Datasheet for ABIN5692784

anti-PDPK1 antibody (AA 107-336)

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Overview

Quantity:	100 µg
Target:	PDPK1
Binding Specificity:	AA 107-336
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PDPK1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Brand:	Picoband™
Immunogen:	E. coli-derived human PDK1 recombinant protein (Position: V107-Y336).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for PDK1 detection. Tested with WB, IHC-P, Direct ELISA in Human,Mouse,Rat.

Target Details

Target:	PDPK1
Alternative Name:	PDK1 (PDPK1 Products)
Background:	Synonyms: [Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1, mitochondrial,

Target Details

	Pyruvate dehydrogenase kinase isoform 1, PDH kinase 1, PDK1, PDHK1 Tissue Specificity: Expressed predominantly in the heart. Detected at lower levels in liver, skeletal muscle and pancreas. Background: 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.
UniProt:	Q15118
Pathways:	PI3K-Akt Signaling, TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Cell-Cell Junction Organization, Regulation of Cell Size, Skeletal Muscle Fiber Development, CXCR4-mediated Signaling Events, Signaling Events mediated by VEGFR1 and VEGFR2, VEGFR1 Specific Signals

Application Details

Application Notes:	Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P). Application Details: Western blot, 0.1-0.5 µg/mL Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL Direct ELISA, 0.1-0.5 µg/mL
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na_2HPO_4, 0.05 mg NaN_3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

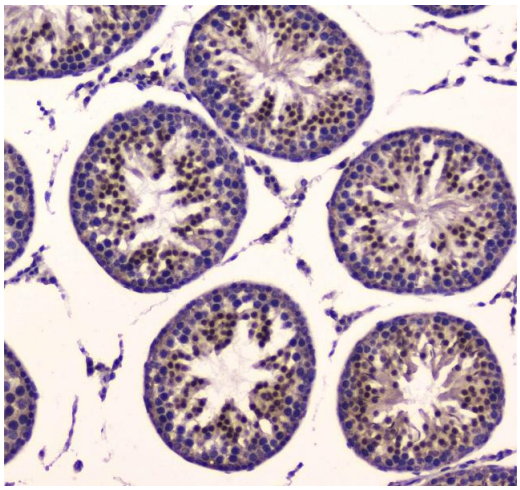
Handling

	should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Publications

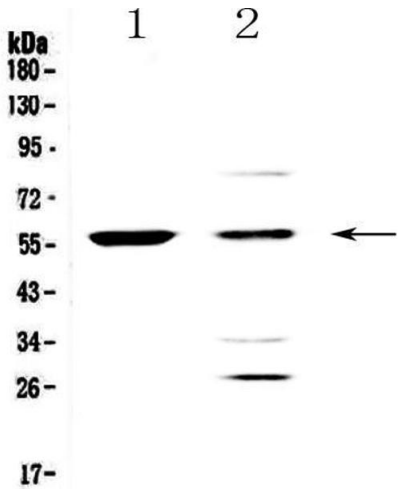
Product cited in:	Li, Zhao, Qi, Wang, Zhang, Li, Qin: "lncRNA Ftx promotes aerobic glycolysis and tumor progression through the PPARγ pathway in hepatocellular carcinoma." in: **International journal of oncology**, Vol. 53, Issue 2, pp. 551-566, (2018) (PubMed).

Images



Immunohistochemistry

Image 1. IHC analysis of PDK1 using anti-PDK1 antibody . 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 1µg/ml rabbit anti-PDK1 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Western Blotting

Image 2. Western blot analysis of PDK1 using anti-PDK1 antibody . 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 (Catalog #) at 0.5 µg/mL overnight at 4°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 (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PDK1 at approximately 58KD. The expected band size for PDK1 is at 49KD.