



Rabbit Anti-PDPK1 antibody

SL2739R

Product Name:	PDPK1
Chinese Name:	3磷酸肌醇依赖性蛋白激酶1抗体
Alias:	3 Phosphoinositide Dependent Protein Kinase 1; hPDK 1; hPDK 1; PDK 1; PkB kinase; PkB kinase like gene 1; PkB like 1; PDPK1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	61kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PDK1:251-350/556
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

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.

SWISS:

O15530

Gene ID:

5170

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

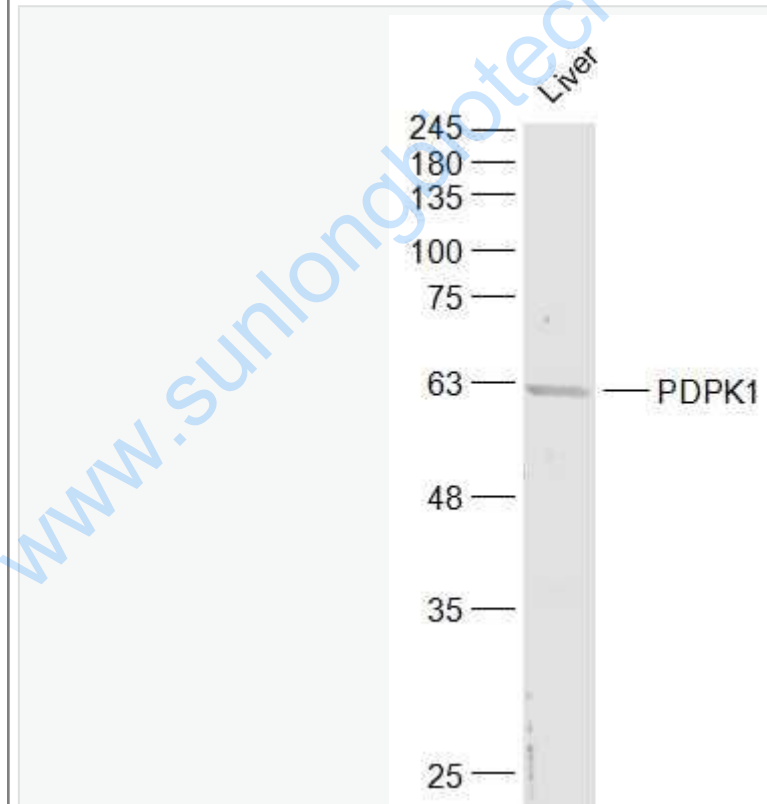
[Unigene: 10905](#)Rat

Important Note:

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

PDK1是蛋白激酶B(PKB)的上游激酶, 通过与3,4,5三磷酸磷脂酰肌醇作用激活相邻的PKB分子。PDK1能够激活包含PKB在内的一系列的AGC激酶家族成员。从而调节细胞代谢, 生长, 扩散, 生存, 抗凋亡等诸多生理过程。

Picture:



Sample:

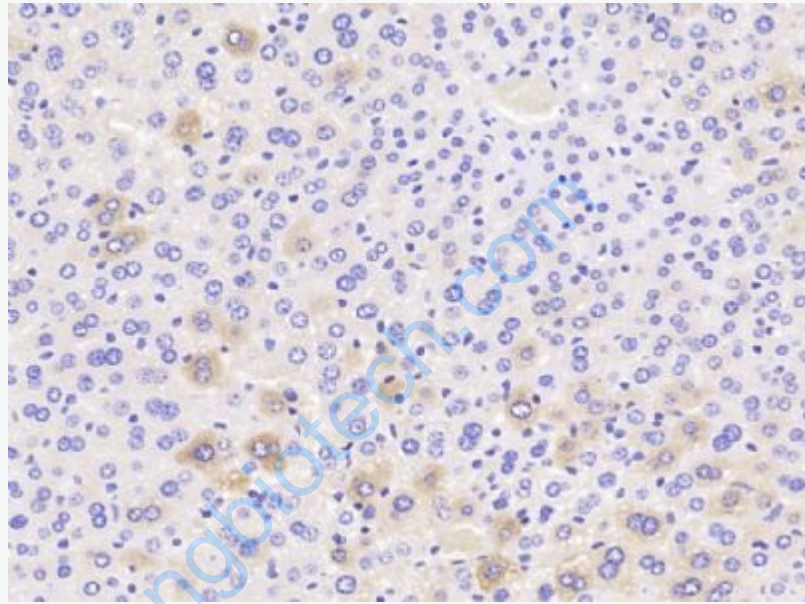
Liver (Mouse) Lysate at 40 ug

Primary: Anti-PDK1 (SL2739R) at 1/500 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 61 kD

Observed band size: 61 kD



Paraformaldehyde-fixed, paraffin embedded (mouse liver tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PDK1) Polyclonal Antibody, Unconjugated (SL2739R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.