

Rabbit PDHK1 Polyclonal Antibody | anti-PDHK1 antibody

PDHK1 Antibody

CATALOG # AAA329581	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunocytochemistry, Immunofluorescence, Western Blot
-------------------------------	-----------------------	--	---

PRODUCT SYNONYMS

PDHK1; Polyclonal Antibody; PDHK1 Antibody; [Pyruvate dehydrogenase [lipoamide]] kinase isozyme 1; mitochondrial; HGNC:8809; Mitochondrial pyruvate dehydrogenase kinase isoenzyme 1; PDH kinase 1; Pdk1; PDK1_HUMAN; Pyruvate dehydrogenase kinase isoform 1; Pyruvate dehydrogenase kinase; isoenzyme 1; anti-PDHK1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	PDHK1 Antibody detects endogenous levels of total PDHK1. Tissue Specificity: Expressed predominantly in the heart. Detected at lower levels in liver, skeletal muscle and pancreas.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-PDHK1 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PDHK1.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated by constitutively activated ABL1, FGFR1, FLT3 and JAK2 (in vitro), and this may also occur in cancer cells that express constitutively activated ABL1, FGFR1, FLT3 and JAK2. Phosphorylation at Tyr-243 and Tyr-244 strongly increases kinase activity, while phosphorylation at Tyr-136 has a lesser effect.
Subunit Structure	Homodimer, and heterodimer with PDK2. Interacts with the pyruvate dehydrogenase complex subunit DLAT, and is part of the multimeric pyruvate dehydrogenase complex that contains multiple copies of pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (DLAT, E2) and lipoamide dehydrogenase (DLD, E3).
Similarity	Belongs to the PDK/BCKDK protein kinase family.
Subcellular Location	Mitochondrion matrix.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining HeLa cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(AF6586) and mouse anti-beta tubulin Ab(T0023) for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI (blue).



WB (Western Blot)

Western blot analysis of extracts from Rat heart, using PDHK1 Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PDHK1 antibody

Kinase that plays a key role in regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2. This inhibits pyruvate dehydrogenase activity, and thereby regulates metabolite flux through the tricarboxylic acid cycle, down-regulates aerobic respiration and inhibits the formation of acetyl-coenzyme A from pyruvate. Plays an important role in cellular responses to hypoxia and is important for cell proliferation under hypoxia. Protects cells against apoptosis in response to hypoxia and oxidative stress.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505689
NCBI GeneID	5163
NCBI Accession #	NP_002601.1
NCBI GenBank Nucleotide #	NM_002610.4
UniProt Accession #	Q15118; B2R6T1; D3DPD8
Molecular Weight	49,244 Da
NCBI Official Full Name	pyruvate dehydrogenase kinase, isozyme 1 isoform 2
NCBI Official Synonym Full Names	pyruvate dehydrogenase kinase, isozyme 1
NCBI Official Symbol	PDK1
NCBI Protein Information	pyruvate dehydrogenase kinase, isozyme 1; PDH kinase 1; pyruvate dehydrogenase kinase, isoenzyme 1; mitochondrial pyruvate dehydrogenase, lipoamide, kinase isoenzyme 1
UniProt Protein Name	[Pyruvate dehydrogenase [lipoamide]] kinase isozyme 1, mitochondrial
UniProt Gene Name	PDK1
UniProt Synonym Gene Names	PDHK1; PDH kinase 1
UniProt Entry Name	PDK1_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.