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PCYT2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54588

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q99447
Reactivity	Rat, Dog, Bovine
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=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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.