



PDK1 Monoclonal Antibody

Catalog No	YP-Ab-02337
Isotype	IgG
Reactivity	Human;Rat;Monkey
Applications	WB;IHC;IF;FCM;ELISA
Gene Name	PDK1
Immunogen	Purified recombinant fragment of human PDK1 expressed in E. Coli.
Specificity	PDK1 Monoclonal Antibody detects endogenous levels of PDK1 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	kinase isozyme 1;mitochondrial;EC:2.7.11.2;PDH kinase 1;PDHK1;PDK1; [Pyruvate dehydrogenase [lipoamide]] kinase isozyme 1 mitochondrial;[Pyruvate dehydrogenase [lipoamide]] kinase isozyme 1;Pyruvate dehydrogenase kinase isoform 1
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Mitochondrion matrix .
Tissue Specificity	Expressed predominantly in the heart. Detected at lower levels in liver, skeletal muscle and pancreas.
Function	catalytic activity:ATP + [pyruvate dehydrogenase (acetyl-transferring)] = ADP + [pyruvate dehydrogenase (acetyl-transferring)] phosphate.,function:Inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism., similarity:Belongs to the PDK/BCKDK protein kinase family.,similarity:Contains 1 histidine kinase domain.,tissue specificity:Expressed predominantly in the heart.,



Background

Pyruvate dehydrogenase (PDH) is a mitochondrial multienzyme complex that catalyzes the oxidative decarboxylation of pyruvate and is one of the major enzymes responsible for the regulation of homeostasis of carbohydrate fuels in mammals. The enzymatic activity is regulated by a phosphorylation/dephosphorylation cycle. Phosphorylation of PDH by a specific pyruvate dehydrogenase kinase (PDK) results in inactivation. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jun 2013],

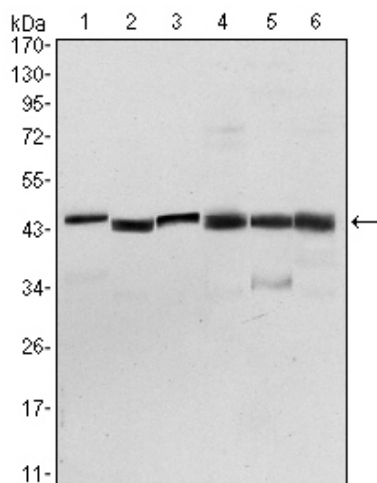
matters needing attention

Avoid repeated freezing and thawing!

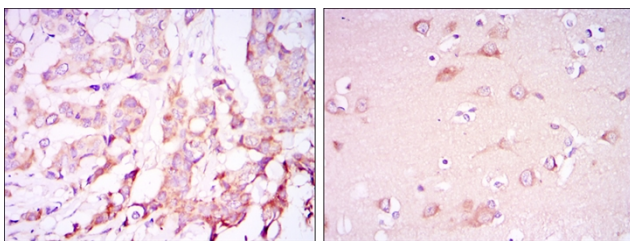
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

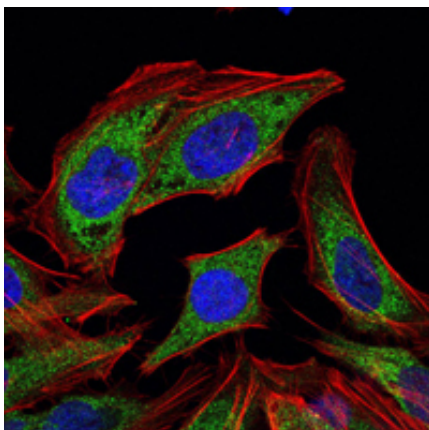
Products Images



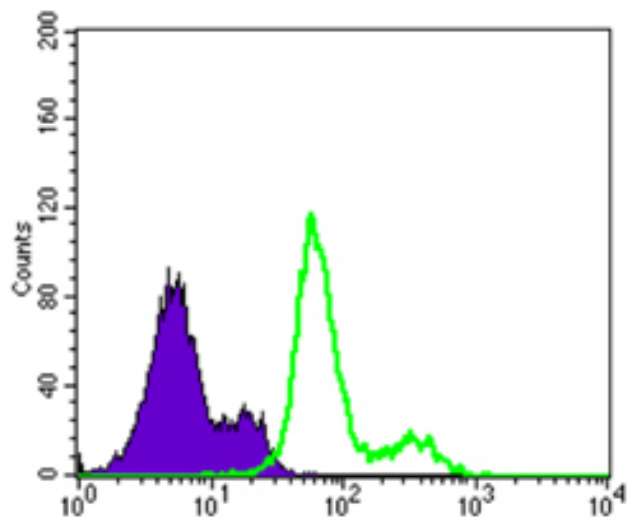
Western Blot analysis using PDK1 Monoclonal Antibody against NIH/3T3 (1), HeLa (2), Jurkat (3), HepG2 (4), PC-12 (5), and Cos7 (6) cell lysate.



Immunohistochemistry analysis of paraffin-embedded breast cancer tissues (left) and brain tissues (right) with DAB staining using PDK1 Monoclonal Antibody.



Immunofluorescence analysis of HELA cells using PDK1 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of Lovo cells using PDK1 Monoclonal Antibody (green) and negative control (purple).