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PTPLA Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP13486a

Specification

PTPLA Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	B0YJ81
Other Accession	NP_055056.3
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**32388**
Antigen Region	**37-66**

PTPLA Antibody (N-term) - Additional Information

Gene ID 9200

Other Names
Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase 1, 3-hydroxyacyl-CoA dehydratase 1, HACD1, Cementum attachment protein, Protein-tyrosine phosphatase-like member A, PTPLA, HACD1

Target/Specificity
This PTPLA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 37-66 amino acids from the N-terminal region of human PTPLA.

Dilution
WB~~1:1000
IHC-P~~1:10~50

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

PTPLA Antibody (N-term) - Protein Information

Name HACD1 {ECO:0000303|PubMed:15164054, ECO:0000312|HGNC:HGNC:9639}

Function [Isoform 1]: Catalyzes the third of the four reactions of the long-chain fatty acids elongation cycle. This endoplasmic reticulum- bound enzymatic process, allows the addition of two carbons to the chain of long- and very long-chain fatty acids/VLCFAs per cycle. This enzyme catalyzes the dehydration of the 3-hydroxyacyl-CoA intermediate into trans-2,3-enoyl-CoA, within each cycle of fatty acid elongation. Thereby, it participates in the production of VLCFAs of different chain lengths that are involved in multiple biological processes as precursors of membrane lipids and lipid mediators.

Cellular Location
[Isoform 1]: Endoplasmic reticulum membrane; Multi-pass membrane protein

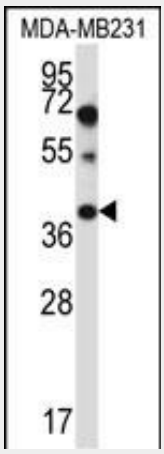
Tissue Location
Isoform 1 is highly expressed in the myocardium, and to a lesser extent in skeletal and smooth muscular tissues including those from stomach, jejunum, and bladder. Also detected in gingival fibroblasts, periodontal ligament cells, osteoblasts and cementoblasts (PubMed:11054553, PubMed:22067203). Isoform 2 is specifically expressed by cementoblasts but also detected in periodontal ligament cells, heart, liver and kidney (at protein level) (PubMed:22067203).

PTPLA 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

PTPLA Antibody (N-term) - Images



PTPLA Antibody (N-term) (Cat. #AP13486a) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the PTPLA antibody detected the PTPLA protein (arrow).

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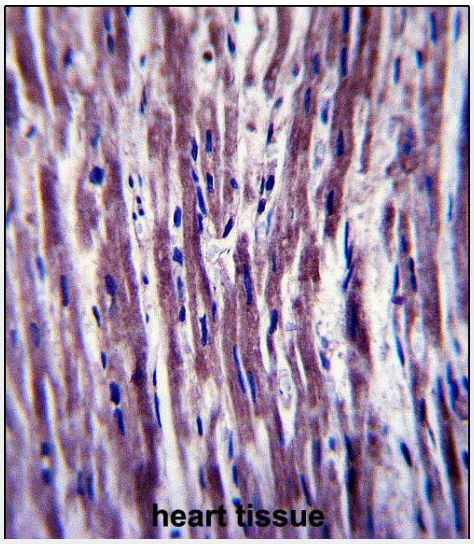

PTPLA Antibody (N-term) (Cat. #AP13486a)immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PTPLA Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

PTPLA Antibody (N-term) - Background

The protein encoded by this gene contains a characteristic catalytic motif of the protein tyrosine phosphatases (PTPs) family. The PTP motif of this protein has the highly conserved arginine residue replaced by a proline residue; thus it may represent a distinct class of PTPs. Members of the PTP family are known to be signaling molecules that regulate a variety of cellular processes. This gene was preferentially expressed in both adult and fetal heart. A much lower expression level was detected in skeletal and smooth muscle tissues, and no expression was observed in other tissues. The tissue specific expression in the developing and adult heart suggests a role in regulating cardiac development and differentiation.

PTPLA Antibody (N-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Liang, X., et al. Hum. Mutat. 30(3):463-471(2009)
Lamesch, P., et al. Genomics 89(3):307-315(2007)
Grupe, A., et al. Am. J. Hum. Genet. 78(1):78-88(2006)