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530-758-4400

PRODUCT DATASHEET

Anti-PDK1 (N-terminus) Antibody

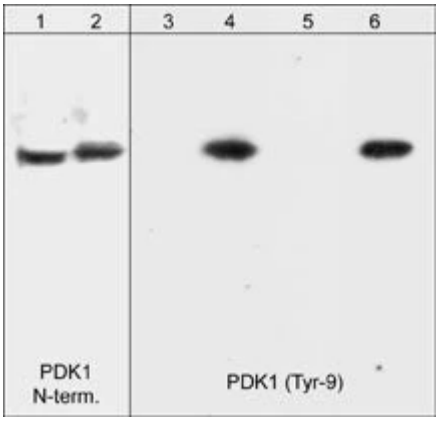
phosphosolutions ANTIBODIES THAT WORK

Product Details

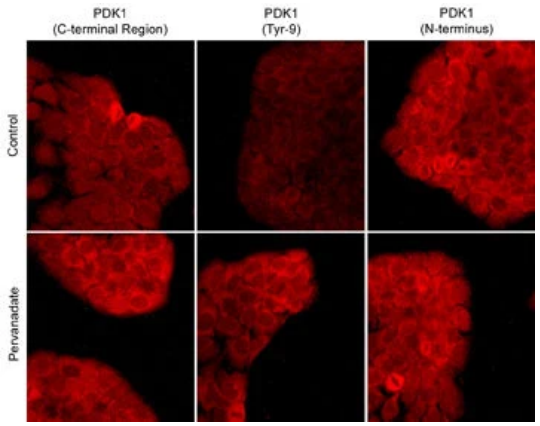
Available Variants	100 µL (SKU:PP1411)
Conjugate	Unconjugated
Isotype	IgG
Gene Name	PDK1
Host Species	Rabbit
Format	Antigen Affinity Purified
Physical State	Liquid
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Applications	ELISA, ICC, WB
Dilution Ranges	WB: 1:1000 ICC: 1:400
Species Reactivity	Human, Mouse, Rat
Immunogen	PDK1 synthetic peptide (coupled to carrier protein) corresponding to amino acids in the N-terminus of human PDK1. This sequence is highly conserved in rat and mouse PDK1.
Specificity	The antibody detects a 65 kDa* protein corresponding to the apparent molecular mass of PDK1 on SDS-PAGE immunoblots of human A431 cells and mouse brain.
Molecular Weight	65
Quality Control	Western blots performed on each lot.
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.

UniProt ID	O15530 UniProt Summary: 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), TSSK3, 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 Ca(2+) entry and Ca(2+)-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.
Country of Origin	United States
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
NCBI Gene ID	5170

Product Images



Western blot image of A431 cells untreated (lanes 1 and 3) or treated with pervanadate (lanes 2, 4, 5 & 6). Blots were probed with anti-PDK1 (PP1411) or anti-PDK1 (Tyr-9) (PP1431). The latter was used in the presence of no peptide (lane 4), phospho-PDK1 (Tyr-9) peptide (lane 5), or an unrelated phosphotyrosine peptide (lane 6).



Immunocytochemical labeling of PDK1 phosphorylation in control and pervanadate-treated A431 cells. The cells were labeled with mouse monoclonal PDK1 (C-terminal Region) (PM1461), rabbit polyclonal PDK1 (Tyr-9) (PP1431), and PDK1 (N-terminus) (PP1411) antibodies. These antibodies were detected using appropriate secondary antibody conjugated to DyLight® 594.