

## Product datasheet for **SC309898**

### PAPP A (PAPPA) (NM\_002581) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PAPP A (PAPPA) (NM\_002581) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** PAPP A  
**Synonyms:** ASBABP2; DIPLA1; IGFBP-4ase; PAPA; PAPP-A; PAPPA1  
**Mammalian Cell Selection:** None  
**Vector:** pCMV6-XL5  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_002581 edited  
AACCGTCCGACATGCGGCTCTGGAGTTGGGTGCTGCACCTGGGGCTGCTGAGCGCCGCG  
TGGGCTGCGGGCTGGCCGAGCGTCCCCGCGGGCCCGGAGAGACCCGCGGGCCGCGCAG  
CCCCGCGCCCCGCGCCGCGCCGCGCCACCTGCGCCACCCGGGCGGCCCGCGGGCCGCGC  
CCTCGCCGCCGCGCCGCGCCGCGCCGCGGGCGGTGCCTGGGAAGCCGTGCGCGTCCCCCGGC  
GGCGGCAGCAGCGGGAGGCGAGGGGCGCCACCGAGGAGCCGAGCCGCGGAGCCGGGCGC  
TCTATTTTCAGCGGGCAGGCGAGCAGCTGCGCCTCCGGGCGACCTCGAGCTGCCCGGG  
ACGCGTTCACGCTGCAAGTGTGGTGCAGCGGAGGGGGCCAGAGGTCTCCGGCAGTGA  
TCACAGGGCTGTATGACAAATGTTCTTATATCTCACGTGACCGAGGATGGGTCTGGGCA  
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ACCGAGCCCGGCAAGTGACCACCATCAATGCCACCGCAGCTACCTCCCAGGCCAGTGGG  
TATACCTAGCTGCCACCTATGATGGGCAGTTCATGAAGCTCTATGTGAATGGTGCCAGG  
TGCCACCTCTGGGAACAAGTGGGTGGCATATTCAGCCCACTGACCCAGAAGTGCAAAAG  
TGCTCATGTTAGGGGGCAGTGCCCTGAATCACAACCTACCGGGGCTACATCGAGCACTTCA  
GTCTGTGGAAGGTGGCCAGGACTCAGCGGGAGATACTGTCTGACATGGAAACCATGGCG  
CCCACACTGCTCTACCTCAGCTCCTCCTCCAGGAGAACTGGGACAATGTGAAGCATGCCT  
GGTCCCCCATGAAGGATGGCAGCAGCCCCAAAGTGAATTCAGCAATGCCACGGCTTTTC  
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TCATTGCCAGCTACAATCAGCTCTCAAGTTTCCGCCAGCCAAAGTGGTGGTGGCTACCGCG  
TGGTCAACCTCTATGAAGATGATCATAAGAACCAGCGGTGACGCGGAGCAGGTGGACT  
TCCAGCACCATCAGCTGGCTGAGGCCTTCAAGCAATACAACATCTCCTGGGAGCTGGACG  
TGCTGGAGGTGAGCAACTCCTCTCTTCGCCGCGCCTCATCCTGGCCAACTGTGACATCA  
GCAAGATTGGGGATGAGAACTGTGACCCCGAGTGAACACACGCTGACGGGCCACGACG  
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AAATACCAATGTCACTCAGACTTGCTTTGACCCCGACTCTCCACACAGAGCCTACTTGG  
ATGTTAATGAGCTGAAGAACATTCTTAAATTGGATGGATCAACACATCTCAATATTTTCT



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TTGCAAAATCCTCAGAGGAGGAGTTGGCAGGAGTAGCAACTTGGCCATGGGACAAGGAGG  
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 GCTATGCAGATGACGACTGTACGGACTCCTTACGCCCAATCAAGTCGCCAGAATGCAT  
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 ACTATGACGGTGGGGATTGCTGCACCTCCACAGTGAAGACCAAAAAGGTCACCCATTCC  
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 GCCGAAAGACCTCCAGGGATACAGCCATGGCTAAGGAAGGACAAGAAGTTGTCAAAGAA  
 TTCCCAACGCCAGGACCCACATCCCTTTGGTATTGATTTACAGTCAGCTGCTCAACGGA  
 ATGGCCTCTCCACACCAGGGATCCTTAGCACCCAACCGGTCTGCCCTTAATTTTACCAG  
 GAAGGACTCACATTGGGGCGAATGAACCAAGTTTCGCCATGCTGGATGATGAAATGGATT  
 CCCATCCCAAAGTCTGAGATGGATTGCATATACAGTGTGCAAGTCCAGAGCCTCCTAAAA  
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 TCTGTGTTTAGTACACATGCATGCATACACACCCATACAAACATCTGTGTGAGGGCAGTT  
 CTGGAGATGAGCAGAGAGAGACCGGAATAAACTCAATCTTTTCTTTCCCAAGCTCCTAGC  
 CAACACTATCCTTGGGAGAAAGGAATTTGCAGAACTGCTAAGACCAAGTGTGGAGATGT  
 CAAGCTAGTTCACACTCTGAGGCTCAGAATATGTAGGACATGCACAATTGTGCAGTCCTT  
 TGGGATTGGAAGTAAACAGTCTGTGATCCCTACCTTCTAGGGAAGTACCTAGGAA  
 GAGGTAAGATTATCAGGTATGCAAAGCGCCCAATTCTTCTGCTGCCATGGGGATTTT  
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 TCCAGAGACTACTGGAATTGTGAGACTTTTGGATTATTATCCTTATCCTTATCCTAATC  
 TTCTAGCCCTTTCAGGCTAGAGTAGGCTTCGATCCTGAGAACCTTGTGTTGCTCTGAGG  
 AGATATAATTCTGGGAGAAAGAATCTTTTATAAGAACAGTACAGATTGTTCTCAAGAGGG  
 CCATCAGAAGGAAGCCAAAGAGTTCACAGCCTCAGCACCAACAACCTCAACATGGTCATCA  
 TGTTTTCTATATGGTTTTTCCAGCTAGCAGTACTCCCTCCATACCTGTGACTGGGCAGT  
 GCTTTTCTCTCCCATGTCTAGCCTCCAAAAGTTAAGTAAAAATTAGTCAACTGCACGT  
 GGAAGCCCCACCCTTTGGGGATCTCTTTATTTCTTTTTCAGCCAGGGACCTGTCCACTC  
 CCTTTGAATTAATATGGGAAGAAATTAATACAGGATGAACTGGAGAGAAGGGTTGAGTGT  
 GGCATACTTTCTGAAACCTGGAGCTGGGAATTGCGGAGAAGGGAAGGTCTAGACTAGTTA  
 CATCACATAGGGATTACTGTAATCAAGTCATCTCAAGTCTAGTGAAGACAGCCAACAGA  
 AACAAAACCTAGCATAGGGATAGAAAATACCATGCACGTGTGCAGCCCCACCTAATTCCT  
 GCATCCAAGGCAGGTGTTGTTAATCTATCATAGCACCAAAAAAAAAAAAAAAAAA

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_002581

**Insert Size:**

6800 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](mailto: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 ORF of this clone has been fully sequenced and found to contain 2 SNPs compared with NM\_002581.3.

**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:**

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\\_002581.3](#), [NP\\_002572.2](#)

**RefSeq Size:** 11025 bp

**RefSeq ORF:** 4884 bp

**Locus ID:** 5069

**UniProt ID:** [Q13219](#)

**Cytogenetics:** 9q33.1

**Protein Families:** Druggable Genome, Protease, Secreted Protein

**Gene Summary:** This gene encodes a secreted metalloproteinase which cleaves insulin-like growth factor binding proteins (IGFBPs). Following IGFBP cleavage, insulin growth factors dissociate from IGFBPs and bind to IGF receptors, resulting in activation of the IGF pathway. The encoded protein plays a role in bone formation, inflammation, wound healing and female fertility. Enhanced expression of this protein is associated with diabetic nephropathy in human patients and this protein may promote tumor invasion and growth in various human cancers. [provided by RefSeq, Aug 2017]