Datasheet for ABIN4912898

anti-PDK2 antibody

2 Images

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Overview

Quantity:	100 µL
Target:	PDK2
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PDK2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This PDK2 monoclonal antibody is generated from mouse immunized with PDK2 recombinant protein.
Clone:	7E5
Isotype:	IgG1
Cross-Reactivity:	Human, Mouse
Purification:	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.

Target Details

Target:	PDK2
Alternative Name:	PDK2 (PDK2 Products)

Target Details

Background:	Synonyms: PDHK2, PDKII, [Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 2, mitochondrial, Pyruvate dehydrogenase kinase isoform 2, PDH kinase 2, PDK2 Background: 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.
Gene ID:	5164
UniProt:	Q15119
Pathways:	PI3K-Akt Signaling, RTK Signaling, Carbohydrate Homeostasis, Regulation of Carbohydrate Metabolic Process, Warburg Effect

Application Details

Application Notes:	WB 1:300-5000 IHC-P 1:200-400
Restrictions:	For Research Use only

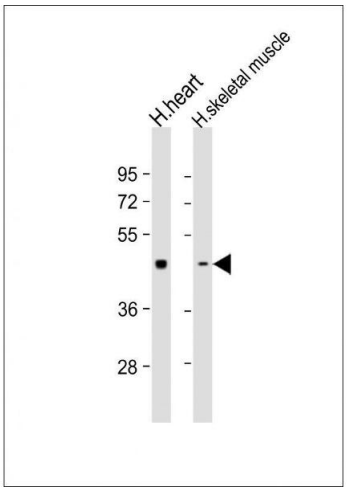
Handling

Format:	Liquid
Concentration:	0.5 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C

Handling

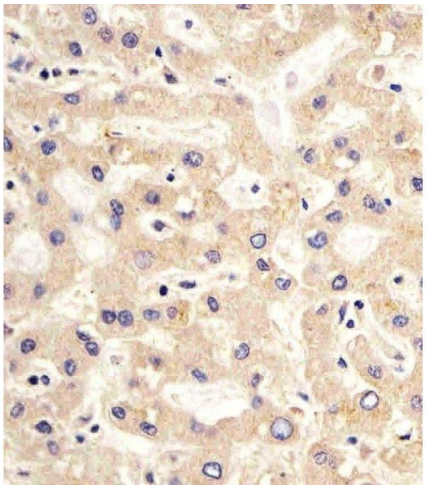
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Lane 1: human heart, Lane 2: human skeletal muscle lysate at 20 µg per lane. probed with bsm-51043M PDK2 (180CT10.2.3) Monoclonal Antibody at 1:1000 dilution and 4*°C overnight incubation, followed by secondary antibody incubation for 60min at room temperature.*



Immunohistochemistry (Paraffin-embedded Sections)

Image 2. Paraformaldehyde-fixed, paraffin embedded Human Liver tissue, Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min, Block endogenous peroxidase by 3% hydrogen peroxide for 15 minutes, Blocking buffer (3% BSA) at room temperature for 30min, Antibody incubation with PDK2 (180CT10.2.3) Monoclonal Antibody (bsm-51043M) at 1:25 for 1 hour at 37°C, followed by a conjugated secondary antibody for 20 minutes and DAB staining.