

Anti-Prohibitin/PHB Antibody Picoband®

Catalog Number: PA1932

About PHB

PHB (Prohibitin), also known as PHB1, is a protein that in humans is encoded by the PHB gene. White et al. (1991) mapped the PHB gene to chromosome 17 by analysis of human-mouse somatic cell hybrid cell lines using a genomic fragment of human prohibitin DNA isolated from a library using the rat prohibitin cDNA clone. By in situ hybridization, they localized the gene to 17q21. Sato et al. (1992) isolated the human homolog of the rat prohibitin gene and mapped it to 17q12-q21 by in situ hybridization. Proliferation of tumor cells depends on new blood vessel formation (angiogenesis) that accompanies malignant progression. Anticancer therapies using angiogenesis inhibitors or cytotoxic agents targeted to the vasculature of tumors have been evaluated in clinical trials. Although white fat is a nonmalignant tissue, it has the capability to quickly proliferate and expand. Furthermore, it is highly vascularized. Rupnick et al. (2002) showed that nonspecific angiogenesis inhibitors can prevent the development of obesity of mice.

Overview

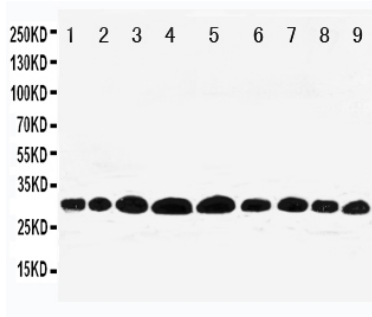
Product Name	Anti-Prohibitin/PHB Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Prohibitin/PHB Antibody catalog # PA1932. Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that 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	IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
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	P35232

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Prohibitin, identical to the related rat and mouse sequences.
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 ICC.
Cross Reactivity	No cross-reactivity with other proteins

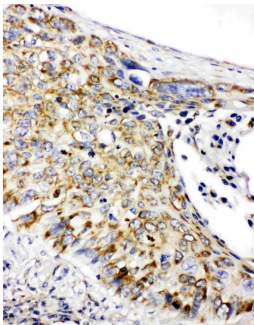
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunocytochemistry/Immunofluorescence, 2ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, Mouse Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

Anti-Prohibitin/PHB Antibody Picoband® (PA1932) Images



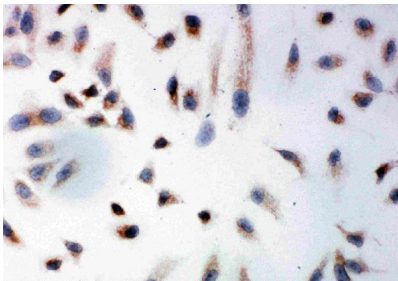
Anti-Prohibitin antibody, PA1932, Western blotting

Lane 1: Rat Lung Tissue Lysate
Lane 2: Rat Skeletal Muscle Tissue Lysate
Lane 3: Rat Brain Tissue Lysate
Lane 4: Rat Kidney Tissue Lysate
Lane 5: HELA Cell Lysate
Lane 6: MCF-7 Cell Lysate
Lane 7: PC-12 Cell Lysate
Lane 8: A549 Cell Lysate
Lane 9: SMMC Cell Lysate



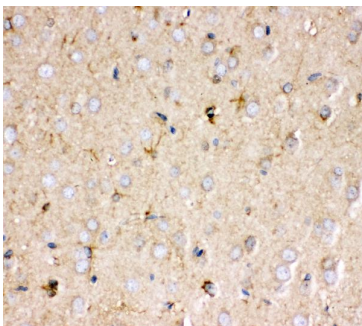
Anti-Prohibitin antibody, PA1932, IHC(P)

IHC(P): Human Lung Cancer Tissue



Anti-Prohibitin antibody, PA1932, ICC

ICC: HELA Cell

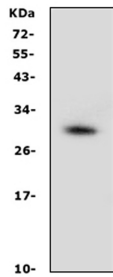


IHC analysis of Prohibitin using anti-Prohibitin antibody (PA1932).

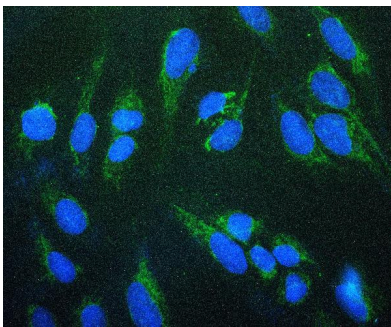
Prohibitin was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Prohibitin Antibody (PA1932) 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.

Western blot analysis of Prohibitin using anti-Prohibitin antibody (PA1932).

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: mouse NIH3T3 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-Prohibitin antigen affinity purified polyclonal antibody (Catalog # PA1932) 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 Prohibitin at approximately 30KD. The expected band size for Prohibitin is at 30KD.



IF analysis of Prohibitin using anti-Prohibitin antibody (PA1932).

Prohibitin was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Prohibitin Antibody (PA1932) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

1 Publications Citing This Product

1. PubMed ID: 18763282, Positional and expressive alteration of prohibitin during the induced differentiation of human hepatocarcinoma SMMC-7721 cells

Visit bosterbio.com/anti-prohibitin-antibody-pa1932-boster.html to see all 1 publications.

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