

PCCB Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8843c

Product Information

Application	WB, FC, E
Primary Accession	P05166
Other Accession	P79384 , Q99MN9 , Q2TBR0
Reactivity	Human
Predicted	Bovine, Mouse, Pig, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21310
Calculated MW	58216
Antigen Region	82-107

Additional Information

Gene ID	5096
Other Names	Propionyl-CoA carboxylase beta chain, mitochondrial, PCCase subunit beta, Propanoyl-CoA:carbon dioxide ligase subunit beta, PCCB
Target/Specificity	This PCCB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 82-107 amino acids from the Central region of human PCCB.
Dilution	WB~~1:1000 FC~~1:10~50 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	PCCB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PCCB (HGNC:8654)
Function	This is one of the 2 subunits of the biotin-dependent propionyl-CoA carboxylase (PCC), a mitochondrial enzyme involved in the catabolism of odd

chain fatty acids, branched-chain amino acids isoleucine, threonine, methionine, and valine and other metabolites (PubMed:[15890657](#), PubMed:[6765947](#)). Propionyl-CoA carboxylase catalyzes the carboxylation of propionyl-CoA/propanoyl-CoA to D-methylmalonyl-CoA/(S)-methylmalonyl-CoA (PubMed:[15890657](#), PubMed:[6765947](#)). Within the holoenzyme, the alpha subunit catalyzes the ATP-dependent carboxylation of the biotin carried by the biotin carboxyl carrier (BCC) domain, while the beta subunit then transfers the carboxyl group from carboxylated biotin to propionyl-CoA (By similarity). Propionyl-CoA carboxylase also significantly acts on butyryl-CoA/butanoyl-CoA, which is converted to ethylmalonyl-CoA/(2S)-ethylmalonyl-CoA at a much lower rate (PubMed:[6765947](#)). Other alternative minor substrates include (2E)-butenoyl-CoA/crotonoyl-CoA (By similarity).

Cellular Location

Mitochondrion matrix

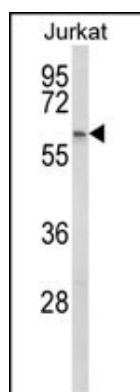
Background

PCCB is a subunit of the propionyl-CoA carboxylase (PCC) enzyme, which is involved in the catabolism of propionyl-CoA. PCC is a mitochondrial enzyme that probably acts as a dodecamer of six alpha subunits and six beta subunits.

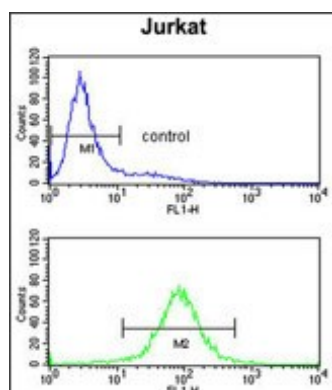
References

Yang,X., et.al.,Mol. Genet. Metab. 81 (4), 335-342 (2004)

Images



Western blot analysis of PCCB Antibody (Center) (Cat. #AP8843c) in Jurkat cell line lysates (35ug/lane). PCCB (arrow) was detected using the purified Pab.



PCCB Antibody (Center) (Cat. #AP8843c) flow cytometry analysis of Jurkat cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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