

Product datasheet for **RC227763**

PPP3CB (NM_001142354) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP3CB (NM_001142354) 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:

>RC227763 representing NM_001142354
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGCCCGGAGCCGGCCCGGGCTGCACCGCCCCACCCCGCCCCCGCCGCCCTCCCGGGGCTG
 ACCGCGTCGTCAAAGCTGCCCTTCCCCCAACACATCGCTTGACATCTGAAGAAGTATTTGATTTGGA
 TGGGATACCCAGGGTTGATGTTCTGAAGAACCCTTGGTAAAAGAAGGTCGAGTAGATGAAGAAATTGCG
 CTTAGAATTATCAATGAGGGTGCTGCCATCCTTCGGAGAGAGAAAACCATGATAGAAGTAGAAGCTCCAA
 TCACAGTGTGGTGACATCCATGGCCAATTTTTTATCTGATGAACTTTTTGAAGTAGGAGGATCACC
 TGCTAATACAGTACCTTTTTCTGGCGATTATGTGGACAGAGGTTATTTTAGTATAGAGTGTCTTA
 TATTTATGGGTTCTGAAGATTCTATACCAAGCACATTATTTCTCTGAGAGGCAACCATGAATGCAGAC
 ACCTTACTGAATATTTACCTTTAAGCAGGAATGTAATAAAGTATTCGAAAGAGTCTATGAAGCTTG
 TATGGAAGCTTTGATAGTTGCTCTTGTGCACTTTTAAACCAACAGTTTCTTTGTGTTTCATGGTGGA
 CTTTCACCAGAAAATACACACACTGGATGATATTAGGAGATTAGATAGATTCAAAGAGCCACCTGCATTTG
 GACCAATGTGTGACTTGTATGGTCCGATCCTTCTGAAGATTTTGGAAATGAAAAATCACAGGAACATTT
 TAGTCACAATACAGTTCGAGGATGTTCTTATTTTTATAACTATCCAGCAGTGTGTGAATTTTTGCAAAA
 AATAATTTGTTATCGATTATTAGAGCTCATGAAGCTCAAGATGCAGGCTATAGAATGTACAGAAAAAGTC
 AAACACAGGGTCCCTTCATTAATAACAATTTTTCGGCACCTAATTACTTAGATGTCTACAATAATAA
 AGCTGTGTATTAAGTATGAAAATAATGTGATGAATATTCGACAGTTAACTGTTCTCCACATCCTTAC
 TGGTTGCCTAATTTATGGATGTCTTACGTGGTCTTACCCTTGTGGAGAAAAAGTGACAGAAATGT
 TGGTAAATGTTCTGAGTATTTGCTCTGATGATGAACAAATGACTGAAGGTGAAGCAGTTTGTGATGAGG
 TTCAGCTGCAGCCCGAAAGAAAATCATAAGAAAACAAAATTCGAGCAATTGGCAAGATGGCAAGAGTCTTC
 TCTGTTCTCAGGGAGGAGAGTAAAAGTGTGCTGCACTCAAGGGCCTGACTCCCACAGGGATGTTGCCTA
 GTGGAGTGTAGCTGGAGGACGGCAGACCCTGCAAAGTGAATACGAGGATTCTCTCCACCACATAGAAT
 CTGCAAGTTTTGAAGAGGCAAAGGGTTGGATAGGATCAATGAGAGAATGCCACCTCGAAAGATGCTGTA
 CAGCAAGATGGTTCAATTCTCTGAACACCGCACATGCCACTGAGAACCACGGGACGGGCAACCATACTG
 CCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227763 representing NM_001142354
 Red=Cloning site Green=Tags(s)

MAAPEPARAAPPPPPPPPPGADRNVKAVFPPTHRLTSEEVFDLDGIPRVDVLDKLNHLVKEGRVDEEIA
 LRIINEGAAILRREKTMIEVEAPITVCGDIHQFFDLMLKFEVGGSPANTRYLFLGDYVDRGYFSIECVL
 YLWVWKILYLPSTLFLLRGNHECRHLTEYFTFKQECKIKYSERVYEAAMEAFDSLPLAALLNQQLCVHGG
 LSPEIHTLDDIRRLDRFKEPPAFGPMCDLLWSDPSEDFGNEKSQEHF SHNTVVRGCSYFYNYPAVCEFLQN
 NNLLSIIIRAHEAQDAGYRMYRKSQTTGFPSLITIF SAPNYLDVYNNKAAVLKYENNVNIRQFNCSPPHY
 WLPNFMVDVFTWSLFPVGEKVTEMLVNVLSICSDDELMTEGEDQFDVGSAAARKEIIRNKIRAIGKMARVF
 SVLREESESVLTLKGLTPTGMLPSGVLAGGRQTLQSAIRGFSPPHRICSFEEAKGLDRINERMPPRKDAV
 QQDGFNSLNTAHATENHGTGNHTAQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1147_e06.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001142354

ORF Size: 1545 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_001142354.2](#), [NP_001135826.1](#)

RefSeq ORF: 1548 bp

Locus ID: 5532

UniProt ID: [P16298](#)

Cytogenetics: 10q22.2

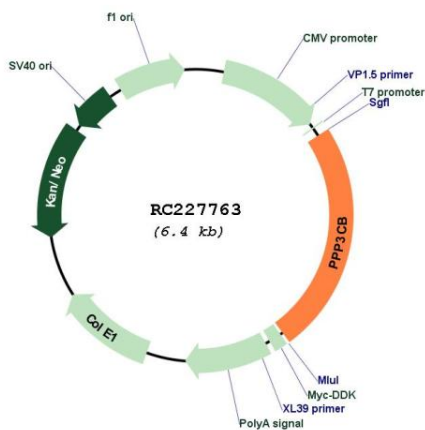
Protein Families: Druggable Genome, Phosphatase, Transcription Factors

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

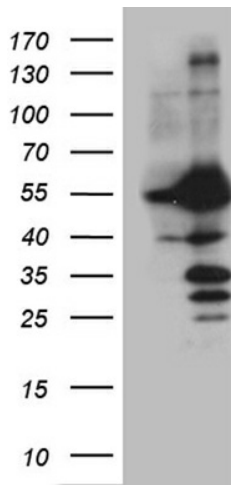
MW: 57.9 kDa

Gene Summary: Calcium-dependent, calmodulin-stimulated protein phosphatase which plays an essential role in the transduction of intracellular Ca²⁺-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]

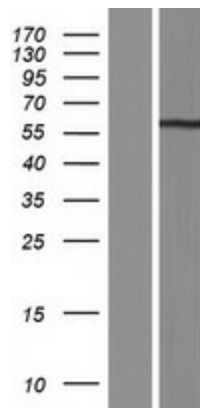
Product images:



Circular map for RC227763



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PPP3CB (Cat# RC227763, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PPP3CB (1:2000) (Cat# [TA809772]). Positive lysates [LY428054] (100ug) and [LC428054] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY428054]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227763 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).