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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

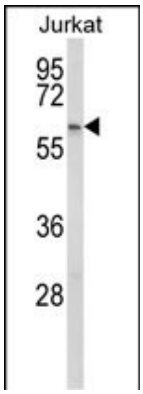
Background

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.

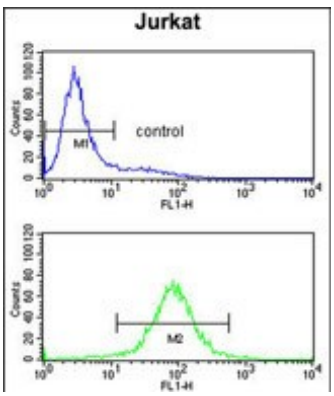
References

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'.