

Anti-PDGF Receptor alpha/PDGFRα Antibody Picoband™

Catalog Number: PB9771

About PDGFRα

PDGFRα (Platelet-derived growth factor receptor, α), also called PDGFR2, encodes a cell surface tyrosine kinase receptor for members of the platelet-derived growth factor family. The PDGFRα gene is mapped on 4q12. The PDGFRα-FIP1L1 gene is a constitutively activated tyrosine kinase that transforms hematopoietic cells and is a therapeutic target of imatinib. And the PDGFRα gene contains 23 exons spanning about 65 kb. Using the human PDGFRα promoter linked to a luciferase reporter, Joosten et al. showed that PAX1 acts as a transcriptional activator of the PDGFRα gene in differentiated human embryonal carcinoma cells. PDGFRα is responsible for mediating cellular contraction of multiple growth factors: TGFβ1 and members of the PDGF family. Lei et al. noted that in the rabbit model of the disease, PDGFRα is dramatically more capable of promoting PVR than is the closely related PDGFRβ. PDGFRα is a critical receptor required for human CMV infection, and thus a target for novel antiviral therapies.

Overview

Product Name	Anti-PDGF Receptor alpha/PDGFRα Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PDGF Receptor alpha/PDGFRα Antibody Picoband™ catalog # PB9771. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 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	P16234

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PDGFRα, identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Predicted Reactive Species	Bovine
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-PDGF Receptor alpha/PDGFRα Antibody Picoband™ (PB9771) Images

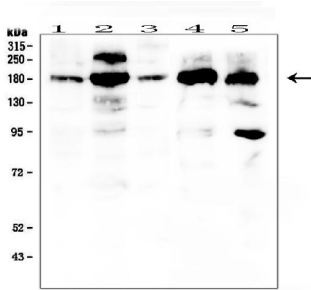


Figure 1. Western blot analysis of PDGFRα using anti-PDGFRα antibody (PB9771).

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 HT1080 whole cell lysates,
Lane 2: human Caco-2 whole cell lysates,
Lane 3: human U2OS whole cell lysates,
Lane 4: human PC-3 whole cell lysates,
Lane 5: human 293T 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-PDGFRα antigen affinity purified polyclonal antibody (Catalog # PB9771) 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 PDGFRα at approximately 123KD. The expected band size for PDGFRα is at 180KD.

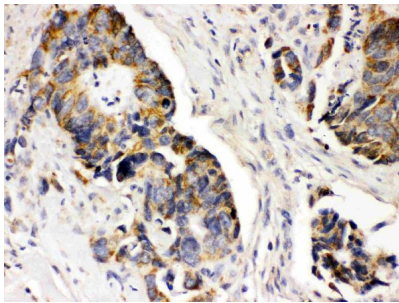


Figure 2. IHC analysis of PDGFRα using anti-PDGFRα antibody (PB9771).

PDGFRα was detected in paraffin-embedded section of Human Intestinal 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-PDGFRα Antibody (PB9771) 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.

3 Publications Citing This Product

1. PubMed ID: 10.1016/j.celrep.2018.10.063, Janus Kinase 1 Plays a Critical Role in Mammary Cancer Progression
2. PubMed ID: 27446356, Label-retaining assay enriches tumor-initiating cells in glioblastoma spheres cultivated in serum-free medium
3. PubMed ID: 29140299, PDGFRα regulated by miR-34a and FoxO1 promotes adipogenesis in porcine intramuscular preadipocytes through Erk signaling pathway

Visit bosterbio.com/anti-pdgfra-picoband-trade-antibody-pb9771-boster.html to see all 3 publications.

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