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PC Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12494A

Product Information

Application	WB, IHC-P, E
Primary Accession	P11498
Other Accession	P52873, Q05920, Q29RK2, NP_001035806.1, NP_000911.2
Reactivity	Human, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31105
Calculated MW	129634
Antigen Region	53-82

Additional Information

Gene ID	5091
Other Names	Pyruvate carboxylase, mitochondrial, Pyruvic carboxylase, PCB, PC
Target/Specificity	This PC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 53-82 amino acids from the N-terminal region of human PC.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PC Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PC (HGNC:8636)
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.

Cellular Location Mitochondrion matrix

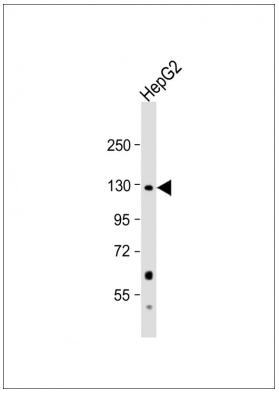
Background

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].

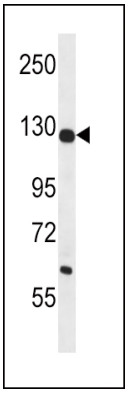
References

MacDonald, M.J., et al. Diabetologia 52(6):1087-1091(2009)
Monnot, S., et al. Hum. Mutat. 30(5):734-740(2009)
Wang, D., et al. Mol. Genet. Metab. 95 (1-2), 31-38 (2008) :
Vora, S., et al. Natl Med J India 21(3):116-119(2008)
Xiang, S., et al. Nat. Struct. Mol. Biol. 15(3):295-302(2008)

Images

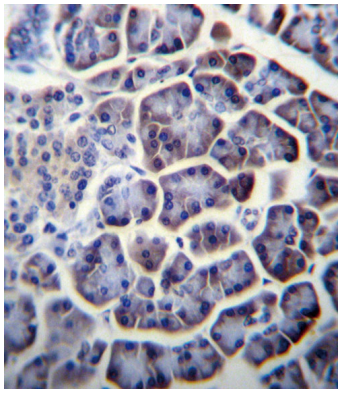


Anti-PC Antibody (N-term) at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 130 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



PC Antibody (N-term) (Cat. #AP12494a) western blot analysis in mouse liver tissue lysates (35ug/lane).This demonstrates the PC antibody detected the PC protein (arrow).

PC Antibody (N-term) (Cat. #AP12494a)immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PC Antibody (N-term) for immunohistochemistry.



Clinical relevance has not been evaluated.