

PLOD3 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12733a

Specification

PLOD3 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	O60568
Other Accession	NP_001075.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	84785
Antigen Region	78-105

PLOD3 Antibody (N-term) - Additional Information

Gene ID 8985

Other Names

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

Target/Specificity

This PLOD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 78-105 amino acids from the N-terminal region of human PLOD3.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PLOD3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PLOD3 Antibody (N-term) - 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:[18834968](#), PubMed:[30089812](#)). Plays a redundant role in catalyzing the formation of hydroxylysine residues in -Xaa-Lys-Gly- sequences in collagens (PubMed:[11956192](#), PubMed:[12475640](#), PubMed:[18298658](#), PubMed:[18834968](#), PubMed:[30089812](#), PubMed:[9582318](#), PubMed:[9724729](#)). Plays a redundant role in catalyzing the transfer of galactose onto hydroxylysine groups, giving rise to galactosyl 5-hydroxylysine (PubMed:[12475640](#), PubMed:[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

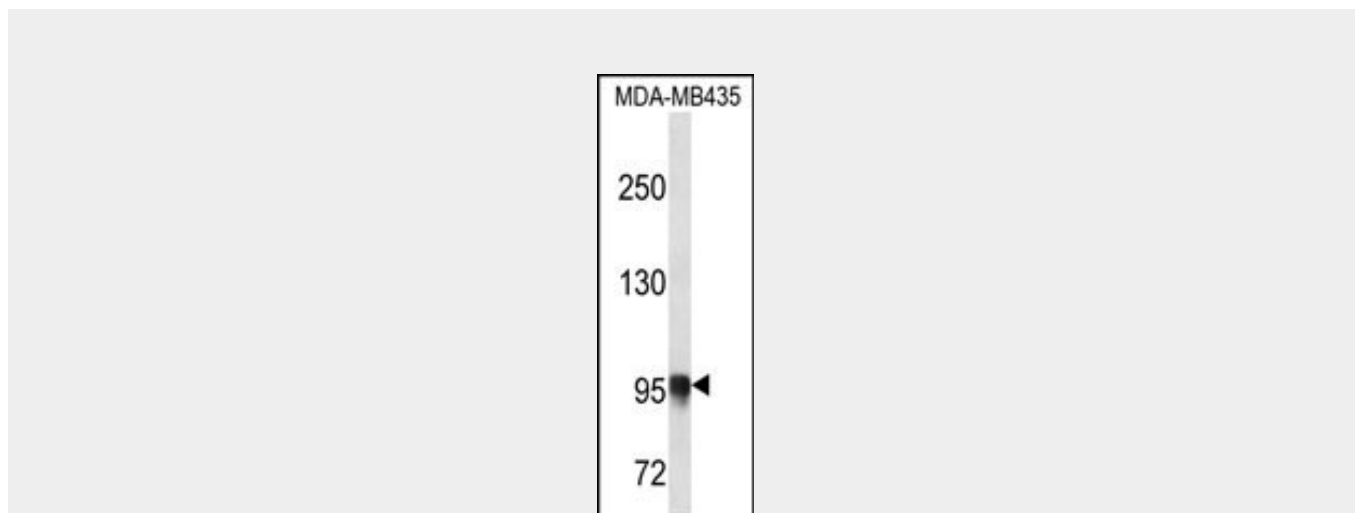
Ubiquitous (PubMed:[9724729](#)). Detected in heart, placenta and pancreas and at lower levels in lung, liver and skeletal muscle (PubMed:[9582318](#), PubMed:[9724729](#)).

PLOD3 Antibody (N-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PLOD3 Antibody (N-term) - Images



PLOD3 Antibody (N-term) (Cat. #AP12733a) western blot analysis in MDA-MB435 cell line lysates (35ug/lane). This demonstrates the PLOD3 antibody detected the PLOD3 protein (arrow).

PLOD3 Antibody (N-term) - 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) - 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)