

PEMT Antibody / Phosphatidylethanolamine N-methyltransferase Antibody (FY13518)

Catalog No.	Formulation	Size
FY13518	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q9UBM1
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This PEMT Antibody / Phosphatidylethanolamine N-methyltransferase Antibody is supplied exclusively for research use.

PEMT Antibody by IHC in mouse stomach tissue. Immunohistochemistry of paraffin-embedded mouse stomach using Phosphatidylethanolamine N-methyltransferase Antibody demonstrates prominent granular brown staining in groups of epithelial cells, with blue hematoxylin-counterstained nuclei. Signal intensity varies across the tissue, with some regions showing little staining. Sections underwent heat-mediated antigen retrieval in EDTA buffer, pH 8.0, followed by blocking with goat serum and incubation with 2 ug/mL primary antibody overnight at 4oC. An HRP-conjugated anti-rabbit detection system with DAB chromogen was used. The image illustrates PEMT-associated immunoreactivity within gastric tissue.

PEMT Antibody by WB in rat and mouse liver. Western blot analysis using Phosphatidylethanolamine N-methyltransferase Antibody detects a band near 18 kDa in rat liver (lane 1) and mouse liver (lane 2). This migration agrees with published purification studies reporting an approximately 18.3 kDa PEMT protein, although the canonical sequence predicts a mass closer to 22 kDa. An additional prominent band near 30 kDa is uncharacterized; its identity cannot be assigned from the available data. Each lane contained 30 ug of reduced lysate separated on a 12% SDS-PAGE gel. Primary antibody was applied at 0.5 ug/mL overnight at 4°C, followed by HRP-conjugated secondary antibody and chemiluminescent detection.

PEMT Antibody by IHC in human prostate carcinoma. Immunohistochemistry of paraffin-embedded human prostate carcinoma using Phosphatidylethanolamine N-methyltransferase Antibody shows brown staining in epithelial structures, with variable signal intensity across glands and blue hematoxylin-counterstained nuclei. Tissue sections underwent heat-mediated antigen retrieval in EDTA buffer, pH 8.0, and blocking with goat serum. The primary antibody was applied at 2 ug/mL overnight at 4°C, followed by an HRP-linked anti-rabbit detection system and DAB chromogen. The image demonstrates a heterogeneous distribution of PEMT-associated immunoreactivity within the examined tumor tissue.

PEMT Antibody by FACS in MCF-7 cells. Flow cytometry of fixed and permeabilized MCF-7 cells using Phosphatidylethanolamine N-methyltransferase Antibody shows a rightward fluorescence shift of the blue antibody-stained population relative to the green isotype control and red unstained blank. Cells were fixed with 4% paraformaldehyde, permeabilized, and blocked with normal goat serum. The primary antibody was applied at 1 ug per 1×10^6 cells, followed by fluorescent anti-rabbit secondary antibody detection. The histogram supports intracellular PEMT-associated staining in this cell line.

Description

PEMT Antibody / Phosphatidylethanolamine N-methyltransferase Antibody detects PEMT, an enzyme that contributes to phosphatidylcholine biosynthesis by converting phosphatidylethanolamine through three successive methylation reactions. Each step uses S-adenosylmethionine as a methyl donor, linking membrane phospholipid production with cellular one-carbon metabolism. PEMT is associated primarily with membranes of the endoplasmic reticulum and mitochondria-associated membrane regions. Its activity provides a pathway for phosphatidylcholine formation that complements the CDP-choline, or Kennedy, pathway.

Phosphatidylcholine is a major constituent of cellular membranes and lipoproteins, while phosphatidylethanolamine contributes to membrane curvature and other physical properties. The relative abundance of these lipids can affect membrane organization, trafficking, and organelle function. PEMT activity is particularly relevant in the liver, where phosphatidylcholine is required for normal assembly and secretion of very-low-density lipoproteins. Because the enzyme consumes methyl groups, its activity also intersects with choline availability, homocysteine production, and broader methyl-donor balance. The Phosphatidylethanolamine N-methyltransferase Antibody designation reflects the full protein name associated with the PEMT target.

Variation in PEMT expression or activity may influence susceptibility to disturbances in hepatic lipid handling, especially under conditions of limited dietary choline. The enzyme has therefore attracted attention in studies of fatty liver disease, phospholipid homeostasis, and metabolic adaptation. Its contribution depends on the relative activity of other phosphatidylcholine-producing pathways and the availability of metabolic substrates. NSJ Bioreagents provides the PEMT Antibody in the context of this lipid-metabolizing target. A PEMT Antibody supports investigation of the enzyme connecting phosphatidylcholine synthesis, hepatic lipid transport, and methyl-group metabolism.

Explore related research targets in our [Metabolism Antibody / Metabolism Antibodies](#) collection.

Application Notes

The appropriate working dilution of the PEMT Antibody / Phosphatidylethanolamine N-methyltransferase Antibody should be optimized by the end user.

Immunogen

The PEMT Antibody was generated using a synthetic peptide corresponding to a sequence at the C-terminus of human PEMT.

Storage

Once reconstituted, refrigerate the PEMT Antibody at 4°C for no longer than one month. For extended storage, freeze aliquots at -20°C for up to six months and avoid repeated freeze-thaw cycles.

Alternate Names

PEMT antibody, Phosphatidylethanolamine N-methyltransferase antibody, PEMPT antibody, PNMT antibody, PEAMT antibody, PEMT2 antibody, Phospholipid methyltransferase antibody, PLMT antibody