SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Marker Primary Antibody]

Rabbit Anti-PCK1/Biotin Conjugated antibody

Catalog Number: SL4972R-Bio

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-PCK1/Biotin
Immunogen:	KLH conjugated synthetic peptide derived from human PCK1
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
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.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse(predicted:Human,Rat,Dog,Pig,Cow,Rabbit,Sheep)
Background:	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.

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

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	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.

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