

Anti-PI3 Kinase p110 beta/PIK3CB Antibody Picoband™

Catalog Number: A01091-1

About PIK3CB

Phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta isoform is an enzyme that in humans is encoded by the PIK3CB gene. This gene encodes an isoform of the catalytic subunit of phosphoinositide 3-kinase (PI3K). These kinases are important in signaling pathways involving receptors on the outer membrane of eukaryotic cells and are named for their catalytic subunit. The encoded protein is the catalytic subunit for PI3Kbeta (PI3KB). PI3KB has been shown to be part of the activation pathway in neutrophils which have bound immune complexes at sites of injury or infection. Alternative splicing results in multiple transcript variants.

Overview

Product Name	Anti-PI3 Kinase p110 beta/PIK3CB Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PI3 Kinase p110 beta/PIK3CB Antibody Picoband™ catalog # A01091-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	P42338

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human PIK3CB, different from the related mouse and rat sequences by one amino acid.
Predicted Reactive Species	Human
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).
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

Anti-PI3 Kinase p110 beta/PIK3CB Antibody Picoband™ (A01091-1) Images

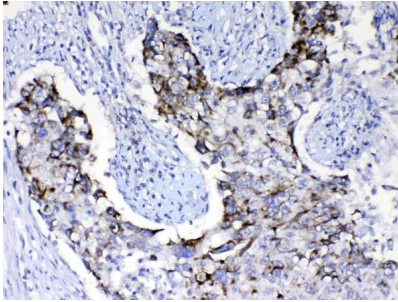


Figure 2. IHC analysis of PIK3CB using anti-PIK3CB antibody (A01091-1).

PIK3CB was detected in paraffin-embedded section of human intestinal cancer tissues. 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-PIK3CB Antibody (A01091-1) 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.

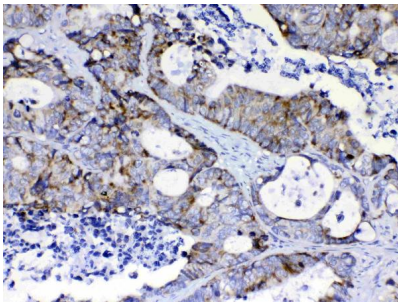


Figure 3. IHC analysis of PIK3CB using anti-PIK3CB antibody (A01091-1).

PIK3CB was detected in paraffin-embedded section of human lung cancer tissues. 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-PIK3CB Antibody (A01091-1) 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.

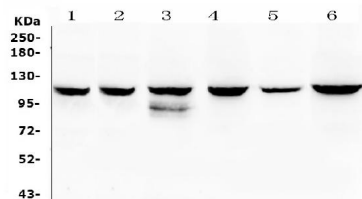


Figure 1. Western blot analysis of PIK3CB using anti-PIK3CB antibody (A01091-1).

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 lysates,
Lane 2: rat kidney tissue lysates,
Lane 3: mouse spleen tissue lysates,
Lane 4: mouse thymus tissue lysates,
Lane 5: MCF-7 whole Cell lysates,
Lane 6: K562 whole cell lysates.

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-PIK3CB antigen affinity purified polyclonal antibody (Catalog # A01091-1) 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 PIK3CB at approximately 110KD. The expected band size for PIK3CB is at 123KD.

4 Publications Citing This Product

1. PubMed ID: 10.3892/etm.2021.10634, CXCR4 protects bone marrow-derived endothelial progenitor cells against hypoxia through the PI3K/Akt signaling pathway
2. PubMed ID: 10.1016/j.canlet.2019.10.021, MiR-337-3p suppresses proliferation of epithelial ovarian cancer by targeting PIK3CA and PIK3CB
3. PubMed ID: 25352008, Wang Q, Sun X, Li X, Dong X, Li P, Zhao L. Mol Med Rep. 2015 Jan;11(1):151-8. Doi: 10.3892/Mmr.2014.2762. Epub 2014 Oct 23. Resveratrol Attenuates Intermittent Hypoxia-Induced Insulin Resistance In Rats: Involvement Of Sirtuin 1 And The Phosphatid...

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