

Product datasheet for **SC119122**

APLP2 (NM_001642) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APLP2 (NM_001642) Human Untagged Clone
Tag:	Tag Free
Symbol:	APLP2
Synonyms:	APLP-2; APPH; APPL2; CDEBP
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_001642, the custom clone sequence may differ by one or more nucleotides

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ATGGCGGCCACCGGGACCGCGGCCCGCAGCCACGGGCAGGCTCCTGCTTCTGCTGCTGGTGGGGCTCA
CGGCGCCTGCCTTGGCGCTGGCCGGCTACATCGAGGCTCTTGCAGCCAATGCCGGAACAGGATTTGCTGT
TGCTGAGCCTCAAATCGCAATGTTTTGGGAAGTTAAATATGCATGTGAACATTCAGACTGGGAAATGG
GAACCTGATCCAACAGGCACCAAGAGCTGCTTTGAAACAAAAGAAGAAGTTCTTCAGTACTGTCAGGAGA
TGTATCCAGAGCTACAGATCACAAATGTGATGGAGGCAAACCAGCGGGTATGATTGACAACCTGGTGCCG
GAGGGACAAAAGCAATGCAAGAGTCGCTTTGTTACACCTTTCAAGTGTCTCGTGGGTGAATTTGTAAGT
GATGTCCTGCTAGTTCAGAAAAGTGCCAGTTTTTCCACAAAGAGCGGATGGAGGTGTGTGAGAATCACC
AGCACTGGCACACGCTAGTCAAAGAGGCATGTCTGACTCAGGGAATGACCTTATATAGCTACGGCATGCT
GCTCCCATGTGGGTAGACCAGTCCATGGCACTGAATATGTGTGCTGCCCTCAGACAAAGATTATTGGA
TCTGTGTCAAAAAGAGGAAGAGGAAGATGAAGAGGAAGAGGAAGAGGAAGATGAAGAGGAAGACTATG
ATGTTTATAAAAGTGAATTTCTACTGAAGCAGATCTGGAAGACTTCACAGAAGCAGCTGTGGATGAGGA
TGATGAGGATGAGGAAGAAGGGGAGGAAGTGGTGGAGGACCGAGATTACTACTATGACACCTTCAAAGGA
GATGACTACAATGAGGAGAATCCTACTGAACCCGGCAGCGACGGCACCATGTCAGACAAGGAAATTAATC
ATGATGTCAAAGTGTCTGCTCCAGGAGGCGATGACGGGGCCCTGCCGGGCCGTGATGCCTCGTTGGTA
CTTCGACCTCTCCAAGGAAAGTGCCTGCGCTTTATATATGGTGGCTGCGGCGGCAACAGGAACAATTTT
GAGTCTGAGGATTATTGTATGGCTGTGTGTAAGCGATGATTCTCCAACCTCTGCAACCAATGATG
TTGATGTGATTTTCGAGACCTCTGCAGATGATAATGAGCATGCTCGTTCCAGAAGGCTAAGGAGCAGCT
GGAGATTCGGCACCGCAACCGAATGGACAGGGTAAAGAAGGAATGGGAAGAGGCAGAGCTTCAAGCTAAG
AACCTCCCAAAGCAGAGAGGCAGACTCTGATTCAGCACTTCCAAGCCATGGTTAAAGCTTTAGAGAAGG
AAGCAGCCAGTGAGAAGCAGCAGCTGGTGGAGACCCACCTGGCCCGAGTGGAAAGCTATGCTGAATGACCG
CCGTGGATGGCTCTGGAGAACTACCTGGCTGCCTTGCACTGACCCGCCACGGCCTCATCGATTCTC
CAGGCCTTACGGCGTTATGTCCGTGCTGAGAACAAGATCGCTTACATACCATCCGTCAATACCAGCATG
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AGAAAGGAGGAACCAAAGCCTCTCTGCTCTACAAAGTACCTTATGTAGCCCAAGAAATTAAGAGGAA
ATTGATGAGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCAGTGCCTCAATCTCAGAGACCCCTG
TGGACGTCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCCACCGTCCACCCCTCCACCCCTCCACG
CCTACCTGAGAACGAAGACTCAGCCGGAGTTGTACCACCAATGAAAAAGGATCTGGAGTGGGAGAG
CAGGATGGGGGACTGATCGGTGCCGAAGAGAAAGTGATTAACAGTAAGAATAAAGTGGATGAAAACATGG
TCATTGACGAGACTCTGGATGTTAAGGAAATGATTTTCAATGCCGAGAGAGTTGGAGGCCTCGAGGAAGA
GCGGGAATCCGTGGGCCACTGCGGGAGGACTTCAGTCTGAGTAGCAGTGTCTCATTGGCTGCTGGTC
ATCGCAGTGGCCATTGCCACGGTCATCGTCATCAGCCTGGTGTGCTGAGGAAGAGGCAGTATGGCACCA
TCAGCCACGGGATCGTGGAGGTTGATCCAATGCTACCCCAAGAGCGTCACCTGAACAAGATGCAGAA
CCATGGCTATGAGAACCCACCTACAAATACCTGGAGCAGATGCAGATTTAG
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5' Read Nucleotide Sequence: >OriGene 5' read for NM_001642 unedited
 GCAAGCGCTCAGATTTTGTAAATACGACTTACTATAGGGCGGCCGCGCAATTCGCACGAGG
 GGTTCGCGGTGTGCTAAGCGAGGAGTCCGAGTGTGTGAGCTTGAGAGCCGCGCGCTAGAGC
 GACCCGGCGAGGGATGGCGGCCACCGGGACCGCGGCTGCCGCAGCCACGGGCAGGCTCCT
 GCTTCTGCTGCTGGTGGGGCTCACGGCGCTGCCTTGGCGCTGGCCGGCTACATCGAGGC
 TCTTGCAGCCAATGCCGGAACAGGATTTGCTGTTGCTGAGCCTCAAATCGCAATGTTTTG
 TGGGAAGTTAAATATGCATGTGAACATTAGACTGGGAAATGGGAACCTGATCCAACAGG
 CACCAAGAGCTGCTTTGAAACAAAAGAAGATTCTTCAGTACTGTCAGGAGATGTATCC
 AGAGCTACAGATCACAATGTGATGGAGCAAACCAGCGGTTAGTATTGACAACTGGTG
 CCGGAGGGACAAAAGCAATGCAAGAGTCGCTTTGTTACACCTTTCAAGTGTCTCGTGGG
 TGAATTTGTAAGTGATGCTCTGCTAGTTCCAGAAAAGTCCAGTTTTTCCACAAAGAGCG
 GATGGAGGTGTGTGAGAATCACCAGCACTGGCACACGGTAGTCAAAGAGGCATGTCTGAC
 TCAAGGAATGACCTTATATAGCTACGGCATGCTGCTCCCATGTGGGGTAGACCAGTTCCA
 TGGCACTGAATATGTGTGCTGCCCTCAGACAAGATTATTGGATCTGTGTCAAAGAAGAG
 GAAGAGGAAGATGAAGAGGAAGAGGAAGAGGAAGATGAAGAGGAAGACTATGATGTTTAT
 AAAAGTGAATTTCTACTGAAGCAGATCTGGAAGACTCACAGAAGCAGCTGTGGATGATG
 AT

3' Read Nucleotide Sequence: >OriGene 3' read for NM_001642 unedited
 CTATGGACCGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTGAATAGATC
 ATTTTTTTCATTTAAGGTTTATATATCATATATTGTTATATTACCATTTTTCCACCATTT
 AAAAGAATGGAAATTGCAGTTCTACAGTAGTACTTTATATAGTCTACAGTCCAGGAGGT
 CAGGATGTCAGACGCAGCCCTGGCAGCGCTGCTGCTTGGCAGTCGATCGGAATCGTGG
 GATCTTCCGGCCACCTGCATCCCTCCGCCAGGGCTGCCGCGCTCCCTGCCACCTAAATC
 TGCATCTGCTCCAGGTATTTGTAGGTGGGGTCTCATAGCCATGGTTCTGCATCTTGTTT
 AGGTGACGCTCTTCTGGGGTGGCATTGGATCAACCTCCACGATCCCGTGGCTGATGGTG
 CCATACTGCCTCTTCTCAGCATCACCAGGCTGATGACGATGACCGTGGCAATGGCCACT
 GCGATGACCAGCAGGCCAATGAGAGCACTGCTACTCAGACTGAAGTCTCCCGCAGTGGG
 CCCACGGATCCCGCTCTTCTCGAGGCCTCCAACCTCTCTCGGCATTGAAAATCATTTC
 TTAACATCCAGAGTCTCGTCAATGACCATGTTTTTCATCCACTTTATTCTTACTGGTAATC
 ACTTTCTCTTCGGCACCGATCAGTCCCCATCCTGCTTTCCCACTCAAAACCTTTTTTCA
 TTGGGTGGTACAACCTCCGGCTGAGTGTCTTCTGTTCTCAAGGTAGGCTGGGAAGGGGTGGA
 AAGGGGTGGAACGGGGGAACTTCTTCTCTCCTCAGAACTACCCCGACGTCCCAGGGG
 TCCCTTGAAATGAGGCATGGAAGTGGTGCATATTTGGCCG

Restriction Sites: NotI-NotI

ACCN: NM_001642

Insert Size: 2740 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 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](#)

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_001642.1](#), [NP_001633.1](#)

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]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).