

Product datasheet for **SC310299**

Calcineurin A (PPP3CA) (NM_000944) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calcineurin A (PPP3CA) (NM_000944) Human Untagged Clone
Tag:	Tag Free
Symbol:	Calcineurin A
Synonyms:	ACCIID; CALN; CALNA; CALNA1; CCN1; CNA1; IECEE; IECEE1; PPP2B
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >OriGene sequence for NM_000944 edited
 AGAAAATAAATAAATAACCACCACACACGCGCAGCCCGGAGCGAGTCGGCGGGGCTGGCG
 GCAGCGGCGGAGGAGGAGTGAAGGCGGCGGCGGAGGAGGGACGCGCGGAAAAGGCAG
 CAACTTTAAAGCCAGCTCAGAGCCTAGACCTCCAGCCGAGTGGTTTGCAGCGCGGCGGCG
 GCGGCGGCGGCGGCGGCGGCGGCGGTTGAGTGTCTGGCCCGCCGGTCCGGTCCGGGTGTGC
 AGTCGGACGACGACGACGCGCTCGCTGTCTCCGGCAGCTGGAGATGTCGAGCCCAAG
 GCAATTGATCCCAAGTTGTCGACGACCGACAGGGTGGTAAAAGCTGTTCCATTTCTCCCA
 AGTCACCGGCTTACAGCAAAAAGAAGTGTGGATAATGATGGAAAACCTCGTGTGGATATC
 TTAAGGCGCATCTTATGAAGGAGGGAAGGCTGGAAGAGAGTGTTCATTGAGAATAATA
 ACAGAGGGTGCATCAATTCTTCGACAGGAAAAAATTTGCTGGATATTGATGCGCCAGTC
 ACTGTTTGTGGGACATTCATGGACAATCTTTGATTTGATGAAGCTCTTTGAAGTCGGG
 GGATCTCCTGCCAACACTCGCTACCTCTTCTAGGGGACTATGTTGACAGAGGGTACTTC
 AGTATTGAATGTGTGCTGATTTGTGGCCCTGAAAATCTCTACCCAAAACACTGTTT
 TTAATTCGTGAAATCATGAATGTAGACATCTAACAGAGTATTTACATTTAAACAAGAA
 TGTAATAAAAGTATTCAGAACGCGTATATGATGCCTGTATGGATGCCTTTGACTGCCTT
 CCCTGGCTGCCCTGATGAACCAACAGTTCCTGTGTGTGATGGTGGTTTGTCTCCAGAG
 ATTAACACTTTAGATGATATCAGAAAATTAGACCGATTCAAAGAACCACCTGCATATGGA
 CCTATGTGTGATATCCTGTGGTCAGACCCCTGGAAGATTTTGGAAATGAGAAGACTCAG
 GAACATTTCACTCACAACACAGTCAGGGGGTGTTCATACTTCTACAGTTACCCGGCTGTA
 TGTGAATCTTACAGCACAATAACTTGTATCTATACTCCGAGCCACGAAGCCCAAGAT
 GCAGGGTACCGCATGTACAGGAAAAGCCAAACAACAGGCTTCCCTTCTCTAATTACAATT
 TTTTCAGCACAAATTAAGTGTATACAATAACAAAGCTGCAGTATTGAAGTATGAG
 AACAATGTTATGAATATCAGGCAATCAACTGTTCTCCTCATCCATACTGGCTTCCAAT
 TTCATGGATGTTTTACTTGGTCCCTTCCATTTGTTGGGAAAAAGTACTGAGATGCTG
 GTAATGTCTCAACATCTGCTCAGATGATGAACTAGGGTCAGAAGAAGTGGATTTGAT
 GGTGCAACAGCTGCAGCCCGGAAAGAGGTGATAAGGAACAAGATCCGAGCAATAGGCAAA
 ATGGCCAGAGTGTCTCAGTGCTCAGAGAAGAGAGTGAAGTGTGCTGACGCTGAAAGGC
 TTGACCCCAACTGGCATGCTCCCGAGGAGTACTTTCTGGAGGGAAGCAAAACCTGCAA
 AGCGCTACTGTTGAGGCTATTGAGGCTGATGAAGCTATCAAAGGATTTTACCACAACAT
 AAGATCACTAGCTTCGAGGAAGCCAAGGGCTTAGACCGAATTAATGAGAGGATGCCGCT
 CGCAGAGATGCCATGCCCTGACGCCAACCTTAACTCCATCAACAAGGCTCTCACCTCA
 GAGACTAACGGCACGGACAGCAATGGCAGTAATAGCAGCAATATTCAGTGACCACTTCT
 GTTCACTTT
 TGCATATCAGCAGTTGGATGTTCTTGCCTCTGACAGTAGCTTATTTGCTCTGGGGCCAG
 GAATTGGATTGATTTACTACTATCATAAAAAAGAGGGAGAGAGATAATAAACTATATTT
 TGGTGGGATGGTATTAACACCTCTTTGGGTATGCCTTTAAAAATGCTTATAGAGA
 AAAAAATTTAAAAAGAAAGCTAATGCTAGTATATACTGCAATGTTAGGGGAATGAACA
 TGTTTTCTACTGCATTGGGACTTCTAGATAGGTTAATGAAAGGCTTTTATTCTGTTA
 CTGGACATGAAAACCTTTGCTAATTTCTACTCTATTGTACGTTTACAGTCGCAGCACTA
 AAAATGGATGACATCAAACATTTTAAACAAAATGATGTACAAAATAAGGACTATTTATTG
 ATAATGTTTTGCTACTCTTGTGACACAATGGCTATAAACTGAATTAGGCAGTCTTAAAAA
 AAAAAAAAAA

Restriction Sites: Please inquire
ACCN: NM_000944
Insert Size: 2400 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:	The open reading frame of this clone has been fully sequenced and found to be a perfect match to the protein associated with this reference, NM_000944.3.
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_000944.2 , NP_000935.1
RefSeq Size:	4425 bp
RefSeq ORF:	1566 bp
Locus ID:	5530
UniProt ID:	Q08209
Cytogenetics:	4q24
Domains:	Metallophos, PP2Ac
Protein Families:	Druggable Genome, Phosphatase
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

Gene Summary:

Calcium-dependent, calmodulin-stimulated protein phosphatase which plays an essential role in the transduction of intracellular Ca(2+)-mediated signals (PubMed:15671020, PubMed:18838687, PubMed:19154138, PubMed:23468591). Many of the substrates contain a PxlxIT motif and/or a LxVP motif (PubMed:17498738, PubMed:17502104, PubMed:23468591, PubMed:27974827, PubMed:22343722). In response to increased Ca(2+) levels, dephosphorylates and activates phosphatase SSH1 which results in cofilin dephosphorylation (PubMed:15671020). In response to increased Ca(2+) levels following mitochondrial depolarization, dephosphorylates DNM1L inducing DNM1L translocation to the mitochondrion (PubMed:18838687). Dephosphorylates heat shock protein HSPB1 (By similarity). Dephosphorylates and activates transcription factor NFATC1 (PubMed:19154138). In response to increased Ca(2+) levels, regulates NFAT-mediated transcription probably by dephosphorylating NFAT and promoting its nuclear translocation (PubMed:26248042). Dephosphorylates and inactivates transcription factor ELK1 (PubMed:19154138). Dephosphorylates DARPP32 (PubMed:19154138). May dephosphorylate CRTC2 at 'Ser-171' resulting in CRTC2 dissociation from 14-3-3 proteins (PubMed:30611118).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).