

Mouse Pdk2 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP14075a**Specification**

Mouse Pdk2 Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [O9JK42](#)**Mouse Pdk2 Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 18604**Other Names**

[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 2, mitochondrial, Pyruvate dehydrogenase kinase isoform 2, PDH kinase 2, Pdk2

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP14075a was selected from the N-term region of Mouse Pdk2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Pdk2 Antibody (N-term) Blocking peptide - Protein Information**Name** Pdk2**Function**

Kinase that plays a key role in the regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2 (PubMed:22360721). 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. Inhibition of pyruvate dehydrogenase decreases glucose utilization and increases fat metabolism. Mediates cellular responses to insulin. Plays an important role in maintaining normal blood glucose levels and in metabolic adaptation to nutrient availability. Via its regulation of pyruvate dehydrogenase activity, plays an important role in maintaining normal blood pH and in preventing the accumulation of ketone bodies under starvation. Plays a role in the regulation of cell proliferation and in resistance to apoptosis under oxidative stress. Plays a role in p53/TP53-mediated apoptosis.

Cellular Location

Mitochondrion matrix

Tissue Location

Detected in heart (at protein level).

Mouse Pdk2 Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Mouse Pdk2 Antibody (N-term) Blocking peptide - Images**Mouse Pdk2 Antibody (N-term) Blocking peptide - Background**

Pdk2 inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism.

Mouse Pdk2 Antibody (N-term) Blocking peptide - References

Sun, W., et al. Clin. Cancer Res. 15(2):476-484(2009)Pagliarini, D.J., et al. Cell 134(1):112-123(2008)Osafune, K., et al. Development 133(1):151-161(2006)Papin, J., et al. Curr. Opin. Biotechnol. 15(1):78-81(2004)Mootha, V.K., et al. Cell 115(5):629-640(2003)