

Product datasheet for **MR230670**

Picalm (NM_001252522) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Picalm (NM_001252522) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Picalm
Synonyms:	CALM; CLTH; fit-1; fit1; mKIAA4114; PAP180
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR230670 representing NM_001252522
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTGGCCAGAGCCTGACGGACCGAATCACCGCGGCCAGCACAGTGTACTGGTCCGCGGTATCTA
 AGACAGTATGCAAGGCCACGACCCACGAGATCATGGGCCCAAGAAAAAGCACCTGGACTACTTAATTCA
 GTGTACAATGAGATGAATGTGAACATCCACAGTTGGCGGACAGTTTGTGGAAAGAACTACTAACAGT
 AGTTGGGTGGTGGTCTTCAAATCACTCATTACAACATCATTTTGGTGTATGGAAATGAGCGTTTCA
 TTCAGTATTTGGCTTCAAGAAACACATTGTTAACTTAAGCAATTTTTGGATAAAAGTGGATTGCAAGG
 ATATGATATGTCTACATTTATTAGACGGTATAGTAGACTTAAATGAAAAAGCAGTTTCATACAGACAA
 GTTGCATTCGATTTCAAAAAGTGAAGAGAGGAGCTGATGGAGTTATGAGAACAATGAACACAGAAAAAC
 TCTAAAAACTGTACCAATTATCCAAAATCAAATGGATGCACTTCTTGATTTTAAATGTTAATAGTAATGA
 ACTTACAATGGGGTAATAAATGCTGCCTTCATGCTCCTTCAAAGATGCCATTAGACTATTTGCAGCA
 TACAATGAAGGAATTATTAATTTATTGGAAAAATATTTTGATATGAAAAAGAACCAGTGCAAAGAAGGTC
 TTGACATCTATAAGAAGTTTCTGACTAGGATGACAAGAATCTCAGAGTTTCTGAAAGTTGCAGAGCAAGT
 TGGAAATTGACAGAGGAGATATCCAGATCTTTCACAGGCCCCAGCAGTCTTCTTGATGCTTTAGAACA
 CATTTAGCTTCTTGGAAAGGAAAGAAAACAAAGATCCACAGCTGCAAGCAGGGCTACAACACTTTCCA
 ATGCAGTCTCTTCTTGGCAAGCACTGGCCTATCTCTGACCAAAGTGGATGAAAGGGAAAAACAGGCAGC
 ATTAGAGGAAGAACAGGCTCGTTTAAAAGCATTAAAGGAACAGCGTCTAAAAGAAGTTGCAAAGAAACCG
 CATACCTCTCTAAACAATGCAGCCTCTCCGGTCCACCTCAGCAGGGGGAATAATGACTGCACCAGCCA
 TTGACATATTTTCTACCCCTAGTTCTTCTAACAGCACATCTAAGCTGCCAAATGACCTGCTTGACTTGA
 GCAGCCAACCTTTCACCCGTCTGTCCACGCCATGTCGGCTGCTCCTCAGGGAGCGAGTACATGGGGAGGA
 TTCAGTCTTCTCCAGTTGCACAGCCACATTCTCAGCTGGCCTTAAATGTTGACTTTGAATCTGTGTTTG
 GAAATAAATCTACGAATGTTGCTGTAGATTCTGGTGGCTTTGATGAACTAGGTGGACTTCTCAAACCAAC
 AGTGGCCTCCCAGAACCAGAGTCTTCTGTTGCCAAACTCCGCCTAACAAATTAGTGTCTGACGACTTG
 GATTCATCTTTAGCCAACCTTGTGGCAATCTTGGCATTGGAATGGAACCACTAAGAATGATGTAAGTT
 GGAGTCAACCAGGTGAAAAGAAGTTAACTGGAGGATCTAACTGGCAACCAAGGTTGCACCAACAACCTGC
 CTGGAGCGCTGCAACAATGAATGGCATGCATTTCCACAATACGCGCCCCCTGTAATGGCCTATCCTGCT
 ACTACACCAACGGGCATGATAGGATATGGAATTCCTCCTCAGATGGGAAGTGTACCTGTAATGACACAAC
 CAACCTTAATATACAGCCAGCCTGTATGAGACCACCAACCCTTTGGCCCTGTATCAGGAGCACAGAT
 ACAGTTTATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230670 representing NM_001252522
 Red=Cloning site Green=Tags(s)

MSGQSLDRITAAQHSVTGSVSKTVCKATTHEIMGPKKKHLDYLIQCTNEMNVNIPQLADSLFERTTNS
 SWVVVFKSLITTHHLMVYGNERFIQYLASRNTLFNLSNFLDKSGLQGYDMSTFIRRYSRYLNEKAVSYRQ
 VAFDFTKVKRGADGVMRTMTEKLLKTVPIIQNQMDALLDFNVNSNELTNGVINAAFMLLFKDAIRLFAA
 YNEGIINLLEKYFDMKNQCKEGLDIYKFLTRMTRISEFLKVAEQVGDIDRDIPLDSQAPSSLLDALEQ
 HLASLEGGKIKDSTAASRATTLNAVSSLASTGLSLTKVDEREKQAALEEEQARLKALKEQRLKELAKP
 HTSLTTAASPVSTSAGGIMTAPAIIDIFSTPSSNSTSKLPNDLLDLQPTFHPSVHAMSAAPOGASTWGG
 FSPSPVAQPHSSAGLNVDVFESVFNKSTNVAVDSGGFDELGGLLKPTVASQNSLPVAKLPPNKLVSDDL
 DSSLANLVGNLIGNGTTKNDVSWSQPGEKLLTGGSNWQPKVAPTTAWSAATMNGMHFPQYAPVMAYPA
 TTPTGMIGYGIPPQMGSPVMTQPTLIYSQPVMRPPNPFQPVSGAQIQFM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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:	<ol style="list-style-type: none">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_001252522.2
RefSeq Size:	4024 bp
RefSeq ORF:	1833 bp
Locus ID:	233489
UniProt ID:	Q7M6Y3
Cytogenetics:	7 50.47 cM
MW:	66.6 kDa
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]