

Product datasheet for **MG227082**

PPP3CA (NM_008913) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP3CA (NM_008913) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PPP3CA
Synonyms:	2900074D19Rik; Caln; Calna; CN; CnA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG227082 representing NM_008913
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGAGCCCAAGGCGATTGATCCCAAGTTGTCGACGACCCAGGGTGGTGAAGCCGTTCCATTTCC
 CACCAAGTCACCGCTGACAGCAAAGGAAGTGTGGATAATGATGGAAACCTCGTGTGGATATCTTAAA
 AGCACATCTCATGAAGGAGGGCAGGCTGGAAGAAAGTGTTCATTGAGAATAATAACAGAGGGTGCCTTCG
 ATTCTCCGACAGGAAAAAACTTCTGGATATCGACGCACCAGTCACAGTTTGTGGGGACATCCATGGAC
 AATTCTTTGACTTGTGAAGCTCTTTGAAGTGGGAGGATCTCTGCCAACACTCGCTACCTCTTCTTAGG
 GGACTATGTTGACAGAGGGTACTTCAGTATCGAATGTGTGCTGTATTTGTGGCCTTGAAAATCTTTAC
 CCCAAACTGTTTTACTTCGCGAAACCATGAATGTAGGCACCTCACAGATATTTACGTTTAAAC
 AAGAATGTAATAAAGTATTGAGAACCGTTTATGACGCCTGTATGGATGCCTTCGACTGCCTTCCCT
 GGCTGCGTAATGAACCAGCAGTTCCTGTGTGTACACGGTGGTTGTCTCCAGAGATTAACACTCTAGAT
 GACATCAGAAAAATTAGACCGATTCAAAGAACCCTGCTTATGGGCCATGTGTGACATCCTATGGTCAG
 ACCCCCTGGAGGACTTTGGAAATGAGAAGACTCAGGAACATTTCACTCACAACACAGTCAGAGGCTGTT
 GTACTTCTACAGTTACCCAGCTGTGTGTGACTTCTGCAGCACAATAATTTGTTGTCCATACTCCGCGCC
 CACGAAGCCAGGATGCAGGGTACCGCATGTACAGGAAAAGCCAAACAACAGGCTTCCCGTCTTAATTA
 CAATCTTCTCGGCACCAATTAAGTGTGTACAATAACAAGCTGCAGTGTGAAGTACGAGAAACA
 TGTGATGAACATCAGGCAGTTCAGTGTGTGACGAGGAGTGTGATGCTGGTCAATGTTCTCAACATCTGCTCCG
 ACCTGGTCGTCGCATTTGTTGGGGAGAAAGTACTGAGATGCTGGTCAATGTTCTCAACATCTGCTCCG
 ACGATGAAGTGGGTCAGAAAGAAGTGGATTTGACGGAGCCAGGCCGAGCCGGAAGGAAGTATCAG
 AAACAAGATCCGAGCAATAGGCAAAATGGCCAGAGTGTTCAGTTCTCAGAGAAGAGAGTGAAGTGTGTC
 CTGACACTGAAGGGCTGACCCAACTGGCATGCTCCCAAGCGGAGTGTCTCTGGCGGAAACAGACTC
 TGCAAAGCGTACTGTTGAGGCTATTGAGGCTGATGAAGCCATCAAGGATTTTACCACAAACATAAGAT
 CACTAGCTTCGAGGAGGCCAAGGCTTAGACCGAATTAACGAGAGGATGCCACCTCGCAGAGACGCCATG
 CCCTCTGACGCCAACCTTAAGTCCATCAACAAGGCTCTCGCTCAGAGACTAACGGCACGGACAGCAATG
 GCAGTAATAGCAGCAATATCCAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG227082 representing NM_008913
 Red=Cloning site Green=Tags(s)

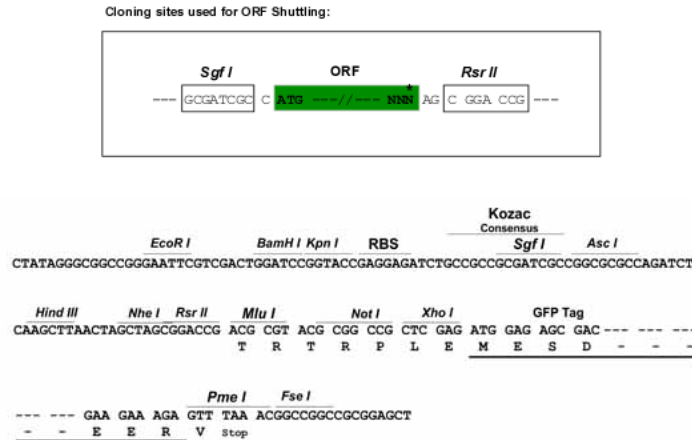
MSEPKAIDPKLSTDRVVKAVPFPSSHRLTAKEVFDNDGKPRVDILKAHLMKEGRLEESVALRIITEGAS
 ILRQEKNLIDIDAPVTVCEDIHGQFFDLMLKFEVGGSPANTRYLFLGDYVDRGYFSIECVLYLWALKILY
 PKTLFLLRGNHECRHLTEYFTFKQECKIKYSERYDADMDAFDCLPLAALMNQQLCVHGGLSPEINTLD
 DIRKLDRFKEPPAYGPMCDILWSDPLEDFGNEKTQEHFTHNTVRGCSYFYSYPAVCDLQHNNLLSILRA
 HEAQDAGYRMYRKSQTTGFPSLITIFSAAPNYLDVYNNKAAVLKYENVMNIRQFNCSHPHYWLPNFMDFV
 TWSLPFVGEKVTEMLVNVLNICSDDELGSEEDGFDGATAARKEVIRNKIRAIKMARVSVLREESESV
 LTLKGLTPTGMLPSGVLGGKQTLQSATVEAIEADEAIGKFSQHKITSFEEAKGLDRINERMPPRRDAM
 PSDANLNSINKALASETNGTDSNGSNSSNIQ

SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:



ACCN: NM_008913

ORF Size: 4859 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 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).

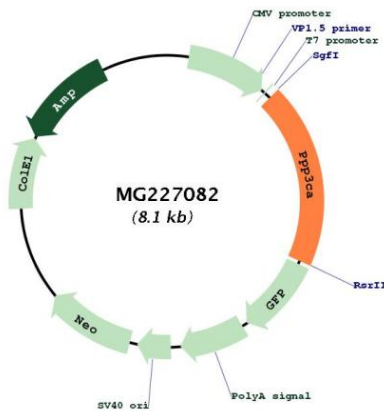
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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.

RefSeq: [NM_008913.5, NP_032939.1](#)

RefSeq ORF: 1566 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 PxlxIT 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]

Product images:



Circular map for MG227082