SANTA CRUZ BIOTECHNOLOGY, INC.

PEMT (h): 293T Lysate: sc-116384

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Phosphatidylethanolamine-N-methyltransferase (PEMT) catalyzes the conversion of phosphatidylethanolamine to phosphatidylcholine (PC) through three sequential methylation reactions. This pathway is primarily utilized in liver, whereas other cells utilize the 1,2-diacylglycerol cholinephosphotransferase (CDP-choline) pathway. PEMT activity participates in many physiologic processes, including the flux of lipid between liver and plasma and the delivery of essential fatty acids to blood and peripheral tissues via liver-derived lipoproteins. PEMT2, an isoform of the enzyme, regulates hepatocyte cell division by inhibiting proliferation. Loss of PEMT2 may contribute to the onset of liver carcinogenesis.

REFERENCES

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2. Walkey, C.J., Donohue, L.R., Bronson, R., Agellon, L.B. and Vance, D.E. 1997. Disruption of the murine gene encoding phosphatidylethanolamine N-methyltransferase. Proc. Natl. Acad. Sci. USA 94: 12880-12885.
3. Vance, D.E., Walkey, C.J. and Cui, Z. 1997. Phosphatidylethanolamine N-methyltransferase from liver. Biochim. Biophys. Acta 1348: 142-150.
4. Walkey, C.J., Shields, D.J. and Vance, D.E. 1999. Identification of three novel cDNAs for human phosphatidylethanolamine N-methyltransferase and localization of the human gene on chromosome 17p11.2. Biochim. Biophys. Acta 1436: 405-412.
5. Watkins, S.M., Zhu, X. and Zeisel, S.H. 2003. Phosphatidylethanolamine-N-methyltransferase activity and dietary choline regulate liver-plasma lipid flux and essential fatty acid metabolism in mice. J. Nutr. 133: 3386-3891.

CHROMOSOMAL LOCATION

Genetic locus: PEMT (human) mapping to 17p11.2.

PRODUCT

PEMT (h): 293T Lysate represents a lysate of human PEMT transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PEMT (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PEMT antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.