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PEMT Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1025B

Product Information

Application	IHC-P, WB, E
Primary Accession	Q9UBM1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	22134
Antigen Region	170-199

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 170-199 amino acids from the C-terminal region of human PEMT.
Dilution	IHC-P~~1:100 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	PEMT Antibody (C-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).

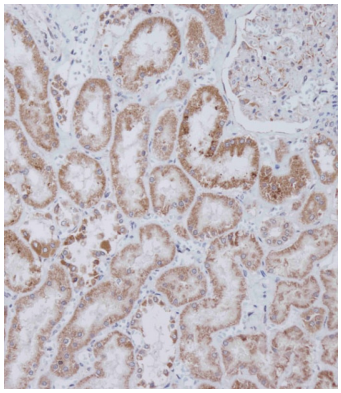
Background

PEMT is 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.

References

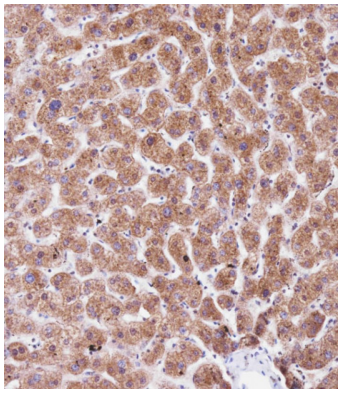
Walkey C.J., Biochim. Biophys. Acta 1436:405-412(1999).
Shields D.J., Biochim. Biophys. Acta 1532:105-114(2001).
Hu R.-M., Proc. Natl. Acad. Sci. U.S.A. 97:9543-9548(2000).

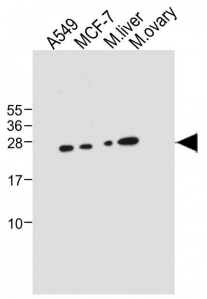
Images



Immunohistochemical analysis of AP1025B on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

Immunohistochemical analysis of AP1025B on paraffin-embedded Human liver tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.





All lanes : Anti-PEMT Antibody (C-term) at 1:1000 dilution Lane 1: A549 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: Mouse liver tissue lysate Lane 4: Mouse ovary tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.