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PLOD3 Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP12733a

Specification

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

Primary 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, PubMed:12475640, PubMed:18298658, PubMed:30089812, PubMed:18834968). Plays a redundant role in catalyzing the formation of hydroxylysine residues in -Xaa-Lys-Gly- sequences in collagens (PubMed:9582318, PubMed:9724729, PubMed:11956192, PubMed:12475640, PubMed:18298658, PubMed:30089812, PubMed:18834968). Plays a redundant role in catalyzing the transfer of galactose onto hydroxylysine groups, giving rise to galactosyl 5-hydroxylysine (PubMed:12475640, PubMed:<a href="http://www.uniprot.org/citations/18298658"

target="_blank">18298658, PubMed:30089812, PubMed:18834968). 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:30089812, PubMed:18834968). 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 (PubMed:18834968) (Probable). 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-boundhomodimeric enzyme that is localized to the cisternae of the roughendoplasmic reticulum. The enzyme (cofactors iron and ascorbate)catalyzes the hydroxylation of lysyl residues in collagen-likepeptides. The resultant hydroxylysyl groups are attachment sitesfor carbohydrates in collagen and thus are critical for thestability of intermolecular crosslinks. Some patients withEhlers-Danlos syndrome type VIB have deficiencies in lysylhydroxylase 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)