

PDK1 (C-terminal Region)

Cat. # PM1461

Host Mouse Monoclonal IgG1

Size 100 µl

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.

References

- Park, J. et al. (2001) J Biol. Chem. 276(40):37459.
Taniyama, Y. et al. (2003) Mol Cell. Biol. 23(22):8019.
Scheid, M.P. et al. (2005) Mol. Cell. Biol. 25(6):2347.

Immunogen:

Clone M146 was generated from a recombinant protein containing amino acid residues in the C-terminal region of human PDK1. This sequence is highly conserved in rat and mouse PDK1

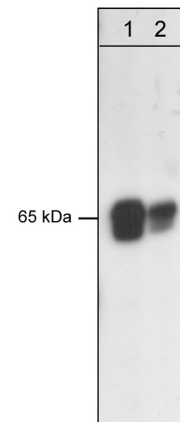
Applications:

WB 1:250
ELISA 1:2000
ICC 1:50

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- PP1411 PDK1 (N-terminus) Rabbit Polyclonal
PX1415 PDK1 (N-terminus) Peptide
PP1431 PDK1 (Tyr-9), phospho-specific Rabbit Polyclonal
PX1435 phospho-PDK1 (Tyr-9) Peptide



Western blot image of mouse brain (lane 1) and human A431 cells (lane 2). The blot was probed with anti-PDK1 (C-terminal region) (PM1461).

Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

The purified 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.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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