OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC227009

APLP2 (NM_001142278) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APLP2 (NM_001142278) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	APLP2
Synonyms:	APLP-2; APPH; APPL2; CDEBP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC227009 representing NM_001142278
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCCACCGGGACCGCGGCCGCCGCAGCCACGGGCAGGCTCCTGCTTCTGCTGCTGGTGGGGCTCA
CGGCGCCTGCCTTGGCGCTGGCCGGCTACATCGAGGCTCTTGCAGCCAATGCCGGAACAGGATTTGCTGT
TGCTGAGCCTCAAATCGCAATGTTTTGTGGGAAGTTAAATATGCATGTGAACATTCAGACTGGGAAATGG
GAACCTGATCCAACAGGCACCAAGAGCTGCTTTGAAACAAAAGAAGAAGTTCTTCAGTACTGTCAGGAGA
TGTATCCAGAGCTACAGATCACAAATGTGATGGAGGCAAACCAGCGGGTTAGTATTGACAACTGGTGCCG
GAGGGACAAAAAGCAATGCAAGAGTCGCTTTGTTACACCTTTCAAGTGTCTCGTTCCTCCAACTCCTCTG
CCAACCAATGATGTTGATGTGTATTTCGAGACCTCTGCAGATGATAATGAGCATGCTCGCTTCCAGAAGG
CTAAGGAGCAGCTGGAGATTCGGCACCGCAACCGAATGGACAGGGTAAAGAAGGAATGGGAAGAGGCAGA
GCTTCAAGCTAAGAACCTCCCCAAAGCAGAGAGGCAGACTCTGATTCAGCACTTCCAAGCCATGGTTAAA
GCTTTAGAGAAGGAAGCAGCCAGTGAGAAGCAGCAGCTGGTGGAGACCCACCTGGCCCGAGTGGAAGCTA
TGCTGAATGACCGCCGTCGGATGGCTCTGGAGAACTACCTGGCTGCCTTGCAGTCTGACCCGCCACGGCC
TCATCGCATTCTCCAGGCCTTACGGCGTTATGTCCGTGCTGAGAACAAAGATCGCTTACATACCATCCGT
CATTACCAGCATGTGTTGGCTGTTGACCCAGAAAAGGCGGCCCAGATGAAATCCCAGGTGATGACACATC
TCCACGTGATTGAAGAAAGGAGGAACCAAAGCCTCTCTCTGCTCTACAAAGTACCTTATGTAGCCCAAGA
AATTCAAGAGGAAATTGATGAGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCACTGCCTCAATC
TCAGAGACCCCTGTGGACGTCCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCCACCGTTCCACCCCTTCC
ACCCCTTCCCAGCCCTACCTGAGAACGAAGGATCTGGAGTGGGAGAGCAGGATGGGGGACTGATCGGTGC
CGAAGAGAAAGTGATTAACAGTAAGAATAAAGTGGATGAAAACATGGTCATTGACGAGACTCTGGATGTT
AAGGAAATGATTTTCAATGCCGAGAGAGTTGGAGGCCTCGAGGAAGAGCGGGAATCCGTGGGCCCACTGC
GGGAGGACTTCAGTCTGAGTAGCAGTGCTCTCATTGGCCTGCTGGTCATCGCAGTGGCCATTGCCACGGT
CATCGTCATCAGCCTGGTGATGCTGAGGAAGAGGCAGTATGGCACCATCAGCCACGGGATCGTGGAGGTT
GATCCAATGCTCACCCCAGAAGAGCGTCACCTGAACAAGATGCAGAACCATGGCTATGAGAACCCCACCT
ACAAATACCTGGAGCAGATGCAGATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227009 representing NM_001142278
Red=Cloning site Green=Tags(s)

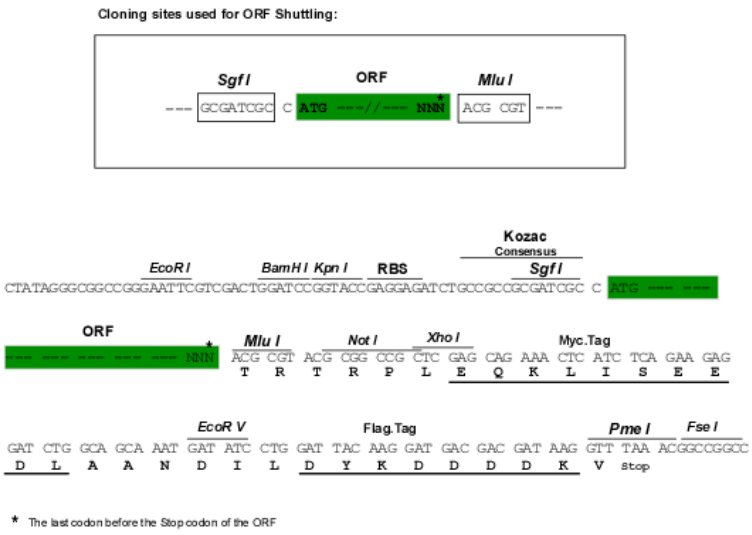
MAATGTAAAAATGRLLLLLLVGLTAPALALAGYIEALAANAGTGFAVAEPQIAMFCGKLNMHVNIQTGKW
EPDPTGTKSCFETKEEVLQYCQEMYPELQITNVMEANQRVSIDNWCRRDKKQCKSRFVTPFKCLVPPTPL
PTNDVDVYFETSADDNEHARFQKAKEQLEIRHRNRMDRVKKEWEEAELQAKNLPKAERQTLIQHFQAMVK
ALEKEAASEKQQLVETHLARVEAMLNDRRRMALENYLAALQSDPPRPHRILQALRRYVRAENKDRLHTIR
HYQHVLAVDPEKAAQMKSQVMTHLHVIEERRNQSLSLLYKVPYVAQEIQEEIDELLQEQRADMDQFTASI
SETPVDVRVSSEESEEIPPFHPFHPFPALPENEGSGVGEQDGGLIGAEEKVINSKNKVDENMVIDETLDV
KEMIFNAERVGGLEEERESVGPLREDFSLSSSALIGLLVIAVAIATVIVISLVMLRKRQYGTISHGIVEV
DPMLTPEERHLNKMQNHGYENPTYKYLEQMQI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8065_d02.zip

Restriction Sites: SgfI-MluI

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 ORF: 1569 bp

Locus ID: 334

UniProt ID: Q06481

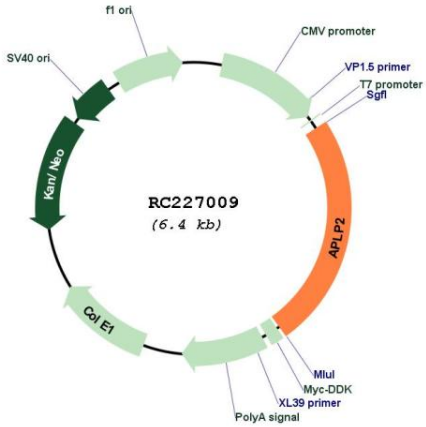
Cytogenetics: 11q24.3

Protein Families: Druggable Genome, Transmembrane

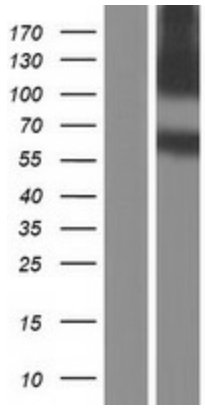
MW: 59 kDa

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 RC227009



Western blot validation of overexpression lysate (Cat# [LY428002]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227009 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).