

Product datasheet for **SC108777**

ENPP1 (NM_006208) Human Untagged Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ENPP1 (NM_006208) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | ENPP1 |
| Synonyms: | ARHR2; COLED; M6S1; NPP1; NPPS; PC-1; PCA1; PDNP1 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL5</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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Fully Sequenced ORF: >NCBI ORF sequence for NM_006208, the custom clone sequence may differ by one or more nucleotides

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ATGGAGCGCGACGGCTGCGCGGGGGCGGGAGCCGCGCGGCGAGGGCGGGCGCGCTCCCCGGGAGGGCC
CGGCGGGGAACGGCCCGATCGGGGCCGACGCCACGCTGCCGAGGCGCCCGGGGACCCGAGCGGCGCCG
GTCCTTGGCTGGCCCTATGGACGTGGGGGAGGAGCCGCTGGAGAAGGCGCGCGCCCGCACTGCCAAG
GACCCCAACACCTATAAAGTACTCTCGCTGGTATTGTCAGTATGTGTGTTAAACAACAATACTGGTTGTA
TATTTGGGTTGAAACCAAGCTGTGCCAAAGAAGTTAAAAGTTGCAAGGTCGCTGTTTCGAGAGAACATT
TGGGAAGTGTGCTGTGATGCTGCCTGTGTTGAGCTTGGAAACTGCTGTTTAGATTACCAGGAGACGTGC
ATAGAACCAGAACATATATGGACTTGAACAAATTCAGGTGTGGTGAGAAAAGGTTGACCAGAAGCCTCT
GTGCTGTTTCAGATGACTGCAAGGACAAGGGCGACTGCTGCATCAACTACAGTTCTGTGTGCAAGGTGA
GAAAAGTTGGGTAGAAGAACCATGTGAGAGCATTAAAGAGCCACAGTGCCAGCAGGGTTTGAACGCCT
CCTACCCTCTTATTTCTTTGGATGGATTACAGGCAGAATATTTACACACTTGGGGTGGACTTCTCCTG
TTATTAGCAAACATAAAAAATGTGGAACATATACTAAAAACATGAGACCGGTATATCCAACAAAACTTT
CCCAATCACTACAGCATTGTCACCGGATTGTATCCAGAATCTCATGGCATAATCGACAATAAAATGTAT
GATCCCAAAATGAATGCTTCCTTTTCACTTAAAAGTAAAGAGAAAATTTAATCCTGAGTGGTACAAAAGGAG
AACCAATTTGGGTACAGCTAAGTATCAAGGCCTCAAGTCTGGCAGATTTTCTGGCCAGGATCAGATGT
GGAAATTAACGGAATTTCCAGACATCTATAAATGTATAATGGTTCAGTACCATTTGAAGAAAGGATT
TTAGCTGTTCTTCAGTGGCTACAGCTTCCTAAAGATGAAAGACCACACTTTTACACTCTGATTTAGAAG
AACCAGATTCTTCAGTCAATTCATATGGACCAGTCAGCAGTGAAGTCATCAAAGCCTTGCAGAGGGTTGA
TGGTATGGTGGTATGCTGATGGATGGTCTGAAAGAGCTGAAGTGCACAGATGCCTGAACCTCATCCTT
ATTTAGATCATGGCATGGAACAAGGCAGTTGTAAGAAATACATATATCTGAATAAATTTGGGGATG
TTAAAAATATTAAGTTATCTATGGACCTCGAGCTCGATTGAGACCCTCTGATGTCCAGATAAATACTA
TTCATTTAACTATGAAGGCATTGCCGAAATCTTTCTTCCGGGAACCAACAGCACTTCAAACCTTAC
CTGAAACATTTCTTACCTAAGCGTTTGCCTTTGCTAAGAGTGATAGAATTGAGCCCTTGACATTCTATT
TGGACCCTCAGTGGCACTTGCATTGAATCCCTCAGAAAGGAAATATTGTGGAAGTGGATTTTATGGCTC
TGACAATGATTTTCAAATATGCAAGCCCTCTTTGTTGGCTATGGACCTGGATTCAAGCATGGCATTGAG
GCTGACACCTTTGAAAACATTGAAGTCTATAACTTAATGTGTGATTTACTGAATTTGACACCGGCTCCTA
ATAACGGAACCTCATGGAAGTCTTAACCACCTTCTAAAGAATCCTGTTTATACGCCAAAGCATCCCAAGA
AGTGCACCCCTGGTACAGTGCCCTTCAACAAGAAACCCAGAGATAACCTTGGTGTCTCATGTAACCTT
TCGATTTTGGCGATTGAGGATTTCAAACACAGTTCATCTGACTGTGGCAGAAGAGAAGATTATTAAGC
ATGAAACTTTACCTATGGAAGACCTAGAGTCTCCAGAAGGAAAACACCATCTGTCTTCTTTCCAGCA
CCAGTTTATGAGTGGATACAGCCAAGACATCTTAATGCCCTTTGGACATCCTATACCGTGGACAGAAAT
GACAGTTTCTCTACGGAAGACTTCTCCAAGTGTGTACCAGGACTTTAGAATTCCTCTTAGTCCTGTCC
ATAAATGTTTATTTATAAAAAAACACCAAAGTGAGTTACGGGTTTCTCTCCCCACCACAATAAATAA
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GTTATATGGCGCTACTTTCATGACACCTACTGCGAAAGTATGCTGAAGAAAGAAATGGTGTCAATGTCG
TCAGTGGTCTGTGTTGACTTTGATTATGATGGACGTTGTGATTCCTTAGAGAATCTGAGGCAAAAAAG
AAGAGTCATCCGTAAACCAAGAAATTTTGATTCCAAGTCACTTCTTTATTGTGCTAACAAGCTGTAAGAT
ACATCTCAGACGCTTTGCACTGTGAAAACCTAGACACCTTAGCTTTTATTTTGCCTCACAGGACTGATA
ACAGCGAGAGCTGTGTCATGGGAAGCATGACTCCTCATGGGTTGAAGAATTGTTAATGTTACACAGAGC
ACGGATCACAGATGTTGAGCACATCACTGGACTCAGCTTCTATCAACAAAGAAAAGAGCCAGTTTCAGAC
ATTTTAAAGTTGAAAACACATTTGCCAACCTTTAGCCAAGAGACTGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_006208 unedited
 GGCTGGGATTTGTAACGACTTATATAGGCGGCCGCGCATTTCGGCACGAGGGCCACGATG
 GTAGCGCGACGGCTGCGCGGGGGCGGGAGCCGCGGGCGAGGGCGGGCGCGCTCCCCG
 GGAGGGCCCGCGGGGAACGCGCCGCGATCGGGGCCGACGCCACGCTGCCGAGGCGCCCG
 GGACCCGACGGCGGCCGCGTCTTGCTGGCCCTTATGGACGTGGGGGAGGAGCCGCTGGA
 GAAGCGGGCGCGCCCGCACTGCCAAGGACCCCAACACCTATAAAGTACTCTCGCTGGT
 ATTGTCAGTATGTGTGTTAACAACTACTTGGTTGTATATTTGGGTTGAAACCAAGCTG
 TGCCAAAGAAGTTAAAAGTTGCAAAGTCGCTGTTTCGAGAGAACATTTGGGAACGTCCG
 CTGTGATGCTGCCTGTGTGAGCTTGAAACTGCTGTTTAGATTACCAGGAGACGTGCAT
 AGAACCAGAACATATATGGACTTGCAACAAATTCAGGTGTGGTGAGAAAAGGTTGACCAG
 AAGCCTCTGTGCCTGTTCAAGTACTGCAAGGACCAGGGCGACTGCTGCATCAACTACAG
 TTCTGTGTGTCAAGGTGAGAAAAGTTGGGTAGAAGAACCATGTGAGAGCATTAAATGAGCC
 ACAGTGCCAGCAGGGTTTGAACGCCTCCTACCCTCTATTTTCTTTGGATGGATTGAG
 GGCAGAATATTTACACACTTGGGGTGGACTTCTCCTGTATTAGCAAATAAANAATG
 TGGAACTATACTANNAACATGAGACCGGTATATCCAACAAAACTTTCCCAATCACTA
 CAGCATTGTCACCGGGATGTATCCAGAATCTCATGGCATAATCGACAATAAATGTATGAT
 CCCAAATGAATGC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_006208 unedited
 AGCTTTGNAACCGCGCCGAATCTANAAGTCGGTTTTTTTTTTTTTTTTTTTGGATTACAAT
 GAAAAGAAATGAACTCCAAGTTAAAAGATATCCAGAACCCTTTAAAATCTCATAAAG
 ATAGTCACATAACATGGGCTACCCCAACCCTACTATAAGTCTACTGTTTGCCCAATGCCA
 TCAAGGTTTATTACCAATAGTAAGAAAGATTCAAATATCTGGTATCCAGACAATGTTTAC
 AGTACTTCTCCTTTAAGAGAAGCAGAAAGGCAGTTTTAGGTGTGGTCTGTCTTTATTCC
 CCCGAACTTGATCAATGTATACAATGCTTACACATTCAAATATGTGCAAGATTCAACAGG
 AACACTCTCCACTGCTGTGCTGAGTACGCAAGTTTCCCTGAGATGCCGATCACCGAGG
 GCTCCGTTCTAACTCTGGTCGACAGTTTCTGAACAATGCAATAGTGTAGCTAGAGGACTA
 TATAAAATATAAGGTTCTCTCAAAAAGATTCATGGTGTGGGGATAAAAAACATATCAG
 TCTTCTTGGCTAAAGGTTGGCAAATGTGTTTTCAACTTTAAAATGTCTGAACTGGCTCT
 TTTCTTTGTTGATAGAAGCTGAGTCCAGTGTGCTCAACATCTGTGATCCGCTGCTCG
 TGTAAACATTAACAATTCTTCAACCCATGAGGAGTCATGCTTCCCATGCACACAGCTCTCG
 CTGTTATCAGTCTGTGAGGCAAAATGAAAGCTAAGGTGTCTTAGGTTTTACAGTGCAA
 AAGCGTCTGAGATGTATNCTTACAGCTTGTAGCACATAAAGAAATGAGTTTGGATCAA
 ATTCTGGTTACGGATGACTCTNCTTTTTTGTCTCAGATCTCTAAGGATCACACGTNCATC
 ATATCAAGTCAAACACAGGACTGACGACATTGACACCATTTCTTTCTCANCTACTTTT
 TCCATAGGGTGTATGAAAGTACGCCT

Restriction Sites:

NotI-NotI

ACCN:

NM_006208

Insert Size:

3160 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 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](#)

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_006208.1](#), [NP_006199.1](#)

RefSeq Size: 7442 bp

RefSeq ORF: 2622 bp

Locus ID: 5167

UniProt ID: [P22413](#)

Cytogenetics: 6q23.2

Domains: SO, Endonuclease, Phosphodiester

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Metabolic pathways, Nicotinate and nicotinamide metabolism, Pantothenate and CoA biosynthesis, Purine metabolism, Riboflavin metabolism, Starch and sucrose metabolism

Gene Summary:

This gene is a member of the ecto-nucleotide pyrophosphatase/phosphodiesterase (ENPP) family. The encoded protein is a type II transmembrane glycoprotein comprising two identical disulfide-bonded subunits. This protein has broad specificity and cleaves a variety of substrates, including phosphodiester bonds of nucleotides and nucleotide sugars and pyrophosphate bonds of nucleotides and nucleotide sugars. This protein may function to hydrolyze nucleoside 5' triphosphates to their corresponding monophosphates and may also hydrolyze diadenosine polyphosphates. Mutations in this gene have been associated with 'idiopathic' infantile arterial calcification, ossification of the posterior longitudinal ligament of the spine (OPLL), and insulin resistance. [provided by RefSeq, Jul 2008]