

## Product datasheet for **MC228107**

### **PPP3CA (NM\_001293622) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PPP3CA (NM_001293622) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	PPP3CA
Synonyms:	2900074D19Rik; Caln; Calna; CN; CnA
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC228107 representing NM\_001293622  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCGAGCCCAAGGCGATTGATCCCAAGTTGTCGACGACCGACAGGGTGGTGAAGCCGTTCCATTTCC  
 CACCAAGTCACCGGCTGACAGCAAAGGAAGTGTGGATAATGATGGGAAACCTCGTGTGGATATCTTAAA  
 AGCACATCTCATGAAGGAGGGCAGGCTGGAAGAAAGTGTTCATTGAGAATAATAACAGAGGGTCTTCG  
 ATTCTCCGACAGGAAAAAATTGCTGGATATCGACGCACCAAGTACAGTTTGTGGGGACATCCATGGAC  
 AATTCTTTGACTTGTGAAGCTCTTGAAGTGGGAGGATCTCCTGCCAACACTCGCTACCTCTTCTTAGG  
 GGACTATGTTGACAGAGGGTACTTCAGTATCGAATGTGTGCTGTATTTGTGGCCTTGAAAATCTTTAC  
 CCCAAACTGTTTTACTTCGCGGAAACCATGAATGTAGGCACCTCACAGAGTATTTACGTTTAAAC  
 AAGAATGTAATAAAGTATTCAGAACGCGTTTATGACGCTGTATGGATGCCTTCGACTGCCTCCCT  
 GGCTGCGCTAATGAACCAGCAGTTCCTGTGTACACGGTGGTTGTCTCCAGAGATTAACACTTAGAT  
 GACATCAGAAAATTAGACCGATTCAAAGAACCCTGCTTATGGGCCATGTGTGACATCCTATGGTCAG  
 ACCCCCTGGAGGACTTTGAAAATGAGAAGACTCAGGAACATTTCACTCACAACACAGTCAGAGGCTGTT  
 GTACTTCTACAGTTACCCAGCTGTGTGACTTCTGCAGCACAATAATTTGTTGTCCATACTCCGCGCC  
 CACGAAGCCAGGATGCAGGGTACCGCATGTACAGGAAAAGCCAAACAACAGGCTTCCGTCTCTAATTA  
 CAATCTTCTCGGCACCAAACTTACTTAGATGTGTACAATAACAAAGCTGCAGTGTGAAGTACGAGAA  
 TGTGATGAACATCAGGCAGTTCAACTGCTCCCGCATCCGACTGGCTCCCAATTTTATGGATGTTTT  
 ACCTGGTCGCTGCCATTTGTTGGGAGAAAGTACTGAGATGCTGGTCAATGTTCTCAACATCTGCTCCG  
 ACGATGAACGGGGTCAAGAAGAAGTGGATTTGACGGAGCCACGGCCGAGCCCGGAAGGAAGTCATCAG  
 AAACAAGATCCGAGCAATAGGCAAAATGGCCAGAGTGTCTCAGTTCTCAGAGAAGAGAGTGAGAGTGTC  
 CTGACACTGAAGGCCTGACCCCAACTGGCATGCTCCCGACGGAGTGTCTCTGGCGGAAACAGACT  
 TGCAAAGCGCCATCAAAGGATTTTACCACAACATAAGATCACTAGCTTCGAGGAGGCCAAGGGCTTAGA  
 CCGAATTAACGAGAGGATGCCACCTCGCAGAGACGCCATGCCCTCTGACGCCAACCTTAACCTCAAC  
 AAGGCTCTCGCTCAGAGACTAACGGCACGGACAGCAATGGCAGTAAATAGCAGCAATATCCAG**TGA**

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-RsrII

**ACCN:** NM\_001293622

**Insert Size:** 1536 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

**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\\_001293622.1](#), [NP\\_001280551.1](#)

**RefSeq Size:** 4832 bp

**RefSeq ORF:** 1536 bp

**Locus ID:** 19055

**UniProt ID:** [P63328](#)

**Cytogenetics:** 3 G3

**Gene Summary:** Calcium-dependent, calmodulin-stimulated protein phosphatase which plays an essential role in the transduction of intracellular Ca(2+)-mediated signals (PubMed:7791792, PubMed:26794871). Many of the substrates contain a PxlIT motif and/or a LxVP motif (By similarity). In response to increased Ca(2+) levels, dephosphorylates and activates phosphatase SSH1 which results in cofilin dephosphorylation (By similarity). In response to increased Ca(2+) levels following mitochondrial depolarization, dephosphorylates DNM1L inducing DNM1L translocation to the mitochondrion (By similarity). Dephosphorylates heat shock protein HSPB1 (By similarity). Dephosphorylates and activates transcription factor NFATC1 (By similarity). Dephosphorylates and inactivates transcription factor ELK1 (By similarity). Dephosphorylates DARPP32 (By similarity). May dephosphorylate CRTC2 at 'Ser-171' resulting in CRTC2 dissociation from 14-3-3 proteins (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks an in-frame exon in the 3' coding region compared to variant 1. The encoded isoform (2) is shorter than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.