

## Product datasheet for **RG234850**

### **APLP2 (NM\_001243299) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	APLP2 (NM_001243299) 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:**

>RG234850 representing NM\_001243299  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTGCGAGCCCGGGGAGCTCCCGCGCCAGGCCGCCCTGCTCCCTCTGCCGCTGGGGCCGGGTC  
 GCGGACGCGCATTTTTTAAGTGGCGCTGTTTGCCTGCGTCCGTAGACCGAGGAAAACCGCTCTGGGCTCT  
 TGCAGCCAATGCCGGAACAGGATTTGCTGTTGCTGAGCCTCAAATCGCAATGTTTTGTGGGAAGTTAAAT  
 ATGCATGTGAACATTCAGACTGGGAAATGGGAACCTGATCCAACAGGCACCAAGAGCTGCTTTGAAACAA  
 AAGAAGAAGTTCTTCAGTACTGTCAGGAGATGTATCCAGAGCTACAGATCACAATGTGATGGAGGCAAA  
 CCAGCGGGTTAGTATTGACAACCTGGTCCCGAGGGACAAAAGCAATGCAAGAGTCGCTTTGTACACCT  
 TTCAAGTGTCTCGTGGTGAATTTGTAAGTGTGTCTGCTAGTCCAGAAAAGTCCAGTTTTTCCACA  
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 GTGTGCTGCCCTCAGACAAAGATTATTGGATCTGTGTCAAAGAAGAGGAAGAGGAAGATGAAGAGGAAG  
 AGGAAGAGGAAGATGAAGAGGAAGACTATGATGTTTATAAAAAGTGAATTTCTACTGAAGCAGATCTGGA  
 AGACTTACAGAAGCAGCTGTGGATGAGGATGATGAGGATGAGGAAGAAGGGGAGGAAGTGGTGGAGGAC  
 CGAGATTACTACTATGACACCTTCAAAGGAGATGACTACAATGAGGAGAAATCCTACTGAACCCGGCAGCG  
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 GCCCTGCCGGGCCGTGATGCCTCGTTGGTACTTCGACCTTCCAAGGGAAAGTGGTGGCCTTTATATAT  
 GGTGGCTGCGGCGCAACAGGAACAATTTGAGTCTGAGGATTATTGTATGGCTGTGTGTAAGCGATGA  
 TTCCTCCAATCCTCTGCCAACCAATGATGTTGATGTATTTGAGACCTCTGCAGATGATAATGAGCA  
 TGCTCGCTTCCAGAAGGCTAAGGAGCAGCTGGAGATTCCGCACCCCAACCGAATGGACAGGGTAAAGAAG  
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 TCCAAGCCATGGTTAAAGCTTTAGAGAAGGAAGCAGCCAGTGAGAAGCAGCAGCTGGTGGAGACCCACCT  
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 TCTGACCCGCCACGGCCTCATCGCATTCTCCAGGCCTTACGGCGTTATGTCGGTGTGAGAACAAAGATC  
 GCTTACATACCATCCGTCATTACCAGCATGTGTTGGCTGTTGACCCAGAAAAGGGCGCCAGATGAAATC  
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 CCTTATGTAGCCCAAGAAATTAAGAGGAAATGATGAGCTCCTCAGGAGCAGCGTGCAGATATGGACC  
 AGTTCACTGCCTCAATCTCAGAGACCCCTGTGGACGTCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCC  
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 GGGGACTGATCGGTGCCGAAGAGAAAGTGATTAACAGTAAGAATAAAGTGGATGAAAACATGGTCATTG  
 ACGAGACTCTGGATGTTAAGGAAATGATTTTCAATGCCGAGAGAGTTGGAGGCCTCGAGGAAGAGCGGGA  
 ATCCGTGGGCCCACTGCGGGAGGACTTCAGTCTGAGTAGCAGTGTCTCATTGGCTGCTGGTATCGCA  
 GTGGCCATTGCCACGGTCATCGTCATCAGCCTGGTGTGCTGAGGAAGAGGCAGTATGGCACCATCAGCC  
 ACGGGATCGTGGAGGTTGATCCAATGCTCACCCAGAAGAGCGTCACTGAACAAGATGCAGAACCATGG  
 CTATGAGAACCCACCTACAAATACCTGGAGCAGATGCAGATT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG234850 representing NM\_001243299  
Red=Cloning site Green=Tags(s)

```
MLRAPGELPRQAARCSLRLGPGRGRAFFKWRCLPASVDRGNPLWALAANAGTGFVAEPOIAMFCGKLN
MHVNIQTGWEPDPTGKSCFETKEEVLQYQCQEMYPELQITNVMEANQRVSI DNWCRDRKKQCKSRFVTP
FKCLVGEFVSDVLLVPEKQCFHKERMEVCENHQHWHVVKAECLTQGM TLYSYGMLLPCGVDQFHGTEY
VCCPQTKIIGSVSKEEEEEEEEEEEEEDEEEDYDVKSEFPTEADLEDFTEAAVDEDEDEEEEGEEVVED
RDYYYDTFKGDDYNEENPTEPGSDGTMSDKEITHDVKAVCSQEAMTGPCRAVMPRWYFDLSKGKCVRFIY
GGCGGNRNRFESDYCMAVCKAMIPPTPLPTNDVDVYFETSADDNEHARFQKAKEQLEIRHRNRMDRVKK
EWEEAELQAKNLPKAERQTLIQHFQAMVKALEKAASEKQQLVETHLARVEAMLNDRRRMALENYLAALQ
SDPPRPHRILQALRRYVRAENKDR LHTIRHYQHVLAVDPEKAAQMSQVMTHLHVIEERRNQLSLLYKV
PYVAQEIQEEIDELLQEQRADMDQFTASIS ETPVDVRSSESESEI PPFHPPHPPALPENEGSGVGEQD
GGLIGAEKVINSKNKVDENMVIDETLDVKEMIFNAERVGLLEERESVGPLREDFLS SSSALIGLLVIA
VAIATVIVISLVM LKRQYGTISHGIVEVDPMLTPEERHLNKM QNHGYENPTYKYLEQMQI
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001243299

**ORF Size:** 2283 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\\_001243299.1](#), [NP\\_001230228.1](#)

**RefSeq Size:** 3709 bp

**RefSeq ORF:** 2286 bp

**Locus ID:** 334

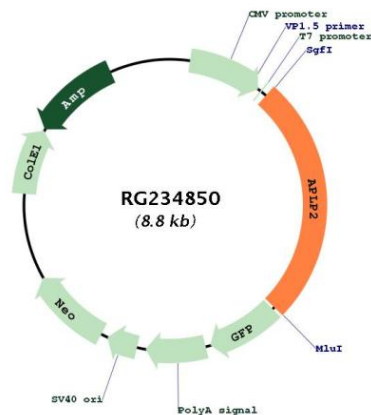
**UniProt ID:** [Q06481](#)

**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 RG234850