

Rabbit anti-Human PLOD3 Polyclonal Antibody | anti-PLOD3 antibody

PLOD3 Antibody (N-term)

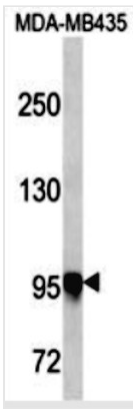
CATALOG # AAA285972	HOST Rabbit	REACTIVITY Human	APPLICATIONS ELISA, Western Blot
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PRODUCT SYNONYMS

PLOD3; Polyclonal Antibody; PLOD3 Antibody (N-term); Procollagen-lysine; 2-oxoglutarate 5-dioxygenase 3; Lysyl hydroxylase 3; LH3; anti-PLOD3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
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.
Purity/Purification	This antibody is purified through a protein A column, followed by peptide affinity purification.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Positions	78-105
Sequence Length	738
Applicable Applications for anti-PLOD3 antibody	ELISA, WB (Western Blot)
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: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}; Luminal 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).
Preparation and 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.



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

ADDITIONAL INFORMATION

Related Product Information for anti-PLOD3 antibody	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.
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)

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505891
NCBI GeneID	8985
NCBI Accession #	NP_001075.1
NCBI GenBank Nucleotide #	NM_001084.4
UniProt Accession #	O60568; Q540C3; B2R6W6
Molecular Weight	84785
NCBI Official Full Name	procollagen-lysine,2-oxoglutarate 5-dioxygenase 3
NCBI Official Synonym Full Names	procollagen-lysine, 2-oxoglutarate 5-dioxygenase 3
NCBI Official Symbol	PLOD3
NCBI Official Synonym Symbols	LH3
NCBI Protein Information	procollagen-lysine,2-oxoglutarate 5-dioxygenase 3
UniProt Protein Name	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 3
UniProt Gene Name	PLOD3
UniProt Synonym Gene Names	LH3
UniProt Entry Name	PLOD3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/plod3-antibody-western-blot-elisa/285972>