

Datasheet for ABIN7142338
anti-PDPK1 antibody (AA 277-556)



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3 Images

Overview

Quantity:	100 µL
Target:	PDPK1
Binding Specificity:	AA 277-556
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PDPK1 antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human 3-phosphoinositide-dependent protein kinase 1 protein (277-556AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antigen Affinity purified

Target Details

Target:	PDPK1
Alternative Name:	PDPK1 (PDPK1 Products)
Background:	Background: Serine/threonine kinase which acts as a master kinase, phosphorylating and activating a subgroup of the AGC family of protein kinases. Its targets include: protein kinase B

(PKB/AKT1, PKB/AKT2, PKB/AKT3), p70 ribosomal protein S6 kinase (RPS6KB1), p90 ribosomal protein S6 kinase (RPS6KA1, RPS6KA2 and RPS6KA3), cyclic AMP-dependent protein kinase (PRKACA), protein kinase C (PRKCD and PRKCZ), serum and glucocorticoid-inducible kinase (SGK1, SGK2 and SGK3), p21-activated kinase-1 (PAK1), protein kinase PKN (PKN1 and PKN2). Plays a central role in the transduction of signals from insulin by providing the activating phosphorylation to PKB/AKT1, thus propagating the signal to downstream targets controlling cell proliferation and survival, as well as glucose and amino acid uptake and storage. Negatively regulates the TGF-beta-induced signaling by: modulating the association of SMAD3 and SMAD7 with TGF-beta receptor, phosphorylating SMAD2, SMAD3, SMAD4 and SMAD7, preventing the nuclear translocation of SMAD3 and SMAD4 and the translocation of SMAD7 from the nucleus to the cytoplasm in response to TGF-beta. Activates PPARG transcriptional activity and promotes adipocyte differentiation. Activates the NF-kappa-B pathway via phosphorylation of IKKB. The tyrosine phosphorylated form is crucial for the regulation of focal adhesions by angiotensin II. Controls proliferation, survival, and growth of developing pancreatic cells. Participates in the regulation of Ca²⁺ entry and Ca²⁺-activated K⁺ channels of mast cells. Essential for the motility of vascular endothelial cells (ECs) and is involved in the regulation of their chemotaxis. Plays a critical role in cardiac homeostasis by serving as a dual effector for cell survival and beta-adrenergic response. Plays an important role during thymocyte development by regulating the expression of key nutrient receptors on the surface of pre-T cells and mediating Notch-induced cell growth and proliferative responses. Provides negative feedback inhibition to toll-like receptor-mediated NF-kappa-B activation in macrophages. Isoform 3 is catalytically inactive.

Aliases: 3-phosphoinositide dependent protein kinase 1 antibody, 3-phosphoinositide-dependent protein kinase 1 antibody, hPDK 1 antibody, hPDK1 antibody, MGC20087 antibody, MGC35290 antibody, OTTHUMP00000159109 antibody, OTTHUMP00000159110 antibody, OTTHUMP00000174525 antibody, PDK1 antibody, Pdkp1 antibody, PDPK1_HUMAN antibody, PDPK2 antibody, PDPK2P antibody, PkB kinase antibody, PkB kinase like gene 1 antibody, PkB like 1 antibody, PRO0461 antibody, Protein kinase antibody

UniProt: [O15530](#)

Pathways: [PI3K-Akt Signaling](#), [TCR Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Cell-Cell Junction Organization](#), [Regulation of Cell Size](#), [Skeletal Muscle Fiber Development](#), [CXCR4-mediated Signaling Events](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [VEGFR1 Specific Signals](#)

Application Details

Application Notes: Recommended dilution: IHC:1:20-1:200, IF:1:50-1:200,

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.

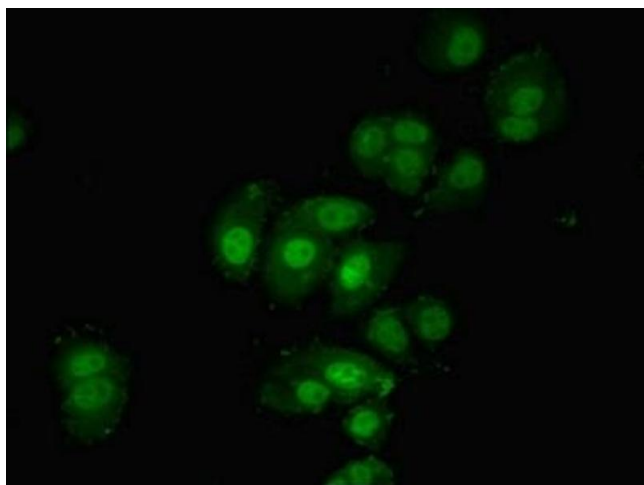
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C, -80 °C

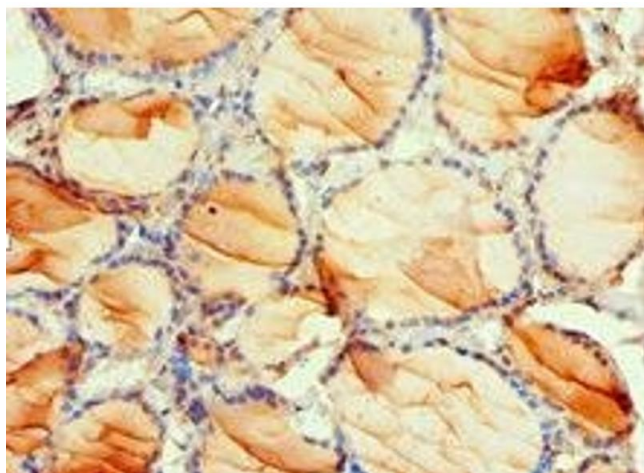
Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



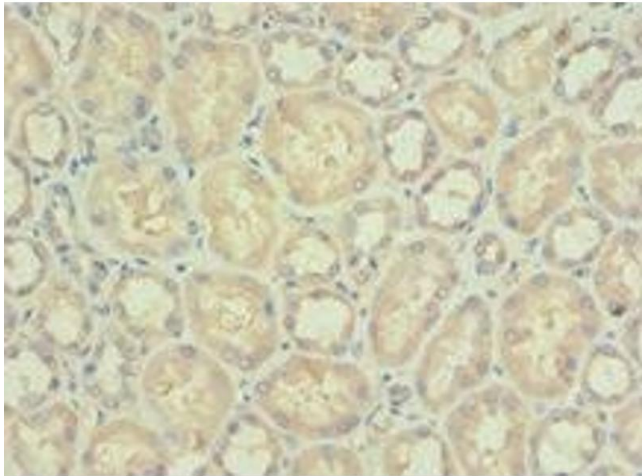
Immunofluorescence

Image 1. Immunofluorescent analysis of MCF-7 cells using ABIN7142338 at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human thyroid tissue using ABIN7142338 at dilution of 1:100



Immunohistochemistry

Image 3. Immunohistochemistry of paraffin-embedded human kidney tissue using ABIN7142338 at dilution of 1:100