Product Name: PCB Rabbit Polyclonal Antibody
Catalog #: APRab15816

Summary

Production Name	PCB Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC,WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PC
Alternative Names	PC; Pyruvate carboxylase; mitochondrial; Pyruvic carboxylase; PCB
Gene ID	5091.0
SwissProt ID	P11498.The antiserum was produced against synthesized peptide derived from human PC. AA range:357-406

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC-p: 1:100-300 ELISA: 1:20000.
Molecular Weight	120kD

Background

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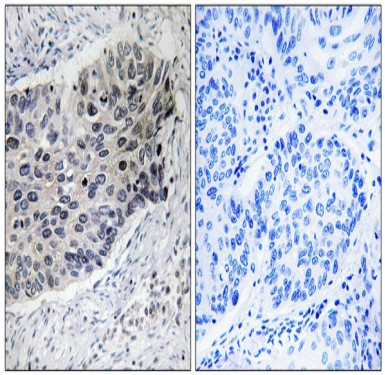
This gene encodes pyruvate carboxylase, which requires biotin and ATP to catalyse the carboxylation of pyruvate to oxaloacetate. The active enzyme is a homotetramer arranged in a tetrahedron which is located exclusively in the mitochondrial matrix. Pyruvate carboxylase is involved in gluconeogenesis, lipogenesis, insulin secretion and synthesis of the neurotransmitter glutamate. Mutations in this gene have been associated with pyruvate carboxylase deficiency. Alternatively spliced transcript variants with different 5' UTRs, but encoding the same protein, have been found for this gene. [provided by RefSeq, Jul 2008],catalytic activity:ATP + pyruvate + HCO(3)(-) = ADP + phosphate + oxaloacetate.,cofactor:Binds 1 manganese ion per subunit.,cofactor:Biotin.,disease:Defects in PC are the cause of pyruvate carboxylase deficiency (PC deficiency) [MIM:266150]. PC deficiency leads to lactic acidosis, mental retardation and death. It occurs in three forms: mild or type A, severe neonatal or type B, and a very mild lacticacidemia.,function:Pyruvate carboxylase catalyzes a 2-step reaction, involving the ATP-dependent carboxylation of the covalently attached biotin in the first step and the transfer of the carboxyl group to pyruvate in the second. Catalyzes in a tissue specific manner, the initial reactions of glucose (liver, kidney) and lipid (adipose tissue, liver, brain) synthesis from pyruvate.,online information:Pyruvate carboxylase entry,pathway:Carbohydrate biosynthesis; gluconeogenesis.,similarity:Contains 1 ATP-grasp domain.,similarity:Contains 1 biotin carboxylation domain.,similarity:Contains 1 biotinyl-binding domain.,similarity:Contains 1 carboxyltransferase domain.,subunit:Homotetramer.,

Research Area

Citrate cycle (TCA cycle);Pyruvate metabolism;

Image Data



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using PC Antibody. The picture on the right is blocked with the synthesized peptide.

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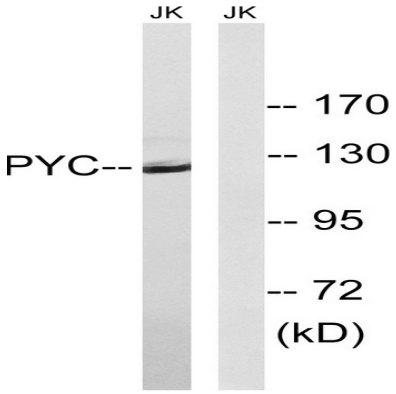
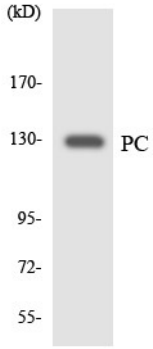


Western blot analysis of lysates from Jurkat cells, using PC Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HT-29 cells using PC antibody.

Note

For research use only.