

Product datasheet for **SC319185**

PPP1A (PPP1CA) (NM_002708) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP1A (PPP1CA) (NM_002708) Human Untagged Clone
Tag:	Tag Free
Symbol:	PPP1A
Synonyms:	PP-1A; PP1A; PP1alpha; PPP1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_002708.3
GGCTGCCGGAGGGCGGGAGGCAGGAGCGGGCCAGGAGCTGCTGGGCTGGAGCGGGCGCGC
CGCCATGTCCGACAGCGAGAAGCTCAACCTGGACTCGATCATCGGGCCCTGCTGGAAGT
GCAGGGCTCGCGCCTGGCAAGAATGTACAGCTGACAGAGAACGAGATCCGCGGTCTGTG
CCTGAAATCCCGGGAGATTTTTCTGAGCCAGCCATTCTTCTGGAGCTGGAGGCACCCCT
CAAGATCTGCGGTGACATACACGGCCAGTACTACGACCTTCTGCGACTATTTGAGTATGG
CGGTTTCCCTCCCGAGAGCAACTACCTCTTTCTGGGGACTATGTGGACAGGGGCAAGCA
GTCCTTGGAGACCATCTGCCTGCTGCTGGCCTATAAGATCAAGTACCCCGAGAATTCTT
CCTGCTCCGTGGAAACCAGAGTGTGCCAGCATCAACCGCATCTATGGTTTCTACGATGA
GTGCAAGAGACGCTACAACATCAAACCTGTGAAAACTTCACTGACTGCTTCAACTGCCT
GCCCATCGCGGCATAGTGGACGAAAAGATCTTCTGCTGCCACGGAGGCCTGTCCCGGA
CCTGCAGTCTATGGAGCAGATTCGGCGGATCATGCGGCCACAGATGTGCCTGACCAGGG
CCTGCTGTGTGACCTGCTGTGGTCTGACCCTGACAAGGACGTGCAGGGCTGGGGCGAGAA
CGACCGTGGCGTCTCTTTTACCTTTGGAGCCGAGGTGGTGGCCAAGTTCCACCAAGCA
CGACTTGGACCTCATCTGCCGAGCACACCAGGTGGTAGAAGACGGCTACGAGTTCTTTGC
CAAGCGGCAGCTGGTGAACCTTTCTCAGCTCCCAACTACTGTGGCGAGTTTGACAATGC
TGGCGCCATGATGAGTGTGGACGAGACCCTCATGTGCTCTTTCCAGATCCTCAAGCCCGC
CGACAAGAACAAGGGGAAGTACGGGCAGTTCAGTGGCCTGAACCTGGAGGCCGACCCAT
CACCCACCCCGCAATTCGCCAAAGCCAAGAAATAGCCCGCACACCACCTGTGCC
CAGATGATGGATTGATTGTACAGAAATCATGCTGCCATGCTGGGGGGGGTCAACCCGAC
CCCTCAGGCCACCTGTACGGGAACATGGAGCCTTGGTGTATTTTTCTTTTCTTTTTT
TAATGAATCAATAGCAGCGTCCAGTCCCCAGGGCTGCTTCTGCCTGCACCTGCGGTGA
CTGTGAGCAGGATCCTGGGGCCGAGGCTGCAGCTCAGGGCAACGGCAGGCCAGGTGCTGG
GTCTCCAGCCGTGCTTGGCCTCAGGGCTGGCAGCCGGATCCTGGGGCAACCCATCTGGTC
TCTTGAATAAAGGTCAAAGCTGGATTCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAA



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Restriction Sites:	Please inquire
ACCN:	NM_002708
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:	NM_002708.3 , NP_002699.1
RefSeq Size:	1488 bp
RefSeq ORF:	993 bp
Locus ID:	5499
UniProt ID:	P62136
Cytogenetics:	11q13.2
Domains:	Metallophos, PP2Ac
Protein Families:	Druggable Genome, Phosphatase
Protein Pathways:	Focal adhesion, Insulin signaling pathway, Long-term potentiation, Oocyte meiosis, Regulation of actin cytoskeleton, Vascular smooth muscle contraction

Gene Summary:

The protein encoded by this gene is one of the three catalytic subunits of protein phosphatase 1 (PP1). This broadly expressed gene encodes the alpha subunit of the PP1 complex that associates with over 200 regulatory proteins to form holoenzymes which dephosphorylate their biological targets with high specificity. PP1 is a serine/threonine specific protein phosphatase known to be involved in the regulation of a variety of cellular processes, such as cell division, glycogen metabolism, muscle contractility, protein synthesis, and HIV-1 viral transcription. Increased PP1 activity has been observed in the end stage of heart failure. Studies suggest that PP1 is an important regulator of cardiac function and that PP1 deregulation is implicated in diabetes and multiple types of cancer. Three alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2020]

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