

**PEMT Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1025a**

**Specification**

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**PEMT Antibody (N-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">O9UBM1</a>
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

**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 phosphatidyl dimethylethanolamine (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

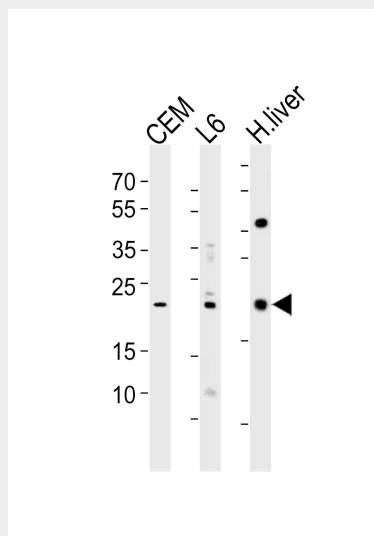
Primarily expressed in liver (at protein level).

#### PEMT Antibody (N-term) - Protocols

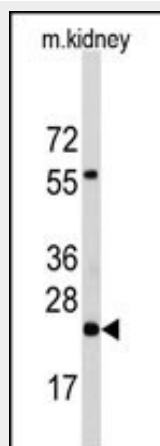
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

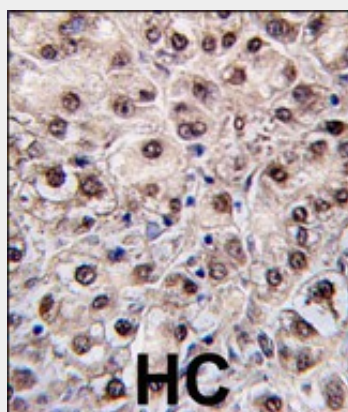
#### PEMT Antibody (N-term) - Images



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.



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.



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).