

Anti-PDPK1 Antibody Picoband®

Catalog Number: PB9735

About PDPK1

3-phosphoinositide dependent protein kinase-1, also known as PDPK1, is a protein which in humans is encoded by the PDPK1 gene. It is mapped to 16p13.3. PDPK1 is a master kinase, which is crucial for the activation of AKT/PKB and many other AGC kinases including PKC, S6K, SGK. An important role for PDPK1 is in the signalling pathways activated by several growth factors and hormones including insulin signaling. Mice lacking PDPK1 die during early embryonic development, indicating that this enzyme is critical for transmitting the growth-promoting signals necessary for normal mammalian development.

Overview

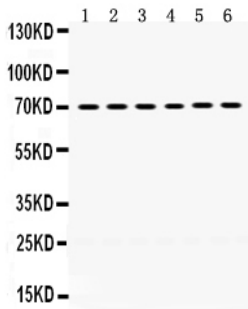
Product Name	Anti-PDPK1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PDPK1 Antibody Picoband® catalog # PB9735. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O15530

Technical Details

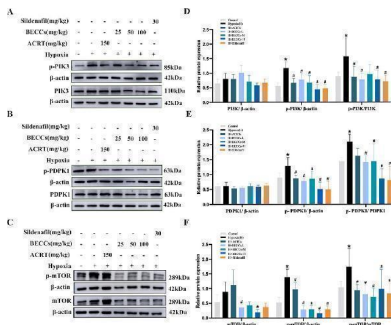
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PDPK1, different from the related mouse and rat sequences by two amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and IHC(F).

Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunohistochemistry (Frozen Section), 0.5-1ug/ml Western blot, 0.1-0.5ug/ml

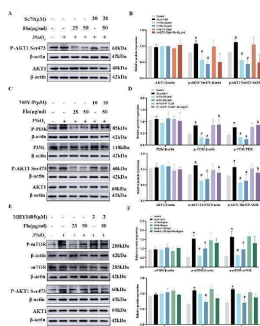
Anti-PDPK1 Antibody Picoband® (PB9735) Images



Western blot analysis of PDPK1 using anti-PDPK1 antibody (PB9735). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Liver Tissue Lysate, Lane 2: Rat Lung Tissue Lysate, Lane 3: Mouse Liver Tissue Lysate, Lane 4: Mouse Lung Tissue Lysate, Lane 5: COLO320 Whole Cell Lysate, Lane 6: MCF-7 Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PDPK1 antigen affinity purified polyclonal antibody (Catalog # PB9735) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PDPK1 at approximately 70KD. The expected band size for PDPK1 is at 63KD.

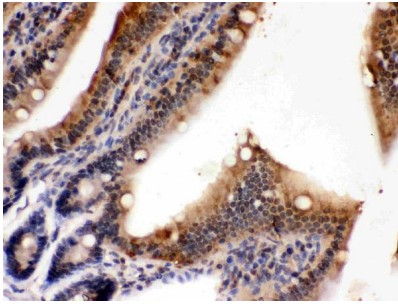


BECCs regulate PI3K, PDPK1, and mTOR protein levels in HAPH rats. (A-C) Primitive bands of p-PI3K, PI3K, p-PDPK1, PDPK1, p-mTOR, and mTOR by Western blots in lung tissues. (D-F) Quantitative evaluation of p-PI3K, PI3K, p-PDPK1, PDPK1, p-mTOR, and mTOR in lung tissues. n = 5. All data are represented as the mean ± SD. * p < 0.05 vs. control group and # p < 0.05 vs. hypoxia group. Index in PubMed under a CC BY license. PMID: 40385484

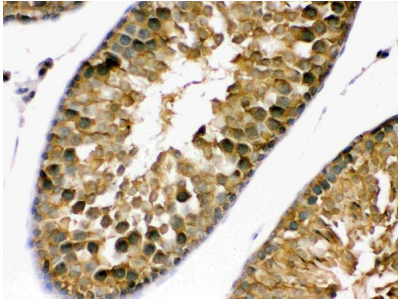


Flavonoids inhibit the proliferation of PSMCs under hypoxic conditions by inhibiting the PI3K/AKT axis. (A, B) Primitive bands and quantitative densities of p-AKT1 Ser473 and AKT1 with or without Sc79 (20 uM) by Western blots in PSMCs under 3% O₂. (C, D) Primitive bands and quantitative densities of p-PI3K, PI3K, p-AKT1 Ser473, and AKT1 with or without 740Y-P (10 uM) by Western blots in PSMCs under 3% O₂. (E, F) Primitive bands and quantitative densities of p-PDPK1, PDPK, p-AKT1 Ser473, and AKT1 with or without MYH1485 (2 uM) in PSMCs by Western blots under 3% O₂. n = 3. All data are represented as the mean ± SD. * p < 0.05 vs. control group, # p < 0.05 vs. 3% O₂ group, and p < 0.05 vs. 3% O₂ + Fla-50 ug/ml group. Index in PubMed under a CC BY license. PMID: 40385484

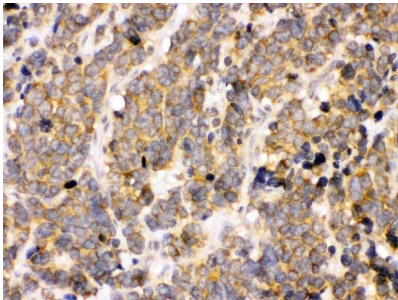
IHC analysis of PDPK1 using anti-PDPK1 antibody (PB9735). PDPK1 was detected in paraffin-embedded section of Mouse Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution)



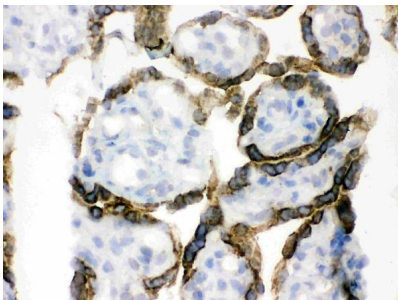
for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PDPK1 Antibody (PB9735) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



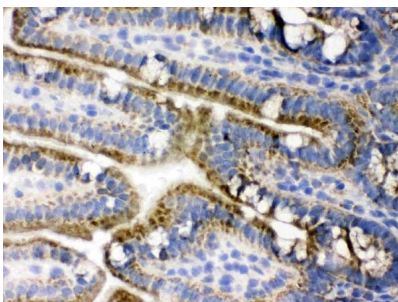
IHC analysis of PDPK1 using anti-PDPK1 antibody (PB9735). PDPK1 was detected in paraffin-embedded section of Rat Testis Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PDPK1 Antibody (PB9735) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of PDPK1 using anti-PDPK1 antibody (PB9735). PDPK1 was detected in paraffin-embedded section of Human Lung Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PDPK1 Antibody (PB9735) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of PDPK1 using anti-PDPK1 antibody (PB9735). PDPK1 was detected in frozen section of human placenta tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PDPK1 Antibody (PB9735) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of PDPK1 using anti-PDPK1 antibody (PB9735). PDPK1 was detected in frozen section of mouse small intestine tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PDPK1 Antibody (PB9735) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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Anti-PDPK1 Antibody

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