

Product datasheet for **RC203445**

PLOD3 (NM_001084) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLOD3 (NM_001084) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PLOD3
Synonyms:	LH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203445 representing NM_001084
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACCTCCTCGGGCCTGGACCCGGTTCCTGCTGCTGCTGCCGCTGCTGCTGCCCTCGCGCCTCAG
 CCTCCGACCGGCCCGGGCCGAGACCCGGTCAACCCAGAGAAGCTGCTGGTGATCACTGTGCCACAGC
 TGAACCAGGGGTACCTGCGTTTCCTGCGCTCTGCGGAGTTCTCAACTACACTGTGCGGACCCTGGC
 CTGGGAGAGGAGTGGCGAGGGGTGATGTGGTGAACAGTTGGTGGAGGACAGAAGTCCGGTGGTTAA
 AGAAGGAAATGGAGAAATACGCTGACCGGGAGGATATGATCATCATGTTTGTGGATAGCTACGACGTGAT
 TCTGGCCGCGAGCCACAGAGCTGCTGAAGAAGTTCGTCAGAGTGGCAGCCGCTGCTCTTCTGCA
 GAGAGCTTCTGCTGGCCGAGTGGGGCTGGCGGAGCAGTACCCTGAGGTGGCACGGGGAAGCGCTTCC
 TCAATTCTGGTGGATTATCGGTTTTGCCACCACCATCCACAAATCGTGCAGTGGAAAGTACAAGGA
 TGATGACGACACCAGCTGTTCTACACACGGCTCTACCTGGACCCAGGACTGAGGGAGAACTCAGCCTT
 AATCTGGATCATAAGTCTCGGATCTTTCAGAACCTCAACGGGGCTTTAGATGAAGTGGTTTTAAAGTTG
 ATCGGAACCGTGTGCGTATCCGGAACGTGGCCTACGACACGCTCCCCATTGTGGTCCATGGAACCGTCC
 CACTAAGCTGCAGCTCAACTACCTGGGAAACTACGTCCCCAATGGCTGGACTCCTGAGGGAGGCTGTGGC
 TTCTGCAACCAGGACCGGAGGACTCCCGGGGGGCGAGCCTCCCCCGGGTGTCTGCGCGTGTCTG
 TGGAACAGCCTACTCCGTTTCTGCCCGCTTCTGCAGCGGTGCTACTCCTGGACTATCCCCCGACAG
 GGTCACCTTTTCTGCACAACAACGAGGTCTTCATGAACCCACATCGCTGACTCCTGGCCGAGCTC
 CAGGACCACTTCTCAGCTGTGAAGCTCGTGGGGCCGAGGAGGCTCTGAGCCAGGCGAGGCCAGGGACA
 TGGCCATGGACCTGTGTGCGCAGGACCCGAGTGTGAGTTCTACTTCAGCCTGGACGCGCAGCTGTCT
 CACCAACCTGCAGACCCTGCGTATCCTCATTGAGGAGAACAGGAAGGTGATCGCCCCATGCTGTCCCGC
 CACGGCAAGCTGTGGTCCAATTCTGGGGCCCTGAGCCCGATGAGTACTACGCCGCTCCGAGGACT
 ACGTGGAGCTGGTGCAGCGGAAGCGAGTGGGTGTGGAATGTACCATACATCTCCAGGCTATGTGAT
 CCGGGGTGATACCCTGCGGATGGAGCTGCCCCAGAGGGATGTGTTCTCGGGCAGTGACACAGACCCGGAC
 ATGGCCTTCTGTAAGAGCTTTCGAGACAAGGGCATCTTCTCCATCTGAGCAATCAGCATGAATTTGGCC
 GGCTCCTGGCCACTTCCAGATACGACACGGAGCACCTGCACCCGACCTTGGCAGATCTCGACAACCC
 CGTCGACTGGAAGGAGCAGTACATCCACGAGAACTACAGCCGGGCCCTGGAAGGGGAAGGAATCGTGGAG
 CAGCCATGCCCGACGTGTACTGGTCCCCTGCTGTGCAACAATGTGTGATGAGCTGGTGGCAGAGA
 TGGAGCACTACGCCAGTGGTACGGCGGCCGATGAGGATCAAGGCTGGCTGGAGGCTACGAGAATGT
 GCCACCGTGGACATCCACATGAAGCAGGTGGGGTACGAGGACCAGTGGCTGCAGCTGCTGCGGACGTAT
 GTGGGCCCATGACCGAGAGCCTGTTTCCCGGTTACCACCAAGGCGCGGGCGGTGATGAACCTTTGTGG
 TTCGCTACCGCCAGACGAGCAGCCGTCTGCGGCCACACCAGACTCATCCACCTTACCCTCAACGT
 TGCCCTCAACCACAAGGGCCTGGACTATGAGGGAGGTGGCTGCCGCTTCTGCGCTACGACTGTGTGATC
 TCCTCCCCGAGGAAGGGCTGGGCACTCTGCACCCCGCCGCTCACCCACTACCAGGGGGCTGCCAA
 CGACCTGGGGCACACGCTACATCATGGTGCCTTTGTCGACCCC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

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](#)

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_001084.5](#)

RefSeq Size: 2995 bp

RefSeq ORF: 2217 bp

Locus ID: 8985

UniProt ID: [O60568](#)

Cytogenetics: 7q22.1

Domains: 2OG-Fell_Oxy, P4Hc

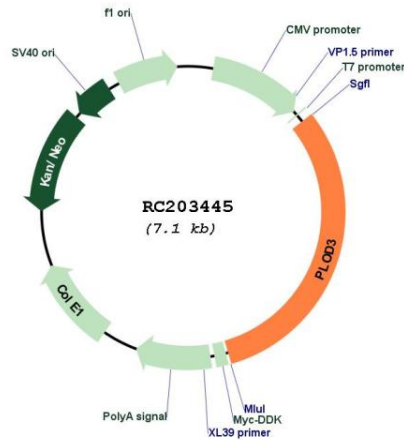
Protein Pathways: Lysine degradation

MW: 84.79 kDa

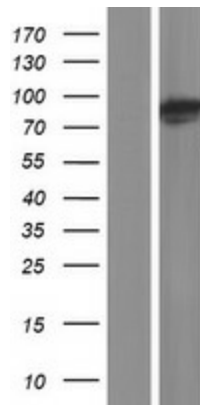
Gene Summary:

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]

Product images:



Circular map for RC203445



Western blot validation of overexpression lysate (Cat# [LY421265]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203445 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).