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PEMT Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1025a

Specification

PEMT Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9UBM1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**22134**
Antigen Region	**1-30**

PEMT Antibody (N-term) - Additional Information

Gene ID 10400

Other Names
Phosphatidylethanolamine N-methyltransferase, PEAMT, PEMT, PEMT2, PEMT, PEMPT, PNMT

Target/Specificity
This PEMT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PEMT.

Dilution
WB~~1:1000
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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

PEMT Antibody (N-term) - Protein Information

Name PEMT {ECO:0000255|HAMAP-Rule:MF_03216}

Synonyms PEMPT, PNMT

Function Catalyzes the three sequential steps of the methylation pathway for the biosynthesis of phosphatidylcholine, a critical and essential component for membrane structure (PubMed:12431977, PubMed:15927961). Uses S-adenosylmethionine (S-adenosyl-L-methionine, SAM or AdoMet) as the methyl group donor for the methylation of phosphatidylethanolamine (1,2-diacyl-sn-glycero-3-phosphoethanolamine, PE) to phosphatidylmonomethylethanolamine (1,2-diacyl-sn-glycero-3- phospho-N-methylethanolamine, PMME), PMME to phosphatidyldimethylethanolamine (1,2-diacyl-sn-glycero-3-phospho-N,N- dimethylethanolamine, PDME), and PDME to phosphatidylcholine (1,2- diacyl-sn-glycero-3-phosphocholine, PC), producing S-adenosyl-L- homocysteine in each step (PubMed:12431977, PubMed:15927961). Responsible for approximately 30% of hepatic PC with the CDP-choline pathway accounting for the other 70% (Probable).

Cellular Location
Endoplasmic reticulum. Note=localized in the endoplasmic reticulum (ER) of the liver and in a lipid metabolism-rich region of the ER known as mitochondria-associated membranes (PubMed:15927961) Adopts a topography within the ER membrane that positions both termini in the cytosol (PubMed:12431977). [Isoform 2]: Endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000255|HAMAP-Rule:MF_03216}

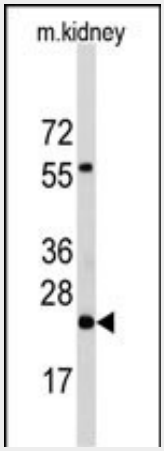
Tissue Location
Primarily expressed in liver (at protein level).

PEMT 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

PEMT Antibody (N-term) - Images



Western blot analysis of anti-PEMT Antibody (N-term) Pab (Cat.#AP1025a) in mouse kidney tissue lysates (35ug/lane). PEMT(arrow) was detected using the purified Pab.

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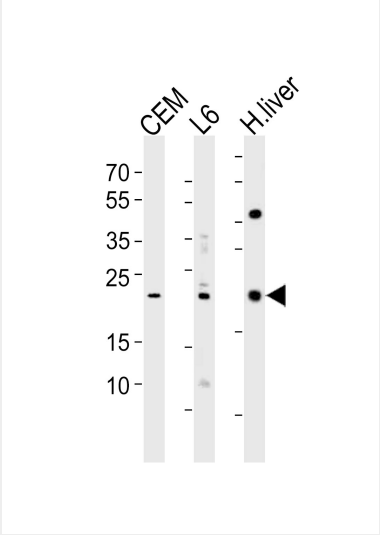
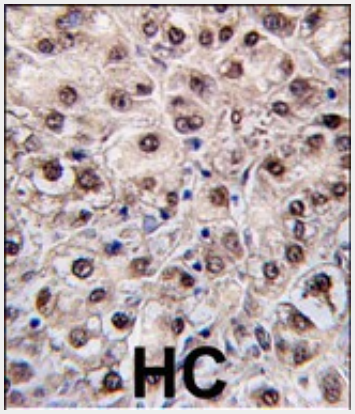


Western blot analysis of lysates from CEM, rat L6 cell line and human liver tissue lysate(from left to right), using PEMT Antibody (N-term)(Cat. #AP1025a). AP1025a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PEMT antibody (N-term) (Cat.#AP1025a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

PEMT Antibody (N-term) - Background

This gene encodes an enzyme which converts phosphatidylethanolamine to phosphatidylcholine by sequential methylation in the liver. The protein localizes to the endoplasmic reticulum and mitochondria-associated membranes. The gene is within the Smith-Magenis syndrome region on chromosome 17. Alternate splicing of this gene results in three transcript variants encoding two different isoforms.

PEMT Antibody (N-term) - References

Walkey C.J., Biochim. Biophys. Acta 1436:405-412(1999).
Shields D.J., Biochim. Biophys. Acta 1532:105-114(2001).
Hu R.-M., Proc. Natl. Acad. Sci. U.S.A. 97:9543-9548(2000).