

## Product datasheet for **SC127980**

### PPM1A (NM\_177952) Human Untagged Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | PPM1A (NM_177952) Human Untagged Clone  |
| Tag:                      | Tag Free  |
| Symbol:                   | PPM1A   |
| Synonyms:                 | PP2C-ALPHA; PP2CA; PP2Calpha  |
| Mammalian Cell Selection: | None  |
| Vector:                   | <u>pCMV6-XL4</u>  |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| Fully Sequenced ORF:      | >NCBI ORF sequence for NM_177952, the custom clone sequence may differ by one or more nucleotides |

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ATGTTCTGTTCTGGGAGAAAATGGGTAGCAGAAGCTACAATTTGTTACTAAGCTAATGAAAAGAGAGAAAA
GAAGAATGGGGAAGAGAAGGGCAAAGAAGGCCAAAAAGAGAAGAGAAGAAAAAGGGAGGAGAGAGAAGGAG
AAATGAGAAAAGAGGAAACCAAATGAAGAGGATGTGTGAGAGAAAAAATATGAAACAGACCTAGAGGAT
CAAGACATAATGGGAGCATTTTTAGACAAGCCAAAGATGGAAAAGCATAATGCCAGGGGCAGGGTAATG
GGTTGCGATATGGGCTAAGCAGCATGCAAGGCTGGCGTGTGAAATGGAGGATGCACATACGGCTGTGAT
CGGTTTGCCAAGTGGACTTGAATCGTGGTCATTCTTTGCTGTGTATGATGGGCATGCTGGTTCTCAGGTT
GCCAAATACTGCTGTGAGCATTGTTAGATCACATCACCATAACCAGGATTTTAAAGGGTCTGCAGGAG
CACCTTCTGTGGAAAATGTAAGAATGGAATCAGAACAGGTTTTCTGGAGATTGATGAACACATGAGAGT
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CATACTTATTTTACTTAAGTGTGGAGACTCAAGAGGTTTACTTTGTAGGAACAGGAAAAGTTTCTTTCTCA
CACAAGATCACAACCAAGTAATCCGCTGGAGAAAAGAACGAATTCAGAATGCAGGTGGCTCTGTAATGAT
TCAGCGTGTGAATGGCTCTCTGGCTGTATCGAGGGCCCTTGGGGATTTTGATTACAAATGTGTCCATGGA
AAAGGTCCTACTGAGCAGCTTGTCTCACCAGAGCCTGAAGTCCATGATATTGAAAGATCTGAAGAAGATG
ATCAGTTTATTTCCTTGCATGTGATGGTATCTGGGATGTTATGGGAAATGAAGAGCTCTGTGATTTTGT
AAGATCCAGACTTGAAGTCACTGATGACCTTGAGAAAAGTTTGAATGAAGTGTGACACCTGTTTGTAT
AAGGGAAGTTCGAGACAACATGAGTGTGATTTTGTATCTGTTTTTCCAAATGCACCCAAAGTATCGCCAGAAG
CAGTGAAGAAGGAGGCAGAGTTGGACAAGTACCTGGAATGCAGAGTAGAAGAAATCATAAAGAAGCAGGG
GGAAGGCGTCCCGACTTAGTCCATGTGATGCGCACATTAGCGAGTGAGAACATCCCAGCCTCCCACCA
GGGGGTGAATTGGCAAGCAAGAGGAATGTTATTGAAGCCGTTTACAATAGACTGAATCCTTACAAAAATG
ACGACACTGACTTACATCAACAGATGATATGTGGTAA
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|                                     |  |
|-------------------------------------|--|
| <b>5' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 5' read for NM_177952 unedited<br/> TCTCTGCCTCCCTCTCCAACGCCCGGATGATCTGAGCCGCGAGGGCGCCGACAGCCGGGG<br/> GCCCCGACGCAGCCCGGCTCCTCCCCTCCTCCGCCCTTCCCCAGCCTGACCTGGCCCCG<br/> CGCTGCAGCGGTGACCCCTCCCCCGGCTGCCGCGTCCGCCGCGGTGACCCCTCCCC<br/> GGCTGCCGCCGCCGCCCTCGGCCGACCAGGGACCTGCCCGCTGCGGCTGCTCCGGAC<br/> CTAGAGGATCAAGACATAATGGGAGCATTTTGTAGACAAGCCAAAGATGAAAAAGCATAAT<br/> GCCCAGGGGCAGGGTAATGGGTTGCGATATGGGCTAAGCAGCATGCAAGGCTGGCGTGTT<br/> GAAATGGAGGATGCACATACGGCTGTGATCGGTTTGCCAAGTGGACTTGAATCGTGGTCA<br/> TTCTTTGCTGTGTATGATGGGCATGCTGTTTCTCAGGTTGCCAAATACTGCTGTGAGCAT<br/> TTGTTAGATCACATACCAATAACCAGGATTNTAAAGGGTCTGCAGGAGCACCTTCTGTG<br/> GAAAATGTAAAGAATGGAATCAGAACAGGTTNTCTGGGAGATTGATGAACCATGAGAGTT<br/> ATGTCAGAGAGAAACATGGTGCATAGAAGTGGTAACAGCGGAAGGTGTCTAANTTTCT<br/> CCCCACATACTTATTCATTACTGTGAACNNAAGAGGNTACTTGTAGACCCGAAAGTCAT<br/> TNCTCCACAGATACAACCAAGTATCGCTGAGAANGACGATCNNATGCAGTGGCTTGAAT<br/> GATCACGGGGATGCTTCTGTGNNATCAGGCCTTGGGGATTTGATAA</p>  |
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' genomic read for NM_177952 unedited<br/> CATAGATAATGGCGATGGCAACTTCCAGGNCCAGNANGAGCACTGGGNGAGGTCACAGG<br/> GCATGCCACCCGGGCACTGTTCCAGGAAACAGCTATGACCGCGGCCCAATCTAGAGTCGA<br/> GTTTTTTTTTTTTTTTTTTGGTTTGCCAAAGTTCCTTTATTGTGTAATCTTTAACATCTA<br/> GTATATTTGTTCTACATGGTTCTAATGCTGGAAATCTGCTGTACAAAAATAAAGGGATTT<br/> GATGTTTACCTAACTGCACAATTTACAATCTAAAATAATACACTTAACATACAGTCT<br/> CCGCTAAGCCAATACAATATTTGGATAGATACTAGATACAATAGAAATAAACACTGAT<br/> GATAAATTGAATCAATAGTTTCAGGTCTAAAAACATTACCTTGAATCATCTATATTTGA<br/> TGTATCTTACATCTTTTTGTTAAAAATATAAATAGGATATTTAACTGTGAAGAAAATT<br/> ACAGGAAAAAAATTTCTGTAAAAAATAATGTAAAGCTTTAAAAACAGTTAATATCTCC<br/> TGTTCCACGTGGGACAACGCATTTAAACTACCTGACCATTCACTATACTAGCCTTGCT<br/> TCTGTCTGCTTTCAAAAAAGAAAAATAAATGAATTTAAGAAATATTCCTTTAATTTCTG<br/> TTGACCTATACGTTTTACTTAGAATTGTAAAAAGACTGAACGCTTTTTCTAAAGAATATT<br/> TATATATAGGAAGATCCATGTTTCACATACATATACACAAACCCATTCTGCTCCTTTTCC<br/> CTCCCCCACCACCAAGTTTCAGGGGATCCTTCCGTATCTCCAATTTTCCACTTTTAACT<br/> NAGGTGGTCCGTGCCAAAAATTTTGAAATTTTCCCCAAAGTTATTTTA</p> |
| <b>Restriction Sites:</b>           | NotI-NotI  |
| <b>ACCN:</b>                        | NM_177952  |
| <b>Insert Size:</b>                 | 5000 bp  |
| <b>OTI Disclaimer:</b>              | 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).   |
| <b>Components:</b>                  | 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\\_177952.1](#), [NP\\_808821.1](#)

**RefSeq Size:** 8075 bp

**RefSeq ORF:** 1149 bp

**Locus ID:** 5494

**UniProt ID:** [P35813](#)

**Cytogenetics:** 14q23.1

**Protein Families:** Druggable Genome, Phosphatase

**Protein Pathways:** MAPK signaling pathway

**Gene Summary:** The protein encoded by this gene is a member of the PP2C family of Ser/Thr protein phosphatases. PP2C family members are known to be negative regulators of cell stress response pathways. This phosphatase dephosphorylates, and negatively regulates the activities of, MAP kinases and MAP kinase kinases. It has been shown to inhibit the activation of p38 and JNK kinase cascades induced by environmental stresses. This phosphatase can also dephosphorylate cyclin-dependent kinases, and thus may be involved in cell cycle control. Overexpression of this phosphatase is reported to activate the expression of the tumor suppressor gene TP53/p53, which leads to G2/M cell cycle arrest and apoptosis. Three alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (3) has an alternate 5' exon, as compared to variant 1. It encodes isoform 3, which has a distinct and longer N-terminus, as compared to isoform 1.