

PDHK1 recombinant protein

PDHK1, Active

CATALOG # AAA73854	HOST Sf9 insect cells	APPLICATIONS Western Blot
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PRODUCT SYNONYMS

PDHK1; Active; PDK1; PDHK1 recombinant protein

PRODUCT SPECIFICATIONS

Host	Sf9 insect cells
Form/Format	Recombinant protein stored in 50mM Tris-HCl, pH7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Applicable Applications for PDHK1 recombinant protein	WB (Western Blot), Kinase Assay
Tag	GST
Species	Human
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

IMAGES



SDS-PAGE

Purity: Sample Purity Data. For specific information on a given lot, see related technical data sheet.



Activity

Specific Activity: Sample Kinase Activity Plot. For specific information on a given lot, see related technical data sheet.

ADDITIONAL INFORMATION

Related Product Information for PDHK1 recombinant protein	Recombinant full-length human PDHK1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The PDHK1 gene accession number is NM_002610. 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 beta-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 beta -cells to achieve the metabolic flux rates necessary for maximal glucose-stimulated insulin secretion (2).
Product Categories/Family for PDHK1 recombinant protein	Protein Kinases; Cancer; Cardiovascular Disease; Metabolic Disorder; Ser/Thr Kinases

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.

NCBI AND UNIPROT INFORMATION

NCBI GenBank Nucleotide #

[NM_002610](#)

Molecular Weight

~70kDa

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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Online datasheet: <https://stage.aaabiotech.com/pdhk1-recombinant-protein-sf9-insect-cells-wb-western-blot-kinase-assay/73854>