

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

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