PRODUCT INFORMATION

PEPCK Polyclonal Antibody

Item No. 10004943

Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	Phosphoenolpyruvate carboxykinase, Pck1, PEPCK-c
Immunogen:	Peptide from the N-terminal region of mouse PEPCK
Species Reactivity:	(+) Mouse and rat PEPCK
Uniprot No.:	Q9Z2V4
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol, 0.1% BSA and 0.02% sodium azide
Host:	Rabbit
Application:	Western blot; the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Description

Phosphoenolpyruvate carboxykinase (PEPCK) is a hormonally regulated enzyme responsible for the first committed step in gluconeogenesis, catalyzing the conversion of oxaloacetate to phosphoenolpyruvate.[1,2] PEPCK mRNA is most abundant in the liver, kidney cortex, and white adipose tissue but is also found in brown fat, the mammary gland during lactation, and the small intestine.[2] Both non-insulin-dependent diabetes mellitus and streptozotocin-induced diabetes result in elevated PEPCK activity, protein, and mRNA.[1,3] Two isozymes of PEPCK have been identified, cytosolic and mitochondrial.[4] Cayman's PEPCK Polyclonal Antibody was generated against mouse cytosolic PEPCK and detects the protein at 63 kDa by western blotting in rat and mouse samples.

References

1. Friedman, J.E., Yun, J.S., Patel, Y.M., *et al.* Glucocorticoids regulate the induction of phosphoenolpyruvate carboxykinase (GTP) gene transcription during diabetes. *J. Biol. Chem.* **268(17)**, 12952-12957 (1993).
2. Rajas, F., Croset, M., Zitoun, C., *et al.* Induction of PEPCK gene expression in insulinopenia in rat small intestine. *Diabetes* **49**, 1165-1168 (2000).
3. Veneziale, C.M., Donofrio, J.C., and Nishimura, H. The concentration of P-enolpyruvate carboxykinase protein in murine tissues in diabetes of chemical and genetic origin. *J. Biol. Chem.* **258(23)**, 14257-14262 (1983).
4. Weldon, S.L., Rando, A., Matathias, A.S., *et al.* Mitochondrial phosphoenolpyruvate carboxykinase from the chicken. Comparison of the cDNA and protein sequences with the cytosolic isozyme. *J. Biol. Chem.* **265(13)**, 7308-7317 (1990).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM