PEPCK (F-3): sc-271029

**BACKGROUND**

Normal adjustment to changes in blood glucose levels depends on insulin signaling as well as enzymes involved in the regulation of gluconeogenesis. Pathological changes to this process are central to the type 2 diabetes phenotype. Phosphoenolpyruvate carboxykinase (PEPCK) plays an important role in this process by stimulating hepatic glucose production. PEPCK expression increases in response to glucagon and glucocorticoids, while Insulin supplementation presents a potential therapeutic approach to the treatment of Insulin resistance in this process by stimulating hepatic glucose production.

**CHROMOSOMAL LOCATION**

Genetic locus: PCK2 (human) mapping to 14q11.2, PCK1 (human) mapping to 20q13.31; Pck2 (mouse) mapping to 14 C3, Pck1 (mouse) mapping to 20q13.31; Pck2 (mouse) mapping to 14 C3, Pck1 (mouse) mapping to 20q13.31; Pck2 (mouse) mapping to 14 C3, Pck1 (mouse) mapping to 20q13.31.

**SOURCE**

PEPCK (F-3) is a mouse monoclonal antibody raised against amino acids 341-640 mapping at the C-terminus of PEPCK-M of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PEPCK (F-3) is available conjugated to agarose (sc-271029 AC), 500 µg/0.25 ml, for IP; to HRP (sc-271029 HRP), 200 µg/ml, for WB, IHC(P) and FCM; and to either Alexa Fluor® 680 ELISA; to either phycoerythrin (sc-271029 PE), fluorescein (sc-271029 FITC), and the mitochondrial form, known as PEPCK-M, are encoded by two different nuclear genes in mouse, human and chicken.

**APPLICATIONS**

PEPCK (F-3) is recommended for detection of PEPCK-M and PEPCK-C of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of PEPCK: 62 kDa.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG BP-HRP: sc-516102 (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2023 (0.5 ml agarose/2.0 ml).

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.