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Anti-PDK1 Antibody

Catalog # AP59655

Product Information

Application	WB, IHC
Primary Accession	Q15118
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49244

Additional Information

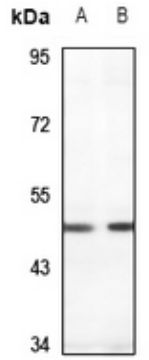
Gene ID	5163
Other Names	PDHK1; [Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1 mitochondrial; Pyruvate dehydrogenase kinase isoform 1; PDH kinase 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PDK1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

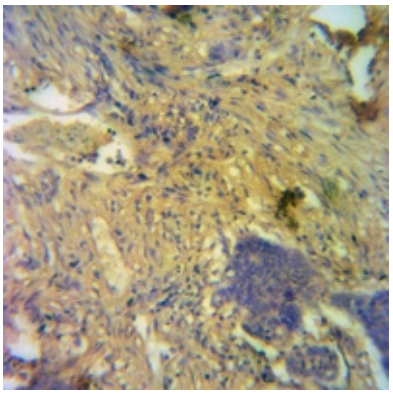
Name	PDK1
Synonyms	PDHK1
Function	Kinase that plays a key role in regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2 (PubMed:7499431, PubMed:18541534, PubMed:22195962, PubMed:26942675, PubMed:17683942). This inhibits 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 (PubMed:18541534, PubMed:22195962, PubMed:26942675). Plays an important role in cellular responses to hypoxia and is important for cell proliferation under hypoxia (PubMed:18541534, PubMed:22195962, PubMed:26942675).
Cellular Location	Mitochondrion matrix

Tissue Location	Expressed predominantly in the heart. Detected at lower levels in liver, skeletal muscle and pancreas

Images



Western blot analysis of PDK1 expression in H1792 (A), CT26 (B) whole cell lysates. (Predicted band size: 49 kD; Observed band size: 49 kD)



Immunohistochemical analysis of PDK1 staining in human colorectal 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.

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