

**Goat Anti-PCK2 / PEPCK-M Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1797a

## Specification

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### Goat Anti-PCK2 / PEPCK-M Antibody - Product Information

Application	WB, IF, FC
Primary Accession	<a href="#">Q16822</a>
Other Accession	<a href="#">NP_004554</a> , <a href="#">5106</a>
Reactivity	Human, Mouse, Rat, Guinea Pig
Predicted	Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	70699

### Goat Anti-PCK2 / PEPCK-M Antibody - Additional Information

**Gene ID** 5106

#### Other Names

Phosphoenolpyruvate carboxykinase [GTP], mitochondrial, PEPCK-M, 4.1.1.32, PCK2, PEPCK2

#### 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-PCK2 / PEPCK-M Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Goat Anti-PCK2 / PEPCK-M Antibody - Protein Information

**Name** PCK2 ([HGNC:8725](#))

**Synonyms** PEPCK2

#### Function

Mitochondrial phosphoenolpyruvate carboxykinase that 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 (PubMed:<<http://www.uniprot.org/citations/28955899>>28955899</a>). Can play an

active role in glyceroneogenesis and gluconeogenesis (PubMed:<a href="http://www.uniprot.org/citations/28955899" target="\_blank">28955899</a>).

**Cellular Location**

Mitochondrion.

**Tissue Location**

Widely expressed..

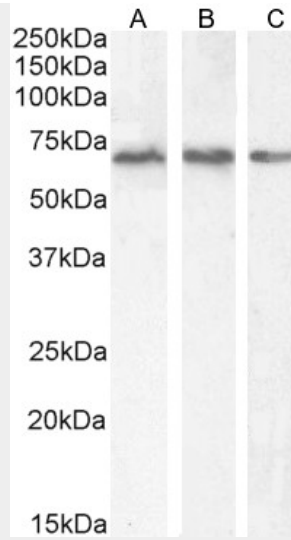
**Goat Anti-PCK2 / PEPCK-M Antibody - Protocols**

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-PCK2 / PEPCK-M Antibody - Images**

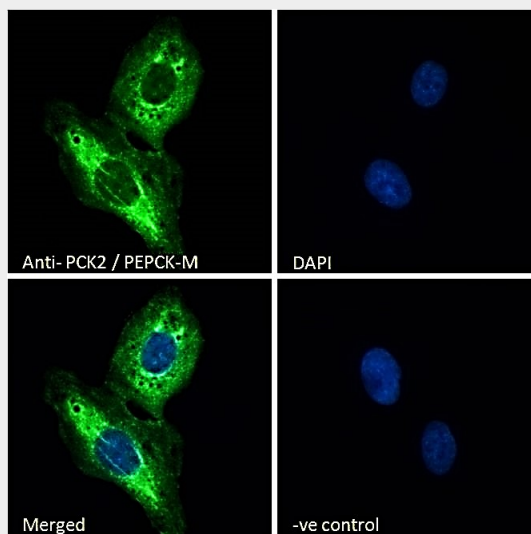
AF1797a (2 µg/ml) staining of Human Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



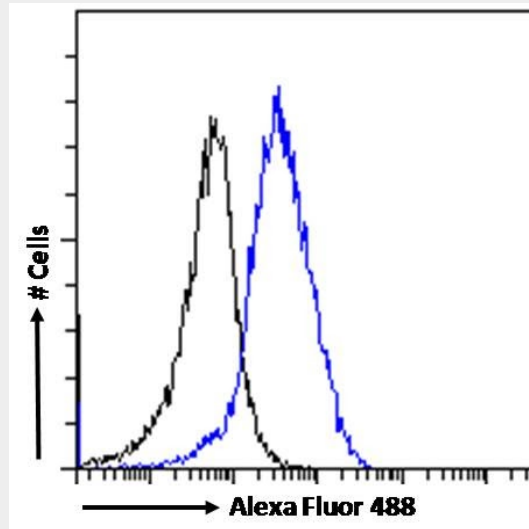
EB06944 (2µg/ml) staining of A431 (A), HEK293 (B) and (1µg/ml) HepG2 (C) cell lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



.EB06944 (2µg/ml) staining of NIH3T3 cell lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB06944 Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (b



EB06944 Flow cytometric analysis of paraformaldehyde fixed MCF7 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) fol

#### Goat Anti-PCK2 / PEPCK-M Antibody - Background

This gene encodes a member of the phosphoenolpyruvate carboxykinase (GTP) family. The protein is a mitochondrial enzyme that catalyzes the conversion of oxaloacetate to phosphoenolpyruvate in the presence of GTP. A cytosolic form encoded by a different gene has also been characterized and is the key enzyme of gluconeogenesis in the liver. The encoded protein may serve a similar function, although it is constitutively expressed and not modulated by hormones such as glucagon and insulin that regulate the cytosolic form. Alternatively spliced transcript variants have been described.

#### Goat Anti-PCK2 / PEPCK-M Antibody - References

COMMON VARIANTS IN 40 GENES ASSESSED FOR DIABETES INCIDENCE AND RESPONSE TO METFORMIN AND LIFESTYLE INTERVENTIONS IN THE DIABETES PREVENTION PROGRAM. Jablonski KA, et al. *Diabetes*, 2010 Aug 3. PMID 20682687.

Fasting hyperglycemia is not associated with increased expression of PEPCK or G6Pc in patients with Type 2 Diabetes. Samuel VT, et al. *Proc Natl Acad Sci U S A*, 2009 Jul 21. PMID 19587243.

Endurance capacity, not body size, determines physical activity levels: role of skeletal muscle PEPCK. Novak CM, et al. *PLoS One*, 2009 Jun 12. PMID 19521512.

Multiple genetic variants along candidate pathways influence plasma high-density lipoprotein cholesterol concentrations. Lu Y, et al. *J Lipid Res*, 2008 Dec. PMID 18660489.

AMP-activated protein kinase regulates PEPCK gene expression by direct phosphorylation of a novel zinc finger transcription factor. Inoue E, et al. *Biochem Biophys Res Commun*, 2006 Dec 29. PMID 17097062.