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PTPLA Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP13486a

Specification

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

Primary Accession B0YJ81

PTPLA Antibody (N-term) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP13486a was selected from the N-term region of PTPLA. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

PTPLA Antibody (N-term) Blocking peptide - Protein Information

Name HACD1 {ECO:0000303|PubMed:15164054,

PTPLA Antibody (N-term) Blocking peptide - Background

The protein encoded by this gene contains a characteristiccatalytic motif of the protein tyrosine phosphatases (PTPs) family.The PTP motif of this protein has the highly conserved argininеresidue replaced by a proline residue; thus it may represent adistinct class of PTPs. Members of the PTP family are known to besignaling molecules that regulate a variety of cellular processes.This gene was preferentially expressed in both adult and fetalheart. A much lower expression level was detected in skeletal andsmooth muscle tissues, and no expression was observed in othertissues. The tissue specific expression in the developing and adultheart suggests a role in regulating cardiac development anddifferentiation.

PTPLA Antibody (N-term) Blocking peptide - 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)

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) Blocking peptide - Protocols

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

- Blocking Peptides