

## Product datasheet for **MG210322**

### Plod1 (NM\_011122) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Plod1 (NM_011122) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Plod1
Synonyms:	2410042F05Rik; AI854890; AV007929; Lh1; Plod
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>MG210322 representing NM\_011122  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCGGTCCCTGTGCTCCTGGCCCCGTTGGCCTGGCTTCTTCTGGTCCAGGCGAAGGATGACGCCAAGC  
 TAGAGGACAACCTTCTGGTCTCACTGTGGCCACAAAAGAGACTGAGGGCTTCCGCCGCTTCAAGCGTTC  
 AGCTCAGTTCTTCAACTACAAGATCCAGTCACTGGGCCTGGGGGAGGACTGGAGTGTGGATGGAGGACCA  
 GCAGCAGCAGGTGGAGGACAGAAGGTTCCGGCTGTGAAGAAGGCACTGGAAAAGCACGCAGACAAGGAAG  
 ACCTGGTTATTCTTTCGTTGACAGTTATGACGTGGTGTTCCTCGGGACCCCGGGAACCTTAAAGAA  
 GTTCCAGCAGGCCAAGAGCCAGGTGGTCTTCTCCGCAGAGGAGCATATCTACCCGGACCCGGAGGCTGGAG  
 GCCAAGTATCCACAGTCCCGACGGCAAGCGGTTCTGGGCTCTGGAGGCTTCATTGGTTATGCCCCCA  
 GCCTCAGCAAACCTGGTGGCCGAGTGGGAAGGCCAGGACAGTGACAGCGACCAGCTCTTTTATACCAAGAT  
 CTTCTTGAACCCGAGAAGAGGGAGCAAATCAATATCAGCCTGGACCATCGCTGCCGAATCTTCCAGAAC  
 CTGGATGGAGCCTTGGATGAAGTTGTGCTCAAGTTTGAATGGGCCACGTGAGAGCACGAAATCTGGCCT  
 ATGACACCCTCCCAAGTGGTCTCATGGCAATGGGCCACCAAGCTGCAGCTGAACCTACCTGGGCAACTA  
 CATTCTCGATTCTGGACCTTCGAGACGGGCTGCACCGTGTGTGACGAGGGCCTACGGAGCCTCAAGGGC  
 ATGGGGATGAAGCTCTCCCACTGTCTGGTCCGGTGTGTTTCATTGAGCAGCCCACACCATTTCTATCCT  
 TGTTTTCTGCGGCTGTGCGCTACGATACCCTCAGAAACAGATGCGGCTCTTCAATCACAACCAGGA  
 ACGGCACCACAACTTACAGTAGAGCAGTTCCTGGCGGACACGGCAGTGAGTACCAGTCTGTGAAGCTA  
 GTGGTCTGAGGTGCGCATGGCCAACGCCGACCCAGGAACATGGGCGCAGACCTGTGCCGTGAGGACC  
 AAACCTGCACCTACTACTTCAGTGTGGATGCTGATGTGGCTCTGACGGAGCCGAACACCTAAGGCTCCT  
 GATTGAACAAAACAAGAATGTCATTGCGCACTCATGACCCGCCACGGGAGGCTCTGGTCCAACCTCTGG  
 GGGGTCTGAGTGCAGATGGTACTACGCCGCTCAGAGGACTACGTGGACATTGTGCAGGGCCGTCGTG  
 TTGGCTCTGGAACGTGCCTTACATCTCAAACATCTACCTGATCAAGGGCAGTGCCTGCGGGCTGAACT  
 GCAGAACGTAGACCTTTTCCACTACAGCAAGCTGGATTCCGACATGAGTTTCTGCGCCAATGTCCGACAG  
 CAGGAGGTGTTTCATGTTCTGACCAACCGGCACACCTTTGGCCACCTGCTTCCCTGGATAACTACCAGA  
 CCACCCACCTACATAATGATCTCTGGGAGGTGTTGAGCAACCTGAGGACTGGAAAGAAAAGTACATCCA  
 TGAGAATTACACCAAGGCCCTGGCGGGGAAGCTGGTGGAGACGCCTTGCCGGATGTCTACTGGTCCCC  
 ATCTTACGGAGGCGGCCTGTGATGAGCTGGTGGAGGAGATGGAACACTATGGCCAGTGGTCTCTGGGTG  
 ATAATAAGGACAACCGGATCCAGGGTGGCTACGAAAACGTGCCCACTATCGACATCCATATGAACAGAT  
 CACCTTCGAGCGGGAGTGGCACAAGTTCCTGGTGGAGTACATCGCCCCATGACAGAGAAGCTGTACCCCT  
 GGCTACTACACTAGGGCCAGTTTATGATCTAGCCTTCGTCGTCGCTATAAGCCCGATGAGCAGCCTTCT  
 TGATGCCCCACATGACGCCTCTACCTTACCCTCAACATAGCCCTGAACAGGGTGGGGGAAGATTATGA  
 GGGCGGAGGTTGCCGATTTCTGCGCTACAACCTGCTCCGTGAGGGCACCAAGGAAGGGCTGGGCCCTCTG  
 CACCCCGGGCGGCTCACACTATCACGAGGGGCTTCTACTACCAAGGGCACGGCTACATTGCTGTGT  
 CTTTCGTCGATCCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG210322 representing NM\_011122  
Red=Cloning site Green=Tags(s)

```
MRSLLLLAPLAWLLLVAQKDDAKLEDNLLVLTVAKETEGFRFRKRSQAFFNYKIQSLGLGEDWSVDGGP
AAAGGGQKVRLLKKALEKHADKEDLVILFVDSYDVVFASGPPELLKKFQQAKSQVVFSAEEHIYPDRRLE
AKYPTVPDGKRF LGSGGF IGYAPSL SKLVAEWEGQSDSDQLFYTKIFLNPEKREQINISLDHRCRIFQN
LDGALDEVVLKFEMGHVRARNLAYDTLPVVVHNGPTKLQLNYLGNYPFRWTFETGCTVCDEGLRSLKG
IGDEALPTVLVGVFIEQPTPFLSLFLLRLLRLRYPQKQMRLEIHNQERHHKLQVEQFLAHEGSEYQSVKL
VGPEVRMANADARNMGADLCRQDQCTCTYYFVSDADVALTEPNSLRLLIEQKNVIAPLMTRHGRLLWSNFW
GGLSADGYARSEDYVDIVQRRVGVWNVPIYSNIYLIKGSALRAELQNVDLFHYSKLSDMSFCANVRQ
QEVFMLENRHTFGHLLSLDNYQTTHLHNDLWEVFSNPEDWKEKYIHENYTKALAGKLVETPCPDVYWF
IFTEAACDELVEEMHYGQWSLGDNDNRIQGGYENVPTIDIHMNQITFEREWHKFLVEYIAPMTEKLYP
GYYTRAQFDLAFVVRYPDEQPSLMPHHDASTFTVNIALNRVGEDYEGGGCRFLRYNCSVRAPRKGWALL
HPGRLTHYHEGLPTTKGTRYIAVSFVDP
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_011122

**ORF Size:** 2184 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\\_011122.3](#)

**RefSeq Size:** 2872 bp

**RefSeq ORF:** 2187 bp

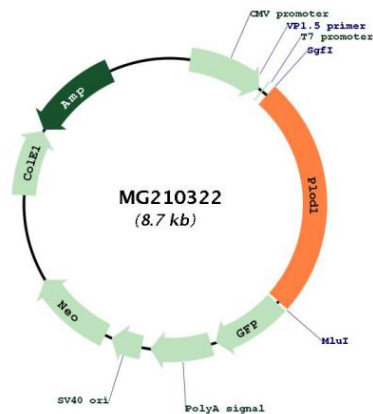
**Locus ID:** 18822

**UniProt ID:** [Q9R0E2](#)

**Cytogenetics:** 4 78.57 cM

**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 MG210322