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Mouse Pdk3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14274b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q922H2
Other Accession	NP_663605.1
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34854
Calculated MW	47923
Antigen Region	387-414

Additional Information

Gene ID	236900
Other Names	[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 3, mitochondrial, Pyruvate dehydrogenase kinase isoform 3, Pdk3
Target/Specificity	This Mouse Pdk3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 387-414 amino acids from the C-terminal region of mouse Pdk3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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 Pdk3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Pdk3
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 (By similarity).

Cellular Location Mitochondrion matrix.

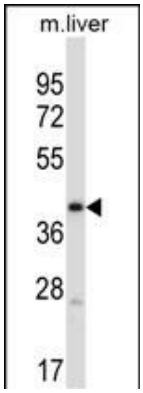
Background

Pdk3 inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism (By similarity).

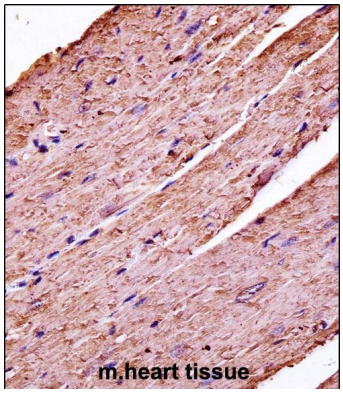
References

Pagliarini, D.J., et al. Cell 134(1):112-123(2008)
Blackshaw, S., et al. PLoS Biol. 2 (9), E247 (2004) :
Visel, A., et al. Nucleic Acids Res. 32 (DATABASE ISSUE), D552-D556 (2004) :
Mootha, V.K., et al. Cell 115(5):629-640(2003)

Images



Mouse Pdk3 Antibody (C-term) (Cat. #AP14274b) western blot analysis in mouse liver tissue lysates (35ug/lane).This demonstrates the Pdk3 antibody detected the Pdk3 protein (arrow).



Mouse Pdk3 Antibody (C-term) (AP14274b)immunohistochemistry analysis in formalin fixed and paraffin embedded mouse heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of Mouse Pdk3 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- BCKDK regulates the TCA cycle through PDC in the absence of PDK family during embryonic development
- Metabolomic profiling analysis reveals chamber-dependent metabolite patterns in the mouse heart.