

For Research Use Only

PCCA Polyclonal antibody

Catalog Number: 21988-1-AP

11 Publications



Basic Information

Catalog Number:

21988-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG17271

GenBank Accession Number:

BC000140

GeneID (NCBI):

5095

UNIPROT ID:

P05165

Full Name:

propionyl Coenzyme A carboxylase, alpha polypeptide

Calculated MW:

80 kDa

Observed MW:

70 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:8000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IP, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse

Positive Controls:

WB: mouse heart tissue, L02 cells, NIH/3T3 cells, mouse liver tissue, rat liver tissue, mouse skeletal muscle tissue, rat heart tissue

IP: L02 cells,

IHC: human liver cancer tissue, human kidney tissue

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

Propionyl-CoA carboxylase (PCC) catalyzes the biotin-dependent carboxylation of propionyl-CoA to D-methyl-malonyl CoA, a reaction that occurs in the mitochondrial matrix. PCC is involved in the catabolism of several essential amino acids (methionine, isoleucine, threonine and valine), as well as odd chain fatty acids and cholesterol. Deficiency of PCC results in propionic acidemia, a metabolic disorder characterized by severe metabolic ketoacidosis, vomiting, lethargy and hypotonia. PCC consists of nonidentical subunits (α and β) encoded by different genes (PCCA and PCCB, respectively). The α PCC cDNA contains an open reading frame of 2106 nucleotide bases and codes for a 702 amino acid polypeptide. The mature length subunit is 70 kDa and contains the biotin binding site.(PMID:8852656). This protein has 3 isoforms produced by alternative splicing with the molecular weight of 80 kDa, 77 kDa and 75 kDa. The full length protein has a transit peptide with 52 amino acids which will be removed in mature form. This antibody is specific to PCCA.

Notable Publications

Author	Pubmed ID	Journal	Application
Lei Jiang	33087718	Nat Commun	IF
Wentao He	34635437	Mol Genet Metab	WB
Adam Guenzel	25046265	Hum Gene Ther	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

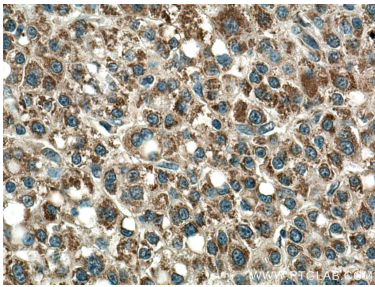
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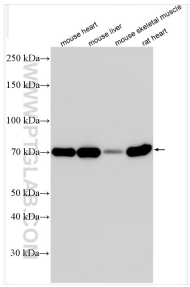
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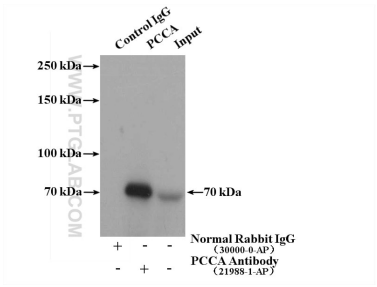
Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 21988-1-AP (PCCA antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Various lysates were subjected to SDS PAGE followed by western blot with 21988-1-AP (PCCA antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



IP result of anti-PCCA (IP:21988-1-AP, 4ug; Detection:21988-1-AP 1:1000) with L02 cells lysate 1800ug.