

## Product datasheet for MR205599

### Plod1 (BC010268) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Plod1 (BC010268) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Plod1
Synonyms:	Plod, LH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205599 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCGCAGACCTGTGCCGTCAGGACCAAACCTGCACCTACTACTTCAGTGTGGATGCTGATGTGGCTC  
TGACGGAGCCGAACAGCCTAAGGCTCCTGATTGAACAAAACAAGAATGTCATTGCGCCACTCATGACCCG  
CCACGGGAGGCTCTGGTCCAACCTTTGGGGGGTCTGAGTGCAGATGGTACTACGCCCGCTCAGAGGAC  
TACGTGGACATTGTGCAGGGCCGTCGTGTGGCGTCTGGAACGTGCCTTACATCTCAAACATCTACCTGA  
TCAAGGGCAGTGCCTGCGGGCTGAAGTGCAGAACGTAGACCTTTCCACTACAGCAAGCTGGATTCCGA  
CATGAGTTTCTGCGCCAATGTCCGACAGCAGGAGGTTCATGTTCCCTGACCAACCGGCACACCTTTGGC  
CACCTGCTTCCCTGGATAACTACCAGACCACCCACCTACATAATGATCTCTGGGAGGTGTTTCAGCAACC  
CTGAGGACTGGAAAGAAAAGTACATCCATGAGAATTACACCAAGGCCCTGGCGGGGAAGCTGGTGGAGAC  
GCCTTGTCCGGATGTCTACTGGTTCATCTTCCACGGAGGCGGCTGTGATGAGCTGGTGGAGGAGATG  
GAACACTATGGCCAGTGGTCTCTGGGTGATAATAAGGACAACCGGATCCAGGGTGGCTACGAAAACGTGC  
CCACTATCGACATCCATATGAACCAGATCACCTTCGAGCGGGAGTGGCACAAGTTCTGGTGGAGTACAT  
CGCCCCATGACAGAGAAGCTGTACCCTGGCTACTACACTAGGGCCAGTTTGATCTAGCCTTTGTCGTC  
CGCTATAAGCCTGATGAGCAGCCTTCCTTGATGCCCCACCATGACGCCTCTACCTCACCCTCAACATAG  
CCCTGAACAGGGTTGGGGAAGATTATGAGGGCGGAGGTTGCCGATTTCTGCGCTACAACCTGCTCCGTGAG  
GGCACCAGGAAGGGCTGGGCCCTCCTGCACCCCGGGCGGCTCACACACTATCATGAGGGCTTCTACT  
ACCAAGGGCACGCGCTACATTGCTGTGCTTTCGTCGATCCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205599 protein sequence  
Red=Cloning site Green=Tags(s)

MGADLCRQDQTCTYYFSVDADVALTEPNSLRLLIEQNKVIAPLMTRHGRLWSNFWGGLSADGYYARSED  
 YVDIVQGRRVGVWVNPYISNIYLKGSALRAELQNVDLFHYSKLDSDMSFCANVRQQEVMFLTNRHTFG  
 HLLSLDNYQTTHLHNDLWEVFSNPEDWKEKYIHENYTKALAGKL VETPCPDVYWFPIFTEAACDELVEEM  
 EHYGQWSLGDNDKNDRIQGGYENVPTIDIHMNQITFEREWHKFLVEYIAPMTEKLYPGYYTRAQFDLAFVV  
 RYKPEQPSLMPHHDASTFTVNIALNRVGEDYEGGGCRFLRYNCSYRAPRKGWALLHPGRLTHYHEGLPT  
 TKGTRYIAVSFVDP

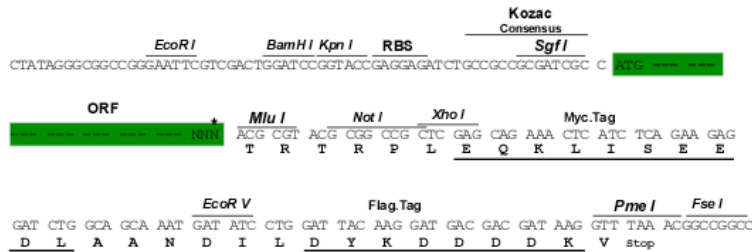
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** BC010268

**ORF Size:** 1092 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:** [BC010268](#), [AAH10268](#)

**RefSeq Size:** 1903 bp

**RefSeq ORF:** 1094 bp

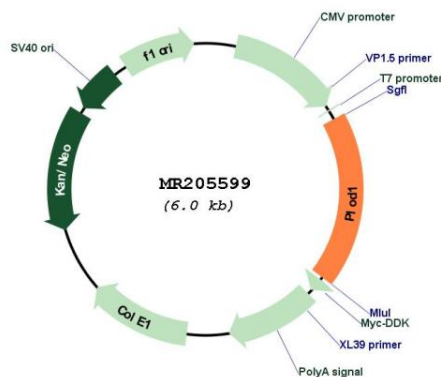
**Locus ID:** 18822

**Cytogenetics:** 4 78.57 cM

**MW:** 42.3 kDa

**Gene Summary:** Part of a complex composed of PLOD1, P3H3 and P3H4 that catalyzes hydroxylation of lysine residues in collagen alpha chains and is required for normal assembly and cross-linking of collagen fibrils (PubMed:27119146). Forms hydroxylysine residues in -Xaa-Lys-Gly- sequences in collagens (By similarity). These hydroxylysines serve as sites of attachment for carbohydrate units and are essential for the stability of the intermolecular collagen cross-links (PubMed:27119146).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR205599