Product Name: PEPCK-C Rabbit Polyclonal Antibody
Catalog #: APRab15963
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	65kDa

Antigen Information

Gene Name	PCK1
Alternative Names	PCK1; PEPCK1; Phosphoenolpyruvate carboxykinase, cytosolic [GTP]; PEPCK-C; Phosphoenolpyruvate carboxylase
Gene ID	5105.0
SwissProt ID	P35558
Immunogen	The antiserum was produced against synthesized peptide derived from the Internal region of human PCK1. AA range:491-540

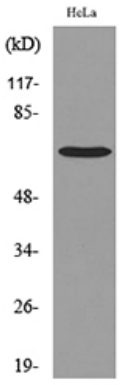
Background

This gene is a main control point for the regulation of gluconeogenesis. The cytosolic enzyme encoded by this gene, along with GTP, catalyzes the formation of phosphoenolpyruvate from oxaloacetate, with the release of carbon dioxide and GDP. The expression of this gene can be regulated by insulin, glucocorticoids, glucagon, cAMP, and diet. Defects in this gene are a cause of cytosolic phosphoenolpyruvate carboxykinase deficiency. A mitochondrial isozyme of the encoded protein also has been characterized. [provided by RefSeq, Jul 2008],catalytic activity:GTP + oxaloacetate = GDP + phosphoenolpyruvate + CO(2).,cofactor:Binds 1 manganese ion per subunit.,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 hypoglycaemia. Autoposy reveals fatty infiltration of both the liver and kidneys. The disorder is transmitted as an autosomal recessive trait.,enzyme regulation:Activity is affected by a number of hormones regulating this metabolic process (such as glucagon, insulin, or glucocorticoids).,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.,miscellaneous:In eukaryotes there are two isozymes: a cytoplasmic one and a mitochondrial one.,pathway:Carbohydrate biosynthesis; gluconeogenesis.,similarity:Belongs to the phosphoenolpyruvate carboxykinase [GTP] family.,subunit:Monomer.,tissue specificity:Major sites of expression are liver, kidney and adipocytes.,

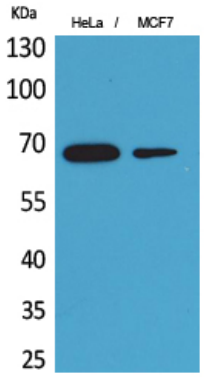
Research Area

Glycolysis / Gluconeogenesis;Citrate cycle (TCA cycle);Pyruvate metabolism;PPAR;Insulin_Receptor;Adipocytokine;

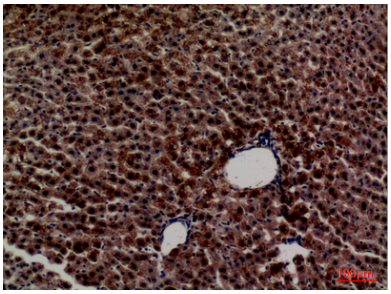
Image Data



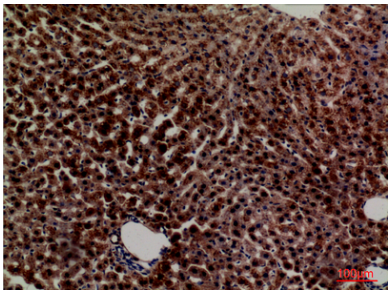
Western blot analysis of lysate from HeLa cells, using PCK1 Antibody.



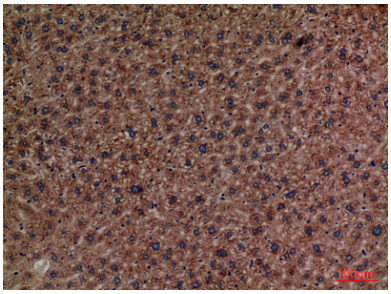
Western Blot analysis of HeLa, MCF7 cells using PEPCK-C Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded rat-liver, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded rat-liver, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded mouse-liver, antibody was diluted at 1:100