

# PCCA Polyclonal antibody

Catalog Number: 21988-1-AP

10 Publications

## Basic Information

## Catalog Number:

21988-1-AP

## Size:

600 µg/ml

## 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 1:1000-1:6000

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

IHC 1:50-1:500

## Applications

## Tested Applications:

IHC, IP, WB, ELISA

## Cited Applications:

IF, WB

## Species Specificity:

human, mouse, rat

## Cited Species:

human, mouse

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

## Positive Controls:

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

IP: L02 cells,

IHC: human liver cancer tissue, human kidney tissue

## Background Information

Propionyl-CoA carboxylase (PCC) catalyzes the biotin-dependent carboxylation of propionyl-CoA to D-methylmalonyl 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 ( $\alpha$  and  $\beta$ ) encoded by different genes (PCCA and PCCB, respectively). The  $\alpha$  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

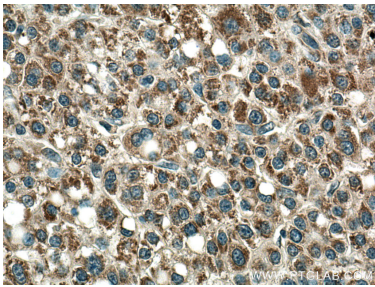
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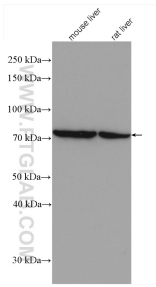
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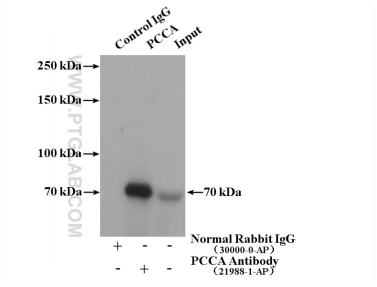
Selected Validation Data



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 1:3000 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.