

Product datasheet for **RC222208**

DMP1 (NM_001079911) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DMP1 (NM_001079911) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DMP1
Synonyms:	ARHP; ARHR; DMP-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC22208 representing NM_001079911
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGATCAGCATCCTGCTCATGTTCTTTGGGATTATCCTGTGCTCTCCAGTAACCCAGGTATCAAA
 ATAATGAATCTGAGGATTCTGAAGAATGAAGGGTCATTTGGCTCAGGCACCAACCACCCTTGGCAAA
 TGAAGACCCAGTGACTGCACTCAGTCAGAGGAGGCCTGGGCTCTGATGATCATCAATACATTTATAGG
 CTAGCTGGTGGCTTCTCCAGGAGCACAGGAAAAGGAGGAGATGATAAAGATGACGATGAAGATGACAGTG
 GAGATGACACCTTTGGTACGATGACAGTGGCCAGGGCCAAAGACAGACAAGAAGGAGGAAAACCCAG
 ACTGGGAAGTGATGAGGACTCTGATGACACCATAACAAGCCAGTGAAGAGAGTGCCCCACAAGGGCAAGAC
 AGTGCCCAAGATACCACCAGTGAGAGCAGGGAACCTTGACAATGAGGACCGGGTGGACAGCAAGCCTGAGG
 GAGGTGACTCCACTCAAGAGAGTGAGAGTGAAGAGCACTGGGTGGGAGGTGGCAGTGATGGGGAGAGCAG
 CCATGGAGACGGCTCCGAGTTGGACGATGAGGGAATGCAGAGTGTGACCCAGAGAGCATCAGGAGTGAA
 AGGGGAAACTCCAGAATGAACAGTGCAGGCATGAAATCAAAGAATCTGGAGAAAACAGTGAGCAAGCAA
 ACACTCAAGATTCAGGTGGCAGCAATTGCTGGAGCATCCAGTAGGAAAATTTTAGGAAGTCTCGCAT
 CTCAGAGGAAGATGACAGAAGCGAGCTTGTGACAACAACAATGGAAGAAGTCAAGAGTGACTCTACA
 GAAAACAGCAACTCCAGAGACTGGCCTCAGCCAACCCAGGAGAGACAGCAAGGGTGACTCTCAAGAAG
 ACAGCAAGGAGAATCTGTCCAGGAAGAGAGCCAAAACGTAGATGGTCCCAGCAGTGAGTCCAGCCAAGA
 GGCCAACCTGTCTCAAGAGAACAGCAGTGAGTCTCAGGAAGAGGTGGTGAGTGAGTCCAGGGGAGAT
 AACCCCGACCCCACTAGTTATGTAGAAGACCAGGAAGACAGTGACTCCAGCGAGGAGGACAGCTCGC
 ACACACTCTCCACTCAAAAAGTGAATCCAGAGAGGAGCAAGCAGACAGCGAATCCAGTGAGAGCTCAA
 CTTCTCAGAGGAAAGCCCGGAGTCCCTGAGGATGAGAACAGCTCCAGCCAGGAGGGCCTCCAGTCTCAC
 AGCAGCTCAGCAGAGAGTCAAGAGGAGAAAGCCATTCTGAGGAAGACGACAGTGACTCTCAAGACAGCA
 GCAGATCCAAAGAAGATAGCAACTCCACGGAGAGCAAATCAAGCAGTGAGGAAGATGGCCAGTTGAAAAA
 CATTGAGATAGAGAGCCGAAATTAACAGTTGATGCCTATCACAACAACCCATTGGGGACCAAGATGAC
 AATGACTGCCAAGACGGCTAT

**ACGGTACGGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>RC22208 representing NM_001079911
 Red=Cloning site Green=Tags(s)

MKISILLMFLWGLSCALPVTRYQNNESSEWKGHLAQAPTPPLANEDPSDCTQSEELGSDDHQYIYR
 LAGGFSRSTGKGGDDKDDDEDDSGDDTFGDDDSGPGPKDRQEGGNSRLGSEDESDDTIQASEESAPQGQD
 SAQDTTSESRELDNEDRVDSKPEGDDSTQSESEEHVWGGSDGESSHGDGSELDEEGMQSDDPESIRSE
 RGNRSMNSAGMKSKESENSEQANTQDSGGSQLEHPSRKIFRKSRISEEDDRSELDDNNTMEEVKSDST
 ENSNSRDTGLSQPRRDSKGSQEDSKENLSQEESQNVDPSPSESSQEANLSSQENSSESQEEVVSERGD
 NPDPTTSYVEDQEDSDSSEEDSSHTLSHKSSESREEQADSESSSLNFSEESPEPEDENSSSQEGLQSH
 SSSAESQSEESHSEEDSDSQSSRSKEDSNSTESKSSSEEDGQLKNIEIESRKLTVDAYHNKPIGDQDD
 NDCQDGY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6707_d01.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001079911

ORF Size: 1491 bp

OTI Disclaimer: 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: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001079911.3](#)

RefSeq Size: 2631 bp

RefSeq ORF: 1494 bp

Locus ID: 1758

UniProt ID: [Q13316](#)

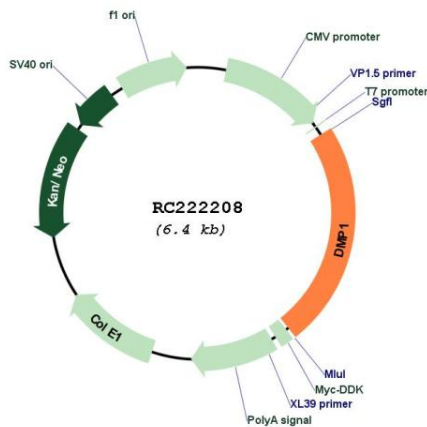
Cytogenetics: 4q22.1

Protein Families: Secreted Protein

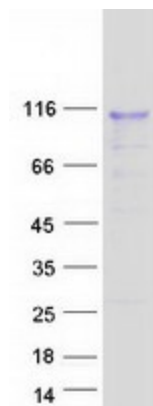
MW: 54.13 kDa

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]

Product images:



Circular map for RC222208



Coomassie blue staining of purified DMP1 protein (Cat# [TP322208]). The protein was produced from HEK293T cells transfected with DMP1 cDNA clone (Cat# RC222208) using MegaTran 2.0 (Cat# [TT210002]).