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Anti-PDK2 Antibody

Rabbit polyclonal antibody to PDK2
Catalog # AP60498

Product Information

Application	WB, IHC
Primary Accession	Q15119
Other Accession	Q9JK42
Reactivity	Human, Mouse, Rat, Monkey, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46154

Additional Information

Gene ID	5164
Other Names	PDHK2; [Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 2 mitochondrial; Pyruvate dehydrogenase kinase isoform 2; PDH kinase 2; PDKII
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PDK2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	PDK2
Synonyms	PDHK2
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. 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.

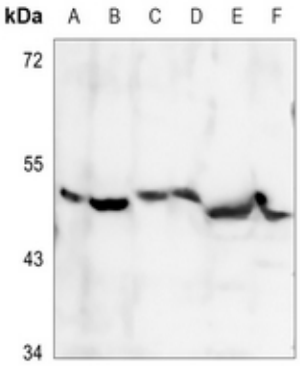
Cellular Location Mitochondrion matrix.

Tissue Location Expressed in many tissues, with the highest level in heart and skeletal muscle, intermediate levels in brain, kidney, pancreas and liver, and low levels in placenta and lung

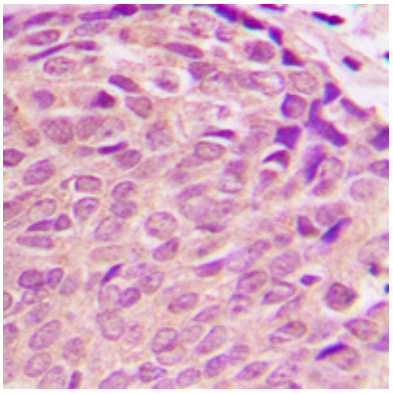
Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PDK2. The exact sequence is proprietary.

Images



Western blot analysis of PDK2 expression in HEK293T (A), Hela (B), mouse liver (C), mouse kidney (D), rat liver (E), rat kidney (F) whole cell lysates.



Immunohistochemical analysis of PDK2 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Citations

- A multiplexed siRNA screen identifies key kinase signaling networks of brain glia

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