

Rabbit PCK1/PEPC Polyclonal Antibody | anti-PCK1 antibody

Anti-PCK1/PEPC Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125630	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Immunohistochemistry, Western Blot

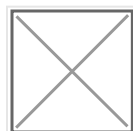
PRODUCT SYNONYMS

PCK1/PEPC; Polyclonal Antibody; Anti-PCK1/PEPC Antibody; Phosphoenolpyruvate carboxykinase; cytosolic [GTP]; PEPCK-C; PCK1; PEPCK1; phosphoenolpyruvate carboxykinase 1; anti-PCK1 antibody

PRODUCT SPECIFICATIONS

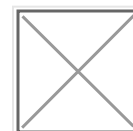
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for PCK1/PEPC detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Applicable Applications for anti-PCK1 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human PCK1/PEPC recombinant protein (Position: M1-M622).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 5. Flow Cytometry analysis of HL-60 cells using anti-PCK1/PEPC antibody (AAA125630). Overlay histogram showing HL-60 cells stained with AAA125630 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PCK1/PEPC Antibody (AAA125630, 1 µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight[®]488 conjugated goat anti-rabbit IgG (5-10 µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 4. IF analysis of PCK1/PEPC using anti-PCK1/PEPC antibody (AAA125630). PCK1/PEPC was detected in immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 4 µg/mL rabbit anti-PCK1/PEPC Antibody (AAA125630) overnight at 4 degree C. DyLight[®]594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



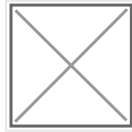
IHC (Immunohistochemisry)

Figure 3. IHC analysis of PCK1/PEPC using anti-PCK1/PEPC antibody (AAA125630).PCK1/PEPC was detected in paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PCK1/PEPC Antibody (AAA125630) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohiostchemistry)

Figure 2. IHC analysis of PCK1/PEPC using anti-PCK1/PEPC antibody (AAA125630).PCK1/PEPC was detected in paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PCK1/PEPC Antibody (AAA125630) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of PCK1/PEPC using anti-PCK1/PEPC antibody (AAA125630).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human HepG2 whole cell lysatesLane 2: rat liver tissue lysatesLane 3: rat kidney tissue lysatesLane 4: mouse liver tissue lysatesLane 5: mouse kidney tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-PCK1/PEPC antigen affinity purified polyclonal antibody (Catalog # AAA125630) at 0. 5 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PCK1/PEPC at approximately 69KD. The expected band size for PCK1/PEPC is at 69KD.

ADDITIONAL INFORMATION

Related Product Information for anti-PCK1 antibody	This gene is a main control point for the regulation of gluconeogenesis. The cytosolic enzyme encoded by this gene, along with GTP, catalyzes the formation of phosphoenolpyruvate from oxaloacetate, with the release of carbon dioxide and GDP. The expression of this gene can be regulated by insulin, glucocorticoids, glucagon, cAMP, and diet. Defects in this gene are a cause of cytosolic phosphoenolpyruvate carboxykinase deficiency. A mitochondrial isozyme of the encoded protein also has been characterized.
References	<ol style="list-style-type: none">1. Cao, H., van der Veer, E., Ban, M. R., Hanley, A. J. G., Zinman, B., Harris, S. B., Young, T. K., Pickering, J. G., Hegele, R. A. Promoter polymorphism in PCK1 (phosphoenolpyruvate carboxykinase gene) associated with type 2 diabetes mellitus. J. Clin. Endocr. Metab. 89: 898-903, 2004.2. Pilz, A. J., Willer, E., Povey, S., Abbott, C. M. The genes coding for phosphoenolpyruvate carboxykinase-1 (PCK1) and neuronal nicotinic acetylcholine receptor alpha-4 subunit (CHRNA4) map to human chromosome 20, extending the known region of homology with mouse chromosome 2. Ann. Hum. Genet. 56: 289-293, 1992.3. Ting, C. -N., Burgess, D. L., Chamberlain, J. S., Keith, T. P., Falls, K., Meisler, M. H. Phosphoenolpyruvate carboxykinase (GTP): characterization of the human PCK1 gene and localization distal to MODY on chromosome 20. Genomics 16: 698-706, 1993.

NCBI AND UNIPROT INFORMATION

NCBI GI #	93138710
NCBI GeneID	5105
UniProt Accession #	P35558 ; Q8TCA3 ; Q9UJD2 ; A8K437 ; B4DT64
Molecular Weight	622
NCBI Official Full Name	Phosphoenolpyruvate carboxykinase, cytosolic
NCBI Official Synonym Full Names	phosphoenolpyruvate carboxykinase 1 (soluble)

NCBI Official Symbol	PCK1
NCBI Official Synonym Symbols	PEPCK1; PEPCKC; PEPCK-C
NCBI Protein Information	phosphoenolpyruvate carboxykinase, cytosolic [GTP]; phosphoenolpyruvate carboxykinase, cytosolic [GTP]; PEP carboxykinase; phosphopyruvate carboxylase; phosphoenolpyruvate carboxylase
UniProt Protein Name	Phosphoenolpyruvate carboxykinase, cytosolic [GTP]
UniProt Gene Name	PCK1
UniProt Synonym Gene Names	PEPCK1; PEPCK-C
UniProt Entry Name	PCKGC_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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