

PEMT Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP1025a**Specification**

PEMT Blocking Peptide (N-term) - Product InformationPrimary Accession [Q9UBM1](#)**PEMT Blocking Peptide (N-term) - Additional Information****Gene ID** 10400**Other Names**

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

Target/Specificity

The synthetic peptide sequence is selected from aa 3-17 of HUMAN PEMT

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.

PEMT Blocking Peptide (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 Blocking Peptide (N-term) - Protocols

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

- [Blocking Peptides](#)

PEMT Blocking Peptide (N-term) - Images**PEMT Blocking Peptide (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 Blocking Peptide (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).