

Summary

Production Name	PDK1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF-P,IF-F,ICC/IF,WB,IHC-P,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PDPK1
Alternative Names	PDPK1; PDK1; 3-phosphoinositide-dependent protein kinase 1; hPDK1
Gene ID	5170.0
SwissProt ID	O15530.The antiserum was produced against synthesized peptide derived from human PDK1. AA range:210-259

Application

Dilution Ratio	IF-P/IF-F/ICC/IF 1:50-200, WB 1:500-1:2000, IHC-P 1:100-1:300, ELISA 1:10000.Not yet tested in other applications.
Molecular Weight	60kDa

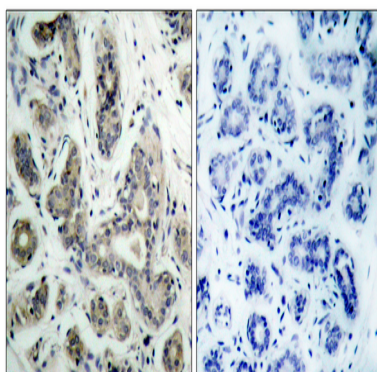
Background

catalytic activity:ATP + a protein = ADP + a phosphoprotein.,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.,PTM: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.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PDK1 subfamily.,similarity:Contains 1 PH domain.,similarity:Contains 1 protein kinase domain.,subcellular location:Membrane-associated after cell stimulation leading to its translocation. Tyrosine phosphorylation seems to occur only at the plasma membrane.,subunit:Interacts with TUSC4.,tissue specificity:Appears to be expressed ubiquitously.,catalytic activity:ATP + a protein = ADP + a phosphoprotein.,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.,PTM: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.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PDK1 subfamily.,similarity:Contains 1 PH domain.,similarity:Contains 1 protein kinase domain.,subcellular location:Membrane-associated after cell stimulation leading to its translocation. Tyrosine phosphorylation seems to occur only at the plasma membrane.,subunit:Interacts with TUSC4.,tissue specificity:Appears to be expressed ubiquitously.,

Research Area

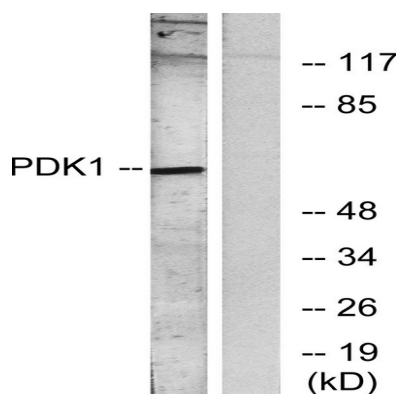
PPAR;mTOR;Focal adhesion;Insulin_Receptor;Aldosterone-regulated sodium reabsorption;Endometrial cancer;Prostate cancer;Non-small cell lung cancer;

Image Data

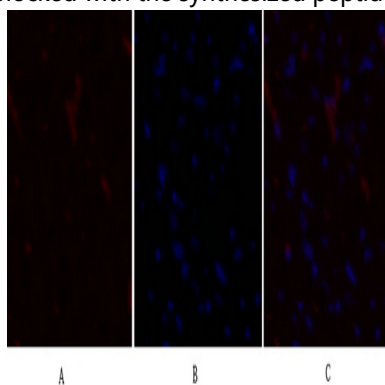


Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using PDK1 Antibody. The picture on the right is blocked with the synthesized peptide.

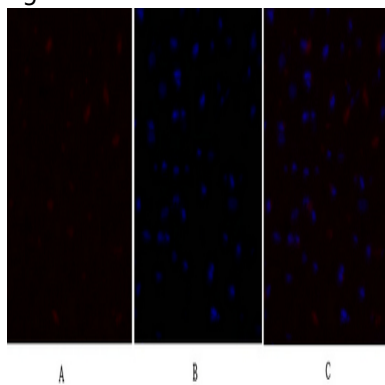
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Catalog #: APRab15917



Western blot analysis of lysates from MDA-MB-435 cells, treated with EGF, using PDK1 Antibody. The lane on the right is blocked with the synthesized peptide.

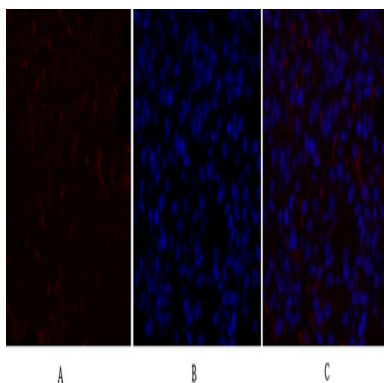


Immunofluorescence analysis of rat-heart tissue. 1,PDK1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

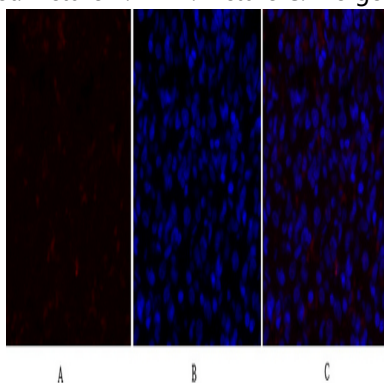


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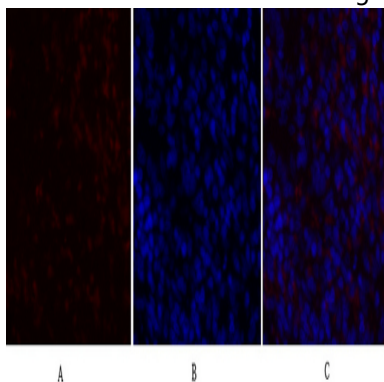
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Immunofluorescence analysis of rat-lung tissue. 1,PDK1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

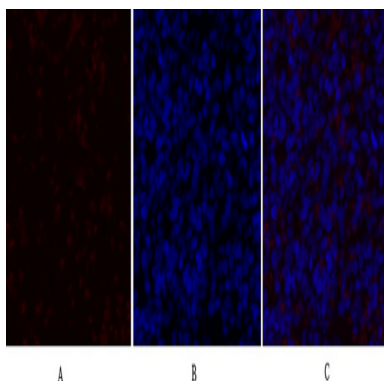


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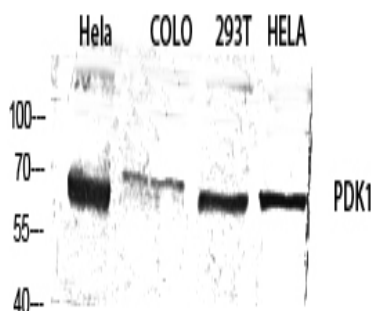


Immunofluorescence analysis of rat-spleen tissue. 1,PDK1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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Immunofluorescence analysis of rat-spleen tissue. 1, PDK1 Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight) .
2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min.
Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Western Blot analysis of various cells using PDK1 Polyclonal Antibody diluted at 1: 1000

Note

For research use only.