

Rabbit PDK1 Polyclonal Antibody | anti-PDK1 antibody

Anti-PDK1 Picoband antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA124635	Rabbit	Human, Mouse, Rat No cross reactivity with other proteins.	Western Blot, Immunohistochemistry, ELISA

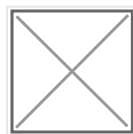
PRODUCT SYNONYMS

PDK1; Polyclonal Antibody; Anti-PDK1 Picoband antibody; [Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1; mitochondrial; Pyruvate dehydrogenase kinase isoform 1; PDH kinase 1; PDHK1; anti-PDK1 antibody

PRODUCT SPECIFICATIONS

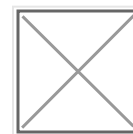
Host	Rabbit
Reactivity	Human, Mouse, Rat No cross reactivity with other proteins.
Clonality	Polyclonal
Form/Format	Lyophilized
Sequence Length	456
Applicable Applications for anti-PDK1 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Immunogen	E Coli-derived human PDK1 recombinant protein (Position: V107-Y336).
Subcellular Localization	Mitochondrion matrix.
Tissue Specificity	Expressed predominantly in the heart. Detected at lower levels in liver, skeletal muscle and pancreas.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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



IHC (Immunohistochemistry)

Figure 2. IHC analysis of PDK1 using anti-PDK1 antibody (AAA124635). PDK1 was detected in paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PDK1 Antibody (AAA124635) 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 PDK1 using anti-PDK1 antibody (AAA124635). 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 COLO-320 whole cell lysates, Lane 2: human PANC-1 whole cell 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-PDK1 antigen affinity purified polyclonal antibody at 0.5ug/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 PDK1 at approximately 58KD. The expected band size for PDK1 is at 49KD.

ADDITIONAL INFORMATION

Related Product Information for anti-PDK1 antibody	Description: PDK1 (Pyruvate Dehydrogenase Kinase Isoenzyme 1), is an enzyme that in humans is encoded by the PDK1 gene. To find human PDKs, Gudi et al. (1995) used oligonucleotide primers to screen a human liver cDNA library by PCR. They identified and reported the deduced amino acid sequences of PDK1, PDK2, and PDK3. The human PDK1 gene encodes a protein with a predicted molecular mass of 49,244 Da that shares 93% identity with that of the rat PDK1 gene. Northern blot analysis showed that the PDK1 message was expressed predominantly in the heart. Protein Function: 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	514052656
NCBI GeneID	5163
NCBI Accession #	NP_001265478.1
NCBI GenBank Nucleotide #	NM_001278549.1
UniProt Accession #	Q15118; Q308M4; B2R6T1; B7Z937; D3DPD8; E9PD65
Molecular Weight	51,623 Da
NCBI Official Full Name	[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1, mitochondrial isoform 1
NCBI Official Synonym Full Names	pyruvate dehydrogenase kinase 1
NCBI Official Symbol	PDK1
NCBI Protein Information	[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1, mitochondrial; pyruvate dehydrogenase (acetyl-transferring) kinase isozyme 1, mitochondrial
UniProt Protein Name	[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1, mitochondrial
UniProt Gene Name	PDK1
UniProt Synonym Gene Names	PDHK1; PDH kinase 1

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/polyclonal/pdk1-antibody-western-blot-immunohistochemistry-elisa/124635>