

**PDK3 Antibody (Ascites)**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM2038a**

**Specification**

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**PDK3 Antibody (Ascites) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O15120</a>
Other Accession	<a href="#">NP_005382.1</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	46939

**PDK3 Antibody (Ascites) - Additional Information**

**Gene ID** 5165

**Other Names**

[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 3, mitochondrial, Pyruvate dehydrogenase kinase isoform 3, PDK3, PDHK3

**Target/Specificity**

Purified His-tagged PDK3 protein(Fragment) was used to produced this monoclonal antibody.

**Dilution**

WB~~1:500~1000

**Format**

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

PDK3 Antibody (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

**PDK3 Antibody (Ascites) - Protein Information**

**Name** PDK3

**Synonyms** PDHK3

**Function** Inhibits pyruvate dehydrogenase activity by phosphorylation of the E1 subunit PDHA1, and thereby regulates glucose metabolism and aerobic respiration. Can also phosphorylate

PDHA2. Decreases glucose utilization and increases fat metabolism in response to prolonged fasting, and as adaptation to a high-fat diet. Plays a role in glucose homeostasis and in maintaining normal blood glucose levels in function of nutrient levels and under starvation. Plays a role in the generation of reactive oxygen species.

#### Cellular Location

Mitochondrion matrix.

#### Tissue Location

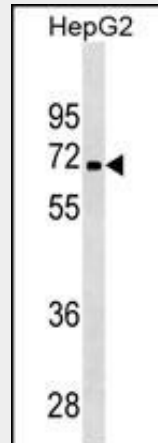
Expressed in heart, skeletal muscle, spinal cord, as well as fetal and adult brain.

### PDK3 Antibody (Ascites) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### PDK3 Antibody (Ascites) - Images



PDK3 Antibody (Cat. #AM2038a) western blot analysis in HepG2 cell line lysates (35µg/lane). This demonstrates the PDK3 antibody detected the PDK3 protein (arrow).

### PDK3 Antibody (Ascites) - Background

The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO<sub>2</sub>. It provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle, and thus is one of the major enzymes responsible for the regulation of glucose metabolism. The enzymatic activity of PDH is regulated by a phosphorylation/dephosphorylation cycle, and phosphorylation results in inactivation of PDH. The protein encoded by this gene is one of the three pyruvate dehydrogenase kinases

that inhibits the PDH complex by phosphorylation of the E1 alpha subunit. This gene is predominantly expressed in the heart and skeletal muscles. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

#### **PDK3 Antibody (Ascites) - References**

- Lu, C.W., et al. J. Biol. Chem. 283(42):28106-28114(2008)
- Degenhardt, T., et al. J. Mol. Biol. 372(2):341-355(2007)
- Kato, M., et al. Structure 15(8):992-1004(2007)
- Devedjiev, Y., et al. J. Mol. Biol. 370(3):407-416(2007)
- Tso, S.C., et al. J. Biol. Chem. 281(37):27197-27204(2006)