

Anti-PI3K-gamma/PIK3CG Antibody Picoband™

Catalog Number: A01517-2

About PIK3CG

Phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma isoform is an enzyme that in humans is encoded by the PIK3CG gene. Phosphoinositide 3-kinases (PI3Ks) phosphorylate inositol lipids and are involved in the immune response. The protein encoded by this gene is a class I catalytic subunit of PI3K. Like other class I catalytic subunits (p110-alpha p110-beta, and p110-delta), the encoded protein binds a p85 regulatory subunit to form PI3K. This gene is located in a commonly deleted segment of chromosome 7 previously identified in myeloid leukemias. Several transcript variants encoding the same protein have been found for this gene.

Overview

Product Name	Anti-PI3K-gamma/PIK3CG Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PI3K-gamma/PIK3CG Antibody Picoband™ catalog # A01517-2. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg 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	P48736

Technical Details

Immunogen	E.coli-derived human PI3K-gamma/PIK3CG recombinant protein (Position: K52-D308).
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: Western blot, 0.1-0.25ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human Direct ELISA, 0.1-0.5ug/ml, Human

Anti-PI3K-gamma/PIK3CG Antibody Picoband™ (A01517-2) Images

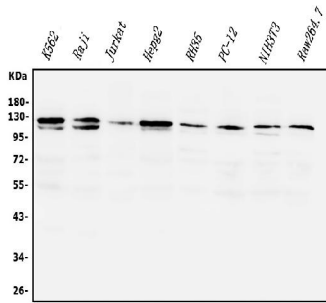


Figure 1. Western blot analysis of PI3K-gamma/PIK3CG using anti-PI3K-gamma/PIK3CG antibody (A01517-2).

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: human K562 whole cell lysates,
Lane 2: human Raji whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: rat RH35 whole cell lysates,
Lane 6: rat PC-12 whole cell lysates,
Lane 7: mouse NIH/3T3 whole cell lysates,
Lane 8: mouse RAW264.7 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-PI3K-gamma/PIK3CG antigen affinity purified polyclonal antibody (Catalog # A01517-2) at 0.25 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 PI3K-gamma/PIK3CG at approximately 126KD. The expected band size for PI3K-gamma/PIK3CG is at 126KD.

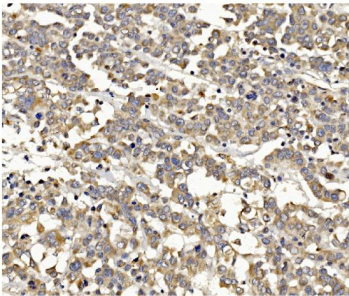


Figure 2. IHC analysis of PI3K-gamma/PIK3CG using anti PI3K-gamma/PIK3CG antibody (A01517-2).

PI3K-gamma/PIK3CG was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-PI3K-gamma/PIK3CG Antibody (A01517-2) 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.

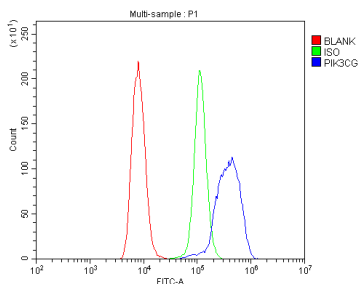


Figure 3. Flow Cytometry analysis of Raji cells using anti-PI3K-gamma/PIK3CG antibody (A01517-2).

Overlay histogram showing Raji cells stained with A01517-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PI3K-gamma/PIK3CG Antibody (A01517-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the

same conditions. Unlabelled sample (Red line) was also used as a control.

10 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2021.11938, Hydrogen sulfide ameliorates doxorubicin-induced myocardial fibrosis in rats via the PI3K/AKT/mTOR pathway
2. PubMed ID: 10.1016/j.jare.2021.09.001, A comparative study of Mesenchymal Stem Cells transplantation approach to antagonize age-associated ovarian hypofunction with consideration of safety and efficiency
3. PubMed ID: 10.1016/j.envpol.2021.116556, Mechanisms underlying reproductive toxicity induced by nickel nanoparticles identified by comprehensive gene expression analysis in GC-1 spg cells

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