

PLOD3 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP12733a**Specification**

PLOD3 Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [O60568](#)**PLOD3 Antibody (N-term) Blocking peptide - Additional Information**

Gene ID 8985

Other Names

Procollagen-lysine, 2-oxoglutarate 5-dioxygenase 3, Lysyl hydroxylase 3, LH3, PLOD3

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PLOD3 Antibody (N-term) Blocking peptide - Protein Information

Name PLOD3

Function

Multifunctional enzyme that catalyzes a series of essential post-translational modifications on Lys residues in procollagen (PubMed: [11956192](http://www.uniprot.org/citations/11956192), PubMed: [12475640](http://www.uniprot.org/citations/12475640), PubMed: [18298658](http://www.uniprot.org/citations/18298658), PubMed: [18834968](http://www.uniprot.org/citations/18834968), PubMed: [30089812](http://www.uniprot.org/citations/30089812)). Plays a redundant role in catalyzing the formation of hydroxylysine residues in -Xaa-Lys-Gly- sequences in collagens (PubMed: [11956192](http://www.uniprot.org/citations/11956192), PubMed: [12475640](http://www.uniprot.org/citations/12475640), PubMed: [18298658](http://www.uniprot.org/citations/18298658), PubMed: [18834968](http://www.uniprot.org/citations/18834968), PubMed: [30089812](http://www.uniprot.org/citations/30089812), PubMed: [9582318](http://www.uniprot.org/citations/9582318), PubMed: [9724729](http://www.uniprot.org/citations/9724729)). Plays a redundant role in catalyzing the transfer of galactose onto hydroxylysine groups, giving rise to galactosyl 5-hydroxylysine (PubMed: [12475640](http://www.uniprot.org/citations/12475640), PubMed: [18298658](http://www.uniprot.org/citations/18298658)

target="_blank">18298658, PubMed:18834968, PubMed:30089812). Has an essential role by catalyzing the subsequent transfer of glucose moieties, giving rise to 1,2-glucosylgalactosyl-5-hydroxylysine residues (PubMed:10934207, PubMed:11896059, PubMed:11956192, PubMed:12475640, PubMed:18298658, PubMed:18834968, PubMed:30089812). 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). Essential for normal biosynthesis and secretion of type IV collagens (Probable) (PubMed:18834968). Essential for normal formation of basement membranes (By similarity).

Cellular Location

Rough endoplasmic reticulum. Endoplasmic reticulum lumen. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9R0E1}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9R0E1}; Lumenal side {ECO:0000250|UniProtKB:Q9R0E1}. Secreted Secreted, extracellular space {ECO:0000250|UniProtKB:Q9R0E1}. Note=The majority of the secreted protein is associated with the extracellular matrix. {ECO:0000250|UniProtKB:Q9R0E1}

Tissue Location

Ubiquitous (PubMed:9724729). Detected in heart, placenta and pancreas and at lower levels in lung, liver and skeletal muscle (PubMed:9582318, PubMed:9724729).

PLOD3 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

PLOD3 Antibody (N-term) Blocking peptide - Images

PLOD3 Antibody (N-term) Blocking peptide - Background

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.

PLOD3 Antibody (N-term) Blocking peptide - References

Wang, C., et al. J. Cell. Mol. Med. 13(3):508-521(2009) Salo, A.M., et al. Am. J. Hum. Genet. 83(4):495-503(2008) Salo, A.M., et al. J. Cell. Physiol. 207(3):644-653(2006) Wang, C., et al. Matrix Biol. 21(7):559-566(2002) Rautavuoma, K., et al. J. Biol. Chem. 277(25):23084-23091(2002)