

## Product datasheet for **MC220207**

### **Picalm (NM\_146194) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Picalm (NM_146194) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Picalm
Synonyms:	CALM; CLTH; fit-1; fit1; mKIAA4114; PAP180
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC220207 representing NM\_146194  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCTGCGCCAGAGCCTGACGGACCGAATCACCGCGCCAGCACAGTGTACTGGCTCCGCGGTATCTA  
 AGACAGTATGCAAGGCCACGACCCACGAGATCATGGGCCCAAGAAAAAGCACCTGGACTACTTAATTCA  
 GTGTACAATGAGATGAATGTGAACATCCACAGTTGGCGGACAGTTTGTGGAAAGAACTACTAACAGT  
 AGTTGGGTGGTGGTCTTCAAATCACTCATTACAACATCATTTTGGTGTATGGAAATGAGCGTTTCA  
 TTCAGTATTTGGCTTCAAGAAACACATTGTTAACTTAAGCAATTTTTGGATAAAAGTGGATTGCAAGG  
 ATATGATATGTCTACATTTATTAGACGGTATAGTAGACTTAAATGAAAAAGCAGTTTCATACAGACAA  
 GTTGCATTCGATTTCAAAAAGTGAAGAGAGGAGCTGATGGAGTTATGAGAACAATGAACACAGAAAAAC  
 TCTAAAAACTGTACCAATTATCCAAAATCAAATGGATGCACTTCTTGATTTTAAATGTTAATAGTAATGA  
 ACTTACAATGGGGTAATAAATGCTGCCTTCATGCTCCTTCAAAGATGCCATTAGACTATTTGCAGCA  
 TACAATGAAGGAATTATTAATTTATTGGAAAAATATTTTGATATGAAAAAGAACCAGTGCAAAGAAGGTC  
 TTGACATCTATAAGAAGTTTCTGACTAGGATGACAAGAATCTCAGAGTTTCTGAAAGTTGACAGCAAGT  
 TGGAAATGACAGAGGAGATATCCAGATCTTTCACAGGCCCCAGCAGTCTTCTTGATGCTTTAGAACA  
 CATTTAGCTTCTTGGAAAGGAAAGAAAACAAAGATCCACAGCTGCAAGCAGGGCTACAACACTTTCCA  
 ATGCAGTCTCTTCTTGGCAAGCACTGGCCTATCTCTGACCAAAGTGGATGAAAGGGAAAAACAGGCAGC  
 ATTAGAGGAAGAACAGGCTCGTTTAAAAGCATTAAAGGAACAGCGTCTAAAAGAAGTTCGAAAGAAACCG  
 CATACCTCTCTAACAACTGCAGCCTCTCCGGTGTCCACCTCAGCAGGGGAATAATGACTGCACCAAGCCA  
 TTGACATATTTTCTACCCCTAGTTCTTCTAACAGCACATCTAAGCTGCCAAATGACCTGCTTGACTTGCA  
 GCAGCCAACCTTTCACCCGTCTGTCCACGCCATGTCGGCTGCTCCTCAGGGAGCGAGTACATGGGGAGAT  
 CCTTCTCTGCTACTCTAGATGCTGTTGAGGATGCCATTCCAAGCTTAAACCTTTCCTCACAAAAAGTA  
 GTGGTGTGTTACCTGCCATTGCTTCAGATGTATCCACTTTTACTACTAGGACACCTACTCATGAGAT  
 GTTTGTTGGATTGAGTCTTCTCCAGTTGCACAGCCACATTCTTCAGCTGGCCTTAATGTTGACTTTGAA  
 TCTGTGTTGGAAATAAATCTACGAATGTTGCTGTAGATTCTGGTGGCTTTGATGAACTAGGTGGACTTC  
 TCAAACCAACAGTGGCCTCCAGAACCAGAGTCTTCTGTTGCCAACTCCGCCTAACAAATTAGTGTC  
 TGACGACTTGATTATCTTTAGCCAACCTTGTGGCAATCTTGGCATTGAAATGGAACCACTAAGAAT  
 GATGTAAGTTGGAGTCAACCAGGTGAAAAGAAGTTAACTGGAGGATCTAACTGGCAACCAAGGTTGCAC  
 CAACAACCTGCCTGGAGCGCTGCAACAATGAATGGCATGCATTTTCCACAATACGCGCCCCCTGTAATGGC  
 CTATCCTGCTACTACCAACGGGCATGATAGGATATGGAATTCCTCCTCAGATGGGAAGTGTACCTGTA  
 ATGACACAACCAACCTTAATATACAGCCAGCCTGTGATGAGACCACCAACCCCTTTGGCCCTGTATCAG  
 GAGCACAGATACAGTTTATG**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2743\\_h04.zip](https://cdn.origene.com/chromatograms/ja2743_h04.zip)

**Restriction Sites:** SgfI-Mlul

**ACCN:** NM\_146194

**Insert Size:** 1983 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](#)

**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\\_146194.4](#), [NP\\_666306.2](#)

**RefSeq Size:** 4174 bp

**RefSeq ORF:** 1983 bp

**Locus ID:** 233489

**UniProt ID:** [Q7M6Y3](#)

**Cytogenetics:** 7 50.47 cM

**Gene Summary:** Cytoplasmic adapter protein that plays a critical role in clathrin-mediated endocytosis which is important in processes such as internalization of cell receptors, synaptic transmission or removal of apoptotic cells. Recruits AP-2 and attaches clathrin triskelions to the cytoplasmic side of plasma membrane leading to clathrin-coated vesicles (CCVs) assembly. Furthermore, regulates clathrin-coated vesicle size and maturation by directly sensing and driving membrane curvature. In addition to binding to clathrin, mediates the endocytosis of small R-SNARES (Soluble NSF Attachment Protein REceptors) between plasma membranes and endosomes including VAMP2, VAMP3, VAMP4, VAMP7 or VAMP8. In turn, PICALM-dependent SNARE endocytosis is required for the formation and maturation of autophagic precursors. Modulates thereby autophagy and the turnover of autophagy substrates such as MAPT/TAU or amyloid precursor protein cleaved C-terminal fragment (APP-CTF).[UniProtKB/Swiss-Prot Function]