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

## Product Information

| | |
|---|---|
| **Application** | WB, FC |
| **Primary Accession** | Q15118 |
| **Reactivity** | Rat, Human, Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | 24GB1190 |
| **Calculated MW** | 49244 |
| **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 |

## 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 |

## 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: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 |

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.