

Product datasheet for **RG201969**

PLOD1 (NM_000302) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLOD1 (NM_000302) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PLOD1
Synonyms:	EDS6; EDSKCL1; LH; LH1; LLH; PLOD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG201969 representing NM_000302
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGGCCCTGTGCTACTGGCCCTGTGGGCTGGCTGTGCTGGCCGAAGCGAAGGGCGACGCCAAGC
 CGGAGGACAACCTTTTAGTCCTCACGGTGGCCACTAAGGAGACCGAGGGATTCCGTCGCTTCAAGCGCTC
 AGCTCAGTTCTTCAACTACAAGATCCAGGCGCTTGGCCTAGGGGAGGACTGGAATGTGGAGAAGGGGACG
 TCGGCAGGTGGAGGGCAGAAGGTCCGGCTGCTGAAGAAAGCTCTGGAGAAGCACGCAGACAAGGAGGATC
 TGGTCATTCTTTCACAGACAGCTATGACGTGCTGTTTGCATCGGGGCCCGGGAGCTCTGAAGAAGTT
 CCGGCAGTCCAGGAGCCAGGTGGTCTTCTGCTGAGGAGCTCATCTACCCAGACCCGAGGCTGGAGACC
 AAGTATCCGGTGGTGTCCGATGGCAAGAGGTTCTGGGCTCTGGAGGCTTCATCGGTTATGCCCAACCC
 TCAGCAAAGTGGTGGCCGAGTGGGAGGGCCAGGACAGCGACAGCGATCAGCTGTTTTACACCAAGATCTT
 CTTGGACCCGGAGAAGAGGGAGCAGATCAATATCACCCCTGGACCACCGCTGCCGTATCTCCAGAACCTG
 GATGGAGCCTTGATGAGGTCGTGCTCAAGTTTGAATGGCCATGTGAGAGCGAGGAACCTGGCCATATG
 ACACCCTCCCGGTCTGATCCATGGCAACGGGCCAACCAAGCTGCAGTTGAACTACCTGGCAACTACAT
 CCCGCGCTTCTGGACCTCGAAACAGGCTGCACCGTGTGTGACGAAGGCTTGCAGCAGCTCAAGGGCATT
 GGGGATGAAGCTCTGCCACGGTCTGGTGGCGTGTTCATCGAACAGCCACGCCGTTTGTGTCCCTGT
 TCTTCCAGCGGCTCTGCGGCTCCACTACCCCCAGAAACATGCGACTTTTTCATCCACAACCACGAGCA
 GCACCACAAGGCTCAGGTGGAAGAGTTCCTGGCACAGCATGGCAGCGAGTACCAGTCTGTGAAGTGGTG
 GGCCCTGAGGTGCGGATGGCGAATGCAGATGCCAGGAACATGGGCGCAGACCTGTGCCGGCAGGACCCGA
 GCTGCCTACTACTTCAGCGTGGATGCTGACGTGGCCCTGACCGAGCCCAACAGCCTGCGGCTGTGAT
 CCAACAGAACAAGAACGTCAATGGCCCGCTGATGACCCGGCATGGGAGGCTGTGGTCAACTTCTGGGGG
 GCTCTCAGTGCAGATGGCTACTATGCCCGTTCGAGGACTACGTGGACATTGTGCAGGGGCGGCGTGTG
 GTGTCTGGAATGTGCCCTATATTTCAAACATCTACTTGATCAAGGGCAGTGCCCTGCGGGGTGAGCTGCA
 GTCCTCAGATCTTCCACCACAGCAAGCTGGACCCCGACATGGCCTTCTGTGCCAACATCCGGCAGCAG
 GATGTGTTTATGTTCTGACCAACCGGCACACCCTTGGCCATCTGCTCTCCCTAGACAGCTACCGCACCA
 CCCACCTGCACAACGACCTCTGGGAGGTGTTAGCAACCCCGAGGACTGGAAGGAGAAGTACATCCACCA
 GAACTACACCAAAGCCCTGGCCGGGAAGCTGGTGGAGACGCCCTGCCCGGATGTCTATTGGTTCCCATC
 TTCACGGAGGTGGCCTGTGATGAGCTGGTGGAGGAGATGGAGCACTTTGGCCAGTGGTCTCTGGGCAACA
 ACAAGGACAACCGCATCCAGGGTGGCTACGAGAACGTGCCGACTATTGACATCCACATGAACCAGATCGG
 CTTTGAGCGGGAGTGGCACAATTCCTGCTGGAGTACATTGCGCCATGACGGAGAAGCTTACCCCGGC
 TACTACACCAGGGCCAGTTTGACCTGGCCTTTGTGTCGCTACAAGCCTGATGAGCAGCCCTCACTGA
 TGCCACACCATGATGCCTCCACCTTCCATCAACATCGCCCTGAACCGAGTCCGGGTGGATTACGAGGG
 CGGGGGCTGTGCGTTCCTGCGCTACAACGTTCATCCAGCCCCAAGGAAGGGCTGGACCCTCATGCAC
 CCTGGACGACTCACGATTACCATGAGGGGCTCCCCACCACAGGGGCACCCGCTACATCGCAGTCTCT
 TCGTCGATCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG201969 representing NM_000302
 Red=Cloning site Green=Tags(s)

```
MRPLLLLALLGWLLEAEAKGDAKPEDNLLVLTVAATKETEGRFRFKRSAQFFNYKIQALGLGEDWNVEKGT
SAGGGQKVRLLKKALEKHADKEDLVILFTDSYDVLFASGPRELLKKFRQSRSQVVFSAEELIYPDRRLET
KYPVVSQDKRFLGSGGF IGYAPNL SKLVAEWEGQDSDSDQLFYTKIFLDPEKREQINITLDHRCRIFQNL
DGALDEVVLKFMGHVRARNLAYDTLPVLIHGNGPTKLQLNYLGNYPWFWTFTGCTVCDEGLRSLKGI
GDEALPTVLVGVFIEQPTPFVSLFFQRLRLHYQKHMRLF IHNHEQHHAQVEEFLAQHGSEYQSVKLV
GPEVRMANADARNMGADLCRQDRSCTYYFSVDADVALTEPNSLRLLIQQKNVIAPLMTRHGRLWSNFWG
ALSADGYYARSEDYVDIVQRRRVGVWNPYISNIYLIKGSALRGELQSSDLFHHSKLDPDMAFCANIRQQ
DVFMFLTNRHTLGHLLSLDSYRTHLHNDLWEVFSNPEDWKEYIHQNYTKALAGKLVETPCPDVYWFPI
FTEVACDELVEEMEHFGQWSLGNKDNRIQGGYENVPTIDIHMNQIGFEREWHKFLLEYIAPMTEKLYPG
YYTRAQDFLAFVVRYKPDEQPSLMPHHDASTFTINIALNRVGVDEYEGGGCRFLRYNCSIRAPRKGWTLMH
PGRLTHYHEGLPTTRGTRYIAVSFVDP
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000302

ORF Size: 2181 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_000302.2](#), [NP_000293.2](#)

RefSeq Size: 3004 bp

RefSeq ORF: 2184 bp

Locus ID: 5351

UniProt ID: [Q02809](#)

Cytogenetics: 1p36.22

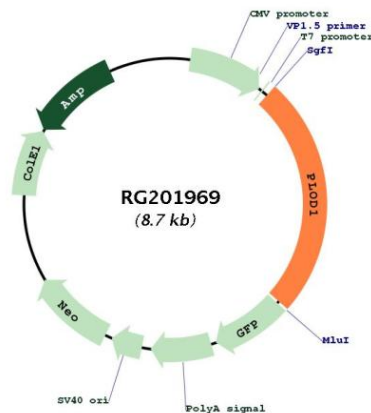
Domains: 2OG-Fell_Oxy, P4Hc

Protein Families: Druggable Genome

Protein Pathways: Lysine degradation

Gene Summary: Lysyl hydroxylase is a membrane-bound homodimeric protein localized to the cisternae of the 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 VI have deficiencies in lysyl hydroxylase activity. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2015]

Product images:



Circular map for RG201969