SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-Phospho-PDPK1 (Tyr373 + Tyr376)/HRP Conjugated antibody

Catalog Number: SL3017R-HRP

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-Phospho-PDPK1(Tyr373 + Tyr376)/HRP
Immunogen:	KLH conjugated Synthesised phosphopeptide derived from human PDPK1 around the phosphorylation site of (Y373+Y376)
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse(predicted:Human,Rat,Chicken,Dog,Pig,Cow)
Background:	background: PDK1 (3 Phosphoinositide Dependent Protein Kinase 1) phosphorylates AGC kinases. PDK1 activates conventional PKC and PKC zeta through phosphorylation of critical threonine residues in the activation loop. PDK1 also phosphorylates Protein Kinase B (PKB) at threonine 308 in the presence of phosphatidylinositol-3,4,5-trisphosphate. Active Akt inactivates Glycogen Synthase Kinase 3 (GSK3), eventually leading to the dephosphorylation and activation of glycogen synthase and the stimulation of glycogen synthesis. Because of the role that PDK plays in insulin-induced glycogen synthesis and PKC activation it is a potentially important target for metabolic drug research. There are three named isoforms. **Function:** Phosphorylates and activates not only PKB/AKT, but also PKA, PKC-zeta, RPS6KA1 and RPS6KB1. May play a general role in signaling processes and in development (By similarity). Isoform 3 is catalytically inactive.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	Subunit: Interacts with NPRL2. **Subcellular Location:** Cytoplasm. Membrane; Peripheral membrane protein. Note=Membrane-associated after cell stimulation leading to its translocation. Tyrosine phosphorylation seems to occur only at the plasma membrane. **Tissue Specificity:** Appears to be expressed ubiquitously. **Post-translational modifications:** Phosphorylated on tyrosine and serine/threonine. Phosphorylation on Ser-241 in the activation loop is required for full activity. PDK1 itself can autophosphorylate Ser-241, leading to its own activation. **Similarity:** Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PDK1 subfamily. Contains 1 PH domain. Contains 1 protein kinase domain. **Database links:** **Entrez Gene:** 5170 Human **Entrez Gene:** 18607 Mouse **Entrez Gene:** 81745 Rat Omim: 605213 Human **SwissProt:** O15530 Human **SwissProt:** Q9Z2A0 Mouse **SwissProt:** O55173 Rat **Unigene:** 459691 Human **Unigene:** 10504 Mouse **Unigene:** 10905 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. PDK1 is an upstream kinase of protein kinase B (PKB). It activates adjacent PKB molecules through interaction with phosphatidylinositol 3,4,5-trisphosphate. PDK1 can activate a series of AGC kinase family members, including PKB, thereby regulating numerous physiological processes such as cell metabolism, growth, proliferation, survival, and anti-apoptosis.

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