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PCCB Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP8843c

Specification

PCCB Antibody (Center) Blocking Peptide - Product Information

Primary Accession P05166

PCCB Antibody (Center) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP8843c was selected from the Center region of human PCCB. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PCCB Antibody (Center) Blocking Peptide - 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:6765947, PubMed:15890657). Propionyl-CoA carboxylase catalyzes the carboxylation of propionyl-CoA/propanoyl-CoA to D-methylmalonyl- CoA/(S)-methylmalonyl-CoA (PubMed:6765947, PubMed:15890657). 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

PCCB Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

PCCB Antibody (Center) Blocking Peptide - Images

PCCB Antibody (Center) Blocking Peptide - 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.

PCCB Antibody (Center) Blocking Peptide - References

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