

PCYT1A Rabbit pAb

PCYT1A Rabbit pAb Catalog # AP94840

Product Information

Application IHC-P, IHC-F, IF

Primary Accession P49585

Reactivity Pig, Human, Mouse, Rabbit, Horse

Host Rabbit
Clonality Polyclonal
Calculated MW 41731
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human PCYT1A

Epitope Specificity 201-300/367

Isotype IgG

Purity affinity purified by Protein A

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

SUBCELLULAR LOCATION Cytoplasm; cytosol. Membrane. It can interconvert between an inactive

cytosolic form and an active membrane-bound form.

SIMILARITY Belongs to the cytidylyltransferase family.

SUBUNIT Homodimer.

Post-translational The serine residues of the C-terminus are phosphorylated. The inactive modifications soluble form is stabilized by phosphorylation, the active membrane bound

form is promoted by anionic lipids or diacylglycerol, and is stabilized by

dephosphorylation.

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

human, therapeutic or diagnostic applications.

Additional Information

Gene ID 5130

Other Names Choline-phosphate cytidylyltransferase A, 2.7.7.15, CCT-alpha,

CTP:phosphocholine cytidylyltransferase A, CCT A, CT A, Phosphorylcholine

transferase A, PCYT1A, CTPCT, PCYT1

Target/Specificity Cancer, Neurotrophins, Lipid metabolism

Dilution IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

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 PCYT1A

Synonyms CTPCT, PCYT1

Function Catalyzes the key rate-limiting step in the CDP-choline pathway for

phosphatidylcholine biosynthesis.

Cellular Location Cytoplasm, cytosol {ECO:0000250 | UniProtKB:P19836}. Membrane

{ECO:0000250|UniProtKB:P19836}; Peripheral membrane protein {ECO:0000250|UniProtKB:P19836}. Endoplasmic reticulum membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:P19836}. Nucleus Note=It can interconvert between an inactive cytosolic form and an active

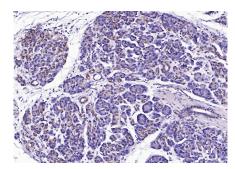
membrane-bound form. {ECO:0000250 | UniProtKB:P19836}

Tissue Location Brain, placenta, liver, fetal and adult lung.

Background

Increase in fetal surfactant synthesis and lung maturity is caused by the glucocorticoidal induction of enzymes required for phosphatidylcholine synthesis towards the end of gestation (1). The regulation of gestational age-dependent induction of phosphatidylcholine synthesis by glucocorticoids is still unclear (1). The rate-controlling enzyme in the phosphatidylcholine biosynthetic pathway is CTP-phosphocholine cytidylyltransferase A (CCT A) (2–4). In cultured eukaryotic cells, this enzyme is essential for survival (3). The alpha isoform is located in the nucleus and is regulated by reversible phosphorylation and membrane association (3). There is significant identity between the alpha-helical membrane-binding domains of CCT A and soybean oleosin (2). Expressed CCT A has lipid-dependent cytidylyltransferase activity (5). The gene which encodes CCT A maps to human chromosome 3q (4).

Images



Paraformaldehyde-fixed, paraffin embedded (human pancreatic cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PCYT1A) Polyclonal Antibody, Unconjugated (AP94840) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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