

**Goat Anti-Pyruvate Carboxylase Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1888a****Specification**

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**Goat Anti-Pyruvate Carboxylase Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P11498</a>
Other Accession	<a href="#">NP_071504</a> , <a href="#">5091</a> , <a href="#">18563 (mouse)</a> , <a href="#">25104 (rat)</a>
Reactivity	Mouse
Predicted	Human, Rat, Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	129634

**Goat Anti-Pyruvate Carboxylase Antibody - Additional Information****Gene ID** 5091**Other Names**

Pyruvate carboxylase, mitochondrial, 6.4.1.1, Pyruvic carboxylase, PCB, PC

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Pyruvate Carboxylase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Pyruvate Carboxylase Antibody - Protein Information****Name** PC ([HGNC:8636](#))**Function**

Pyruvate carboxylase catalyzes a 2-step reaction, involving the ATP-dependent carboxylation of the covalently attached biotin in the first step and the transfer of the carboxyl group to pyruvate in

the second. Catalyzes in a tissue specific manner, the initial reactions of glucose (liver, kidney) and lipid (adipose tissue, liver, brain) synthesis from pyruvate.

**Cellular Location**

Mitochondrion matrix

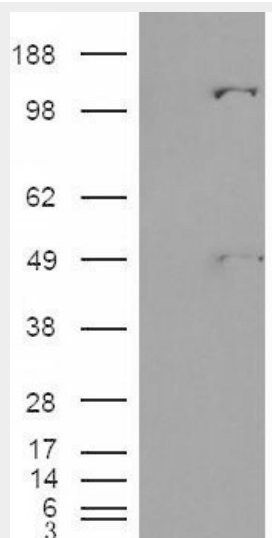
**Goat Anti-Pyruvate Carboxylase Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Goat Anti-Pyruvate Carboxylase Antibody - Images**

AF1888a (0.03 µg/ml) staining of Mouse Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing Human Pyruvate Carboxylase (RC221895) and probed with AF1888a (mock transfection in first lane), tested by Origene.

### **Goat Anti-Pyruvate Carboxylase Antibody - Background**

This gene encodes pyruvate carboxylase, which requires biotin and ATP to catalyse the carboxylation of pyruvate to oxaloacetate. The active enzyme is a homotetramer arranged in a tetrahedron which is located exclusively in the mitochondrial matrix. Pyruvate carboxylase is involved in gluconeogenesis, lipogenesis, insulin secretion and synthesis of the neurotransmitter glutamate. Mutations in this gene have been associated with pyruvate carboxylase deficiency. Alternatively spliced transcript variants with different 5' UTRs, but encoding the same protein, have been found for this gene.

### **Goat Anti-Pyruvate Carboxylase Antibody - References**

Structural insights on pathogenic effects of novel mutations causing pyruvate carboxylase deficiency. Monnot S, et al. Hum Mutat, 2009 May. PMID 19306334.  
Decreased levels of metabolic enzymes in pancreatic islets of patients with type 2 diabetes. MacDonald MJ, et al. Diabetologia, 2009 Jun. PMID 19296078.  
Thrombophilia and unexplained pregnancy loss in Indian patients. Vora S, et al. Natl Med J India, 2008 May-Jun. PMID 19004141.  
The molecular basis of pyruvate carboxylase deficiency: mosaicism correlates with prolonged survival. Wang D, et al. Mol Genet Metab, 2008 Sep-Oct. PMID 18676167.  
Crystal structures of human and Staphylococcus aureus pyruvate carboxylase and molecular insights into the carboxyltransfer reaction. Xiang S, et al. Nat Struct Mol Biol, 2008 Mar. PMID 18297087.