

## Product datasheet for **SC303479**

### DMP1 (NM\_004407) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DMP1 (NM_004407) Human Untagged Clone
Tag:	Tag Free
Symbol:	DMP1
Synonyms:	ARHP; ARHR; DMP-1
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_004407 edited  
 ATGAAGATCAGCATCCTGCTCATGTTCTTTGGGGATTATCCTGTGCTCTCCCAGTAACC  
 AGGTATCAAAATAATGAATCTGAGGATTCTGAAGAATGGAAGGGTCATTTGGCTCAGGCA  
 CCAACACCACCCTTGGAGAGCAGTGAGTCATCAGAAGGCAGTAAAGTTAGCTCAGAGGAA  
 CAGGCAAATGAAGACCCAGTGACAGCACTCAGTCAGAGGAGGGCCTGGGCTCTGATGAT  
 CATCAATACATTTATAGGCTAGCTGGTGGCTTCTCCAGGAGCACAGGAAAAGGAGGAGAT  
 GATAAAGATGACGATGAAGATGACAGTGGAGATGACACCTTTGGTACGATGACAGTGGC  
 CCAGGGCCCAAAGACAGACAAGAAGGAGGAAACTCCAGACTGGGAAGTATGAGGACTCT  
 GATGACACCATAACAAGCCAGTGAAGAGAGTGCCCCACAAGGGCAAGACAGTGCCCAAGAT  
 ACCACCAGTGAGAGCAGGGAACCTGACAATGAGGACCGGGTGGACAGCAAGCCTGAGGGA  
 GGTGACTCCACTCAAGAGAGTGAGAGTGAAGAGCACTGGGTGGGAGGTGGCAGTGATGGG  
 GAGAGCAGCCATGGAGACGGCTCCGAGTTGGACGATGAGGGAATGCAGAGTGATGACCCA  
 GAGAGCATCAGGAGTGAAGGGGAAACTCCAGAATGAACAGTGCAGGCATGAAATCAAAA  
 GAATCTGGAGAAAACAGTGAGCAAGCAAACTCAAGATTCAGGTGGCAGCCAATTGCTG  
 GAGCATCCAGTAGGAAAATTTTAGGAAGTCTCGCATCTCAGAGGAAGATGACAGAAGC  
 GAGCTTGATGACAACAACAATGGAAGAAGTCAAGAGTGACTCTACAGAAAACAGCAAC  
 TCCAGAGACACTGGCCTCAGCCAACCCAGGAGAGACAGCAAGGGTGACTCTAAGAAGAC  
 AGCAAGGAGAATCTGTCCAGGAAGAGAGCCAAAACGTAGATGGTCCCAGCAGTGAGTCC  
 AGCCAAGAGGCCAACCTGTCATCTCAAGAGAACAGCAGTGAGTCTCAGGAAGAGGTGGTG  
 AGTGAGTCCAGGGGAGATAACCCCGACCCACAAGTATGATGAGAAGACCAGGAAGAC  
 AGTGACTCCAGCGAGGAGACAGCTCGCACACACTCTCCCACTCAAAAAGTGAATCCAGA  
 GAGGAGCAAGCAGACAGCGAATCCAGTGAGAGCCTCAACTTCTCAGAGGAAAGCCCGGAG  
 TCCCCTGAGGATGAGAACAGCTCCAGCCAGGAGGGCCTCCAGTCTCACAGCAGCTCAGCA  
 GAGAGTCAGAGCGAGGAAAGCCATTCTGAGGAAGACGACAGTGACTCTCAAGACAGCAGC  
 AGATCCAAAGAAGATAGCAACTCCACGGAGAGCAAATCAAGCAGTGAGGAAGATGGCCAG  
 TTGAAAAACATTGAGATAGAGAGCCGAAATTAACAGTTGATGCCTATCACAACAAACCC  
 ATTGGGACCAAGATGACAATGACTGCCAAGACGGCTATTAG



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_004407 unedited NAGTCAAATTTGTATACGACTCATATAGGCGGCCGCGNATTCATAAAGATCAGCATCCTG CTCATGTTCCTTTGGGGATTATCCTGTGCTCTCCAGTAACCAGGTATCAAATAATGAA TCTGAGGATTCTGAAGAATGGAAGGGTCATTTGGCTCAGGCACCAACACCACCCTTGGAG AGCAGTGAGTCATCAGAAGGCAGTAAAGTTAGCTCAGAGGAACAGGCAATGAAGACCCC AGTGACAGCACTCAGTCAGAGGAGGGCCTGGGCTCTGATGATCATCAATACATTTATAGG CTAGCTGGTGGCTTCTCCAGGAGCACAGGAAAAGGAGGAGATGATAAAGATGACGATGAA GATGACAGTGGAGATGACACCTTTGGTGACGATGACAGTGGCCAGGGCCAAAGACAGA CAAGAAGGAGGAAACTCCAGACTGGGAAGTGATGAGGACTCTGATGACACCATACAAGCC AGTGAAGAGAGTGCCCCACAAGGGCAAGACAGTGCCCAAGATACCACCAGTGAGAGCAGG GAACTTGACAATGAGGACCGGTGGACAGCAAGCCTGAGGGAGGTGACTCCACTCAAGAG AGTGAGAGTGAAGAGCACTGGGTGGGAGGTGGCAGTGATGGGGAGAGCAGCCATGGAGAC GGTCCGAGTTGGACGATGAGGGAATGCAGAGTGATGACCCAGAGAGCATCAGGAGTGAA AGGGGAAACTCCAGAATGAACAGTGCANGCATGAAATCAAAGAATCTGGAGAAAACAGT GAGCAAGCAAACACTNCAGATTCANGTGGCAGCCAATTGCTGGAGCATCCAGTNNAGAA TNTTTTAGNAGTCTCGCATCTCAGAGGAAGAGACAGAAGCGAGCTTGATGACCNACANN CATGGAAGAAAAGTCAGAT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_004407
<b>Insert Size:</b>	1500 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>OTI Annotation:</b>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_004407.1</a> , <a href="#">NP_004398.1</a>
<b>RefSeq Size:</b>	2682 bp
<b>RefSeq ORF:</b>	1542 bp
<b>Locus ID:</b>	1758
<b>UniProt ID:</b>	<a href="#">Q13316</a>
<b>Cytogenetics:</b>	4q22.1

**Protein Families:** Secreted Protein

**Gene Summary:** Dentin matrix acidic phosphoprotein is an extracellular matrix protein and a member of the small integrin binding ligand N-linked glycoprotein family. This protein, which is critical for proper mineralization of bone and dentin, is present in diverse cells of bone and tooth tissues. The protein contains a large number of acidic domains, multiple phosphorylation sites, a functional arg-gly-asp cell attachment sequence, and a DNA binding domain. In undifferentiated osteoblasts it is primarily a nuclear protein that regulates the expression of osteoblast-specific genes. During osteoblast maturation the protein becomes phosphorylated and is exported to the extracellular matrix, where it orchestrates mineralized matrix formation. Mutations in the gene are known to cause autosomal recessive hypophosphatemia, a disease that manifests as rickets and osteomalacia. The gene structure is conserved in mammals. Two transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The extent of this transcript is supported by transcript alignments and data in PMID:15108359.