BOSTER
antibody and ELISA experts

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3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-alpha 2a Adrenergic Receptor/ADRA2A Antibody Picoband™

Catalog Number: A00883-3

About ADRA2A

The alpha-2A adrenergic receptor, also known as ADRA2A denotes the human gene encoding it. This gene is mapped to 10q25.2. Alpha-2-adrenergic receptors are members of the G protein-coupled receptor superfamily. They include 3 highly homologous subtypes: alpha2A, alpha2B, and alpha2C. These receptors have a critical role in regulating neurotransmitter release from sympathetic nerves and from adrenergic neurons in the central nervous system. Studies in mouse revealed that both the alpha2A and alpha2C subtypes were required for normal presynaptic control of transmitter release from sympathetic nerves in the heart and from central noradrenergic neurons; the alpha2A subtype inhibited transmitter release at high stimulation frequencies, whereas the alpha2C subtype modulated neurotransmission at lower levels of nerve activity. This gene encodes alpha2A subtype and it contains no introns in either its coding or untranslated sequences. Alpha-2 adrenergic receptors mediate the catecholamine-induced inhibition of adenylate cyclase through the action of G proteins.

Overview

Product Name	Anti-alpha 2a Adrenergic Receptor/ADRA2A Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-alpha 2a Adrenergic Receptor/ADRA2A Antibody Picoband™ catalog # A00883-3. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P08913

Technical Details

Immunogen	E.coli-derived human alpha 2a Adrenergic Receptor/ADRA2A recombinant protein (Position: M16-V465).
Predicted Reactive Species	Human
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

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/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, 0.25-0.5 µg/ml, Mouse, Rat Flow Cytometry, 1-3 µg/1x10^6 cells, Human Direct ELISA, 0.1-0.5 µg/ml, Human

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Anti-alpha 2a Adrenergic Receptor/ADRA2A Antibody Picoband™ (A00883-3) Images

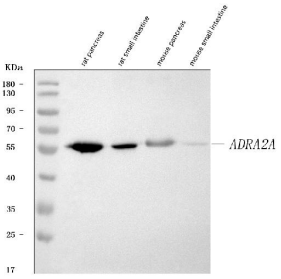

Figure 1. Western blot analysis of alpha 2a Adrenergic Receptor/ADRA2A using anti-alpha 2a Adrenergic Receptor/ADRA2A antibody (A00883-3).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat pancreas tissue lysates,
Lane 2: rat small intestine tissue lysates,
Lane 3: mouse pancreas tissue lysates,
Lane 4: mouse small intestine tissue lysate.
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-alpha 2a Adrenergic Receptor/ADRA2A antigen affinity purified polyclonal antibody (Catalog # A00883-3) 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 alpha 2a Adrenergic Receptor/ADRA2A at approximately 55 kDa. The expected band size for alpha 2a Adrenergic Receptor/ADRA2A is at 49 kDa.

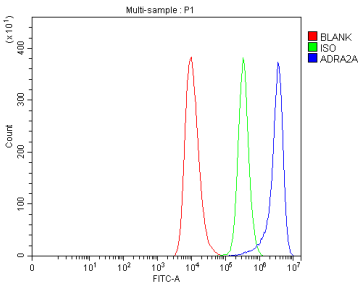

Figure 2. Flow Cytometry analysis of HEL cells using anti-alpha 2a Adrenergic Receptor/ADRA2A antibody (A00883-3). Overlay histogram showing HEL cells stained with A00883-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-alpha 2a Adrenergic Receptor/ADRA2A Antibody (A00883-3, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.