

## Product datasheet for **MR221826**

### **Dmp1 (NM\_016779) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dmp1 (NM_016779) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dmp1
Synonyms:	AG1; AV020965; Dmp; DMP-1; PP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR221826 representing NM\_016779  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGACTGTCAATTCTCCTTGTGTTCTTTGGGGCTGTCTGTGCTCTCCAGTTGCCAGATACCACA  
 ATACTGAATCTGAAAGCTCTGAAGAGAGGACGGGTGATTTGGCTGGGTACCACCACCACCACGAACAG  
 TGAGTCATCAGAAGAAAGTCAAGCTAGCCAGAGGGACAGGCAAATAGTGACCACACGGACAGCAGTGAA  
 TCTGGAGAGGAGCTGGGCTACGACAGAGGCCAGTACAGACCGGCTGGTGGACTCTCTAAGAGTACGGGA  
 CCGGCGCCGATAAGGAGGATGATGAAGACGACAGTGGAGATGATACCTTTGGCGATGAGGACAATGATCT  
 AGGGCCCGAAGAAGGACAGTGGGAGGACCCTCCAACTGGACAGTGTGAGGACTCCACAGACACCACA  
 CAGTCCAGTGAAGACAGCACCTCTCAAGAAAACAGTGCCCAAGATACCCCGACGACAGCAAAGACCAG  
 ACAGTGAAGTGAAGACAGCACCTCTCAAGAAAACAGTGCCCAAGATACCCCGACGACAGCAAAGACCAG  
 GCGGGTGGGAGGTGGCAGCGAGGGGAGAGTAGCCACGGGGACGGTTCTGAGTTCGATGATGAAGGGATG  
 CAGAGCGACACCCCGAGAGTACCAGGAGCGATCGAGGCCACGCCAGAATGAGCAGCGCTGGTATCAGGT  
 CGGAAGAATCTAAAGGGGACCACGAGCCACGAGCACTCAGGATTCAGATGACAGCCAGTCTGTGGAATT  
 TTCAAGCAGGAAGTCTTTCAGAAGTCCCACGTCTCTGAGGAAGACTACAGAGGTGAGCTTACTGACAGC  
 AACAGCAGGAAACCCAGAGCGACTCCACGGAGGATACGGCTCCAAGGAGGAAAGCAGGAGCGAGTCTC  
 AGGAGGACACAGCCGAGAGCCAGTCCCAGGAAGATAGCCAGAGGGGCAAGACCCAGCAGTGAAGTCCAG  
 CGAAGAGGCTGGTGAAGCATCCCAGGAAAGCAGCAGCGAATCTCAGGAAGGGTGACCAGCGAGTCCAGG  
 GGTGACAACCCAGATAACACAAGTCAGGCAGGAGACCAAGAAGACAGTGAAGTCCAGTGAAGGAGCAGCC  
 TGAACACATTCTCAGCTCAGAAAAGCCAGTCCACCGAGGAGCAAGCTGACAGCGAGTCCAACGAGAGCT  
 CAGCCTCTCCGAGGAGAGTCAGGAGTCGGCCAGGATGGTGACAGCTCCAGCCAGGAAGGCCTGCAGTCC  
 CAGAGCGCATCCACTGAGAGCAGGAGCCAGGAGAGCCAGTCTGAGCAGGACAGCCGTTCTGAGGAAGACA  
 GTGACTCTCAGGACAGTAGCCGATCCAAAGAAGAGAGCAACTCCACAGGGAGCGCTTCCAGCAGCGAGGA  
 GGACATCCGTCCCAAGAACATGGAAGCTGACAGTAGGAAACTAATAGTTGATGCTTACCACAACAAACCC  
 ATCGGGGACCAAGATGACAATGACTGTCAGGACGGCTAC

**ACCGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT**  
**ACAAGGATGACGACGATAAGGTTTAA**

**Protein Sequence:**

>MR221826 representing NM\_016779  
 Red=Cloning site Green=Tags(s)

MKTVILLVFLWGLSCALPVARYHNTESESEERTGDLAGSPPPTNSESSEESQASPEGQANS DHTDSSE  
 SGEELGYDRGQYRPAGGLSKSTGTGADKEDDEDDSGDDTFGDEDNLDGPEEGQWGGPSKLDSDSDTDTT  
 QSSEDSTSQENSAQDTPSDSKDHDSEDEADSRPEAGDSTQDSEEEQRVGGGSEGESHHGDGSEFDDEGM  
 QSDDPSTRSDRGHARMSSAGIRSEESKGDHEPTSTQSDDSQSVEFSSRKSFRSHVSEEDYRGELTDS  
 NSRETQSDSTEDTASKEESRSESQEDTAESQSQEDSPEGQDPSESSEEEAGEPSQESSESQEGVTSESR  
 GDNPDNTSQAGDQEDSESSEEDSLNTESSSESQSTEEQADSESNESLSLSEESQESAQDGDSSSQEGLQS  
 QSASTESRSQESQSEQDSRSEEDSDSQQSSRSKEESNSTGSASSSEEDIRPKNMEADSRKLIVDAYHNKP  
 IGDQDDNDCQDGY

**TRTRPLEQKLI SEEDLAANDILDYKDDDDKV**

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9007\\_b12.zip](https://cdn.origene.com/chromatograms/mm9007_b12.zip)

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_016779

ORF Size: 1509 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\\_016779.2](#), [NP\\_058059.2](#)

RefSeq Size: 2760 bp

RefSeq ORF: 1512 bp

Locus ID: 13406

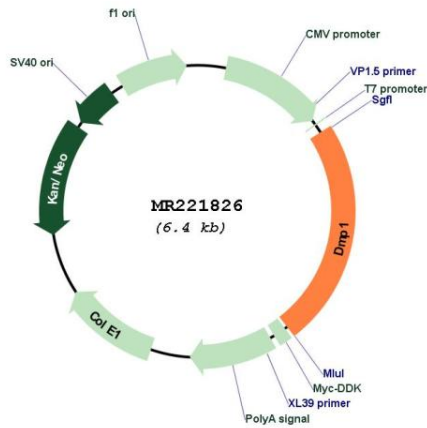
UniProt ID: [O55188](#)

Cytogenetics: 5 50.61 cM

**MW:** 54.4 kDa

**Gene Summary:** May have a dual function during osteoblast differentiation. In the nucleus of undifferentiated osteoblasts, unphosphorylated form acts as a transcriptional component for activation of osteoblast-specific genes like osteocalcin. During the osteoblast to osteocyte transition phase it is phosphorylated and exported into the extracellular matrix, where it regulates nucleation of hydroxyapatite (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR221826