

Anti-PDHK1

Rabbit Polyclonal Antibody

Catalog # P57-63R

Lot # B3216-73

Cited Applications

ELISA, IHC, WB

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the human PDK-1 protein

Cross Reactivity

Human

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

The antibody was produced against synthesized peptide corresponding to a region near the C-Terminal of human PDK-1 protein

Formulation

0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 + 0.01% (w/v) Sodium Azide

Stability

1yr at -20°C from date of shipment

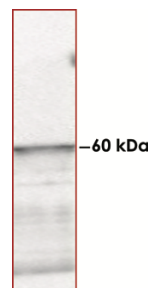
Scientific Background

PDHK1 or Pyruvate Dehydrogenase Kinase 1 is a member of the PDHK family that phosphorylate and inactivate the Pyruvate Dehydrogenase (PDH) (1). PDH is a mitochondrial multienzyme complex that catalyzes the oxidative decarboxylation of pyruvate and is one of the major enzymes responsible for the regulation of homeostasis of carbohydrate fuels in mammals. PDHK1 is an important regulator of PDH in clonal β -cells and the activity of PDHK1 and PDH are important for efficient metabolic coupling. Maintaining low PDHK1 expression/activity and keeping PDH in a dephosphorylated and active state, is important for β -cells to achieve the metabolic flux rates necessary for maximal glucose-stimulated insulin secretion (2).

References:

1. Gudi, R. et al: Diversity of the pyruvate dehydrogenase kinase gene family in humans. J. Biol. Chem. 270: 28989-28994, 1995.
2. Krus, U. et al: Pyruvate dehydrogenase kinase 1 controls mitochondrial metabolism and insulin secretion in INS-1 832/13 clonal beta-cells. Biochem J. 2010 Jul 1;429(1):205-13.

Sample Data



Western blot using affinity purified Anti-PDHK1 antibody (1:750 dilution) shows detection of myc-tagged human PDK-1 at 60kDa in ~10 µg of a virus infected Sf9 cell lysate (arrow).

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Purification

Immunoaffinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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