

PCYT2 Rabbit pAb

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Product Information

Application WB, IHC-P, IHC-F, IF, E

Primary Accession <u>Q99447</u>

Reactivity Rat, Mouse, Dog, Horse

Host Rabbit
Clonality Polyclonal
Calculated MW 43835
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human PCYT2

Epitope Specificity 315-389/389

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SIMILARITY Belongs to the cytidylyltransferase family.

Important Note This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions Phosphatidylethanolamine (PtdEtn) is a major membrane phospholipid which

serves to play a primary role in cell membrane structure and is also involved in cell division, cell signaling, activation, phagocytosis and autophagy. PCYT2

(Phosphorylethanolamine transferase), also known as

Ethanolamine-phosphate cytidylyltransferase, is a 389 amino acid protein that

catalyzes the formation of CDP-ethanolamine from ethanolamine. This product combined with diacylglycerol form phosphatidylethanolamine via the de novo Kennedy pathway. PCYT2 is expressed at highest levels in heart, liver and skeletal muscle. Elevated levels of MyoD, reduced content of Sp1 and a changed ratio of Sp1 to Sp3 all together stimulate upregulation of PCTY2 transcription during C2C12 muscle cell differentiation. Disruption of the

PCYT2 gene in mice leads to death after embryo implantation, establishing

the necessity of PCYT2 for murine development.

Additional Information

Gene ID 5833

Other Names Ethanolamine-phosphate cytidylyltransferase, 2.7.7.14,

CTP:phosphoethanolamine cytidylyltransferase, Phosphorylethanolamine

transferase, PCYT2

Target/Specificity Strongest expression in liver, heart, and skeletal muscle.

Dilution WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-

500,ELISA=1:5000-10000

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name PCYT2

Function Ethanolamine-phosphate cytidylyltransferase that catalyzes the second step

in the synthesis of phosphatidylethanolamine (PE) from ethanolamine via the CDP-ethanolamine pathway (PubMed:31637422, PubMed:9083101). Phosphatidylethanolamine is a dominant inner-leaflet phospholipid in cell

membranes, where it plays a role in membrane function by structurally stabilizing membrane-anchored proteins, and participates in important cellular processes such as cell division, cell fusion, blood coagulation, and

apoptosis (PubMed: 9083101).

Tissue Location Strongest expression in liver, heart, and skeletal muscle.

Background

Phosphatidylethanolamine (PtdEtn) is a major membrane phospholipid which serves to play a primary role in cell membrane structure and is also involved in cell division, cell signaling, activation, phagocytosis and autophagy. PCYT2 (Phosphorylethanolamine transferase), also known as Ethanolamine-phosphate cytidylyltransferase, is a 389 amino acid protein that catalyzes the formation of CDP-ethanolamine from ethanolamine. This product combined with diacylglycerol form phosphatidylethanolamine via the de novo Kennedy pathway. PCYT2 is expressed at highest levels in heart, liver and skeletal muscle. Elevated levels of MyoD, reduced content of Sp1 and a changed ratio of Sp1 to Sp3 all together stimulate upregulation of PCTY2 transcription during C2C12 muscle cell differentiation. Disruption of the PCYT2 gene in mice leads to death after embryo implantation, establishing the necessity of PCYT2 for murine development.

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