

Product datasheet for **MR210405**

Plod3 (NM_011962) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Plod3 (NM_011962) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Plod3
Synonyms:	A1414586; LH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR210405 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGCGGCAGGCCCGGAACCCGGCTTTTGTCTCTGCTCTGCTGCTGCTGCCGCCGCTGCCCCCG
 TAACTTCTGCCTCCGATCGACCCCGGGCGCCAATGCTGTCAACCCAGACAAATTGCTGGTGATCACTGT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
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Protein Sequence: >MR210405 protein sequence
 Red=Cloning site Green=Tags(s)

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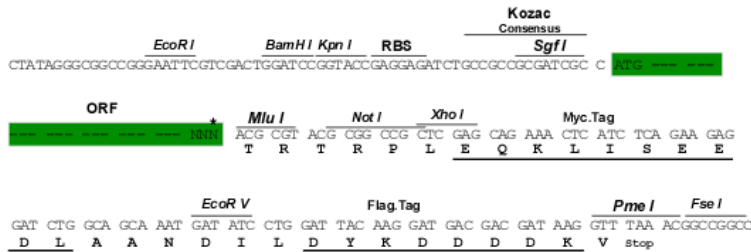
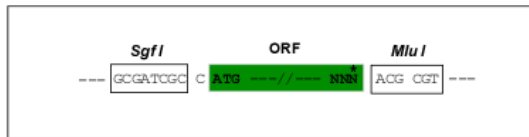
  MAAAGPEPRLLLLLLLLLPLPPVTSASDRPRGANAVNPKLLVITVATAETEGYRRFLQSAEFFNYTVR
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  FSAESFCWPEWGLAEQYPEVGMGRFLNSGGF IGFAPTIHQIVRQWNYKDDDDQLFYTQLYLDPGLREK
  LKLSLDHKSRI FQNLNGALDEVILKFDQNRVIRINVA YDTLPVVVHGNPPTKLQLNYLGNVYPNGWTPQG
  GCGFCNQTLRTLPGGQPPRVLLAVFVEQPTPFLPRFLQRLLLLDYPPDRISLFLHNSEVYHEPHIADAW
  PQLQDHFSAVKLVGPEEAL SAGEARDMAMDCRQNPCECFYFSLDADAVLTNPETLRVLIEQNRKVIAPM
  LSRHGKLSNFWGALSPNEYARSEDYVELVQRKRVGVWVNPYISQAYVIRGETLRTEL PQKEVFSSTDT
  DPDMAFCKSVRDKGI FLHL SNQHEFGRL LATSRYDTHLHPDLWQIFDNPVDWREQYIHENYSRALDGE
  LVEQPCPDVYWFPLL TEQMCDELVEEMEHYGQWSGGRHEDSRLAGGYENVPTVDIHMKQVGYEDQWLQLL
  RTYVGPMT EYLFPGYHTKTRAVMNFVVRYPDEQPSLRPHHDSSTFTLNVALNHKGVDYEGGGCRFLRYD
  CRISPRKGWALLHPGRLTHYHEGLPTTRGTRYIMVSFVDP
  
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_011962

ORF Size: 2226 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_011962.3](#)

RefSeq Size: 3278 bp

RefSeq ORF: 2226 bp

Locus ID: 26433

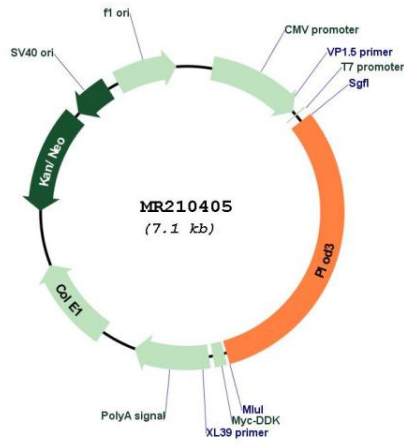
UniProt ID: [Q9R0E1](#)

Cytogenetics: 5 76.09 cM

MW: 84.9 kDa

Gene Summary: Multifunctional enzyme that catalyzes a series of post-translational modifications on Lys residues in procollagen (PubMed:16447251). Plays a redundant role in catalyzing the formation of hydroxylysine residues in -Xaa-Lys-Gly- sequences in collagens (PubMed:16447251). Plays a redundant role in catalyzing the transfer of galactose onto hydroxylysine groups, giving rise to galactosyl 5-hydroxylysine (By similarity). Has an essential role by catalyzing the subsequent transfer of glucose moieties, giving rise to 1,2-glucosylgalactosyl-5-hydroxylysine residues (PubMed:16447251, PubMed:16467571, PubMed:21220425). Catalyzes hydroxylation and glycosylation of Lys residues in the MBL1 collagen-like domain, giving rise to hydroxylysine and 1,2-glucosylgalactosyl-5-hydroxylysine residues (PubMed:25419660). Catalyzes hydroxylation and glycosylation of Lys residues in the ADIPOQ collagen-like domain, giving rise to hydroxylysine and 1,2-glucosylgalactosyl-5-hydroxylysine residues (PubMed:23209641). Essential for normal biosynthesis and secretion of type IV collagens (PubMed:15377789, PubMed:16467571, PubMed:17873278). Essential for normal formation of basement membranes (PubMed:15377789, PubMed:16467571). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210405