

## Product datasheet for **RG227009**

### **APLP2 (NM\_001142278) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	APLP2 (NM_001142278) 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)



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**ORF Nucleotide Sequence:**

>RG227009 representing NM\_001142278  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGCCACCGGGACCGCGGCCCGCGACCCAGCGGCAGGCTCCTGCTTCTGCTGCTGGTGGGGCTCA  
 CGGCGCCTGCCTTGGCGCTGGCCGGCTACATCGAGGCTCTTGCAGCCAATGCCGGAACAGGATTTGCTGT  
 TGCTGAGCCTCAAATCGCAATGTTTTGTGGGAAGTTAAATATGCATGTGAACATTCAGACTGGGAAATGG  
 GAACCTGATCCAACAGGCACCAAGAGCTGCTTTGAAACAAAAGAAGAAGTTCTTCAGTACTGTCAGGAGA  
 TGTATCCAGAGCTACAGATCACAAATGTGATGGAGGCAAACCAGCGGGTATGATTGACAACCTGGTGCCG  
 GAGGGACAAAAGCAATGCAAGAGTCGCTTTGTTACACCTTTCAAGTGTCTCGTTCCTCAAACCTCTCTG  
 CCAACCAATGATGTTGATGTGATTTTCGAGACCTCTGCAGATGATAATGAGCATGCTCGCTTCCAGAAGG  
 CTAAAGGACAGCTGGAGATTCGGCACCGCAACCGAATGGACAGGGTAAAGAAGGAATGGGAGAGGCAGA  
 GCTTCAAGCTAAGAACCTCCCCAAGCAGAGAGGCAGACTCTGATTCAGCACTTCCAAGCCATGGTTAAA  
 GCTTTAGAGAAGGAAGCAGCCAGTGGAGAGCAGCAGCTGGTGGAGACCCACCTGGCCGAGTGGAAAGCTA  
 TGCTGAATGACCGCCGTCGGATGGCTCTGGAGAACTACCTGGCTGCCTTGCACTGACCCGCCACGGCC  
 TCATCGCATTCTCCAGGCCTTACGGCGTTATGTCCGTGCTGAGAACAAAGATCGCTTACATACCATCCGT  
 CATTACCAGCATGTGTTGGCTGTTGACCAGAAAAGGGCGGCCAGATGAAATCCCAGGTGATGACACATC  
 TCCACGTGATTGAAGAAAGGAGGAACCAAAAGCCTCTCTGCTCTACAAAGTACCTTATGTAGCCCAAGA  
 AATTCAAGAGGAAATTGATGAGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCAGTGCCTCAATC  
 TCAGAGACCCCTGTGGAGCTCCGGGTGAGCTCTGAGGAGAGTGGAGATCCCACCGTCCACCCCTTCC  
 ACCCTTCCCAGCCCTACCTGAGAACAAGGATCTGGAGTGGGAGAGCAGGATGGGGGACTGATCGGTGC  
 CGAAGAGAAAGTGATTAACAGTAAGAATAAAGTGGATGAAAACATGGTCATTGACGAGACTCTGGATGTT  
 AAGGAAATGATTTCAATGCCGAGAGAGTTGGAGGCTCGAGGAAGAGCGGGAATCCGTGGGCCACTGC  
 GGGAGGACTTCAGTCTGAGTAGCAGTGCTCTCATTGGCCTGCTGGTCATCGCAGTGGCCATTGCCACGGT  
 CATCGTCATCAGCCTGGTATGCTGAGGAAGAGGCAGTATGGACCATCAGCCACGGGATCGTGGAGGTT  
 GATCCAATGCTCACCCAGAAGAGCGTCACCTGAACAAGATGCAGAACCATGGCTATGAGAACCCACCT  
 ACAATACTGGAGCAGATGCAGATT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG227009 representing NM\_001142278  
 Red=Cloning site Green=Tags(s)

MAATGAAAAATGRLLLLLLVGLTAPALALAGYIEALAANAGTGFVAEPPQIAMFCGKLNMHVNIQTGKW  
 EPDPTGKSCFETKEEVLQYCEMYPELQITNVMEANQRVSIQNWCRDRKQCKSRFVTPFKCLVPPTPL  
 PTNDVDVYFETSADDNEHARFQKAKEQLEIRHRNRMDRVKKEWEEAELQAKNLPKAERQTLIQHFQAMVK  
 ALEKEAASEKQQLVETHLARVEAMLNDRRRMALENYLAALQSDPPRPHRILQALRRYVRAENKDRLHTIR  
 HYQHVLAVDPEKAAQMKSQVMTHLHVIEERRNQSLSLLYKVPYVAQEIQEEIDELLQEQRADMDQFTASI  
 SETPVDVRSSESEIEIPPFHPFHPFALPENEGSGVGEQDGLIGAEKVINSKNKVDENMVIDETLDV  
 KEMIFNAERVGGLEERESVGPLREDFSLSSSALIGLLVIAVAIATVIVISLVMLRKRQYGTISHGIVEV  
 DPMLTPEERHLNKMQNHGYENPTYKYLEQMQI

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001142278

**ORF Size:** 1566 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:**

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\\_001142278.2](#)

**RefSeq Size:** 3104 bp

**RefSeq ORF:** 1569 bp

**Locus ID:** 334

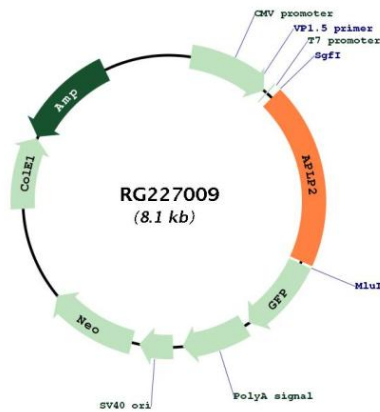
**UniProt ID:** [Q06481](#)

**Cytogenetics:** 11q24.3

**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 RG227009