10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-Pyruvate Dehydrogenase Kinase 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1659

Specification

KD-Validated Anti-Pyruvate Dehydrogenase Kinase 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	Q15118
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 49 kDa , observed , 49 kDa KDa**
Gene Name	**PDK1**
Aliases	**Pyruvate Dehydrogenase Kinase 1; [Pyruvate Dehydrogenase (Acetyl-Transferring)] Kinase Isozyme 1, Mitochondrial; Pyruvate Dehydrogenase Kinase, Isoenzyme 1; PDH Kinase 1; EC 2.7.11.2; Pyruvate Dehydrogenase (Acetyl-Transferring) Kinase Isozyme 1, Mitochondrial; Mitochondrial Pyruvate Dehydrogenase, Lipoamide, Kinase Isoenzyme 1; Pyruvate Dehydrogenase Kinase, Isozyme 1; Pyruvate Dehydrogenase Kinase Isoform 1; EC 2.7.11; PDHK1**
Immunogen	**A synthesized peptide derived from human PDK1**

KD-Validated Anti-Pyruvate Dehydrogenase Kinase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**5163**

Other Names
[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1, mitochondrial, 2.7.11.2, Pyruvate dehydrogenase kinase isoform 1, PDH kinase 1, PDK1, PDHK1

KD-Validated Anti-Pyruvate Dehydrogenase Kinase 1 Rabbit Monoclonal Antibody - Protein Information

Name PDK1

Synonyms PDHK1

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 (PubMed:<a

href="http://www.uniprot.org/citations/7499431" target="_blank">7499431, PubMed:18541534, PubMed:22195962, PubMed:26942675, PubMed:17683942). 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 (PubMed:18541534, PubMed:22195962, PubMed:26942675). Plays an important role in cellular responses to hypoxia and is important for cell proliferation under hypoxia (PubMed:18541534, PubMed:22195962, PubMed:26942675).

Cellular Location
Mitochondrion matrix

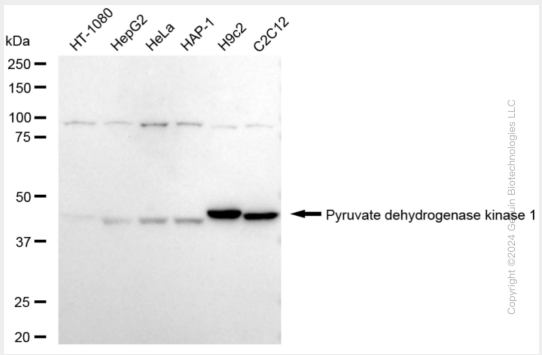
Tissue Location
Expressed predominantly in the heart. Detected at lower levels in liver, skeletal muscle and pancreas

KD-Validated Anti-Pyruvate Dehydrogenase Kinase 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

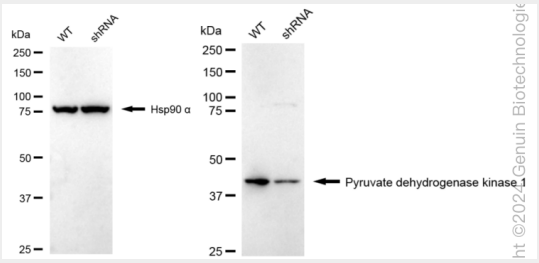
KD-Validated Anti-Pyruvate Dehydrogenase Kinase 1 Rabbit Monoclonal Antibody - Images



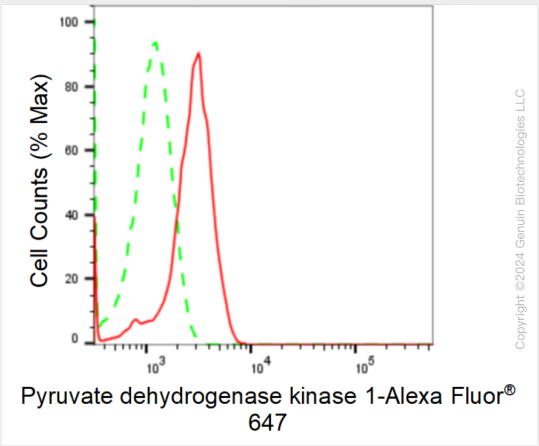
Western blotting analysis using anti-Pyruvate dehydrogenase kinase 1 antibody (Cat#AGI1659). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Pyruvate dehydrogenase kinase 1 antibody (Cat#AGI1659, 1:5,000) and

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Pyruvate dehydrogenase kinsae 1 antibody (Cat#AGI1659). Pyruvate dehydrogenase kinsae 1 expression in wild type (WT) and Pyruvate dehydrogenase kinsae 1 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Pyruvate dehydrogenase kinsae 1 antibody (Cat#AGI1659, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Pyruvate dehydrogenase kinase 1 expression in H9c2 cells using anti-Pyruvate dehydrogenase kinase 1 antibody (Cat#AGI1659, 1:2,000). Green, isotype control; red, Pyruvate dehydrogenase kinase 1.