

Product datasheet for **SC127981**

PPP1A (PPP1CA) (NM_001008709) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP1A (PPP1CA) (NM_001008709) Human Untagged Clone
Tag:	Tag Free
Symbol:	PPP1A
Synonyms:	PP-1A; PP1A; PP1alpha; PPP1A
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001008709, the custom clone sequence may differ by one or more nucleotides

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ATGTCCGACAGCGAGAAGCTCAACCTGGACTCGATCATCGGGCGCCTGCTGGAAGGGTCCAGGGTCTGA  
CACCCATTGCGCCCAGTGCAGGGCTCGCGGCCTGGCAAGAATGTACAGCTGACAGAGAACGAGATCCG  
CGGTCTGTGCCTGAAATCCCGGGAGATTTTCTGAGCCAGCCATTCTTCTGGAGCTGGAGGCACCCCTC  
AAGATCTGCGGTGACATACACGGCCAGTACTACGACCTTCTGCGACTATTTGAGTATGGCGGTTCCCTC  
CCGAGAGCAACTACCTCTTTCTGGGGGACTATGTGGACAGGGGCAAGCAGTCCTGGAGACCATCTGCCT  
GCTGCTGGCCTAAGATCAAGTACCCCGAGAACTTCTCCTGCTCCGTGGGAACCACGAGTGTGCCAGC  
ATCAACCGCATCTATGGTTTCTACGATGAGTGCAAGAGACGCTACAACATCAAAGTGGAAAACCTTCA  
CTGACTGCTTCAACTGCCTGCCATCGCGGCCATAGTGGACGAAAAGATCTTCTGCTGCCACGGAGGCC  
GTCCCCGGACCTGCAGTCTATGGAGCAGATTCCGGCGGATCATGCGGCCACAGATGTGCCTGACCAGGGC  
CTGCTGTGTGACCTGCTGTGGTCTGACCCTGACAAGGACGTGCAGGGCTGGGGCGAGAACGACCGTGGCG  
TCTCTTTTACCTTTGGAGCCGAGGTGGTGGCCAAGTTCTCCACAAGCAGACTTGGACCTCATCTGCCG  
AGCACACCAGGTGGTAGAAGACGGCTACGAGTTCTTTGCCAAGCGGCAGCTGGTGACACTTTTCTCAGCT  
CCCAACTACTGTGGCGAGTTTGACAATGCTGGCGCCATGATGAGTGTGGACGAGACCCTCATGTGCTCTT  
TCCAGATCCTCAAGCCC GCCGACAAGAACAAGGGAAGTACGGGCAGTTTCAGTGGCCTGAACCTGGAGG  
CGGACCCATCACCCACCCGCAATTCGCCAAGCCAAGAAATAG
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001008709 unedited
 AACCCACGGGGACNNCCACCCACCCACGCGGTTTCAGATTTGTATACGACTCATATAGGGC
 GCCCGCAAATCGGCACCAGGTCCGACAGCGAGNAACTCAACCTGGACTCGATCATCGGGC
 GCCTGCTGGAAGGGTCCAGGGTCTGACACCCATTGCGCCCCAGTGCAGGGCTCGCGGC
 CTGGCAAAGATGTACAGCTGACAGAGAACGAGATCCGCGGTCTGTGCCTGAAATCCCGG
 AGATTTTTCTGAGCCAGCCATTCTTCTGGAGCTGGAGGCACCCCTCAAGATCTGCGGTG
 ACATACACGGCCAGTACTACGACCTTCTGCGACTATTTGAGTATGGCGGTTTCCCTCCCG
 AGAGCAAACCTACCTTTTCTGCGGGACTATGTGGACAGGGGCAAGCAGTCCTTGGAGACCA
 TCTGCCTGCTGCTGGCCTATAAGATCAAGTACCCCGAGAACTTCTTCTGCTCCGTGGGA
 ACCACGAGTGTGCCAGCATCAACCCGCATCTATGGTTTCTACGATGAGTGCAAGAGACGCT
 ACAACATCAAACGTGGAAAACCTTCACTGACTGCTTCAACTGCCTGCCATCGCGGCCA
 TAGTGGACGAAAAGATCTTCTGCTGCCACGAGGCCTGTCCCGGACCTGCAGTCTATGG
 AGCAGATTCGGCGGATCATGCGGCCACAGATGTGCCTGACCAGNGCCTGCTGTGTGACC
 TGCTGTGGTCTGACCCCTGACAAGACGTGCANGGCTGGGGCGAGAACGACCGTGCCTCTC
 TTTTACCTTTGGAGCCGAGTGGTGGCCAAGTCTCCACAGCAGCATTGGACCTCATCTG
 CCGACACACCAAGTGGTAGAAGACGCCTATGAGGCTTTTGCAAGCGCAGCTGGTGACACT
 TTCTCAGCTCCAACCTACTGTGNCGAGTTTGACAATGCTGGCGCCATGATGATGTGGAC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001008709 unedited
 GAGCACTGGNGGNAGGGGTACAGGGCATGCCACCCGGTACTGTTTCAGGAAACAGCTAT
 GACCGCGCCGCAATCTAGAGCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
 TTTAA
 AAAAAACCAAAGGGTGGCCCCAAAACCCGGGGGCCCCCGGAGGCCAAACCGGGGGGG
 AAACCCAAAACCGGGCCGCGGTTGCCCGGACCTGCACCCCGGCCCCAGGATCCTGGTA
 AAAGCCCCCGGAGGGGCAGGCAAAAAACCCCGGGGGGACGGGCCCCCTTTTGTTC
 TTTAAAAAATAAATCCCCCGGGGCCCTTGTCCCGGAAACAGGGGGCCCGG
 AGGGGCCGGGGGACCCCCCCCCAACAGGGGAGCAGGATTTTGGAAACAAAAACCATCA
 TCGGGGACAGGGGGGGGGGGGGGGGCAATTTTGGGCTTTGGCGAAATTTGGGGGGGG
 GGGGAGGGGCCGCCCCCAGGGTTCAGGCCAATGAACGGCCCGTACTTCCCTTGTTTTT
 GTCGGGGGGCTTGAGGATCTGAAAAACACATGAGGGTCTCCCCACACCCATTAGGGGC
 CCCGCTTTGTCAAACCCCAACAATATTGGGACCTGAAAAAATGCCCCACCTCCCGTT
 TGGAAAAAACTAATAGCCGCTTCAACCCACTGGGGGGCCCGGAAAAAAGGGCCAAAT
 CCGCCTTGGGGAAGAACTGGCCCCCCCCCGGCCCAAGGTAAAAAACCCCGGTTGT
 TCTTCCACACCGGAGTTCTCTGGGAG

Restriction Sites:

NotI-NotI

ACCN:

NM_001008709

Insert Size:

1500 bp

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).

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_001008709.1</u> , <u>NP_001008709.1</u>
RefSeq Size:	1521 bp
RefSeq ORF:	1026 bp
Locus ID:	5499
UniProt ID:	<u>P62136</u>
Cytogenetics:	11q13.2
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:	<p>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]</p> <p>Transcript Variant: This variant (3, also called PP-1 alpha 2) uses an alternate in-frame splice site at the 5' end of an exon compared to variant 1. The resulting isoform (3) has the same N- and C-termini but is longer compared to isoform 1.</p>