

# PCK1 Recombinant Mouse mAb

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Catalog # AP94617

## Product Information

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| <b>Application</b>                      | WB, IHC-P, IHC-F, IF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Reactivity</b>                       | Human, Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Host</b>                             | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Clonality</b>                        | Recombinant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Physical State</b>                   | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Isotype</b>                          | IgG1, Kappa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Purity</b>                           | affinity purified by Protein G                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Buffer</b>                           | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>SUBCELLULAR LOCATION</b>             | Cytoplasm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>SIMILARITY</b>                       | Belongs to the phosphoenolpyruvate carboxykinase [GTP] family.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>SUBUNIT</b>                          | Monomer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Post-translational modifications</b> | Acetylation is increased on addition of glucose and appears to regulate the protein stability.                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>DISEASE</b>                          | Defects in PCK1 are the cause of cytosolic phosphoenolpyruvate carboxykinase deficiency (C-PEPCKD) [MIM:261680]. A metabolic disorder resulting from impaired gluconeogenesis. It is a rare disease with less than 10 cases reported in the literature. Clinical characteristics include hypotonia, hepatomegaly, failure to thrive, lactic acidosis and hypoglycemia. Autopsy reveals fatty infiltration of both the liver and kidneys. The disorder is transmitted as an autosomal recessive trait. |
| <b>Important Note</b>                   | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Background Descriptions</b>          | PCK1 is a main control point for the regulation of gluconeogenesis. This cytosolic enzyme, along with GTP, catalyzes the formation of phosphoenolpyruvate from oxaloacetate, with the release of carbon dioxide and GDP. The expression of the corresponding gene can be regulated by insulin, glucocorticoids, glucagon, cAMP, and diet. A mitochondrial isozyme has also been characterized.                                                                                                        |

## Additional Information

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| <b>Target/Specificity</b> | Major sites of expression are liver, kidney and adipocytes.                                                                                                                                     |
| <b>Dilution</b>           | WB=1:500-1000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500                                                                                                                                      |
| <b>Storage</b>            | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Background

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