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Anti-PDK1 (N-terminus) Antibody

Catalog # AN1892

Product Information

Application	WB, ICC
Primary Accession	O15530
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	63152

Additional Information

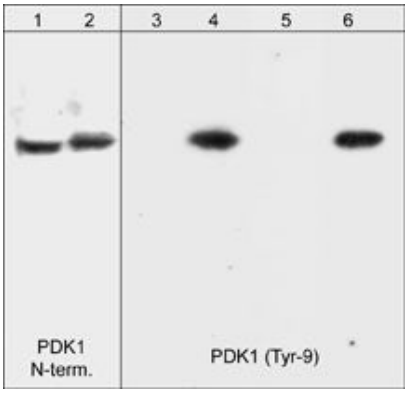
Gene ID	5170
Other Names	PDPK1, PKBK
Dilution	WB~~1:1000 ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-PDK1 (N-terminus) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

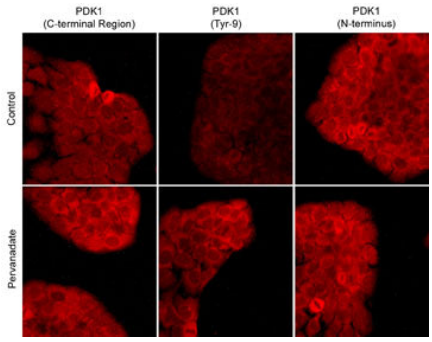
3-Phosphoinositide-dependent kinase 1 (PDK1), also known as PKB kinase, was identified as the activator of the survival kinase Akt/PKB. Several important substrates of PDK1 include p70S6 kinase, PKAs, PKCs, SGKs, RSKs, and PAKs. PDK1 is a member of the AGC superfamily of serine/threonine kinases. Through the phosphorylation of downstream kinases, like Akt, PDK1 has been shown to be involved in several different cell functions, such as protein synthesis, cell survival, glucose metabolism, and cell adhesion and migration. The regulation of PDK1 occurs through lipid second messengers and phosphorylation. Multiple serine sites are phosphorylated on PDK1. Serine 241 phosphorylation is required for PDK1 activity, while serine 396 has been implicated in PDK1 nuclear translocation. Tyrosine phosphorylation may also regulate PDK1 activity. Tyrosines 9 and 373/376 are phosphorylated by c-Src in vitro. Tyr-373/Tyr-376 are important for PDK1 activity, while Tyr-9 phosphorylation permits Tyr-373/Tyr-376 phosphorylation by c-Src. In addition, Tyr-9 may be important during angiotensin-II-induced focal adhesion formation.

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 (AN1892) 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) (AN1892) antibodies. These antibodies were detected using appropriate secondary antibody conjugated to DyLight® 594.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.