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Anti-alpha 1d Adrenergic Receptor/ADRA1A Antibody Picoband™

Catalog Number: PB9752

About ADRA1A

ADRA1A, also known as alpha-1A adrenergic receptor, is an alpha-1 adrenergic receptor, and also denotes the human gene encoding it. This gene is mapped to 8p21.2. Alpha-1-adrenergic receptors are G protein-coupled transmembrane receptors that mediate actions in the sympathetic nervous system through the binding of the catecholamines, epinephrine and norepinephrine. It has been found that ADRA1A transcripts in heart, brain, liver, and prostate. ADRA1A is the predominant ADRA1 subtype in liver and heart, and it can mediate the contraction of prostate smooth muscle.

Overview

Product Name	Anti-alpha 1d Adrenergic Receptor/ADRA1A Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-alpha 1d Adrenergic Receptor/ADRA1A Antibody Picoband™ catalog # PB9752. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 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	P35348

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ADRA1A, different from the related mouse and rat sequences by four amino acids.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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.

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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, 0.1-0.5ug/ml, Human, Mouse, Rat

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Anti-alpha 1d Adrenergic Receptor/ADRA1A Antibody Picoband™ (PB9752) Images

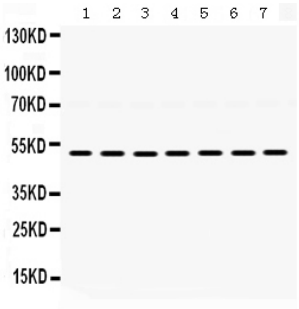

Figure 1. Western blot analysis of ADRA1A using anti-ADRA1A antibody (PB9752).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
Lane 1: Rat Cardiac Muscle Tissue Lysate at 50ug,
Lane 2: Rat Brain Tissue Lysate at 50ug,
Lane 3: Rat Liver Tissue Lysate at 50ug,
Lane 4: Mouse Liver Tissue Lysate at 50ug,
Lane 5: Mouse Lung Tissue Lysate at 50ug,
Lane 6: 22RV1 Whole Cell Lysate at 40ug,
Lane 7: SMMC Whole Cell Lysate at 40ug.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-ADRA1A antigen affinity purified polyclonal antibody (Catalog # PB9752) 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 1:5000 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 ADRA1A at approximately 51 kDa. The expected band size for ADRA1A is at 51 kDa.

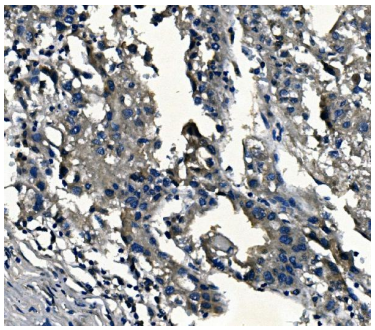

Figure 2. IHC analysis of ADRA1A using anti-ADRA1A antibody (PB9752).
ADRA1A was detected in paraffin-embedded section of human liver cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ADRA1A Antibody (PB9752) 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.

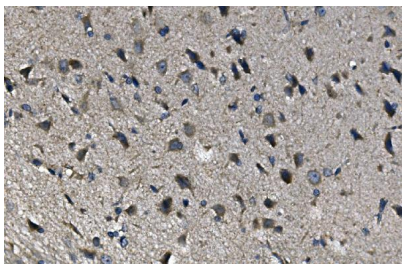

Figure 3. IHC analysis of ADRA1A using anti-ADRA1A antibody (PB9752).
ADRA1A was detected in paraffin-embedded section of rat brain tissue tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ADRA1A Antibody (PB9752) 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.

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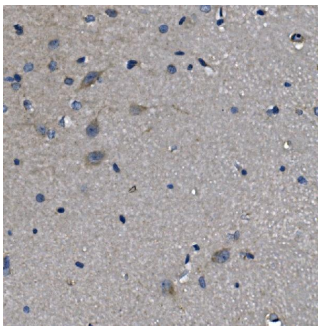

Figure 4. IHC analysis of ADRA1A using anti-ADRA1A antibody (PB9752).
ADRA1A was detected in paraffin-embedded section of rat brain tissue tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ADRA1A Antibody (PB9752) 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.

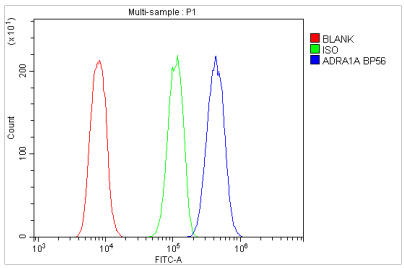

Figure 5. Flow Cytometry analysis of A431 cells using anti-ADRA1A antibody (PB9752).
Overlay histogram showing A431 cells stained with PB9752 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ADRA1A Antibody (PB9752,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-alpha 1d Adrenergic Receptor/ADRA1A Antibody ™