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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
E~~Use at an assay dependent concentration.

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 Cytomety
- Cell Culture

PLOD3 Antibody (N-term) - Images

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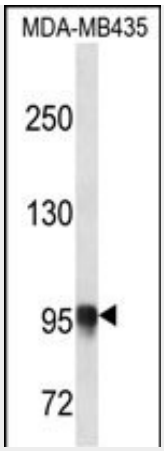

PLOD3 Antibody (N-term) (Cat. #AP12733a) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the PLOD3 antibody detected the PLOD3 protein (arrow).

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

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Wang, C., et al. Matrix Biol. 21(7):559-566(2002)
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