

Product datasheet for **RG218741**

DMP1 (NM_004407) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DMP1 (NM_004407) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DMP1
Synonyms:	ARHP; ARHR; DMP-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG218741 representing NM_004407
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGATCAGCATCCTGCTCATGTTCTTTGGGATTATCCTGTGCTCTCCAGTAACCCAGGTATCAAA
 ATAATGAATCTGAGGATTCTGAAGAATGGAAGGTCATTTGGCTCAGGCACCAACACCACCTTGGAGAG
 CAGTGAGTCATCAGAAGGCAGTAAAGTTAGCTCAGAGGAACAGGCAAATGAAGACCCAGTGACAGCACT
 CAGTCAGAGGAGGGCCTGGGCTCTGATGATCATCAATACATTTATAGGCTAGCTGGTGGCTTCTCCAGGA
 GCACAGGAAAAGGAGGAGATGATAAAGATGACGATGAAGATGACAGTGGAGATGACACCTTTGGTACGA
 TGACAGTGGCCAGGGCCAAAGACAGACAAGAAGGAGGAACTCCAGACTGGGAAGTGTGAGGACTCT
 GATGACACCATAAAGCCAGTGAAGAGAGTGCCCCACAAGGGCAAGACAGTGCCCAAGATACCACCAGTG
 AGAGCAGGGAACCTTGACAATGAGGACCGGGTGGACAGCAAGCCTGAGGGAGGTGACTCCACTCAAGAGAG
 TGAGAGTGAAGAGCACTGGTGGGAGGTGGCAGTGTGGGGAGAGCAGCCATGGAGACGGCTCCGAGTTG
 GACGATGAGGGAATGCAGAGTGTGACCCAGAGAGCATCAGGAGTGAAAGGGGAACTCCAGAATGAACA
 GTGCAGGCATGAAATCAAAGAATCTGGAGAAAACAGTGAGCAAGCAAACACTCAAGATTCAGGTGGCAG
 CCAATTGCTGGAGCATCCAGTAGGAAAATTTTTAGGAAGTCTCGCATCTCAGAGGAAGATGACAGAAGC
 GAGCTTGATGACAACAACACAATGGAAGAAGTCAAGAGTACTCTACAGAAAACGCAACTCCAGAGACA
 CTGGCCTCAGCCAACCCAGGAGAGACAGCAAGGGTACTCTCAAGAAGACAGCAAGGAGAATCTGTCCCA
 GGAAGAGAGCCAAAACGTAGATGGTCCCAGCAGTGAGTCCAGCCAAGAGGCCAACCTGTCTCAAGAG
 AACAGCAGTGAGTCTCAGGAAGAGGTGGTGTGAGTCCAGGGGAGATAACCCCGACCCCAACTAGTT
 ATGTAGAAGACCAGGAAGACAGTACTCCAGCGAGGAGGACAGCTCGCACACTCTCCCACTCAAAAAG
 TGAATCCAGAGAGGAGCAAGCAGACAGCAATCCAGTGTGAGAGCCTCAACTTCTCAGAGGAAAGCCGGAG
 TCCCTGAGGATGAGAACAGCTCCAGCCAGGAGGGCCTCCAGTCTCACAGCAGCTCAGCAGAGAGTCA
 GCGAGGAAAGCCATTCTGAGGAAGACGACAGTACTCTCAAGACAGCAGCAGATCCAAAGAAGATAGCAA
 CTCCACGGAGAGCAAATCAAGCAGTGTGAGGAAGTGGCCAGTTGAAAAACATTGAGATAGAGAGCCGGAAA
 TTAACAGTTGATGCCTATCACAAACCCATTGGGGACCAAGATGACAATGACTGCCAAGACGGCTAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

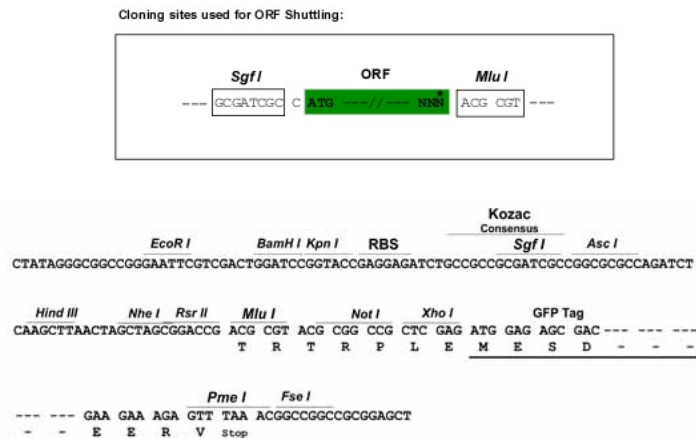
>RG218741 representing NM_004407
 Red=Cloning site Green=Tags(s)

MKISILLMFLWGLSCALPVTRYQNESEDSEEWKGHLAQAPTPPLESSESSEGSKVSSEEQANEDPSDST
 QSEEGLSDDHQYIYRLAGGFSRSTGKGGDDKDDDEDDSGDDTFGDDDSGPGKDRQEGGNSRLGSDSDS
 DDTIQASEESAPQGQDSAQDTTSESRELDNEDRVDSKPEGGDSTQESESEEHVWGGGSDGESSHGDGSEL
 DDEGMQSDDPESIRSERGNMNSAGMKSKESGENSEQANTQDSGGSQLEHPSRKIFRKSRISEEDDRS
 ELDDNNTMEEVKSSTENSNSRDTGLSQPRRDSKGSQEDSKENLSQEE SQNVDPSPSESSQEANLSSQE
 NSSSESQEEVVSERGNPDPTTSYVEDQEDSDSSEEDSSHTLSHKSSESREEQADSESSSLNFSEESPE
 SPEDENSSSQEGLQSHSSAESQSEESHSEEDSDSQDSSRSKEDSNSTESKSSSEEDGQLKNIEIESRK
 LTVDAYHNKPIGDQDDNDCQDGY

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_004407

ORF Size: 1539 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_004407.4](#)

RefSeq Size: 2682 bp

RefSeq ORF: 1542 bp

Locus ID: 1758

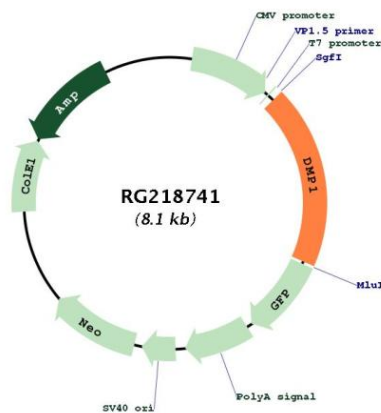
UniProt ID: [Q13316](#)

Cytogenetics: 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]

Product images:



Circular map for RG218741