACCTGAGAACGAAGACACTCAGCCGGAGTTGTACCACCAATGAAAAAGGATCTGGAGTGGGAGAG  
 CAGGATGGGGACTGATCGGTGCCGAAGAGAAAGTGAATTAACAGTAAGAATAAAGTGGATGAAAACATGG  
 TCATTGACGAGACTCTGGATGTTAAGGAAATGATTTTCAATGCCGAGAGAGTTGGAGGCCTCGAGGAAGA  
 GCGGGAATCCGTGGGCCACTGCGGGAGGACTTCAGTCTGAGTAGCAGTGTCTCATTGGCTGCTGGTC  
 ATCGCAGTGGCCATTGCCACGGTCATCGTCATCAGCCTGGTGTGCTGAGGAAGAGGCAGTATGGCACCA  
 TCAGCCACGGGATCGTGGAGTTGATCCAATGCTCACCCAGAAGAGCGTCACCTGAACAAGATGCAGAA  
 CCATGGCTATGAGAACCCACCTACAAATACCTGGAGCAGATGCAGATT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG222494 representing NM\_001642  
 Red=Cloning site Green=Tags(s)

```

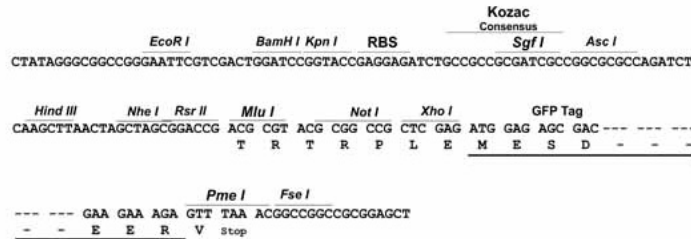
MAATGTAAAAATGRLLLLLLVL TAPALALAGYIEALAANAGTGF AFAEPQIAMFCGKLNMHVNIQTGKW
EPDPTGKTKSCFETKEEVLQYQCQEMYPELQITNVMEANQRV SIDNWCRRDCKKQCKSRFVTPFKCLVGEFVS
DVLLVPEKQCFHKERMEVCENHQHWHVTVVKEACL TQGM TLYSYGMLLPCGVDQFHGTEYVCCPQTKIIG
SVSKEEEEEDEEEEEDEEEDYDVKSEFPTEADLEDF TEAAVDEDEDEEEEGEEVVEDRDYDYDTFKG
DDYNEENPTEPGSDGTM SDKEITHDVKAVCSQEAMTGPCRAVM PRWYFDLSKGKCVRFIYGCGGNRRNF
ESEDYCMAVCKAMIPPTPLPTNDVDVYFETSADDNEHARFQKAKEQLEIRHRNRMDRVKKEWEEAELQAK
NLPKAERQTLIQHFQAMVKALEKAASEKQQLVETHLARVEAMLNDRRRMALENYLAALQSDPPRPHRIL
QALRRYVRAENKDR LHTIRHYQHVLAVDPEKAAQMKSQVMTHLHVIEERRNQLSLLYKVPYVAQEIQEE
IDELLQEQRADM DQFTASIS ETPVDVRSSESESEI PPFHFPFPALPENEDTQPELYHPMKKSGVGE
QDGLLIGAEKVIN SKNKVDENMVIDETLDVKEMIFNAERVGGLEEEERESVGPLREDFSLSSSALIGLLV
IAVAIATVIVISLVMLRKRQYGTISHGIVEVDPMLTPEERHLNKM QNHGYENPTYKYLEQM QI
  
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**ACCN:** NM\_001642

**ORF Size:** 2289 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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:**

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\\_001642.3](#)

**RefSeq Size:** 3727 bp

**RefSeq ORF:** 2292 bp

**Locus ID:** 334

**UniProt ID:** [Q06481](#)

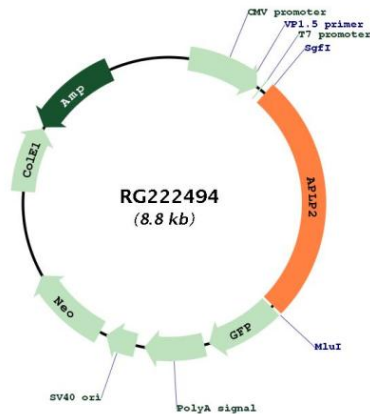
**Cytogenetics:** 11q24.3

**Domains:** KU, A4\_EXTRA

**Protein Families:** Druggable Genome, Transmembrane

**Gene Summary:**

This gene encodes amyloid precursor- like protein 2 (APLP2), which is a member of the APP (amyloid precursor protein) family including APP, APLP1 and APLP2. This protein is ubiquitously expressed. It contains heparin-, copper- and zinc- binding domains at the N-terminus, BPTI/Kunitz inhibitor and E2 domains in the middle region, and transmembrane and intracellular domains at the C-terminus. This protein interacts with major histocompatibility complex (MHC) class I molecules. The synergy of this protein and the APP is required to mediate neuromuscular transmission, spatial learning and synaptic plasticity. This protein has been implicated in the pathogenesis of Alzheimer's disease. Multiple alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Aug 2011]

**Product images:**


Circular map for RG222494