

## Product datasheet for **RC213791**

### **PICALM (NM\_007166) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PICALM (NM_007166) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PICALM
Synonyms:	CALM; CLTH; LAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC213791 representing NM\_007166  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTCCGGCCAGAGCCTGACGGACCGAATCACTGCCGCCAGCACAGTGTACCCGGCTCTGCCGTATCCA  
AGACAGTATGCAAGGCCACGACCCACGAGATCATGGGGCCCAAGAAAAAGCACCTGGACTACTTAATTCA  
GTGCACAATGAGATGAATGTGAACATCCACAGTTGGCAGACAGTTTATTTGAAAGAACTACTAATAGT  
AGTTGGGTGGTGGTCTTCAAATCTCTCATTACAACATCATTTTGGTGTATGGAAATGAGCGTTTTTA  
TTCAGTATTTGGCTTCAAGAAACAGTTGTTAACTTAAGCAATTTTTGGATAAAAGTGGATTGCAAGG  
ATATGACATGTCTACATTTATTAGGCGGTATAGTAGATATTTAAATGAGAAAGCAGTTTCATACAGACAA  
GTTGCATTTGATTTCAAAAAGTGAAGAGAGGGGCTGATGGAGTTATGAGAACAATGAACACAGAAAAAC  
TCCTAAAAACTGTACCAATTATTCAGAATCAGATGGATGCACTTCTTGATTTTAAATGTTAATAGCAATGA  
ACTTACAATGGGGTAATAAATGCTGCCTTCATGCTCCTGTTCAAAGATGCCATTAGACTGTTTGCAGCA  
TACAATGAAGGAATTATTAATTTGTTGGAAAAATATTTTGATATGAAAAAGAACCAATGCAAGAAGGTC  
TTGACATCTATAAGAAGTTCCTAACTAGGATGACAAGAATCTCAGAGTTCCTCAAAGTTGACAGAGCAAGT  
TGGAAATGACAGAGGTGATATACCAGACCTTTCACAGGCCCTAGCAGTCTTCTTGATGCTTTGGAACAA  
CATTTAGCTTCTTGGAAAGGAAAGAAAACAAAGATTCTACAGCTGCAAGCAGGGCAACTACACTTTCCA  
ATGCAGTGTCTTCCCTGGCAAGCACTGGTCTATCTCTGACCAAAGTGGATGAAAGGGAAAAGCAGGCAGC  
ATTAGAGGAAGAACAGGCACGTTTGAAGCTTTAAAGGAACAGCGCCTAAAAGAAGTTGCAAGAAAACCT  
CATACCTCTTTAAACAACGCAGCCTCTCCTGTATCCACCTCAGCAGGAGGGATAATGACTGCACCAGCCA  
TTGACATATTTTCTACCCTAGTTCTTCTAACAGCACATCAAAGCTGCCAATGATCTGCTTGGATTTGCA  
GCAGCCAACCTTTCAACCATCTGTACATCCTATGTCAACTGCTTCTCAGGTAGCAAGTACATGGGGAGAT  
CCTTTCTCTGCTACTGTAGATGCTGTTGATGATGCCATTCCAAGCTTAAATCCTTTCTCACAAAAAGTA  
GTGGTGTATGTTACCTTTCCATTTCTCAGATGTATCTACTTTTACTACTAGGACACCTACTCATGAAAT  
GTTTGTGGATTCACTCCTTCTCCAGTTGCACAGCCACACCCTTTCAGCTGGCCTTAATGTTGACTTTGAA  
TCTGTGTTTGGAAATAAATCTACAAATGTTATTGTAGATTCTGGGGCTTTGATGAACTAGGTGGACTTC  
TCAAACCAACAGTGGCCTCTCAGAACCAGAACCTTCTGTTGCCAACTCCCACCTAGCAAGTTAGTATC  
TGATGACTTGGATTCATCTTTAGCCAACCTTGTGGCAATCTTGGCATCGGAAATGGAACCACTAAGAAT  
GATGTAATTTGGAGTCAACCAGGTGAAAAGAAGTTAACTGGGGATCTAACTGGCAACCAAGGTTGCAC  
CAACAACCGCTTGAATGCTGCAACAATGGCACCCCTGTAATGGCCTATCCTGCTACTACCAACAGG  
CATGATAGGATATGGAATTCCTCCACAATGGGAAGTGTCTGTAATGACGCAACCAACCTTAATATAC  
AGCCAGCTGTATGAGACCTCCAAACCCCTTTGGCCCTGTATCAGGAGCACAGATACAGTTTATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213791 representing NM\_007166  
 Red=Cloning site Green=Tags(s)

MSGQSLTDRITAAQHSVTGSAVSKTVCKATTHEIMGPKKKHLDYLIQCTNEMNVNIPQLADSLFERTTNS  
 SWVVVFKSLITTHHLMVYGNERFIQYLASRNTLFNLSNFLDKSGLQGYDMSTFIRRYRYLNEKAVSYRQ  
 VAFDFTKVKRGADGVMRTMTEKLLKTVPIIQNQMDALLDFNVNSNELNGVINAAMFLFKDAIRLFAA  
 YNEGIINLLEKYFDMKKNQCKEGLDIYKKFLTRMTRISEFLKVAEQVGDIDRGDIPDLSQAPSSLLDALEQ  
 HLASLEGKKIKDSTAASRATTLNAVSSLASTGLSLTKVDEREKQAALQEQARLKALKEQRLKELAKKP  
 HTSLTTAASPVSTSAAGIMTAPAIIDIFSTPSSNSTSKLPNDLLDLQPTFFHPSVHPMSTASQVASTWGD  
 PFSATVDAVDDAIPSLNPFLTKSSGDVHLSISSDVSTFTTRTPTHEMFVGFTPSPVAQPHPSAGLNVDVE  
 SVFGNKSTNVIVDSGGFDELGGLLKPTVASQNQLPVAKLPPSKLVSDLDSSLANLVGNLIGNGTTKN  
 DVNWSQPGEKKLTGGSNWQPKVAPTTAWNAATMAPPVMAYPATPTGMIGYGIQPMGSPVMTQPTLIY  
 SQPVMRPPNPFPGPVSGAQIQFM

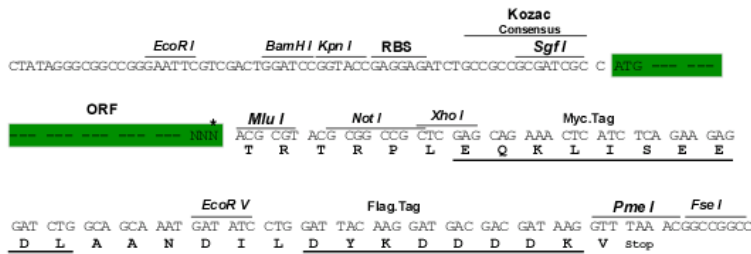
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2814\\_g01.zip](https://cdn.origene.com/chromatograms/mg2814_g01.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

ACCN: NM\_007166

ORF Size: 1956 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_007166.4](#)

**RefSeq Size:** 3860 bp

**RefSeq ORF:** 1959 bp

**Locus ID:** 8301

**UniProt ID:** [Q13492](#)

**Cytogenetics:** 11q14.2

**Domains:** ENTH

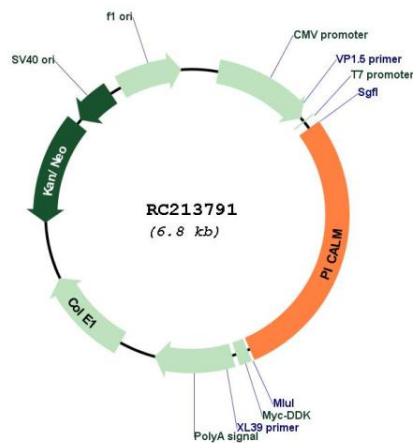
**Protein Families:** Druggable Genome

**MW:** 70.6 kDa

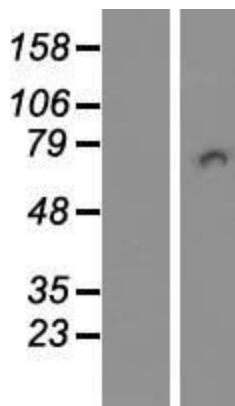
**Gene Summary:**

This gene encodes a clathrin assembly protein, which recruits clathrin and adaptor protein complex 2 (AP2) to cell membranes at sites of coated-pit formation and clathrin-vesicle assembly. The protein may be required to determine the amount of membrane to be recycled, possibly by regulating the size of the clathrin cage. The protein is involved in AP2-dependent clathrin-mediated endocytosis at the neuromuscular junction. A chromosomal translocation t(10;11)(p13;q14) leading to the fusion of this gene and the MLLT10 gene is found in acute lymphoblastic leukemia, acute myeloid leukemia and malignant lymphomas. The polymorphisms of this gene are associated with the risk of Alzheimer disease. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2011]

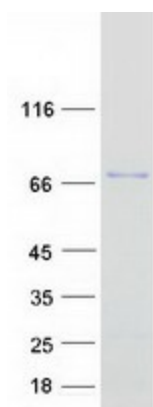
**Product images:**



Circular map for RC213791



Western blot validation of overexpression lysate (Cat# [LY416170]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213791 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PICALM protein (Cat# [TP313791]). The protein was produced from HEK293T cells transfected with PICALM cDNA clone (Cat# RC213791) using MegaTran 2.0 (Cat# [TT210002]).