

Mouse Pdk4 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14837a

Specification

Mouse Pdk4 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	O70571
Other Accession	O54937 , NP_038771.1
Reactivity	Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	46596
Antigen Region	82-110

Mouse Pdk4 Antibody (N-term) - Additional Information

Gene ID 27273

Other Names

[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 4, mitochondrial, Pyruvate dehydrogenase kinase isoform 4, Pdk4

Target/Specificity

This Mouse Pdk4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 82-110 amino acids from the N-terminal region of mouse Pdk4.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Mouse Pdk4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Pdk4 Antibody (N-term) - Protein Information

Name Pdk4

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. 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 in response to prolonged fasting and starvation. Plays an important role in maintaining normal blood glucose levels under starvation, and is involved in the insulin signaling cascade. 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. In the fed state, mediates cellular responses to glucose levels and to a high-fat diet. Regulates both fatty acid oxidation and de novo fatty acid biosynthesis. Plays a role in the generation of reactive oxygen species. Protects detached epithelial cells against anoikis. Plays a role in cell proliferation via its role in regulating carbohydrate and fatty acid metabolism.

Cellular Location

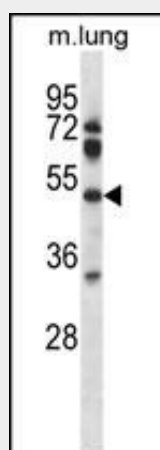
Mitochondrion matrix.

Mouse Pdk4 Antibody (N-term) - 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](#)

Mouse Pdk4 Antibody (N-term) - Images



Mouse Pdk4 Antibody (N-term) (Cat. #AP14837a) western blot analysis in mouse lung tissue lysates (35ug/lane). This demonstrates the Pdk4 antibody detected the Pdk4 protein (arrow).

Mouse Pdk4 Antibody (N-term) - Background

Pdk4 inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism (By similarity).

Mouse Pdk4 Antibody (N-term) - References

Hyvarinen, J., et al. J. Biol. Chem. 285(18):13646-13657(2010)
Hwang, B., et al. Biochem. J. 423(2):243-252(2009)
Hsieh, M.C., et al. J. Biol. Chem. 283(41):27410-27417(2008)
Lai, L., et al. Genes Dev. 22(14):1948-1961(2008)
Pagliarini, D.J., et al. Cell 134(1):112-123(2008)