

Product datasheet for **SC119470**

PLOD3 (NM_001084) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLOD3 (NM_001084) Human Untagged Clone
Tag:	Tag Free
Symbol:	PLOD3
Synonyms:	LH3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119470 sequence for NM_001084 edited (data generated by NextGen Sequencing)

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ATGACCTCCTCGGGCCTGGACCCCGTTCCTGCTGCTGCTGCCGCTGCTGCTGCCCCCT
GCGGCCTCAGCCTCCGACCGGCCCGGGGCGAGACCCGGTCAACCCAGAGAAGCTGCTG
GTGATCACTGTGGCCACAGCTGAAACCGAGGGGTACCTGCGTTTCTGCGCTCTGCGGAG
TTCTTCAACTACACTGTGCGGACCCTGGGCCTGGGAGAGGAGTGGCGAGGGGGTGATGTG
GCTCGAACAGTTGGTGGAGGACAGAAGGTCCGGTGGTTAAAGAAGGAAATGGAGAAATAC
GCTGACCGGGAGGATATGATCATCATGTTTGTGGATAGCTACGACGTGATTCTGGCCGGC
AGCCCCACAGAGCTGCTGAAGAAGTTCGTCCAGAGTGGCAGCCGCTGCTCTTCTGCA
GAGAGCTTCTGCTGGCCGAGTGGGGGCTGGCGGAGCAGTACCCTGAGGTGGCACGGGG
AAGCGCTTCTCAATTCTGGTGGATTTCATCGGTTTTGCCACCACCATCCACAAATCGTG
CGCCAGTGAAGTACAAGGATGATGACGACGACCAGCTGTTCTACACACGGCTCTACCTG
GACCCAGGACTGAGGGAGAACTCAGCCTTAATCTGGATCATAAGTCTCGGATCTTTCAG
AACCTCAACGGGGCTTTAGATGAAGTGGTTTTAAAGTTTGATCGGAACCGTGTGCGTATC
CGAACGTGGCCTACGACACGCTCCCCATTGTGGTCCATGGAACGGTCCCACTAAGCTG
CAGCTCAACTACCTGGGAACTACGTCCCCAATGGCTGGACTCCTGAGGGAGGCTGTGGC
TTCTGCAACCAGGACCGGAGGACACTCCCGGGGGGCGAGCCTCCCCCGGGTGTTCCTG
GCCGTGTTTGTGGAACAGCCTACTCCGTTTCTGCCCGCTTCTGCAGCGGCTGCTACTC
CTGGACTATCCCCCGACAGGGTCAACCTTTTCTGCACAACAACGAGGTCTTCCATGAA
CCCCACATCGTGACTCCTGGCCGAGCTCCAGGACCCTTCTCAGCTGTGAAGCTCGTG
GGGCCGGAGGAGGCTCTGAGCCAGGCGAGGCCAGGGACATGGCCATGGACCTGTGTCGG
CAGGACCCCGAGTGTGAGTTCTACTTCAGCCTGGACGCCGACGCTGTCTCACCACCTG
CAGACCCTGCGTATCCTCATTGAGGAGAACAGGAAGGTGATCGCCCCATGCTGTCCCCG
CACGGCAAGCTGTGGTCCAACCTTCTGGGCGCCCTGAGCCCCGATGAGTACTACGCCCGC
TCCGAGGACTACGTGGAGCTGGTGCAGCGGAAGCGAGTGGGTGTGTGGAATGTACCATA
ATCTCCCAGCCTATGTGATCCGGGGTGATACCCTGCGGATGGAGCTGCCCCAGAGGGAT
GTGTTCTCGGGCAGTGACACAGACCCGGACATGGCCTTCTGTAAGAGCTTTCGAGACAAG
GGCATCTTCTCCATCTGAGCAATCAGCATGAATTTGGCCGGCTCCTGGCCACTTCCAGA
TACGACACGGAGCCTGCACCCCGACCTTGGCAGATCTTCGACAACCCCGTGGACTGG
AAGGAGCAGTACATCCACGAGAATAACAGCCGGGCCCTGGAAGGGGAAGGAATCGTGGAG
CAGCCATGCCCGACGTGTACTGGTCCCCTGCTGTGCAACAATGTGTGATGAGCTG
GTGGCAGAGATGGAGCACTACGGCCAGTGGTCCAGCGGCCGCGCATGAGGATCAAGGCTG
GCTGGAGGCTACGAGAATGTGCCACCGTGGACATCCACATGAAGCAGGTGGGGTACGAG
GACCAGTGGTGCAGCTGCTGCGGACGTATGTGGGCCCATGACCGAGAGCCTGTTTCCC
GGTTACCACACCAAGGCGGGCGGTGATGAACTTTGTGGTTCGCTACCGGCCAGACGAG
CAGCCGTCTGCGGCCACACCAGACTCATCCACCTTACCCTCAACGTTGCCCTCAAC
CACAAGGGCCTGGACTATGAGGGAGGTGGCTGCCGCTTCTGCGTACGACTGTGTGATC
TCCTCCCCGAGGAAGGGCTGGGCACTCCTGCACCCGGCCGCTCACCCACTACCAGAG
GGGCTGCCAACGACCTGGGGCACACGCTACATCATGGTGTCTTTGTGCGACCCCTGA

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Clone variation with respect to NM_001084.4

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001084 unedited
 GGTGGATATTTGTATACGACTCATATAGGCGGCCGCGNAATTTCGCACGAGGCTGTGGCGC
 CCGCATCTGGAGCTTTCTGTAGCCTCCGGATACGCCTTTTTTTCAGGGCGTAGCCCCAGC
 CAAGCTGCTCCCCGCGCGGCCGACAGCAGCCCGAGCGCCCCCTTCCAGAGCTCCCCT
 CCGGAGCTGGGATCCAGGCGCGTAGCGGAGATCCCAGGATCCTGGGTGCTGTCTGGGCC
 GCTCCCCACCATGACCTCCTCGGGCCTGGACCCCGTTTCTGCTGCTGCTGCCGCTGCT
 GAAGCTGCTGGTACTACTGTGGCCACAGCTGAAACCGAGGGGTACCTGCGTTTCTGCG
 CTCTGCGGAGTTCTCAACTACACTGTGCGGACCCTGGGCCTGGGAGAGGAGTGGCGAGG
 GGGTGATGTGGCTCGAACAGTTGGTGGAGGACAGAAGTCCGGTGGTTAAAGAAGGAAAT
 GGAGAAATACGCTGACCGGGAGGATATGATCATCATGTTTGTGGATAGCTACGACGTGAT
 TCTGGCCGCGAGCCACAGAGCTGCTGAAGAAGTTCGTCCAGAGTGGCAGCCGCTGCT
 CTTCTCTGCAGAGAGCTTCTGCTGGCCGAGTGGGGCTGGCGGAGCAGTACCCTGAGGT
 GGGCACGGGAAAGCGCTTCTCCATTCTGTGGATTTCATCCGGTTTTGCCACACCATCC
 ACCATATCGTGCAGTGGCAGTACAANGATGATGACGACGACCCGCTGTTCTACACAC
 GCTCTACCTGGAACAGGACTGAAGGAGGAACTCACCTTATCCTGGATCTAAGTCTTCG
 GATCTTTCAGAAC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001084 unedited
 GCCGCAATCTATAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAACTTACAAAC
 TGTCCTTTATTCAAAGGGAGACTGCGGAACATTAATAATTTATCACGCGGGGAGTCCCCA
 AAAGCCCTGTGCCACGAACCCCTGTGGCGGAGGAAAAAGCGGGGACTCCGGGAGCTT
 CCTGAGAGGGCCGTGCTTGGGAGCAAGTGACATATTCAGTTCAGGCACGCGGAACATG
 AACTCAGGAAGGGGGGAGACAGAGAGACCATCCCCAACTCCCAGGACGGGGGCCAGGC
 CCCATAAAAGGCACATTGGCAGGGCAGGTTTGGCAAAGGGGTTGAGTGTGAGGGTTCGA
 CAAAGGACACCATGATGTAGCGTGTGCCCCAGGTCGTTGGCAGCCCTCGTGGTATTGGG
 TGAGGCGGCCGGGGTGCAGGATTGCCACCCCTTCTCGGGGAGGAGATCACACAGTCGT
 AGCGCAGGAAGCGGCAGCCACCTCCCTCATAGTCCAGGCCCTTGTTGGTTGAGGGCAACGT
 TGAGGGTGAAGGTGGATGATTCGTGGTGTGGCCGATAGACGGCTGCTCGTCTGGCCGCT
 AGCGAACCACAAAAGTTCATCACCCGCCGCGCCTTGTGTTGGAACCCGGGAAACGGCCTCT
 CGGTTCATGGGGCCACATACGTCCGCAGCAGCTGCAGCCCTGGTCTCGTACCCACCTG
 CTTTCATGTGAATGTACCGTGGGCACTTCTCGTAGCCTCAGCCAGCCTTGATTCTAATG
 CCGGCGCCTGACCCTGGCCGTAGGCTCATTTTTGCACCAGCTTATAAAATTTGTTTTGAC
 GGAGTGGGACCATCCCGTCCGGCATGTTTGTCCAGTATTCTCCCTCCAGGGCCAGCTG
 TATTCTCGGGGAGACCGCTCCTCACCCAGGNTTGCAAATACTGCAAGGCGGGGAGTGC
 TCCGGT

Restriction Sites:

NotI-NotI

ACCN:

NM_001084

Insert Size:

2710 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_001084.4](#), [NP_001075.1](#)

RefSeq Size: 2995 bp

RefSeq ORF: 2217 bp

Locus ID: 8985

UniProt ID: [O60568](#)

Cytogenetics: 7q22.1

Domains: 2OG-Fell_Oxy, P4Hc

Protein Pathways: Lysine degradation

Gene Summary: The protein encoded by this gene is a membrane-bound homodimeric enzyme that is localized to the cisternae of the rough endoplasmic reticulum. The enzyme (cofactors iron and ascorbate) catalyzes the hydroxylation of lysyl residues in collagen-like peptides. The resultant hydroxylysyl groups are attachment sites for carbohydrates in collagen and thus are critical for the stability of intermolecular crosslinks. Some patients with Ehlers-Danlos syndrome type VIB have deficiencies in lysyl hydroxylase activity. [provided by RefSeq, Jul 2008]