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PEMT Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1025a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9UBM1
Reactivity	Human, Rat, Mouse
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13024
Calculated MW	22134
Antigen Region	1-30

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~~1:100~500 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.

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).

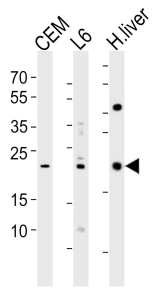
Background

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.

References

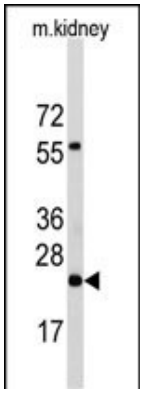
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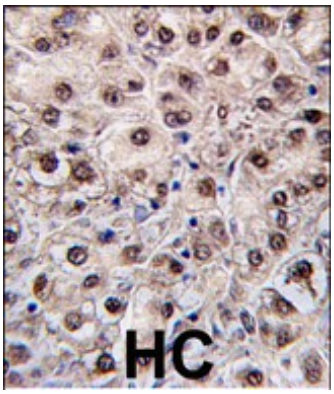
Images



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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.