

Product datasheet

Anti-PCK1/PEPC antibody ab28455

★★★★☆ 4 Abreviews 13 References 5 Images

Overview

Product name	Anti-PCK1/PEPC antibody
Description	Rabbit polyclonal to PCK1/PEPC
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF, WB
Species reactivity	Reacts with: Mouse, Rat, Sheep, Human, Monkey Predicted to work with: Rabbit, Horse, Chicken, Guinea pig, Cow, Cat, Dog, Pig, Caenorhabditis elegans 
Immunogen	Synthetic peptide corresponding to Human PCK1/PEPC aa 330-379.
Positive control	Jurkat whole cell lysate (ab7899), Human kidney
General notes	This product was previously labelled as PCK1

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab28455** in the following tested applications.

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

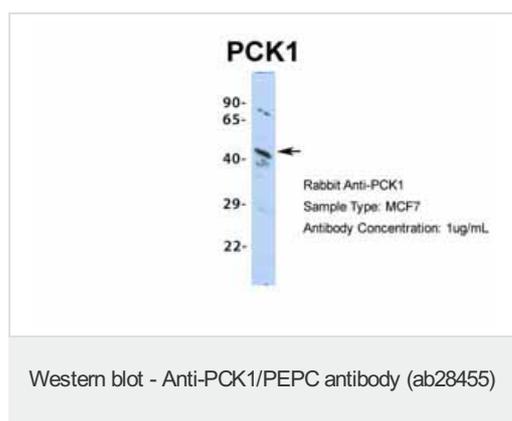
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★☆	Use a concentration of 1.25 µg/ml. Predicted molecular weight: 69 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.

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



Western Blot using ab28455 at 1.0ug/ml. Sample type: Human MCF7 cell Lysate



Western blot - Anti-PCK1/PEPC antibody (ab28455)

Western Blot using ab28455 at 1.0ug/ml. Sample type: Human Jurkat cell Lysate



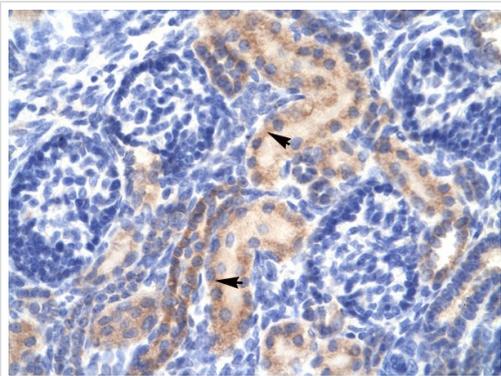
Western blot - Anti-PCK1/PEPC antibody (ab28455)

Anti-PCK1/PEPC antibody (ab28455) at 1.25 µg/ml + Jurkat cell lysate

Secondary

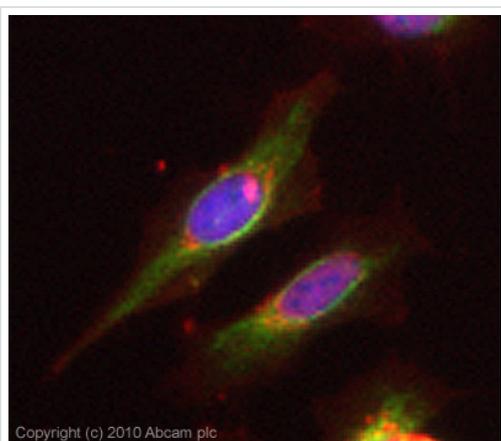
HRP conjugated anti-Rabbit IgG diluted in 1:50,000-100,000

Predicted band size: 69 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCK1/PEPC antibody (ab28455)

Antibody concentration: 4 - 8 ug/ml Paraffin-embedded Tissue:
Human Kidney Cells with positive label: Epithelial cells of renal tubule (indicated with arrows) Magnification: x400



Immunocytochemistry/ Immunofluorescence - Anti-PCK1/PEPC antibody (ab28455)

ICC/IF image of ab28455 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab28455, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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