BOSTER BIOLOGICAL TECHNOLOGY
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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.

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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 antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *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	P35232

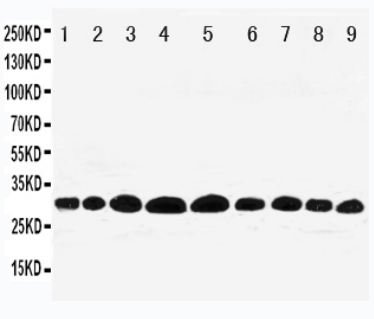
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Technical Details

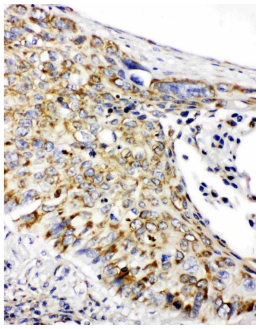
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Prohibitin, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit 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 Tested Species: In-house tested species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections. Other applications have not been tested. Optimal dilutions should be determined by end users.

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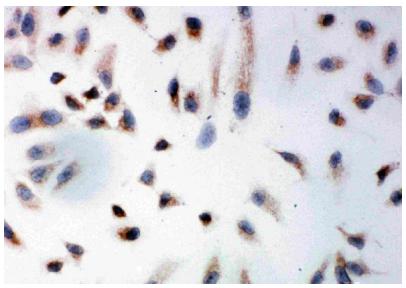
Anti-Prohibitin/PHB Antibody Picoband® (PA1932) Images



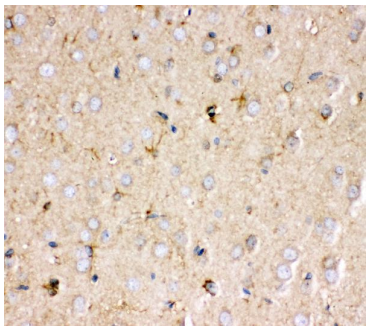
Anti-Prohibitin antibody, PA1932, Western blottingLane 1: Rat Lung Tissue LysateLane 2: Rat Skeletal Muscle Tissue LysateLane 3: Rat Brain Tissue LysateLane 4: Rat Kidney Tissue LysateLane 5: HELA Cell LysateLane 6: MCF-7 Cell LysateLane 7: PC-12 Cell LysateLane 8: A549 Cell LysateLane 9: SMMC Cell Lysate



Anti-Prohibitin antibody, PA1932, IHC(P)IHC(P): Human Lung Cancer Tissue



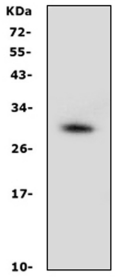
Anti-Prohibitin antibody, PA1932, ICCICC: HELA Cell



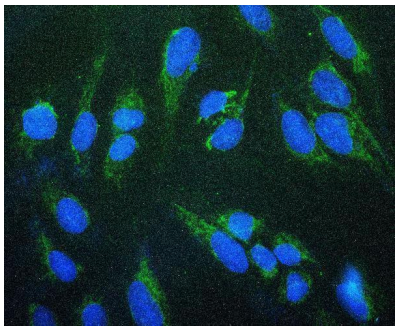
IHC analysis of Prohibitin using anti-Prohibitin antibody (PA1932). Prohibitin was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. 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 Strepavidin-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%

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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 U20S 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.

Anti-Prohibitin/PHB Antibody

For Research Use Only. Not for use in diagnostic procedures.