

Product datasheet for **MR230318**

PPP3CA (NM_001293622) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP3CA (NM_001293622) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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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ORF Nucleotide Sequence:

>MR230318 representing NM_001293622
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGGATCGCC

ATGTCGAGCCCAAGGCGATTGATCCCAAGTTGTCGACGACCGACAGGGTGGTGAAGCCGTTCCATTTCC
 CACCAAGTCACCGGCTGACAGCAAAGGAAGTGTGGATAATGATGGGAAACCTCGTGTGGATATCTTAAA
 AGCACATCTCATGAAGGAGGGCAGGCTGGAAGAAAGTGTTCATTGAGAATAATAACAGAGGGTGTCTCG
 ATTCTCCGACAGGAAAAAACTTCTGGATATCGACGCACCAAGTACAGTTTGTGGGGACATCCATGGAC
 AATTCTTTGACTTGTGAAGCTCTTGAAGTGGGAGGATCTCCTGCCAACACTCGCTACCTCTTCTTAGG
 GGACTATGTTGACAGAGGGTACTTCAGTATCGAATGTGTGCTGTATTTGTGGCCTTGAAAATCTTTAC
 CCCAAAACACTGTTTTACTTCGCGGAAACCATGAATGTAGGCACCTCACAGAGTATTTACGTTTAAAC
 AAGAATGTAATAAAGTATTCAGAACGCGTTTATGACGCTGTATGGATGCCTTCGACTGCCTCCCT
 GGCTGCGCTAATGAACAGCAGTTCCTGTGTGTACACGGTGGTTGTCTCCAGAGATTAACACTTAGAT
 GACATCAGAAAATTAGACCGATTCAAAGAACCCTGCTTATGGGCCATGTGTGACATCCTATGGTCAG
 ACCCCCTGGAGGACTTTGAAAATGAGAAGACTCAGGAACATTTCACTCACAACACAGTCAGAGGCTGTT
 GTACTTCTACAGTTACCCAGCTGTGTGACTTCTGCAGCACAATAATTTGTTGTCCATACTCCGCGCC
 CACGAAGCCAGGATGCAGGGTACCGCATGTACAGGAAAAGCCAAACAACAGGCTTCCGCTCTAATTA
 CAATCTTCTCGGCACCAATTAAGTGTGTACAATAACAAAGCTGCAGTGTGAAGTACGAGAACAA
 TGTGATGAACATCAGGCAGTTCAACTGCTCCCGCATCCGACTGGCTCCCAATTTTATGGATGTTTT
 ACCTGGTCGCTGCCATTTGTTGGGAGAAAGTACTGAGATGCTGGTCAATGTTCTCAACATCTGCTCCG
 ACGATGAAGTGGGTCAGAAGAAGTGGATTTGACGGAGCCACGCGCCAGCCCGGAAGGAGTCAATCAG
 AAACAAGATCCGAGCAATAGGCAAATAGCCAGAGTGTCTCAGTTCTCAGAGAAGAGAGTGAGAGTGTC
 CTGACACTGAAGGCCTGACCCCAACTGGCATGCTCCCGAGGAGTGTCTCTGGCGGAAACAGACT
 TGCAAAGCGCCATCAAAGGATTTTACCACAACATAAGATCACTAGCTTCGAGGAGGCCAAGGGCTTAGA
 CCGAATTAACGAGAGGATGCCACCTCGCAGAGACGCCATGCCCTCTGACGCCAACCTTAACCTCAAC
 AAGGCTCTCGCTCAGAGACTAACGGCACGGACAGCAATGGCAGTAAATAGCAGCAATATCCAG

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230318 representing NM_001293622
 Red=Cloning site Green=Tags(s)

MSEPKAIDPKLSTTDRVVKAVPFPPSHRLTAKEVFDNDGKPRVDILKAHLMKEGRLEESVALRIITEGAS
 ILRQEKNLDDIDAPVTVCEDIHGQFFDLMKLFVGGSPANTRYLFLGDYVDRGYFSIECVLYLWALKILY
 PKTLFLLRGNHECRHLTEYFTFKQECKIKYSERYVDACMDAFDCLPLAALMNQQFLCVHGGLSPEINTLD
 DIRKLDLRFKEPPAYGPMCDILWSDPLEDFGNEKTQEHFTHNTVRGCSYFYSYPVCDFLQHNLLSILRA
 HEAQDAGYRMYRKSQTTGFPSLITIFSAAPNYLDVYNNKAAVLKYENNVMNIRQFNCSHPHYWLPNFMDFV
 TWSLPPFVGEKVTMLVNLNICSDELGSEEDGFDGATAARKEVIRNKIRAIKGMARVFSVLREESV
 LTLKGLTPTGMLPSGVLSGGKQTLQSAIKGFSPQHKITSFEEAKGLDRINERMPPRRDAMPDANLNSIN
 KALASENGTDSNGSNSSNIQ

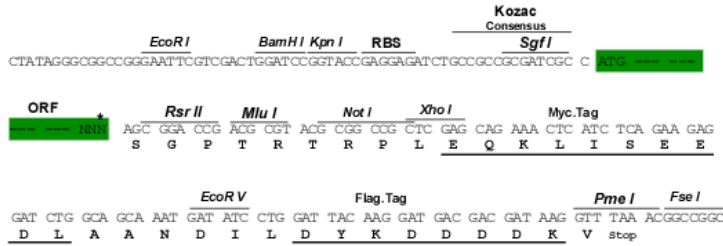
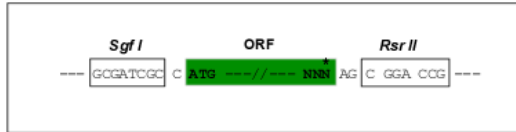
SGP^{TRTRPLEQKLI}SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

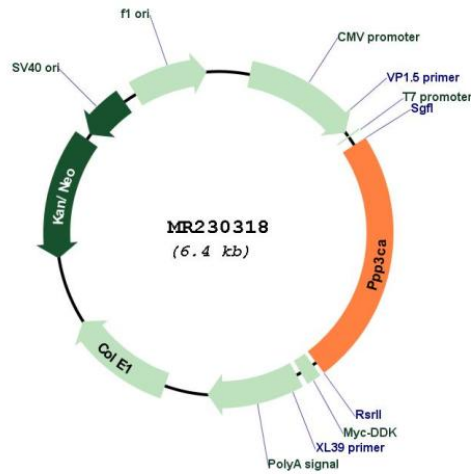
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001293622

ORF Size: 1533 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:	<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_001293622.1 , NP_001280551.1
RefSeq Size:	4832 bp
RefSeq ORF:	1536 bp
Locus ID:	19055
UniProt ID:	P63328
Cytogenetics:	3 G3
MW:	58.1 kDa
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]