




Product datasheet

Anti-PCK1/PEPC antibody ab115693

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Overview

Product name	Anti-PCK1/PEPC antibody
Description	Goat polyclonal to PCK1/PEPC
Host species	Goat
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Cow, Dog, Pig, Xenopus laevis 
Immunogen	Synthetic peptide corresponding to Human PCK1/PEPC aa 500-600 (internal sequence) (Cysteine residue). Database link: NP_002582.3  Run BLAST with  Run BLAST with
Positive control	Human kidney and liver tissues.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 99% Tris buffered saline, 0.5% BSA
Purity	Protein G purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab115693 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 2 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Catalyzes the conversion of oxaloacetate (OAA) to phosphoenolpyruvate (PEP), the rate-limiting step in the metabolic pathway that produces glucose from lactate and other precursors derived from the citric acid cycle.

Tissue specificity

Major sites of expression are liver, kidney and adipocytes.

Pathway

Carbohydrate biosynthesis; gluconeogenesis.

Involvement in disease

Defects in PCK1 are the cause of cytosolic phosphoenolpyruvate carboxykinase deficiency (cytosolic PEPCK deficiency) [MIM:261680]. PEPCK deficiency is a metabolic disorder resulting from impaired gluconeogenesis. It is a rare disease with less than 10 cases reported in the literature. Clinical characteristics include hypotonia, hepatomegaly, failure to thrive, lactic acidosis and hypoglycemia. Autopsy reveals fatty infiltration of both the liver and kidneys. The disorder is transmitted as an autosomal recessive trait.

Sequence similarities

Belongs to the phosphoenolpyruvate carboxykinase [GTP] family.

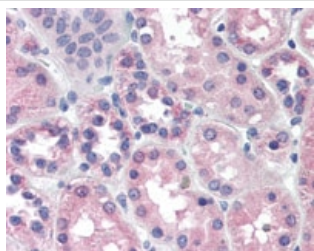
Post-translational modifications

Acetylation is increased on addition of glucose and appears to regulate the protein stability.

Cellular localization

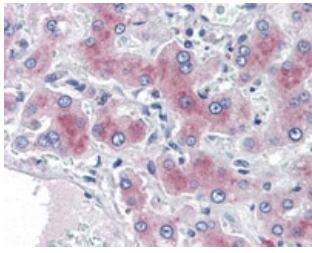
Cytoplasm.

Images



ab115693, at 2µg/ml, staining PCK1//PEPC in Formalin-fixed, Paraffin-embedded Human Kidney tissue by Immunohistochemistry followed by biotinylated secondary antibody, alkaline phosphatase-streptavidin and chromogen.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCK1/PEPC antibody (ab115693)



ab115693, at 2µg/ml, staining PCK1/PEPC in Formalin-fixed, Paraffin-embedded Human Liver tissue by Immunohistochemistry followed by biotinylated secondary antibody, alkaline phosphatase-streptavidin and chromogen.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCK1/PEPC antibody (ab115693)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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