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Anti-PCK2 Antibody

Catalog # AP95992

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	Q16822
Reactivity	Human, Rat, Mk
Host	Mouse
Clonality	Monoclonal
Calculated MW	70699

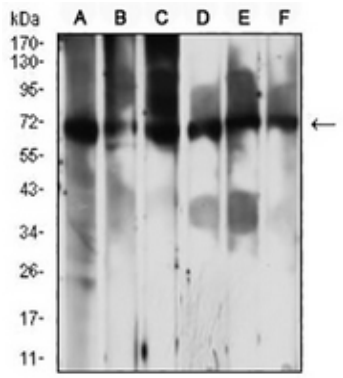
Additional Information

Gene ID	5106
Other Names	PEPCK2; Phosphoenolpyruvate carboxykinase [GTP], mitochondrial; PEPCK-M
Target/Specificity	Recombinant fusion protein of human PCK2 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

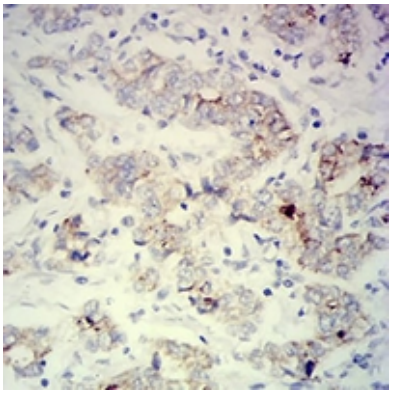
Protein Information

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:28955899). Can play an active role in glyceroneogenesis and gluconeogenesis (PubMed:28955899). In lipogenic cells such as adipocytes, it generates PEP via the mitochondrial pyruvate-to-PEP bypass, driving the PEP flux required for cytosolic glycerol 3- phosphate and triglyceride synthesis (By similarity). Also acts as a serine/threonine-protein kinase: phosphorylates and activates ACSL4, thereby promoting ferroptosis (PubMed:38720107).
Cellular Location	Mitochondrion
Tissue Location	Widely expressed..

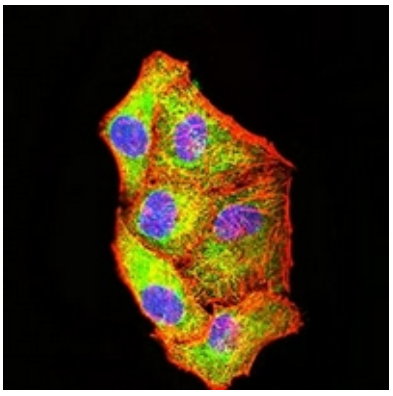
Images



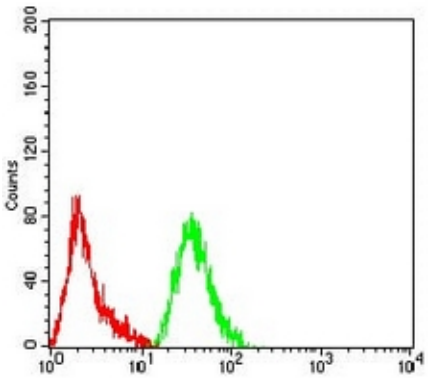
Western blot analysis of PCK2 expression in Jurkat (A), C2C12 (B), Hela (C), HepG2 (D), COS7 (E), HL60 (F) whole cell lysates. (Predicted band size: 71 kD; Observed band size: 70 kD)



Immunohistochemical analysis of PCK2 staining in human stomach cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PCK2 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-PCK2 Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.