

Product datasheet for **SC325969**

Calcineurin A (PPP3CA) (NM_001130692) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calcineurin A (PPP3CA) (NM_001130692) Human Untagged Clone
Tag:	Tag Free
Symbol:	PPP3CA
Synonyms:	ACCIID; CALN; CALNA; CALNA1; CCN1; CNA1; IECEE; IECEE1; PPP2B
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001130692, the custom clone sequence may differ by one or more nucleotides
Restriction Sites:	Please inquire
ACCN:	NM_001130692
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<u>NM_001130692.1, NP_001124164.1</u>
RefSeq Size:	4520 bp



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RefSeq ORF:	1410 bp
Locus ID:	5530
UniProt ID:	Q08209
Cytogenetics:	4q24
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:	<p>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 DNML1 inducing DNML1 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]</p> <p>Transcript Variant: This variant (3) lacks multiple in-frame exons in the 3' coding region, compared to variant 1, and encodes a shorter protein (isoform 3), compared to isoform 1.</p>