

Product datasheet for **RC206982**

PPP3CB (NM_021132) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP3CB (NM_021132) 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:

>RC206982 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGCCCGGAGCCGGCCCGGGCTGCACCGCCCCACCCCGCCCCCGCCGCCCTCCCGGGGCTG
 ACCGCGTCGTCAAAGCTGCCCTTCCCCCAACACATCGCTTGACATCTGAAGAAGTATTTGATTTGGA
 TGGGATACCCAGGGTTGATGTTCTGAAGAACCCTTGGTAAAAGAAGGTCGAGTAGAGAAATTTGCC
 CTTAGAATTATCAATGAGGGTGCTGCCATCCTTCGGAGAGAGAAAACCATGATAGAAGTAGAAGCTCAA
 TCACAGTGTGGTGACATCCATGGCCAATTTTTTATCTGATGAACTTTTTGAAGTAGGAGGATCACC
 TGCTAATACAGTACCTTTTTCTGGCGATTATGTGGACAGAGGTTATTTTAGTATAGAGTGTCTTA
 TATTTATGGGTTCTGAAGATTCTATACCAAGCACATTATTTCTCTGAGAGGCAACCATGAATGCAGAC
 ACCTTACTGAATATTTACCTTTAAGCAGGAATGTAATAAAGTATTCGAAAGAGTCTATGAAGCTTG
 TATGGAAGCTTTGATAGTTGCTCTTGTGCACTTTTAAACCAACAGTTTCTTTGTGTTTCATGGTGGA
 CTTTCACCAGAAAATACACACACTGGATGATATTAGGAGATTAGATAGATTCAAAGAGCCACCTGCATTTG
 GACCAATGTGTGACTTGTATGGTCCGATCCTTCTGAAGATTTTGAAAATGAAAAATCACAGGAACATT
 TAGTCACAATACAGTTCGAGGATGTTCTTATTTTTATAACTATCCAGCAGTGTGTGAATTTTTGCAAAA
 AATAATTTGTTATCGATTATTAGAGCTCATGAAGCTCAAGATGCAGGCTATAGAATGTACAGAAAAAGTC
 AAACACAGGGTCCCTTCATTAATAACAATTTTTTCGGCACCTAATTACTTAGATGTCTACAATAATA
 AGCTGTGTATTAAGTATGAAAATAATGTGATGAATATTCGACAGTTAACTGTTCTCCACATCCTTAC
 TGGTTGCCTAATTTATGGATGTCTTACGTGGTCTTACCCTTGTGGAGAAAAAGTGACAGAAATGT
 TGGTAAATGTTCTGAGTATTTGCTCTGATGAACTAATGACTGAAGGTGAAGCAGTTTGTGATGAGG
 TTCAGCTGCAGCCCGAAAGAAAATCATAAGAAAACAAAATTCGAGCAATTGGCAAGATGGCAAGAGTCTTC
 TCTGTTCTCAGGGAGGAGAGTAAAAGTGTGCTGCACTCAAGGGCCTGACTCCCACAGGGATGTTGCCTA
 GTGGAGTGTAGCTGGAGGACGGCAGACCTGCAAAGTCCACAGTTGAGGCTATTGAGGCTGAAAAAGC
 AATACGAGGATTCTCCACCACATAGAATCTGCAGTTTTGAAGAGGCAAGGGTTGGATAGGATCAAT
 GAGAGAATGCCACCTCGAAAGATGCTGTACAGCAAGATGGTTTCAATCTCTGAACACCGCACATGCCA
 CTGAGAACCACGGGACGGCAACCATACTGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206982 protein sequence
 Red=Cloning site Green=Tags(s)

MAAPEPARAAPPPPPPPPPGADRNVKAVFPPTHRLTSEEVFDLDGIPRVDVLDKHLVKEGRVDEEIA
 LRIINEGAAILRREKTMIEVEAPITVCGDIHQFFDLMKLFEVGGSPANTRYLFLGDYVDRGYFSIECVL
 YLWVLIKILYPTLFLLRGNHECRHLTEYFTFKQECKIKYSERVYEAAMEAFDSLPLAALLNQQLCVHGG
 LSPEIHTLDDIRRLDRFKEPPAFGPMCDLLWSDPSEDFGNEKSQEHF SHNTVVRGCSYFYNYPAVCEFLQN
 NNLLSIIRAHEAQDAGYRMYRKSQTTGFPSLITIF SAPNYLDVYNNKA AVLKYENNVNIRQFNCSPPHY
 WLPNFMVDVFTWSL PFVGEKVTEMLVNVLSICSDDELMTEGEDQFDVGSAAARKEIIRNKIRAI GKMARVF
 SVLREESVSL TLKGL TPTGMLPSGVLAGGRQTLQSATVEAIEAEKAIIRGFSPPHRICSFEEAKGLDRIN
 ERMPPRKDAVQQDGFNSLNTAHATENHGTGNHTAQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6832_e02.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_021132

ORF Size: 1575 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:**
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_021132.4](#)

RefSeq Size: 3537 bp

RefSeq ORF: 1575 bp

Locus ID: 5532

UniProt ID: [P16298](#)

Cytogenetics: 10q22.2

Domains: Metallophos, PP2Ac

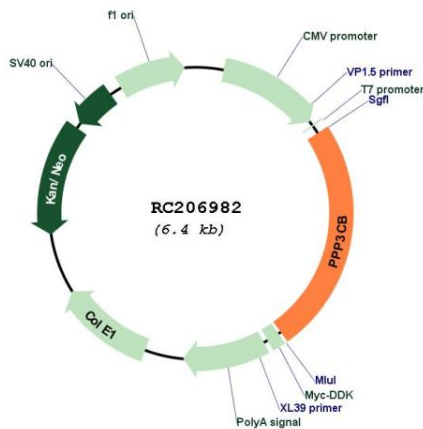
Protein Families: Druggable Genome, Phosphatase, Transcription Factors

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

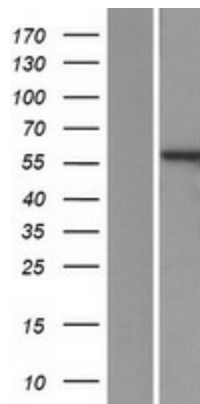
MW: 59.1 kDa

Gene Summary: Calcium-dependent, calmodulin-stimulated protein phosphatase which plays an essential role in the transduction of intracellular Ca(2+)-mediated signals (PubMed: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 RC206982



Western blot validation of overexpression lysate (Cat# [LY412072]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206982 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).