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PDK3 Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7040d

Product Information

Application	WB, FC, E
Primary Accession	Q15120
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23090
Calculated MW	46939

Additional Information

Gene ID	5165
Other Names	[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 3, mitochondrial, Pyruvate dehydrogenase kinase isoform 3, PDK3, PDHK3
Target/Specificity	This PDK3 antibody is generated from rabbits immunized with human PDK3 recombinant protein.
Dilution	WB~~1:1000 FC~~1:10~50 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	PDK3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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.

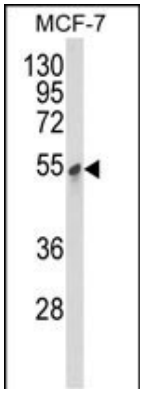
Background

PDK3 inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism.

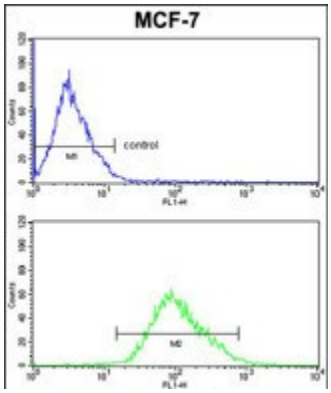
References

Baker, J.C., et al., J. Biol. Chem. 275(21):15773-15781 (2000).
Gudi, R., et al., J. Biol. Chem. 270(48):28989-28994 (1995).

Images



Western blot analysis of PDK3 Antibody (Cat. #AP7040d) in MCF-7 cell line lysates (35ug/lane). PDK3 (arrow) was detected using the purified Pab.



PDK3 Antibody (Cat.#AP7040d) FC analysis of MCF-7 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Regulation of PDK mRNA by high fatty acid and glucose in pancreatic islets.