

Product datasheet for **RC227718**

PPP3CB (NM_001142353) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP3CB (NM_001142353) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PPP3CB
Synonyms:	CALNA2; CALNB; CNA2; PP2Bbeta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC227718 representing NM_001142353
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGCCCGGAGCCGGCCGGGCTGCACCGCCCCACCCCGCCCCCGCCGCCCTCCCGGGGCTG
 ACCGCGTCGTCAAAGCTGCCCTTCCCCCAACACATCGCTTGACATCTGAAGAAGTATTTGATTTGGA
 TGGGATACCCAGGGTTGATGTTCTGAAGAACCCTTGGTAAAGAAGGTCGAGTAGAGAAATTTGCC
 CTTAGAATTATCAATGAGGGTGCTGCCATCCTTCGGAGAGAGAAAACCATGATAGAAGTAGAAGCTCAA
 TCACAGTGTGGTGACATCCATGGCCAATTTTTGATCTGATGAACTTTTTGAAGTAGGAGGATCACC
 TGCTAATACAGTACCTTTTTCTGGCGATTATGTGGACAGAGGTTATTTTAGTATAGAGTGTCTTA
 TATTTATGGGTTCTGAAGATTCTATACCAAGCACATTATTTCTCTGAGAGGCAACCATGAATGCAGAC
 ACCTTACTGAATATTTACCTTTAAGCAGGAATGTAATAAAGTATTCGAAAGAGTCTATGAAGCTTG
 TATGGAAGCTTTGATAGTTGCTCTTGCTGCACCTTTAAACCAACAGTTTCTTTGTGTTTCATGGTGGA
 CTTTCACCAGAAAATACACACACTGGATGATATTAGGAGATTAGATAGATTCAAAGAGCCACCTGCATTTG
 GACCAATGTGTGACTTGTATGGTCCGATCCTTCTGAAGATTTTGAAATGAAAAATCACAGGAACATT
 TAGTCACAATACAGTTCGAGGATGTTCTTATTTTTATAACTATCCAGCAGTGTGTGAATTTTGC AAAAC
 AATAATTTGTTATCGATTATTAGAGCTCATGAAGCTCAAGATGCAGGCTATAGAATGTACAGAAAAAGTC
 AAACACAGGGTCCCTTCATTAATAACAATTTTTCGGCACCTAATTACTTAGATGTCTACAATAATAA
 AGCTGTGTATTAAGTATGAAAATAATGTGATGAATATTCGACAGTTAACTGTTCTCCACATCCTTAC
 TGGTTGCCTAATTTATGGATGTCTTACGTGGTCTTTACCGTTTGTGGAGAAAAAGTGACAGAAATGT
 TGGTAAATGTTCTGAGTATTTGCTCTGATGATGAACAAAGTGAAGGTGAAGCAGTTTGTGATGAGG
 TTCAGCTGCAGCCCGAAAGAAAATCATAAGAAAACAAAATTCGAGCAATTGGCAAGATGGCAAGAGTCTTC
 TCTGTTCTCAGGGAGGAGAGTAAAAGTGTGCTGCACTCAAGGGCCTGACTCCCACAGGGATGTTGCCTA
 GTGGAGTGTAGCTGGAGGACGGCAGACCTGCAAAGTCCACAGTTGAGGCTATTGAGGCTGAAAAAGC
 AATACGAGGATTCTCCACCACATAGAATCTGCAGTTTTGAAGAGGCAAGGGTTTGGATAGGATCAAT
 GAGAGAATGCCACCTCGGAAAGATGCTGTACAGCAAGATGGTTTCAATCTCTGAACACCGCACATGCCA
 CTGAGAACCACGGGACGGCAACCATACTGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227718 representing NM_001142353
 Red=Cloning site Green=Tags(s)

MAAPEPARAAPPPPPPPPPGADRNVKAVFPPTHRLTSEEVFDLDGIPRVDVLDKHLVKEGRVDEEIA
 LRIINEGAAILRREKTMIEVEAPITVCGDIHGQFFDLMKLFEVGGSPANTRYLFLGDYVDRGYFSIECVL
 YLWVWKILYLPSTLFLLRGNHECRHLTEYFTFKQECKIKYSERVYEAAMEAFDSLPLAALLNQQLCVHGG
 LSPEIHTLDDIRRLDRFKEPPAFGPMCDLLWSDPSEDFGNEKSQEHF SHNTVVRGCSYFYNYPAVCEFLQN
 NNLLSIIIRAHEAQDAGYRMYRKSQTTGFPSLITIF SAPNYLDVYNNKAAVLKYENNVNIRQFNCSHPHY
 WLPNFMVDVFTWSLFPVGEKVTEMLVNVLSICSDDELMTEGEDQFDVGSAAARKEIIRNKIRAIGKMARVF
 SVLREESVSLTLKGLTPTGMLPSGVLAGGRQTLQSATVEAIEAEKAIIRGFSPPHRIRCSFEEAKGLDRIN
 ERMPPRKDAVQQDGFNSLNTAHATENHGTGNHTAQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001142353

ORF Size: 1575 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](#)

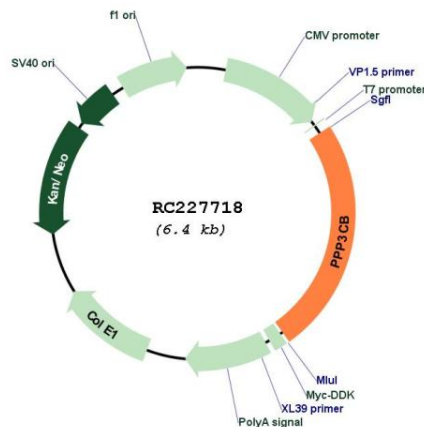
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

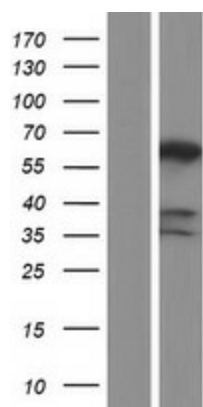
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_001142353.2](#), [NP_001135825.1](#)
RefSeq ORF: 1578 bp
Locus ID: 5532
UniProt ID: [P16298](#)
Cytogenetics: 10q22.2
Protein Families: Druggable Genome, Phosphatase, Transcription Factors
Protein Pathways: Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Axon guidance, B cell receptor signaling pathway, Calcium signaling pathway, Long-term potentiation, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, Oocyte meiosis, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway
MW: 58.9 kDa
Gene Summary: Calcium-dependent, calmodulin-stimulated protein phosphatase which plays an essential role in the transduction of intracellular Ca(2+)-mediated signals (PubMed:19154138, PubMed:26794871). Dephosphorylates and activates transcription factor NFATC1 (PubMed:19154138). Dephosphorylates and inactivates transcription factor ELK1 (PubMed:19154138). Dephosphorylates DARPP32 (PubMed:19154138).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC227718



Western blot validation of overexpression lysate (Cat# [LY428053]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227718 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).