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Rabbit Anti-PCK1/AP Conjugated antibody

SL4972R-AP

Product Name	Anti-PCK1/AP
Chinese Name	碱性磷酸酶（AP）标记的磷酸烯醇丙酮酸羧激酶抗体
Alias	PCK1; PEPC; GTP; MGC22652; PEP carboxykinase; PEPCK 1; PEPCK1; PEPCKC; Phosphoenolpyruvate carboxykinase 1; Phosphoenolpyruvate carboxylase; Phosphopyruvate carboxylase.
Research Area	Tumour Cell biology immunology Neurobiology Kinases and Phosphatases
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse(predicted:Human,Rat,Dog,Pig,Cow,Rabbit,Sheep)
Applications	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	69kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human PCK1
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** PCK1 is a main control point for the regulation of gluconeogenesis. This cytosolic enzyme, along with GTP, catalyzes the formation of phosphoenolpyruvate from oxaloacetate, with the release of carbon dioxide and GDP. The expression of the corresponding gene can be regulated by insulin, glucocorticoids, glucagon, cAMP, and diet. A mitochondrial isozyme has also been characterized.

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.

Subunit:
Monomer.

Subcellular Location:
Cytoplasm.

Tissue Specificity:
Major sites of expression are liver, kidney and adipocytes.

Post-translational modifications:
Acetylation is increased on addition of glucose and appears to regulate the protein stability.

DISEASE:
Defects in PCK1 are the cause of cytosolic phosphoenolpyruvate carboxykinase deficiency (C-PEPCKD) [MIM:261680]. 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. Autoposy reveals fatty infiltration of both the liver and kidneys. The disorder is transmitted as an autosomal recessive trait.

Similarity:
Belongs to the phosphoenolpyruvate carboxykinase [GTP] family.

Database links:

Entrez Gene: 396458 Chicken

Entrez Gene: 282855 Cow

Entrez Gene: 403560 Dog

Entrez Gene: 5105 Human

Entrez Gene: 18534 Mouse

Entrez Gene: 100144531 Pig

Entrez Gene: 362282 Rat

Omim: 614168 Human

SwissProt: P05153 Chicken

SwissProt: P35558 Human

SwissProt: Q9Z2V4 Mouse

SwissProt: P07379 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.