

Datasheet for ABIN3032417
anti-PDK4 antibody (AA 83-111)



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5 Images

Overview

Quantity:	0.4 mL
Target:	PDK4
Binding Specificity:	AA 83-111
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PDK4 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	A portion of amino acids 83-111 from the human protein was used as the immunogen for this PDK4 antibody.
Isotype:	Ig Fraction
Purification:	Purified

Target Details

Target:	PDK4
Alternative Name:	PDK4 (PDK4 Products)
Background:	<p>PDK4 is a 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.</p> <p>This inhibits pyruvate dehydrogenase activity, and thereby regulates metabolite flux through the</p>

Target Details

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 in response to prolonged fasting and starvation. Plays an important role in maintaining normal blood glucose levels under starvation, and is involved in the insulin signaling cascade. 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. In the fed state, mediates cellular responses to glucose levels and to a high-fat diet. Regulates both fatty acid oxidation and de novo fatty acid biosynthesis. Plays a role in the generation of reactive oxygen species. Protects detached epithelial cells against anoikis. Plays a role in cell proliferation via its role in regulating carbohydrate and fatty acid metabolism. [UniProt]

UniProt:	Q16654
Pathways:	PI3K-Akt Signaling , Hedgehog Signaling , Carbohydrate Homeostasis , Regulation of Carbohydrate Metabolic Process , Warburg Effect

Application Details

Application Notes:	Titration of the PDK4 antibody may be required due to differences in protocols and secondary/substrate sensitivity.\. Western blot: 1:1000,IHC (Paraffin): 1:10-1:50,Immunofluorescence: 1:10-1:50
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	In 1X PBS, pH 7.4, with 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Aliquot the PDK4 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.



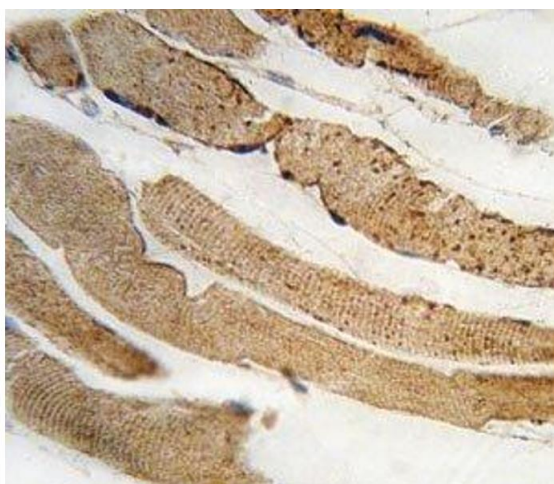
Western Blotting

Image 1. Western blot analysis of PDK4 antibody and HL-60 lysate. Predicted molecular weight ~46 kDa



Immunofluorescence

Image 2. Confocal immunofluorescent analysis of PDK4 antibody with HeLa cells followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 Phalloidin (red).



Immunohistochemistry

Image 3. IHC analysis of FFPE human skeletal muscle tissue stained with PDK4 antibody

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN3032417.